

# Environnement Impacting Factors of institutionals investors in Bank

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## Load Packages

```
library(openxlsx)
#install.packages('glmnet')
library(glmnet)

## Le chargement a nécessité le package : Matrix
## Loaded glmnet 4.1-1
library(rjags)

## Le chargement a nécessité le package : coda
## Linked to JAGS 4.3.0
## Loaded modules: basemod,bugs
library(BayesCompanion)

##
## Attachement du package : 'BayesCompanion'
## L'objet suivant est masqué depuis 'package:coda':
##
##      crosscorr
library(foreach)
```

## Load Data

```
X <- read.xlsx("BDD_DEF_2.xlsx")
# View(X) # Display for check
```

## Check Missing data

```
sum.na <- function(x){ sum(is.na(x))}
apply(X, 2, sum.na)
```

```
##      Bank      Country_B Shareholder      ET3      EPS      ER3
##      0          0          0          0          0          0
##      ER1          ER          CP          CERT          INI          DISCL
##      0          0          0          0          0          0
##      PRI          INIT          EPI          STEW          II_10          FOR_10
##      0          0          0          0          0          0
##      SH1          SH10          II          INTER          GPS          SIZE
##      0          0          0          0          0          0
##      GROWTH          ROE          ROA          CAR          NPL          DE
##      0          0          0          2          5          0
```

```
##      DE_5      DC      DC_5      DEPO      RET      EPI_C
##      0        0        0        0        0        1
##      GFI      BASEL      EPSI      FS      BRGR      STAB
##      0        38        29        0        0        0
##      GDP
##      0
```

## Separated Functions for Bayesian models

### makeDataList()

A function to make list of data X is the whole data.frame form which we extract the data. `x.name` is a string, the name of the explicative variable we add to GFI, SIZE and GDP. `y.name` is a string, the name of the explained variable. `cut.name` is a string, the name of the cutting variable.

```
makeDataList <- function(
  X=X,
  x.name=NULL, y.name=NULL, cut.name=NULL
){
  if(is.null(x.name) | !(x.name %in% colnames(X)))
  )stop('x.name must be the name of a column of X')

  if(is.null(y.name) | !(y.name %in% colnames(X)))
  )stop('y.name must be the name of a column of X')

  if(is.null(cut.name) | !(cut.name %in% colnames(X)))
  )stop('cut.name must be the name of a column of X')

  if(sum(is.na(X[, x.name]))>0) stop("Column x.name contains NA")
  if(sum(is.na(X[, y.name]))>0) stop("Column y.name contains NA")
  if(sum(is.na(X[, cut.name]))>0) stop("Column cut.name contains NA")

  list(
    N = nrow(X), # number of rows
    n = ifelse(y.name=='CP', 3, 8 ), # max value for CP and DISCL -- not use elsewhere
    ncut=length(unique(X[, cut.name])),
    SIZE=X$SIZE,
    GPS = X$GPS,
    GFI = X$GFI,
    x = X[, x.name],
    y = X[, y.name],
    cut=as.factor(X[, cut.name])
  )
}
```

#### # Examples

```
makeDataList(X, x.name='PRI', y.name='EPS', cut.name='RET')
```

#### # NA in column CAR => error

```
#makeDataList(X, x.name='CAR', y.name='EPS')
```

### generatePost()

A function to generate bayesian *a posteriori*

```

#model <- "model1-cut.R"
#x.name <- 'PRI'
#y.name <- 'EPS'
#cut.name <- 'RET'
#DF <- X # extraction of data

generatePost <- function(DF, x.name, y.name, cut.name, model='model1-cut.R'){
  dataList <- makeDataList(DF, x.name, y.name, cut.name )
  jagsModel <- jags.model(
    file = model,
    data=dataList,
    n.chains=3,
    n.adapt=500
  )
  update(jagsModel, n.iter=500)
  coda.samples(
    jagsModel,
    variable.names = c('beta0', 'beta1', 'alpha1',
                       'betaSIZE', 'betaGFI',
                       'betaGPS'),# 'nu' for robust student model # not used
    n.iter=3000,
    thin=1
  )
}

```

```

# Example :
PRI_EPS <- generatePost(X, x.name='PRI', y.name='EPS',
                       cut.name='RET',
                       model='model1-cut.R')

```

## mcmcConvergence()

A function to validate convergence

```

mcmcConvergence <- function(codaObj){
  print(effectiveSize(codaObj))
  plot(codaObj, ask=FALSE, auto=FALSE)
}

```

```

# Example :
#PRI_EPS <- generatePost(X, x.name='PRI', y.name='EPS', model='model1.R')
mcmcConvergence(PRI_EPS)

```

## bayesList()

A function to analyse lists of variable

```

bayesList <- function(X, x.names, y.names, cut.name, model ){
  post <- list()
  foreach::foreach(y.name = y.names, .combine = rbind, .packages=c('foreach'))%do%{
    foreach::foreach( x.name = x.names, .combine=c)%do%{
      print(" ----- ")
      print(paste(" Analysis of Y=", y.name, " explained by x=", x.name, "cutted by", cut.name))
      post[[x.name]] <-
        generatePost(X,

```

```

        x.name, y.name, cut.name,
        model=model)
print(effectiveSize(post[[x.name]]))
# mcmcConvergence(EPS[[x.name]])
M1 <- as.matrix(post[[x.name]][,'beta1[1]'])
M2 <- as.matrix(post[[x.name]][,'beta1[2]'])
M <- M2-M1
proba <- signif(100 * max(c(mean(M>0), mean(M<0) ) ) , 4) * sign(mean(M))
conclusion <- paste('The difference of', x.name, ' impact \n between', cut.name, 'cut samples in '
print( conclusion)
# display posterior histogram of beta2-beta1
layout(matrix(1:4, ncol=2, byrow=TRUE))
plotPost(M ,
compVal = 0,
main= conclusion
)
plotPost(M2 ,
compVal = 0,
main= bquote(beta[2])
)

plotPost(M1 ,
compVal = 0,
main= bquote(beta[1])
)
plotPost(abs(M2) -abs(M1) ,
compVal = 0,
main= "|beta[2]| - |beta[1]|"
)
proba
}
}-> res.quanti
save(post,
file=paste0('post-cut',model,'.RData'))
colnames(res.quanti) <- x.names
rownames(res.quanti) <- y.names
res.quanti
}

```

```

# Example
y.names <- c('EPS' , 'ET3' )
x.names <- c('PRI', 'INIT' , 'EPI')
cut.name='RET'
bayesList(X, x.names, y.names, cut.name,
'model1-cut.R')

```

```

## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= PRI cutted by RET"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes

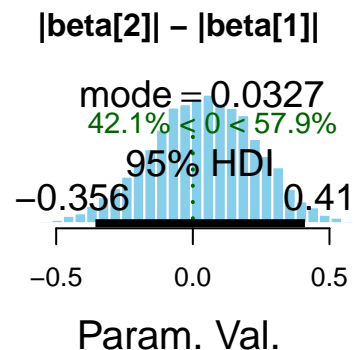
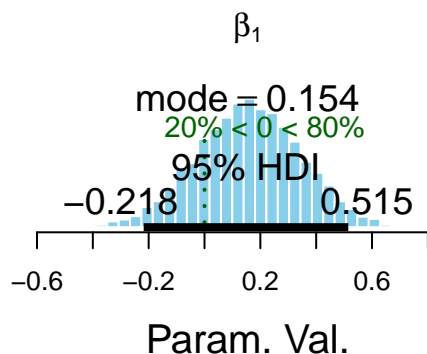
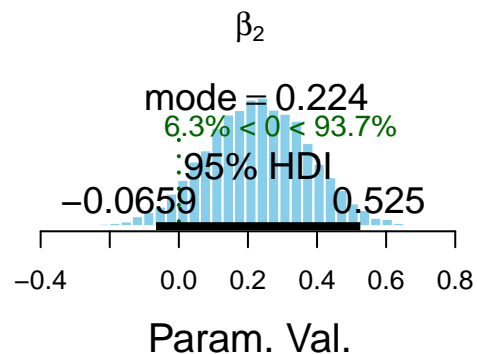
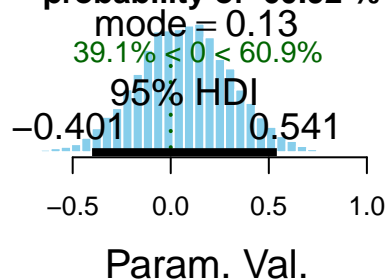
```

```

##      Initializing
##      Reading data back into data table
## Compiling model graph
##      Resolving undeclared variables
##      Allocating nodes
## Graph information:
##      Observed stochastic nodes: 131
##      Unobserved stochastic nodes: 7
##      Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8617.801 9000.000 9000.000 8690.071 8617.801 9000.000 8860.398 6214.400
## betaSIZE
## 6689.938
## [1] "The difference of PRI impact \n between RET cut samples in EPS has a\n probability of 60.92 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= INIT cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of PRI impact  
between RET cut samples in EPS has a  
probability of 60.92 %**



```

## Compiling data graph
##      Resolving undeclared variables
##      Allocating nodes
##      Initializing

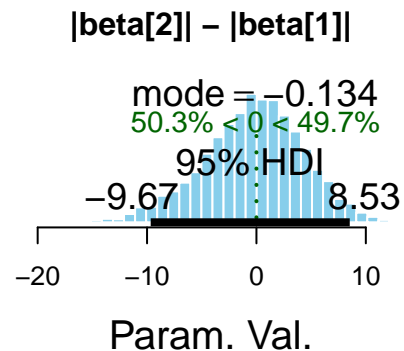
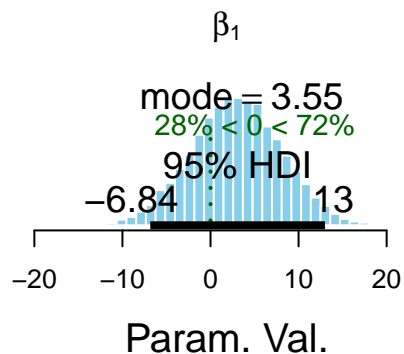
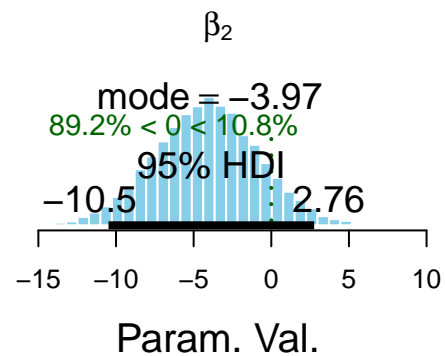
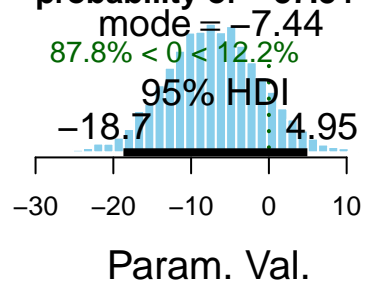
```

```

## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8187.418 8394.944 9000.000 9000.000 8187.418 8394.944 8361.755 6839.907
## betaSIZE
## 6753.669
## [1] "The difference of INIT impact \n between RET cut samples in EPS has a\n probability of -87.84 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of INIT impact  
between RET cut samples in EPS has a  
probability of -87.84 %**



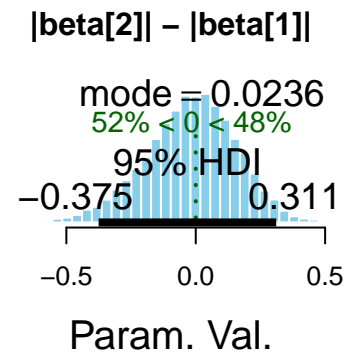
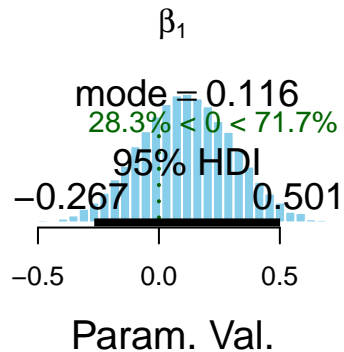
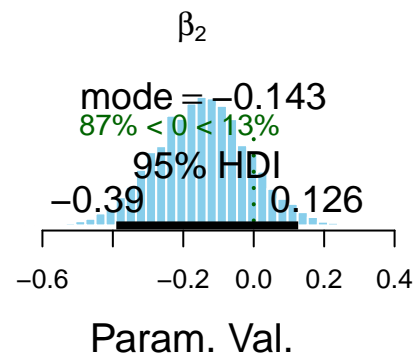
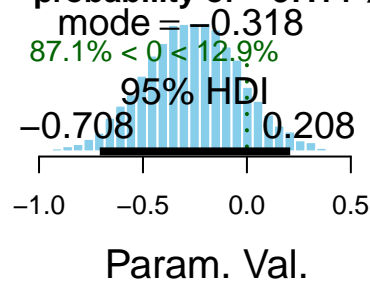
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table

```

```
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8186.995 6098.491 8376.367 9256.007 8186.995 6098.491 6608.769 6787.733
## betaSIZE
## 6043.324
## [1] "The difference of EPI impact \n between RET cut samples in EPS has a\n probability of -87.14
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between RET cut samples in EPS has a  
probability of -87.14 %**

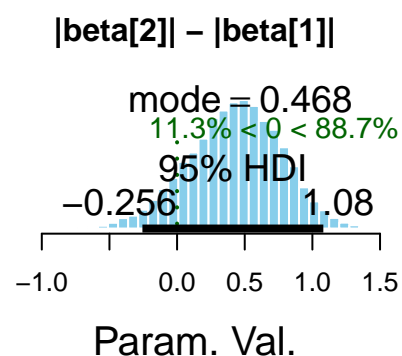
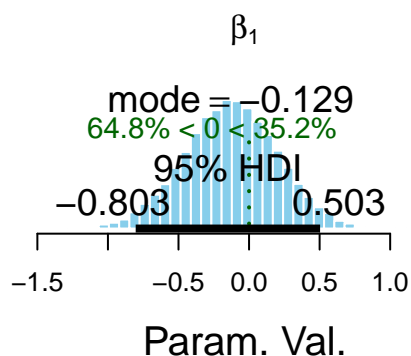
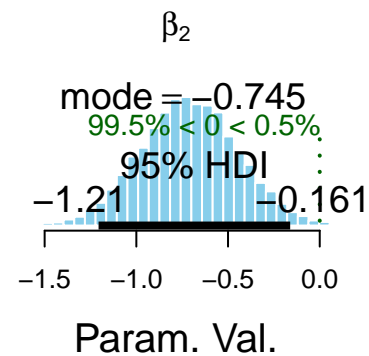
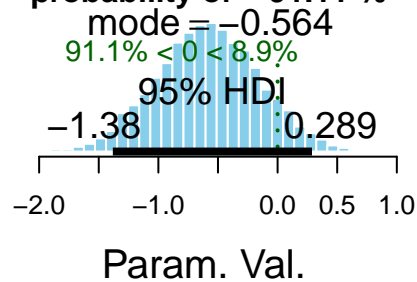


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
```



```
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8088.106 8725.039 9301.870 9000.000 8088.106 8725.039 7988.290 7110.169
## betaSIZE
## 7009.610
## [1] "The difference of PRI impact \n between RET cut samples in ET3 has a\n probability of -91.11
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

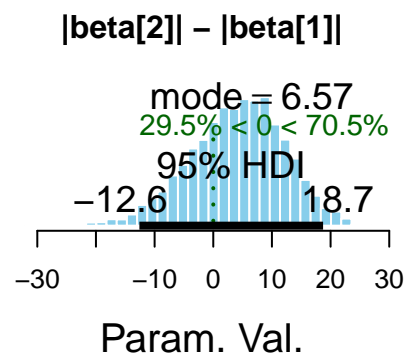
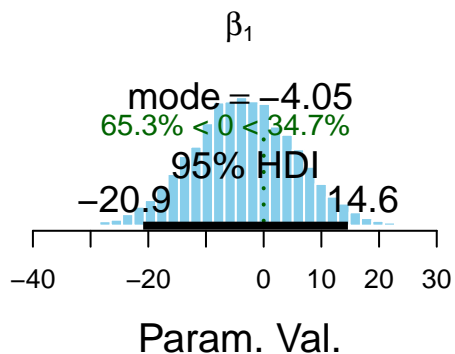
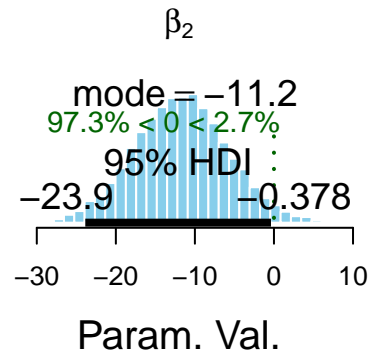
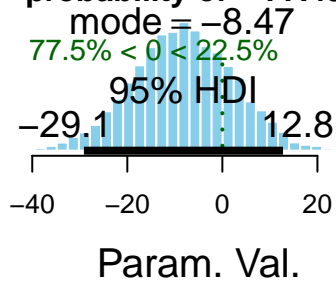
**The difference of PRI impact  
between RET cut samples in ET3 has a  
probability of -91.11 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
```

```
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8726.348 8528.629 9000.000 9666.831 8726.348 8528.629 8007.977 7121.136
## betaSIZE
## 6566.356
## [1] "The difference of INIT impact \n between RET cut samples in ET3 has a\n probability of -77.49 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

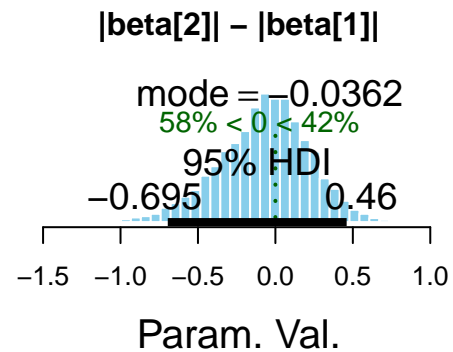
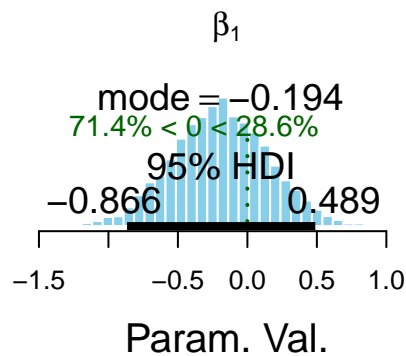
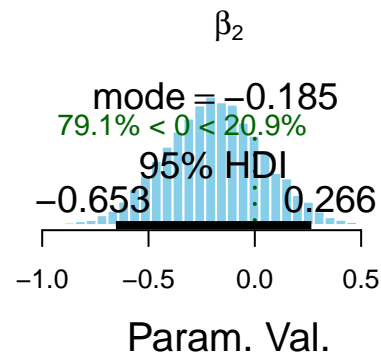
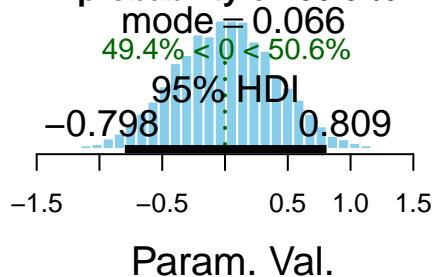
**The difference of INIT impact  
between RET cut samples in ET3 has a  
probability of -77.49 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
```

```
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8277.732 6422.724 8622.144 9000.000 8277.732 6422.724 6554.853 6238.887
## betaSIZE
## 6201.892
## [1] "The difference of EPI impact \n between RET cut samples in ET3 has a\n probability of 50.6 %"
```

**The difference of EPI impact  
between RET cut samples in ET3 has a  
probability of 50.6 %**



```
##      PRI    INIT    EPI
## EPS  60.92 -87.84 -87.14
## ET3 -91.11 -77.49  50.60
```

## RET-Separated Bayesian models

### Quantitative Y

```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('EPS', 'ET3', 'ER3', 'ER1', 'ER')
cut.name <- 'RET'
BLquantiCut <- bayesList(X, x.names, y.names, cut.name, 'model1-cut.R')
```

```

## [1] "      -----"
## [1] " Analysis of Y= EPS   explained by x= PRI cutted by RET"

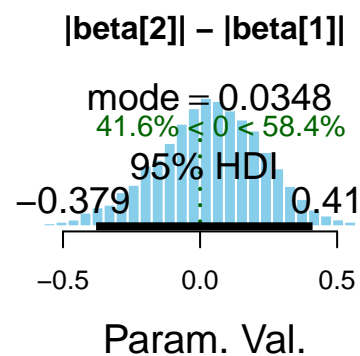
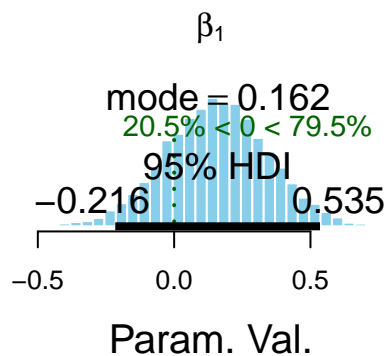
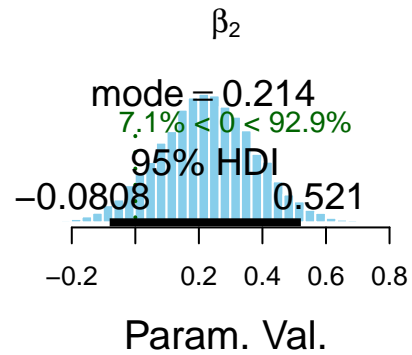
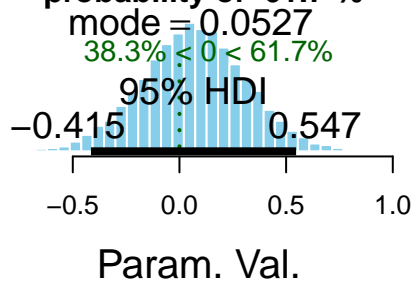
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8953.641 8780.896 9736.145 9892.478 8953.641 8780.896 8563.855 6898.746
## betaSIZE
## 6860.635
## [1] "The difference of PRI   impact \n between RET cut samples in   EPS has a\n probability of 61.7 %"
## [1] "      -----"
## [1] " Analysis of Y= EPS   explained by x= INIT cutted by RET"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

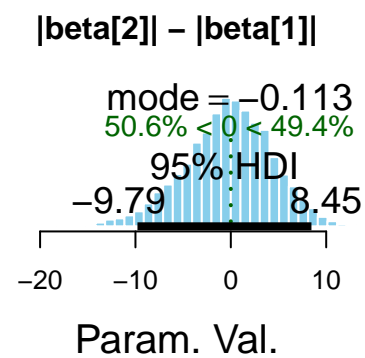
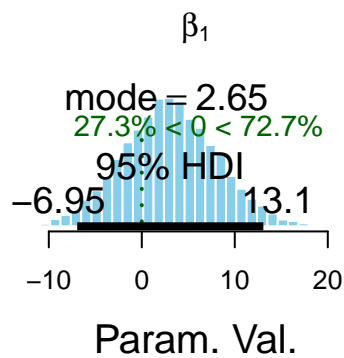
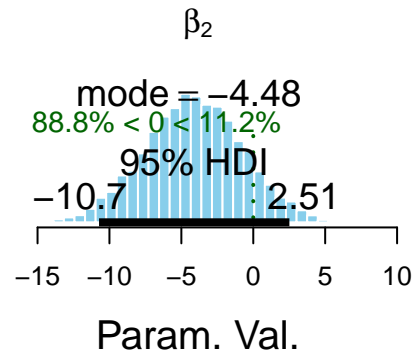
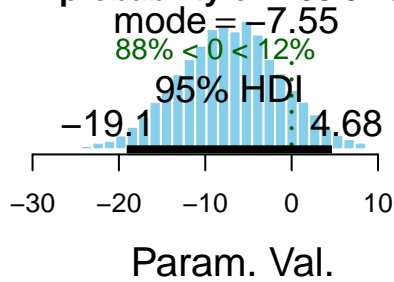
```

**The difference of PRI impact  
between RET cut samples in EPS has a  
probability of 61.7 %**



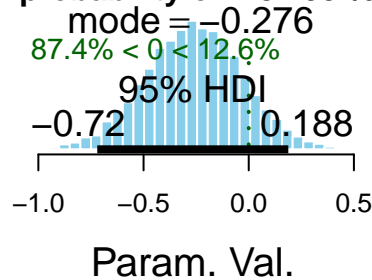
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8689.639 7848.327 8438.718 8453.626 8689.639 7848.327 8245.523 7115.402
## betaSIZE
## 6543.982
## [1] "The difference of INIT impact \n between RET cut samples in EPS has a\n probability of -88.0
## [1] "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of INIT impact  
between RET cut samples in EPS has a  
probability of -88.04 %

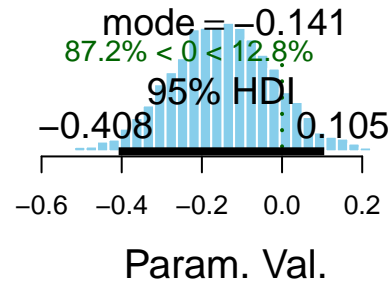


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8662.650 6147.345 7237.224 9158.869 8662.650 6147.345 6573.800 6744.402
## betaSIZE
## 6442.167
## [1] "The difference of EPI impact \n between RET cut samples in EPS has a\n probability of -87.38
## [1] "
## [1] " Analysis of Y= EPS explained by x= STEW cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

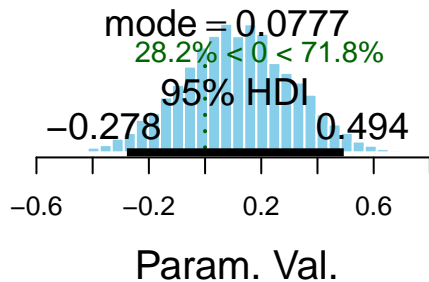
The difference of EPI impact  
between RET cut samples in EPS has a  
probability of -87.38 %



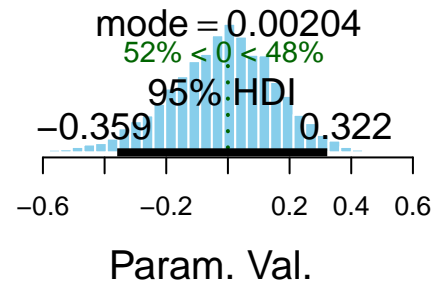
$\beta_2$



$\beta_1$

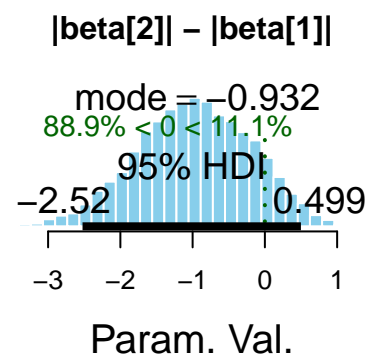
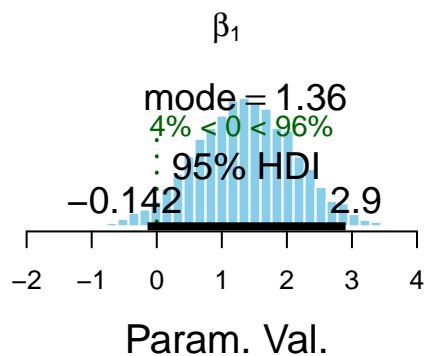
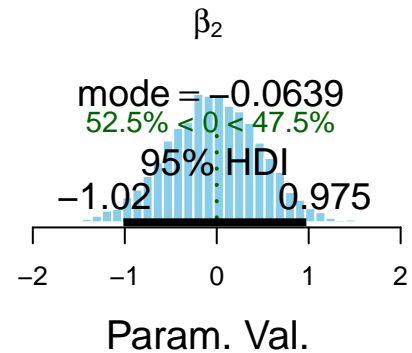
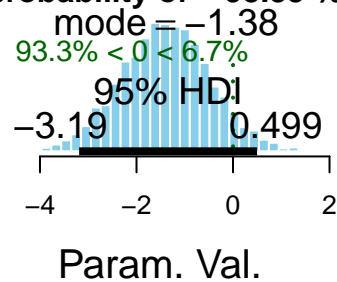


$|\text{beta}[2]| - |\text{beta}[1]|$



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7959.014 8668.094 9000.000 9000.000 7959.014 8668.094 8283.994 7119.717
## betaSIZE
## 6146.814
## [1] "The difference of STEW impact \n between RET cut samples in EPS has a\n probability of -93.3
## [1] "
## [1] " Analysis of Y= EPS explained by x= II_10 cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

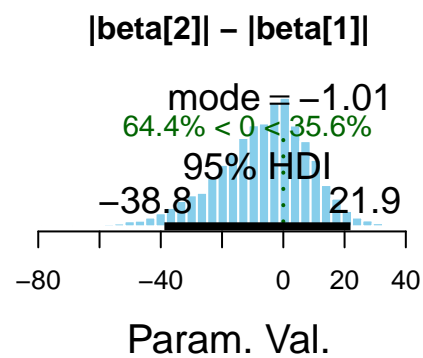
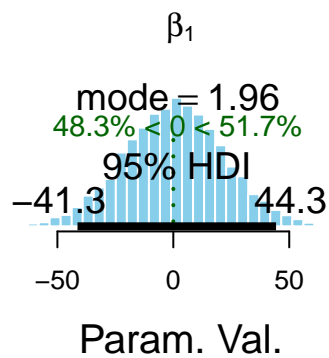
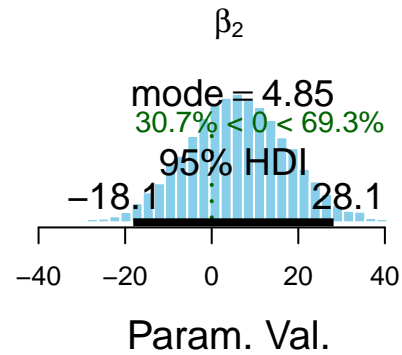
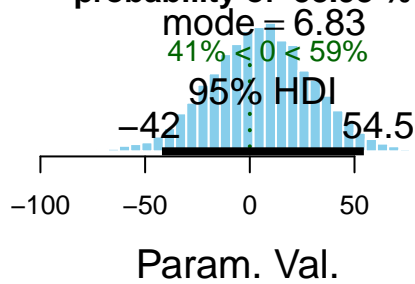
**The difference of STEW impact  
between RET cut samples in EPS has a  
probability of -93.33 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8783.058 8818.214 9475.248 9819.403 8783.058 8818.214 8511.331 7226.267
## betaSIZE
## 6977.352
## [1] "The difference of II_10 impact \n between RET cut samples in EPS has a\n probability of 58.9
## [1] "
## [1] " Analysis of Y= EPS explained by x= FOR_10 cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

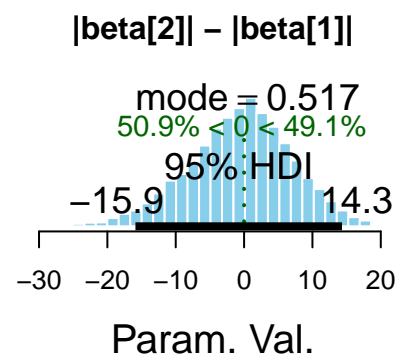
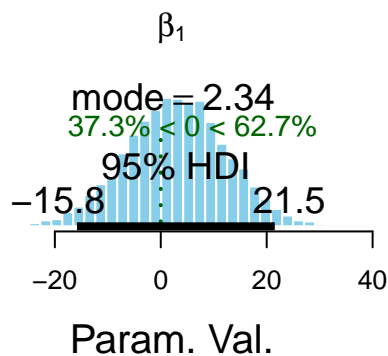
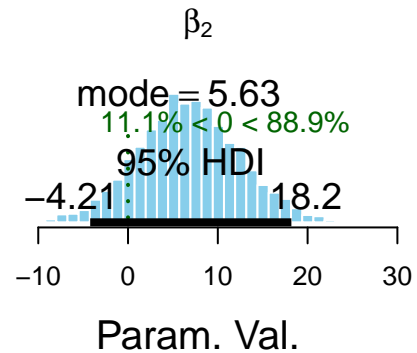
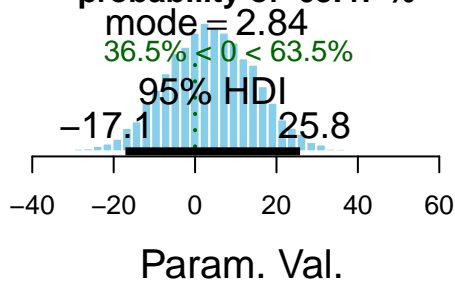


The difference of  $\beta_2$  impact  
between RET cut samples in EPS has a  
probability of 58.98 %



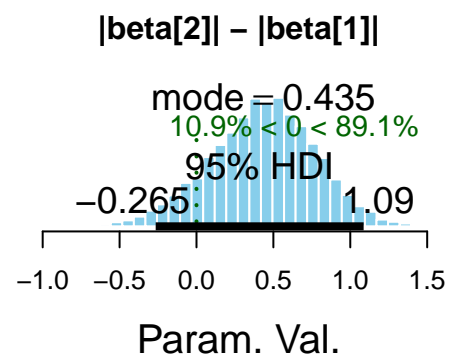
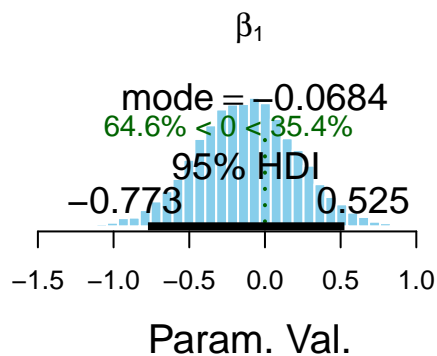
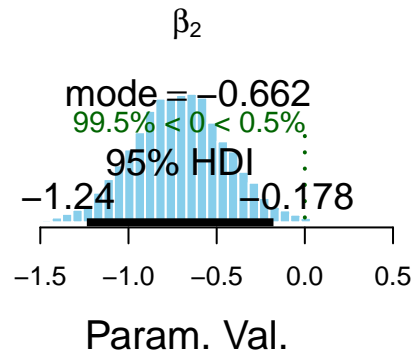
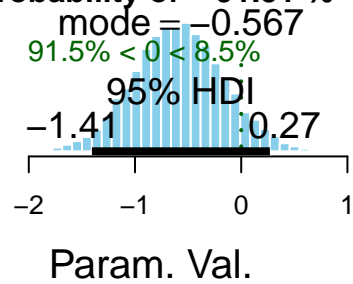
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2044
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8146.275 8024.600 9214.448 9179.313 8146.275 8024.600 7671.284 7171.487
## betaSIZE
## 6784.422
## [1] "The difference of FOR_10 impact \n between RET cut samples in EPS has a\n probability of 63.
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of FOR\_10 impact  
between RET cut samples in EPS has a  
probability of 63.47 %



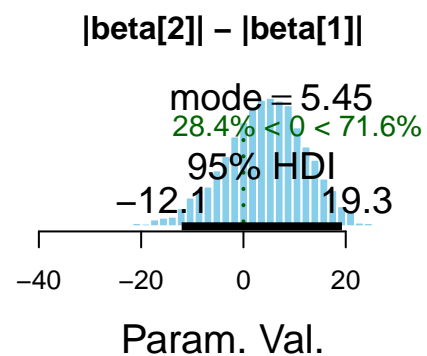
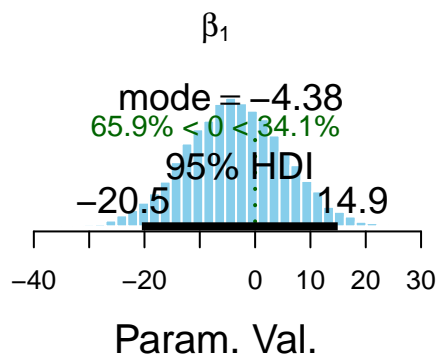
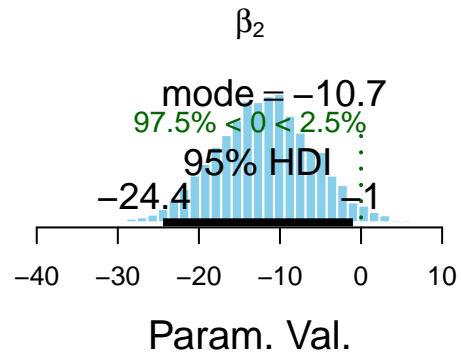
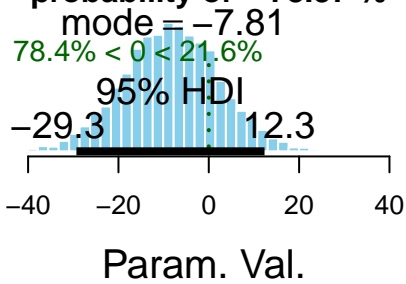
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8658.571 8953.137 9734.891 9783.891 8658.571 8953.137 8457.587 7036.458
## betaSIZE
## 7166.396
## [1] "The difference of PRI impact \n between RET cut samples in ET3 has a\n probability of -91.51
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of PRI impact  
between RET cut samples in ET3 has a  
probability of -91.51 %**



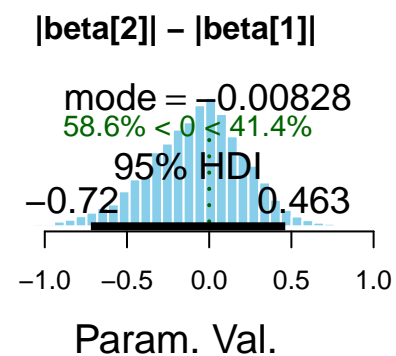
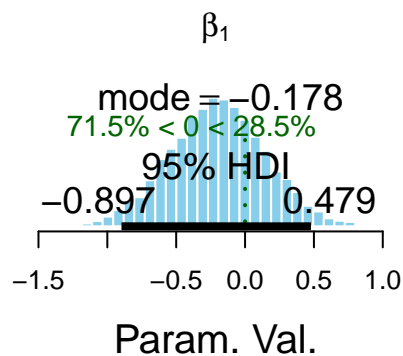
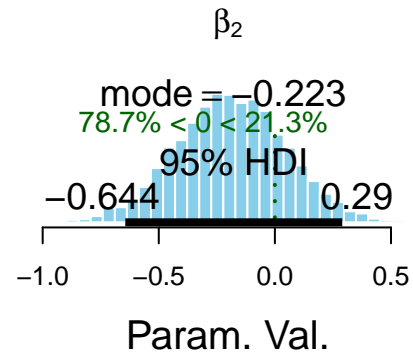
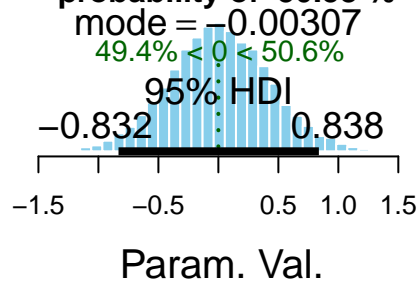
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8652.911 8499.087 9000.000 9000.000 8652.911 8499.087 8753.292 6885.712
## betaSIZE
## 6884.710
## [1] "The difference of INIT impact \n between RET cut samples in ET3 has a\n probability of -78.3"
## [1] "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of INIT impact  
between RET cut samples in ET3 has a  
probability of -78.37 %



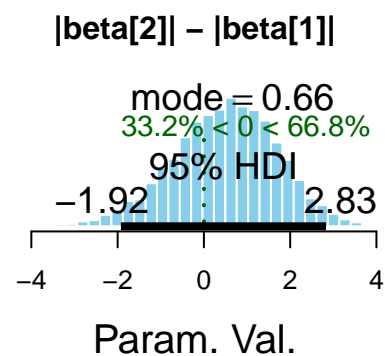
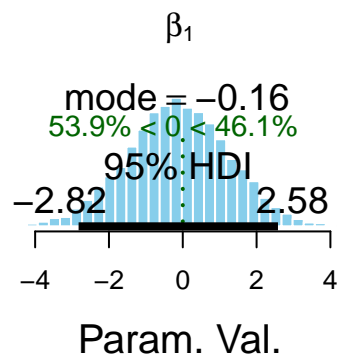
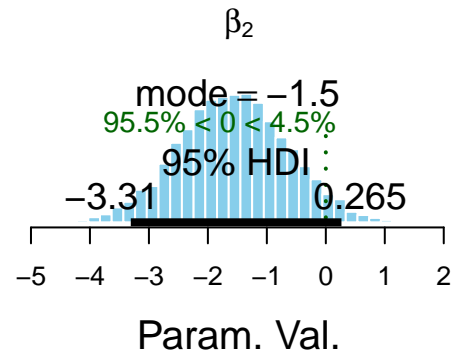
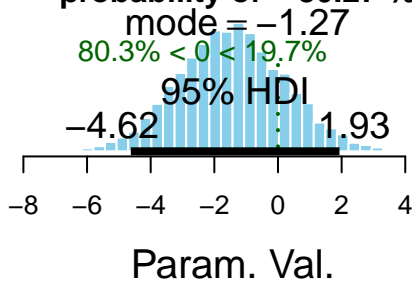
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8678.256 5873.474 8323.231 8616.060 8678.256 5873.474 6869.907 6908.726
## betaSIZE
## 6891.080
## [1] "The difference of EPI impact \n between RET cut samples in ET3 has a\n probability of 50.58 %
## [1] "
## [1] " Analysis of Y= ET3 explained by x= STEW cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of EPI impact  
between RET cut samples in ET3 has a  
probability of 50.58 %



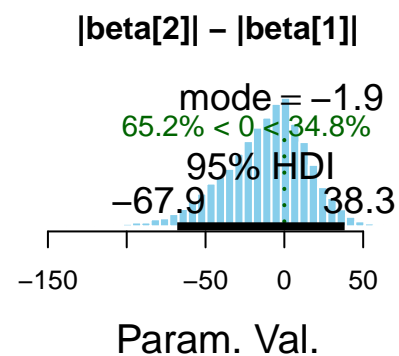
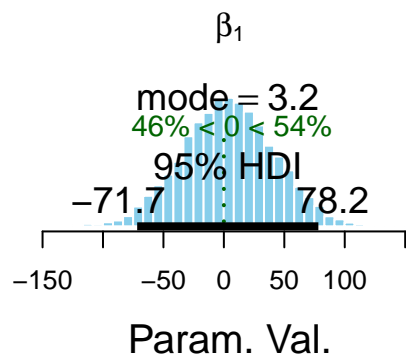
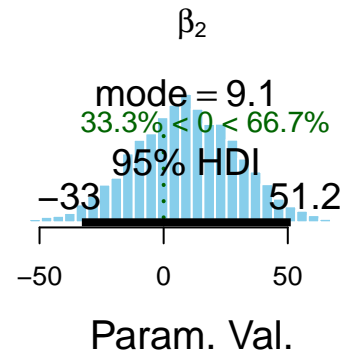
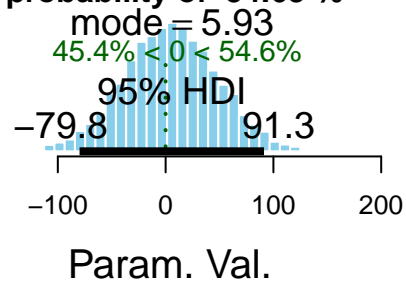
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8059.797 8841.098 9570.086 9748.874 8059.797 8841.098 8087.864 6643.124
## betaSIZE
## 6884.939
## [1] "The difference of STEW impact \n between RET cut samples in ET3 has a\n probability of -80.2"
## [1] "
## [1] " Analysis of Y= ET3 explained by x= II_10 cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between RET cut samples in ET3 has a  
probability of -80.27 %**



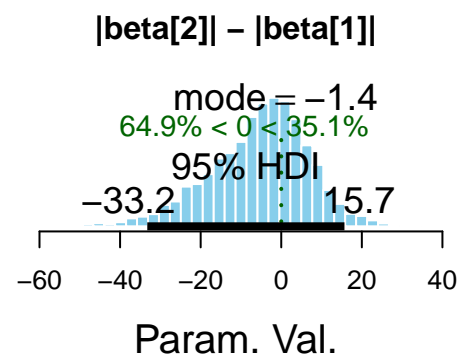
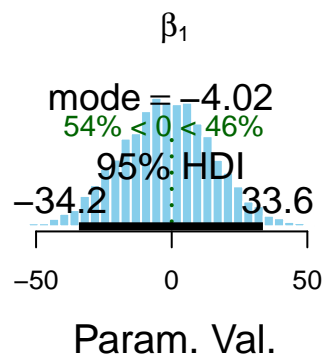
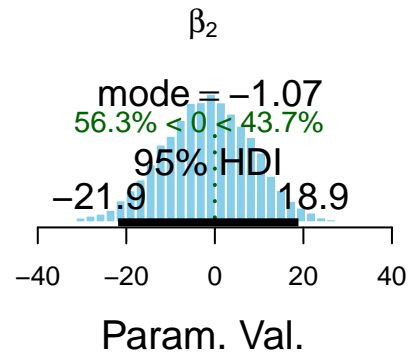
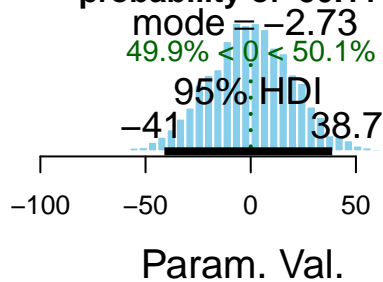
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8663.339 8816.751 9285.546 9000.000 8663.339 8816.751 8304.765 6977.816
## betaSIZE
## 6271.199
## [1] "The difference of II_10 impact \n between RET cut samples in ET3 has a\n probability of 54.6"
## [1] "
## [1] " Analysis of Y= ET3 explained by x= FOR_10 cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\text{II}_{10}$  impact  
between RET cut samples in ET3 has a  
probability of 54.63 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2044
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8092.856 8460.630 9246.221 9240.562 8092.856 8460.630 7597.709 6705.770
## betaSIZE
## 6657.383
## [1] "The difference of FOR_10 impact \n between RET cut samples in ET3 has a\n probability of 50.
## [1] "
## [1] " Analysis of Y= ER3 explained by x= PRI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

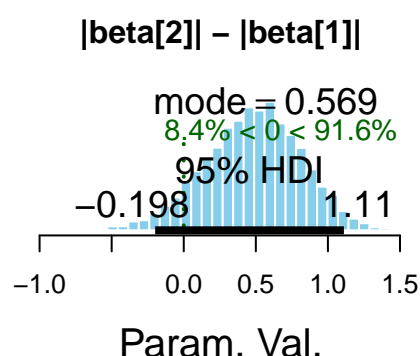
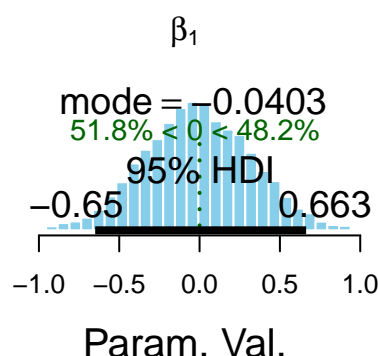
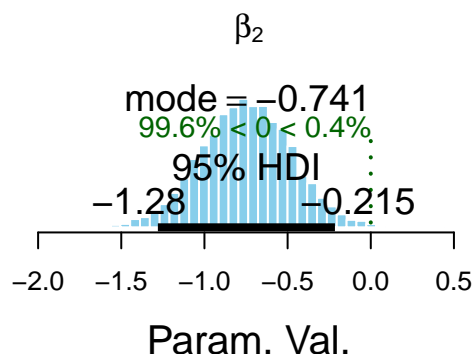
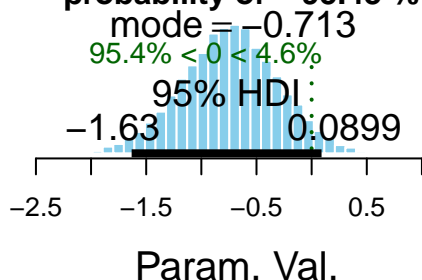
The difference of FOR<sub>10</sub> impact  
between RET cut samples in ET3 has a  
probability of 50.11 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8509.737 8507.029 9142.708 9176.934 8509.737 8507.029 8632.081 6718.482
## betaSIZE
## 7381.502
## [1] "The difference of PRI impact \n between RET cut samples in ER3 has a\n probability of -95.43
## [1] "
## [1] " Analysis of Y= ER3 explained by x= INIT cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

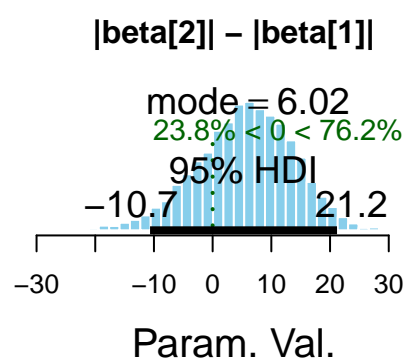
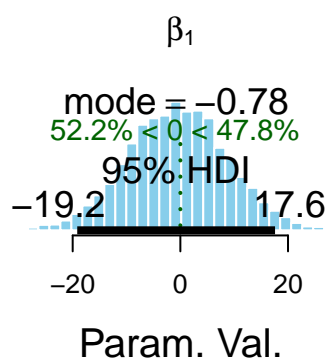
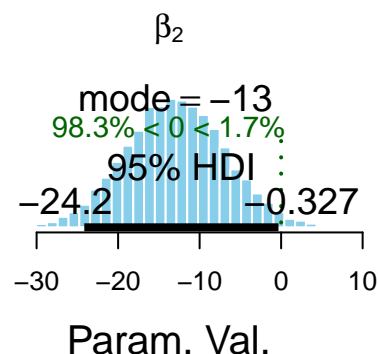
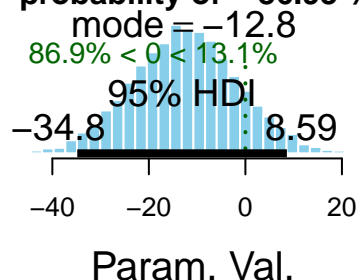


The difference of PRI impact  
between RET cut samples in ER3 has a  
probability of -95.43 %



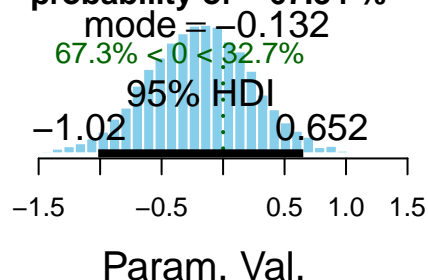
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8606.254 8345.580 9272.341 9258.425 8606.254 8345.580 7949.162 6904.233
## betaSIZE
## 6617.958
## [1] "The difference of INIT impact \n between RET cut samples in ER3 has a\n probability of -86.9
## [1] "
## [1] " Analysis of Y= ER3 explained by x= EPI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of INIT impact  
between RET cut samples in ER3 has a  
probability of -86.93 %

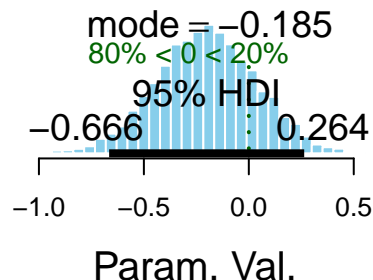


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8762.396 6076.029 8687.529 8742.240 8762.396 6076.029 6577.755 6383.688
## betaSIZE
## 6187.709
## [1] "The difference of EPI impact \n between RET cut samples in ER3 has a\n probability of -67.34
## [1] "
## [1] " Analysis of Y= ER3 explained by x= STEW cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

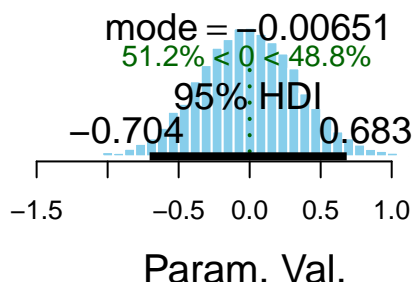
The difference of EPI impact  
between RET cut samples in ER3 has a  
probability of -67.34 %



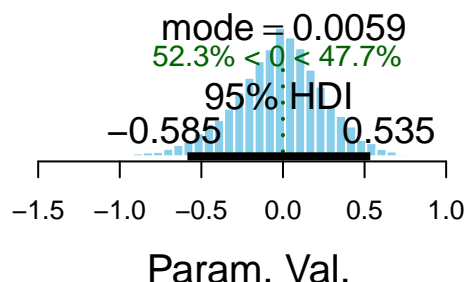
$\beta_2$



$\beta_1$

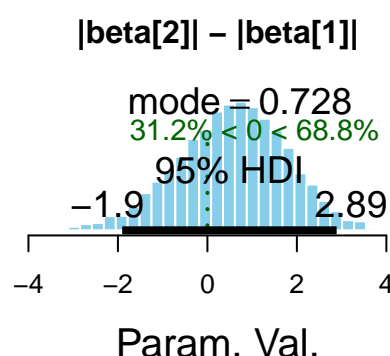
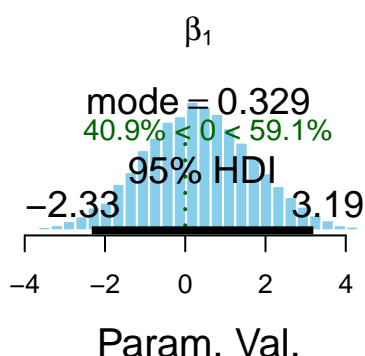
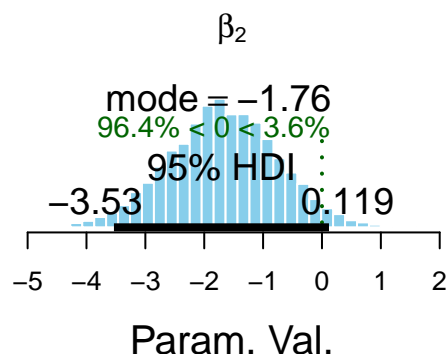
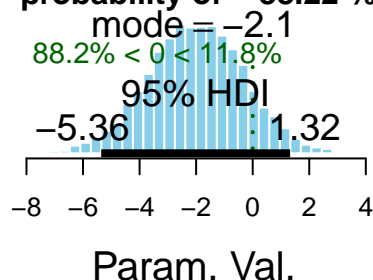


$|\text{beta}[2]| - |\text{beta}[1]|$



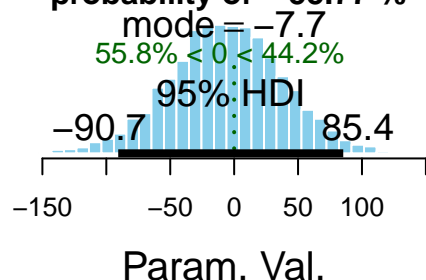
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7775.626 8762.130 8889.021 8943.358 7775.626 8762.130 7872.252 6648.449
## betaSIZE
## 6446.820
## [1] "The difference of STEW impact \n between RET cut samples in ER3 has a\n probability of -88.2
## [1] "
## [1] " Analysis of Y= ER3 explained by x= II_10 cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between RET cut samples in ER3 has a  
probability of -88.22 %**

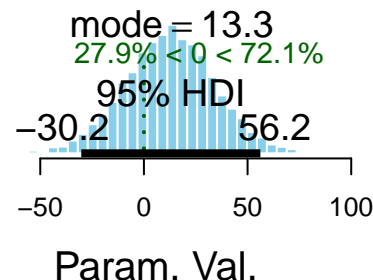


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8913.613 7944.176 9162.970 9417.040 8913.613 7944.176 8738.465 7211.726
## betaSIZE
## 6397.855
## [1] "The difference of II_10 impact \n between RET cut samples in ER3 has a\n probability of -55."
## [1] "
## [1] " Analysis of Y= ER3 explained by x= FOR_10 cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

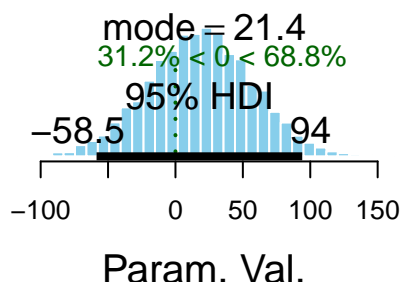
**The difference of  $\Pi_{10}$  impact  
between RET cut samples in ER3 has a  
probability of -55.77 %**



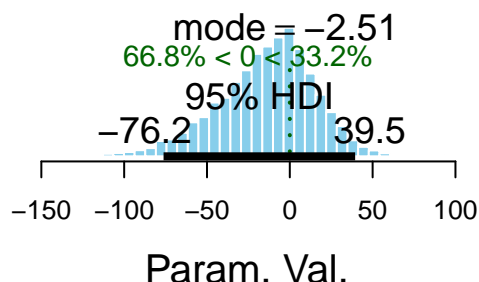
$\beta_2$



$\beta_1$

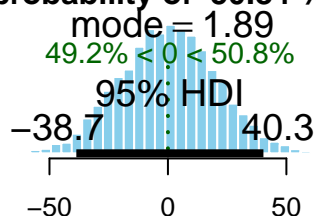


$|\text{beta}[2]| - |\text{beta}[1]|$



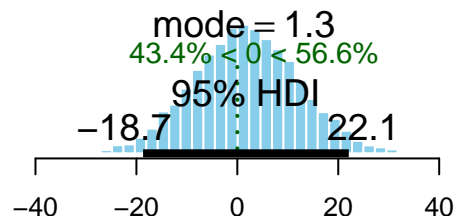
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2044
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8301.166 7920.999 8868.884 8869.251 8301.166 7920.999 7949.494 7272.410
## betaSIZE
## 6999.601
## [1] "The difference of FOR_10 impact \n between RET cut samples in ER3 has a\n probability of 50.
## [1] "
## [1] " Analysis of Y= ER1 explained by x= PRI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of FOR<sub>10</sub> impact  
between RET cut samples in ER3 has a  
probability of 50.84 %



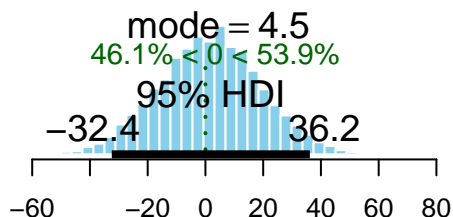
Param. Val.

$\beta_2$



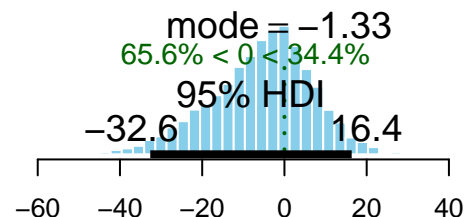
Param. Val.

$\beta_1$



Param. Val.

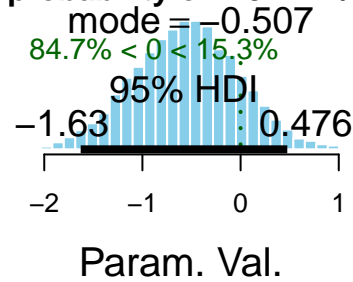
$|\text{beta}[2]| - |\text{beta}[1]|$



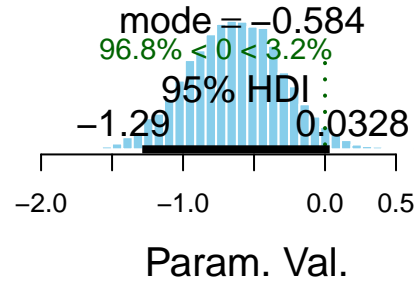
Param. Val.

```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8991.373 8163.414 9000.000 9000.000 8991.373 8163.414 7903.153 7100.477
## betaSIZE
## 7283.335
## [1] "The difference of PRI impact \n between RET cut samples in ER1 has a\n probability of -84.72
## [1] "
## [1] " Analysis of Y= ER1 explained by x= INIT cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

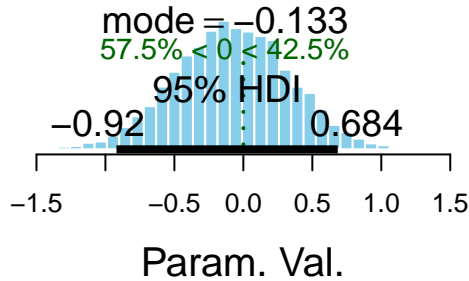
The difference of PRI impact  
between RET cut samples in ER1 has a  
probability of -84.72 %



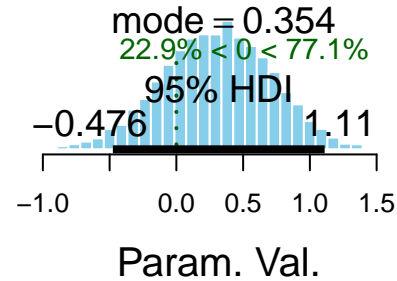
$\beta_2$



$\beta_1$

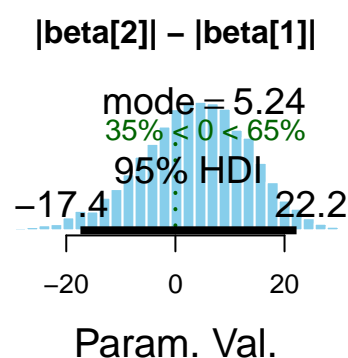
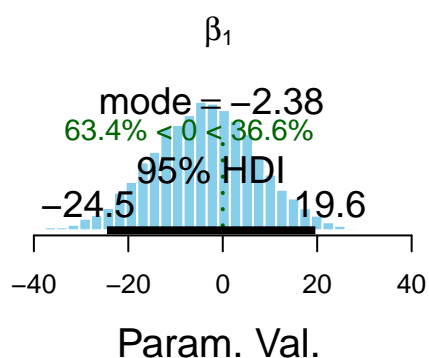
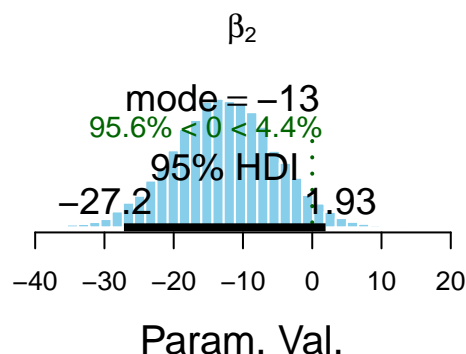
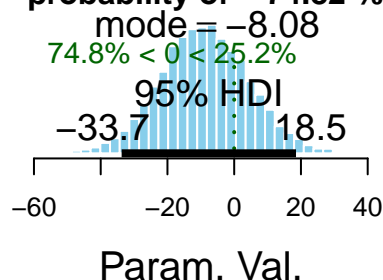


$|\text{beta}[2]| - |\text{beta}[1]|$



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 8288.007 9898.479 9939.844 9000.000 8288.007 8725.105 7366.871
## betaSIZE
## 7570.791
## [1] "The difference of INIT impact \n between RET cut samples in ER1 has a\n probability of -74.8"
## [1] "
## [1] " Analysis of Y= ER1 explained by x= EPI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

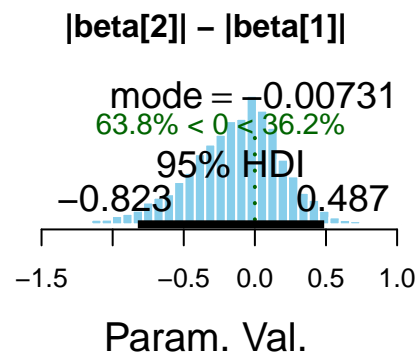
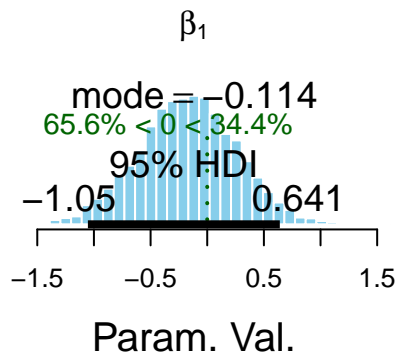
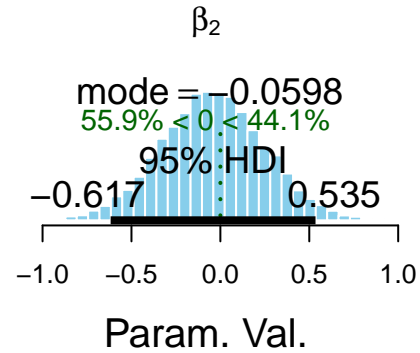
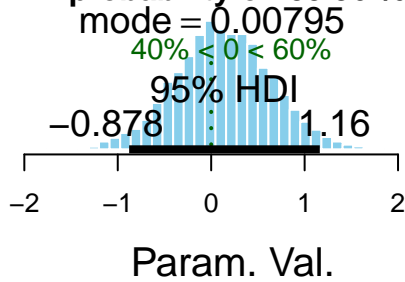
The difference of INIT impact  
between RET cut samples in ER1 has a  
probability of -74.82 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8577.210 6157.695 9579.373 9057.517 8577.210 6157.695 7005.303 6642.862
## betaSIZE
## 6120.258
## [1] "The difference of EPI impact \n between RET cut samples in ER1 has a\n probability of 59.96 %
## [1] "
## [1] " Analysis of Y= ER1 explained by x= STEW cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

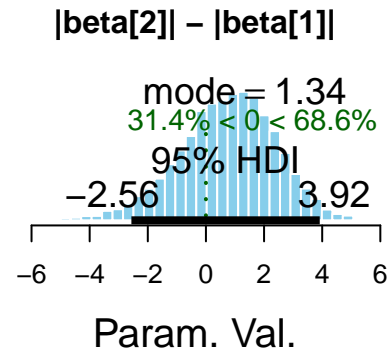
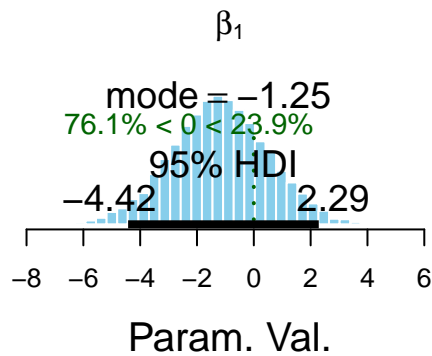
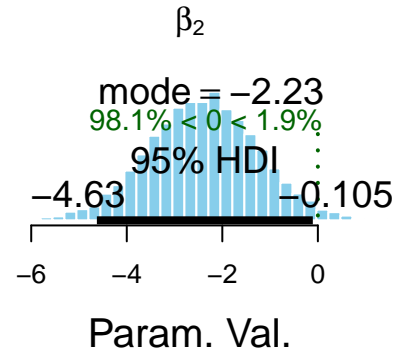
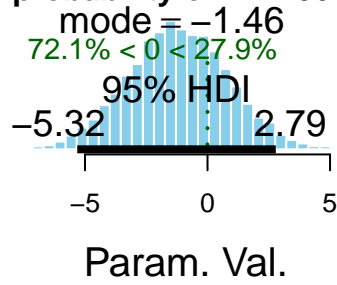


The difference of EPI impact  
between RET cut samples in ER1 has a  
probability of 59.96 %



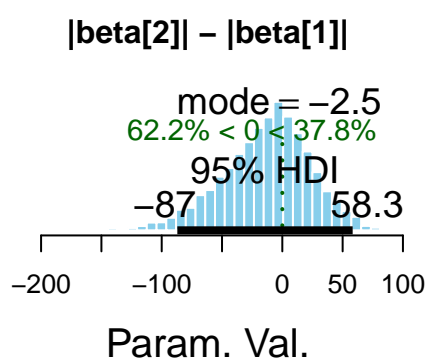
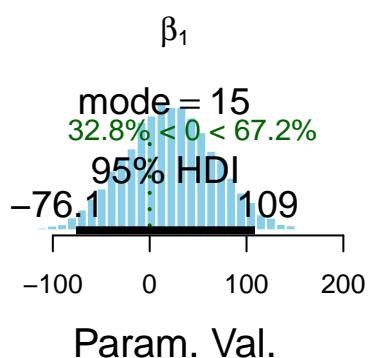
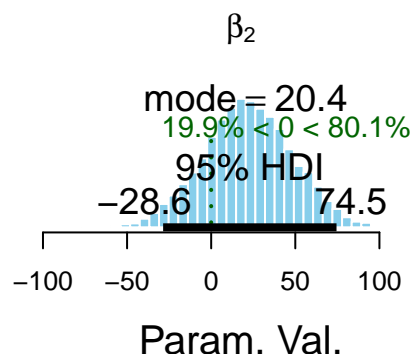
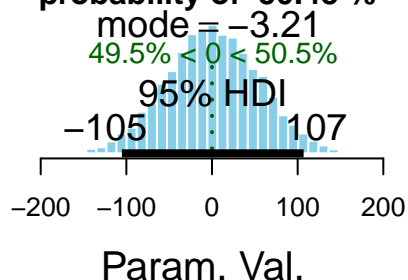
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7985.261 8579.798 9000.000 9000.000 7985.261 8579.798 8137.447 6744.396
## betaSIZE
## 6633.324
## [1] "The difference of STEW impact \n between RET cut samples in ER1 has a\n probability of -72.0
## [1] "
## [1] " Analysis of Y= ER1 explained by x= II_10 cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between RET cut samples in ER1 has a  
probability of -72.06 %**



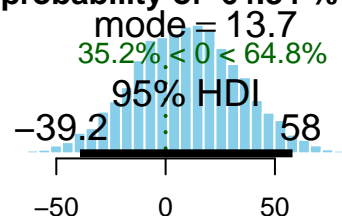
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 8547.298 9000.000 9000.000 9000.000 8547.298 7501.322 7090.626
## betaSIZE
## 6752.874
## [1] "The difference of II_10 impact \n between RET cut samples in ER1 has a\n probability of 50.4
## [1] "
## [1] " Analysis of Y= ER1 explained by x= FOR_10 cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\beta_2$  impact  
between RET cut samples in ER1 has a  
probability of 50.48 %



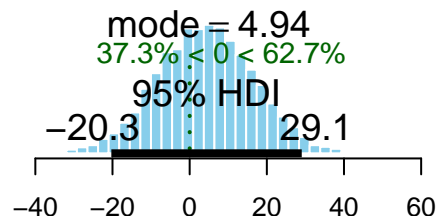
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2044
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9069.602 8439.656 9223.307 9185.866 9069.602 8439.656 7491.362 7298.026
## betaSIZE
## 6607.409
## [1] "The difference of FOR_10 impact \n between RET cut samples in ER1 has a\n probability of 64.
## [1] "
## [1] " Analysis of Y= ER explained by x= PRI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of FOR\_10 impact  
between RET cut samples in ER1 has a  
probability of 64.84 %



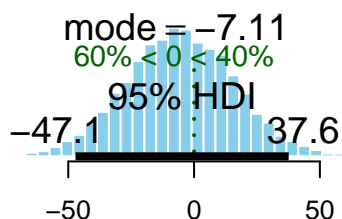
Param. Val.

$\beta_2$



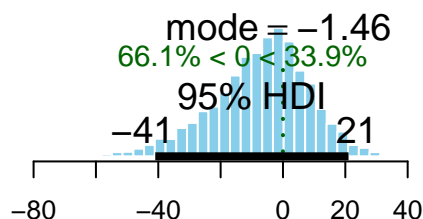
Param. Val.

$\beta_1$



Param. Val.

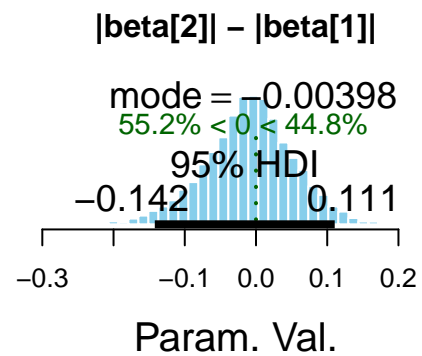
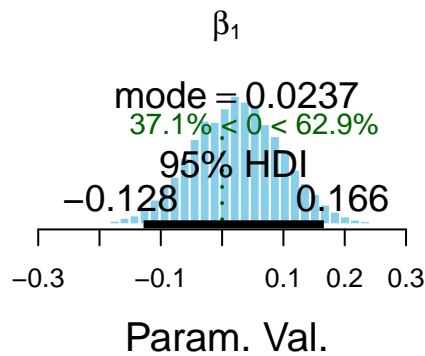
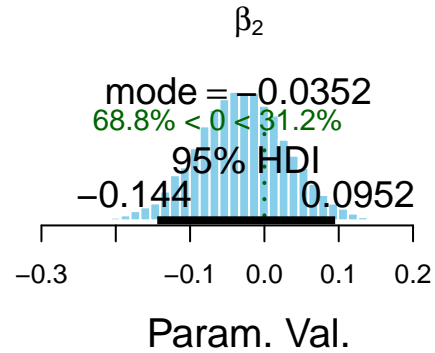
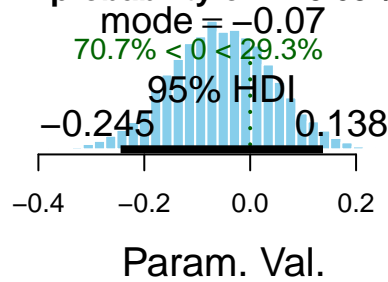
$|\beta_2| - |\beta_1|$



Param. Val.

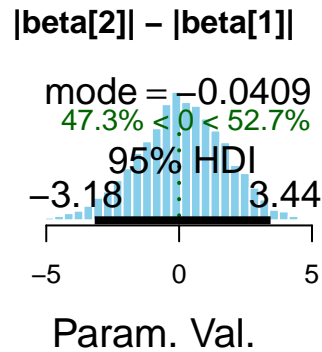
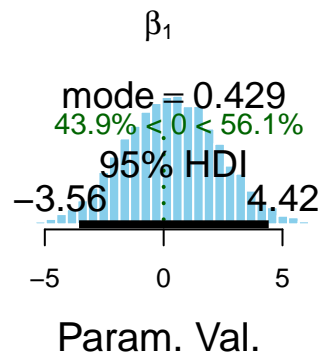
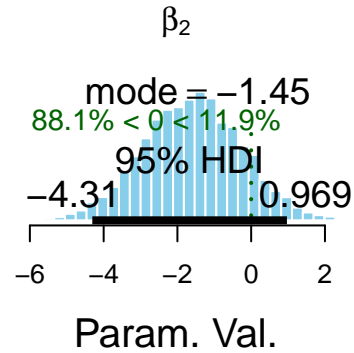
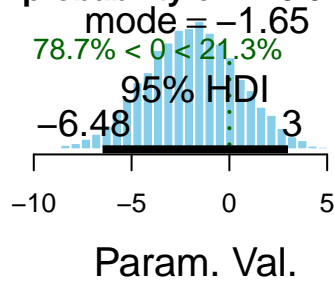
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8215.057 9307.139 9000.000 9000.000 8215.057 9307.139 8715.060 7266.781
## betaSIZE
## 6859.724
## [1] "The difference of PRI impact \n between RET cut samples in ER has a\n probability of -70.68 %
## [1] "
## [1] " Analysis of Y= ER explained by x= INIT cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of PRI impact  
between RET cut samples in ER has a  
probability of -70.68 %



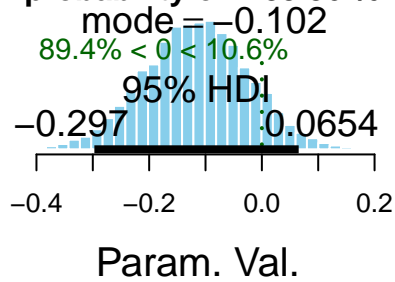
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8358.592 8021.847 8702.493 8823.149 8358.592 8021.847 8354.371 7242.108
## betaSIZE
## 6597.591
## [1] "The difference of INIT impact \n between RET cut samples in ER has a\n probability of -78.67
## [1] "
## [1] " Analysis of Y= ER explained by x= EPI cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of INIT impact  
between RET cut samples in ER has a  
probability of -78.67 %**

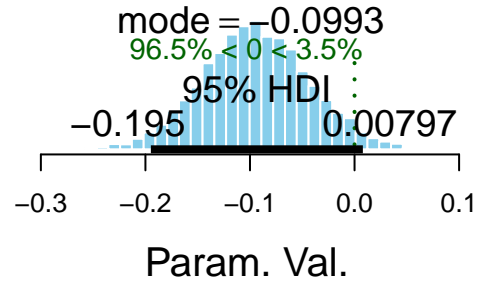


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8430.405 6112.840 7070.213 8424.955 8430.405 6112.840 6698.273 6809.833
## betaSIZE
## 6052.451
## [1] "The difference of EPI impact \n between RET cut samples in ER has a\n probability of -89.36 %
## [1] "
## [1] " Analysis of Y= ER explained by x= STEW cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

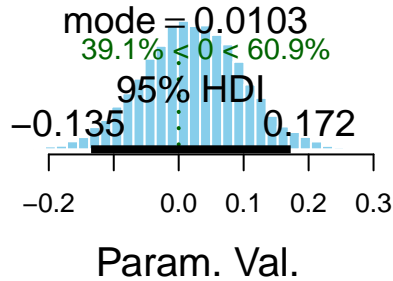
**The difference of EPI impact  
between RET cut samples in ER has a  
probability of -89.36 %**



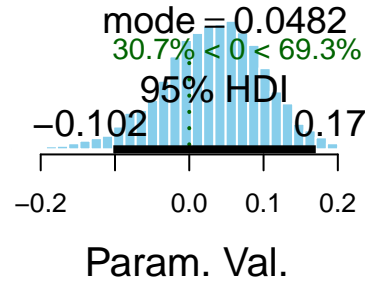
$\beta_2$



$\beta_1$

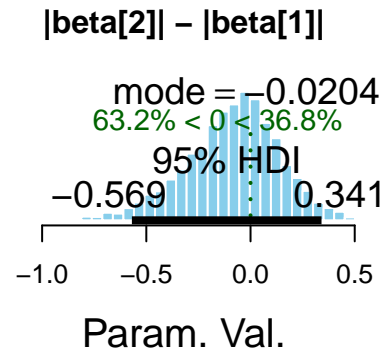
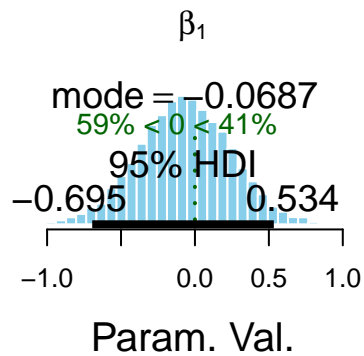
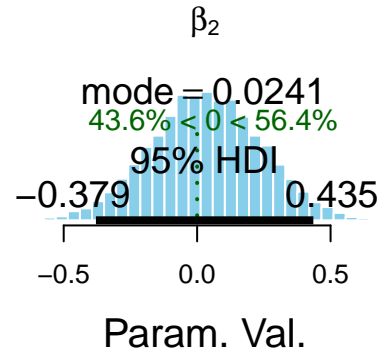
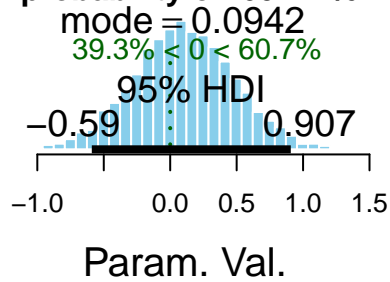


$|\text{beta}[2]| - |\text{beta}[1]|$



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7751.486 8599.202 9230.338 9509.879 7751.486 8599.202 8160.117 7070.839
## betaSIZE
## 7046.090
## [1] "The difference of STEW impact \n between RET cut samples in ER has a\n probability of 60.72 %
## [1] "
## [1] " Analysis of Y= ER explained by x= II_10 cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

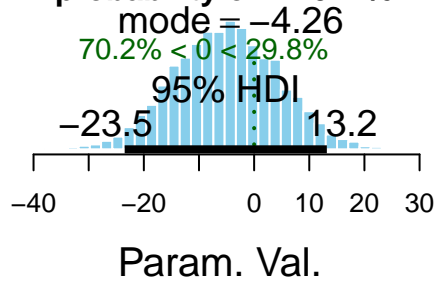
**The difference of STEW impact  
between RET cut samples in ER has a  
probability of 60.72 %**



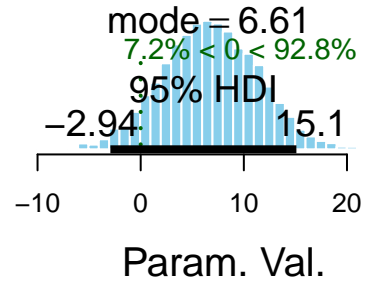
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 8066.128 8858.745 9668.406 9000.000 8066.128 8182.452 6814.117
## betaSIZE
## 6697.316
## [1] "The difference of II_10 impact \n between RET cut samples in ER has a\n probability of -70.2
## [1] "
## [1] " Analysis of Y= ER explained by x= FOR_10 cutted by RET"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```



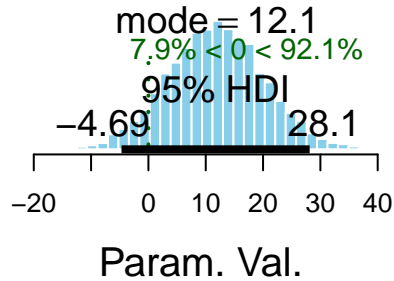
The difference of  $\Pi_{10}$  impact  
between RET cut samples in ER has a  
probability of -70.2 %



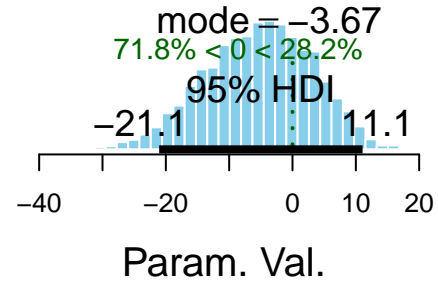
$\beta_2$



$\beta_1$

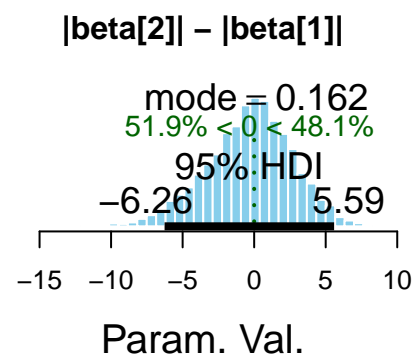
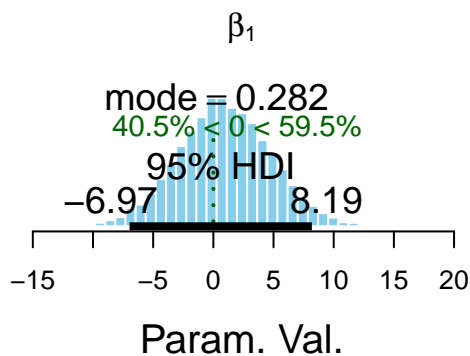
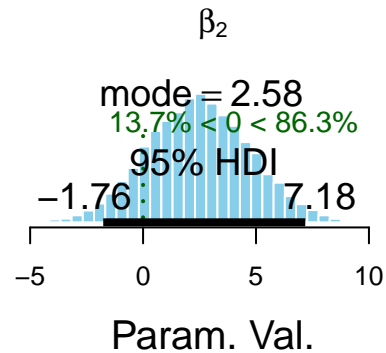
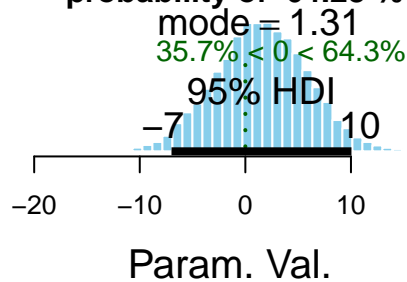


$|\text{beta}[2]| - |\text{beta}[1]|$



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2044
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8003.617 7582.144 7870.799 8181.849 8003.617 7582.144 7411.020 7239.597
## betaSIZE
## 6718.219
## [1] "The difference of FOR_10 impact \n between RET cut samples in ER has a\n probability of 64.2%
```

The difference of FOR\_10 impact  
between RET cut samples in ER has a  
probability of 64.28 %



```
write.csv(BLquantiCut,
  file=paste(
    'RET-quantiResults-cut',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

## Binomial Y

```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('CP', 'DISCL')
cut.name <- 'RET'
BLbinomCut <- bayesList(X, x.names, y.names, cut.name, 'model2-cut.R')
```

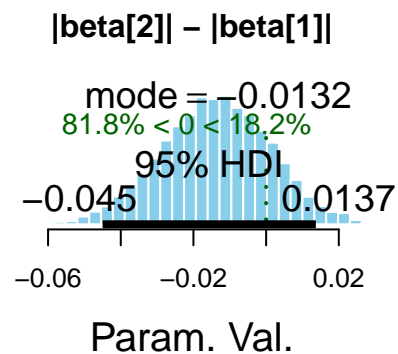
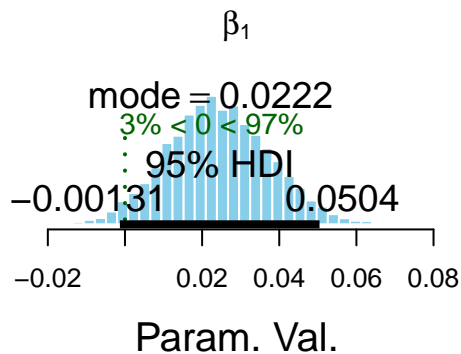
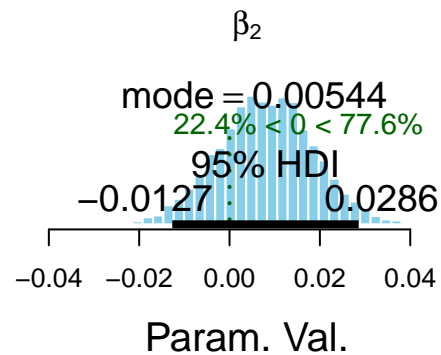
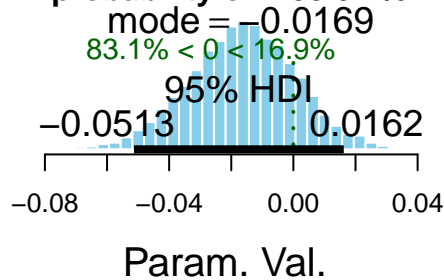
```
## [1] "
## [1] " Analysis of Y= CP explained by x= PRI cutted by RET"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
```

```

## Unobserved stochastic nodes: 6
## Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5133.116 5378.018 5014.735 5010.501 5133.116 5378.018 5207.247 4378.668
## betaSIZE
## 4076.297
## [1] "The difference of PRI impact \n between RET cut samples in CP has a\n probability of -83.07 %

```

**The difference of PRI impact  
between RET cut samples in CP has a  
probability of -83.07 %**



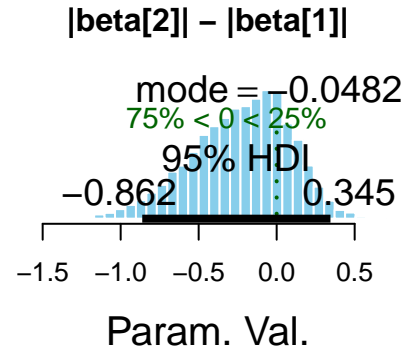
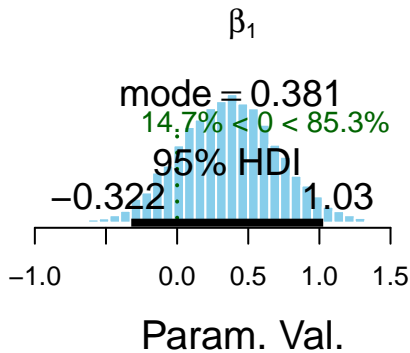
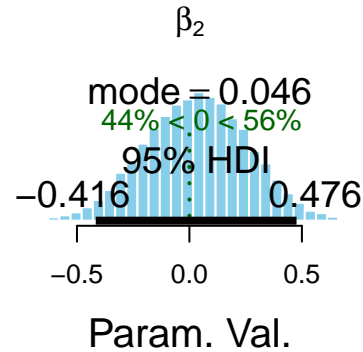
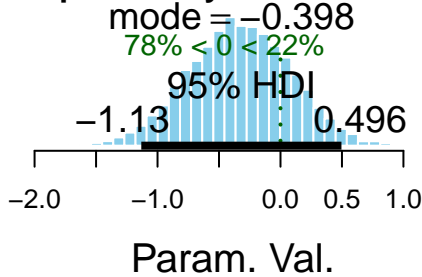
```

## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= INIT cutted by RET"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2039
##

```

```
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5381.045 5589.334 5214.608 5279.604 5381.045 5589.334 4943.782 4735.897
## betaSIZE
## 4680.472
## [1] "The difference of INIT impact \n between RET cut samples in CP has a\n probability of -77.97
```

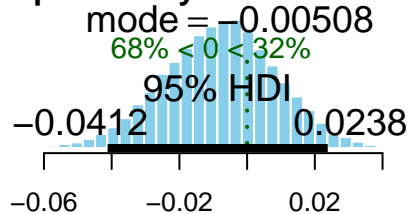
**The difference of INIT impact  
between RET cut samples in CP has a  
probability of -77.97 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= EPI cutted by RET"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
```

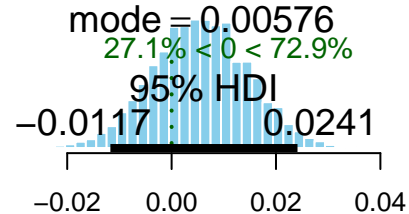
```
## 5208.845 4071.081 4874.121 6124.822 5208.845 4071.081 4203.794 4625.047
## betaSIZE
## 4161.876
## [1] "The difference of EPI impact \n between RET cut samples in CP has a\n probability of -68.01 %"
```

**The difference of EPI impact  
between RET cut samples in CP has a  
probability of -68.01 %**



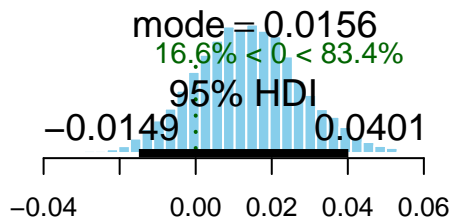
Param. Val.

$\beta_2$



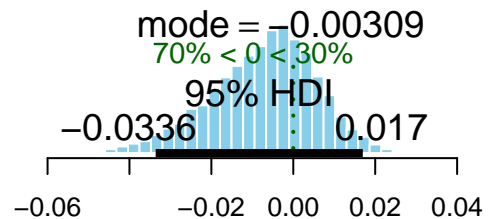
Param. Val.

$\beta_1$



Param. Val.

**|beta[2]| - |beta[1]|**

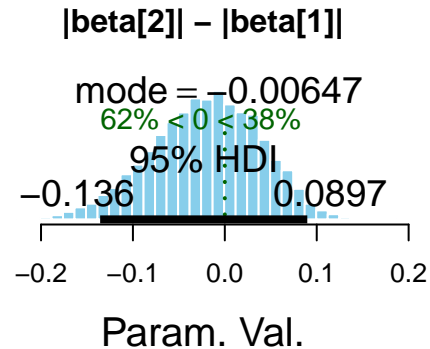
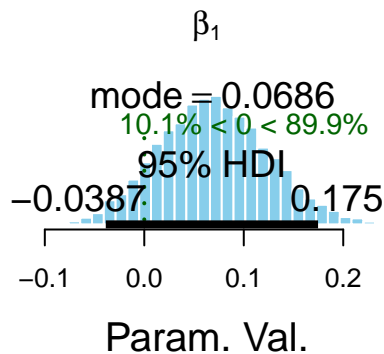
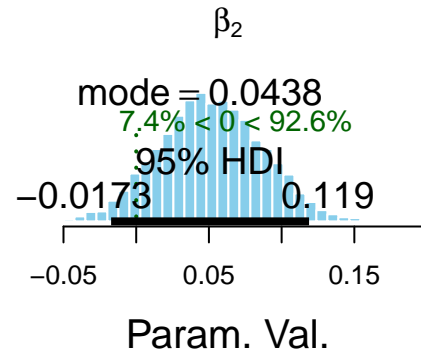
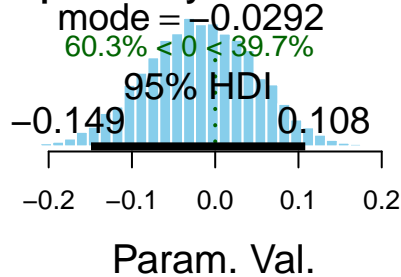


Param. Val.

```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= STEW cutted by RET"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6075.812 5242.493 4216.795 4332.687 6075.812 5242.493 5203.272 4318.426
## betaSIZE
## 3573.089
```

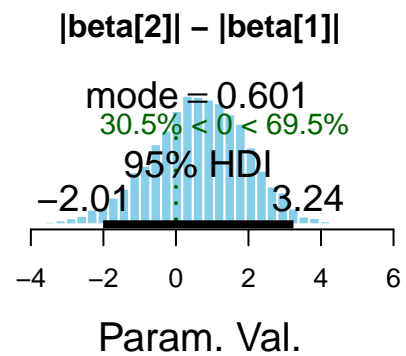
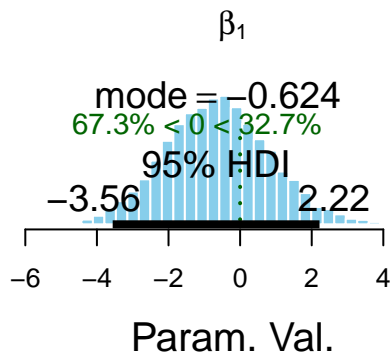
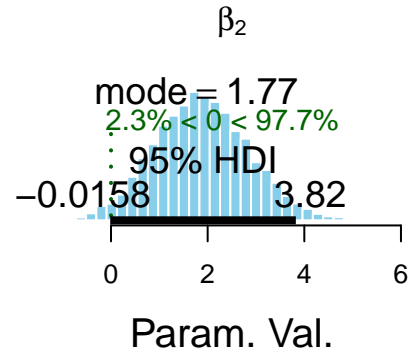
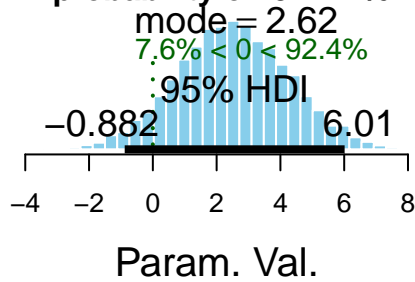
```
## [1] "The difference of STEW impact \n between RET cut samples in CP has a\n probability of -60.32
```

**The difference of STEW impact  
between RET cut samples in CP has a  
probability of -60.32 %**



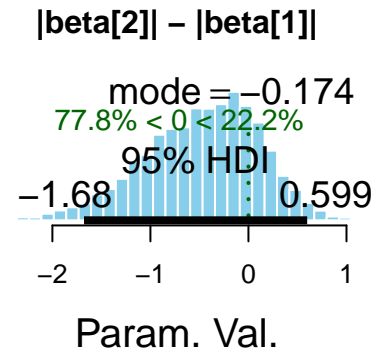
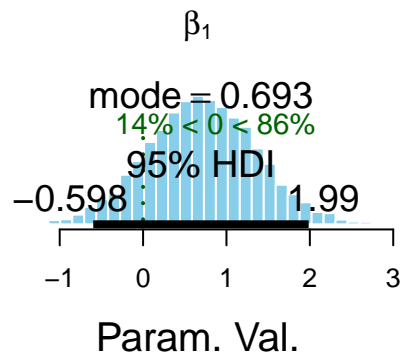
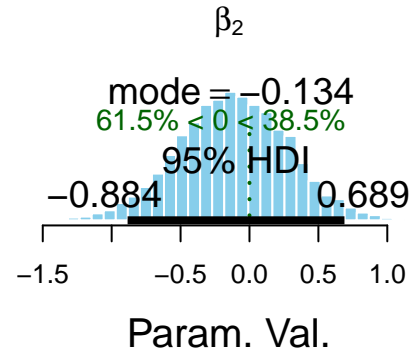
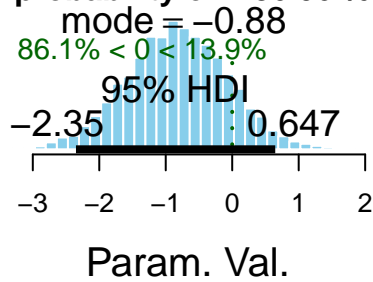
```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= II_10 cutted by RET"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5260.273 5889.988 5614.836 5471.993 5260.273 5889.988 5522.940 4303.330
## betaSIZE
## 4020.727
## [1] "The difference of II_10 impact \n between RET cut samples in CP has a\n probability of 92.42
```

The difference of  $\Pi_{10}$  impact  
between RET cut samples in CP has a  
probability of 92.42 %



```
## [1] "
## [1] " Analysis of Y= CP explained by x= FOR_10 cutted by RET"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2030
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5322.343 4984.037 4924.421 5166.477 5322.343 4984.037 4630.503 4764.823
## betaSIZE
## 4575.423
## [1] "The difference of FOR_10 impact \n between RET cut samples in CP has a\n probability of -86."
```

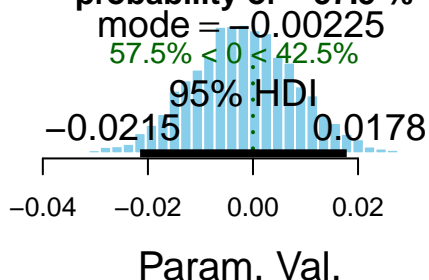
The difference of FOR\_10 impact  
between RET cut samples in CP has a  
probability of -86.06 %



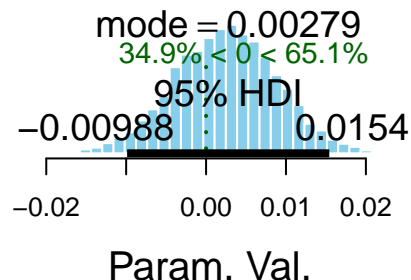
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= PRI cutted by RET"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5168.056 5260.753 5551.021 5467.781 5168.056 5260.753 5246.347 4323.386
## betaSIZE
## 4658.033
## [1] "The difference of PRI impact \n between RET cut samples in DISCL has a\n probability of -57."
```



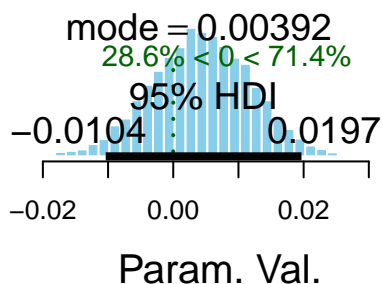
The difference of PRI impact  
between RET cut samples in DISCL has a  
probability of -57.5 %



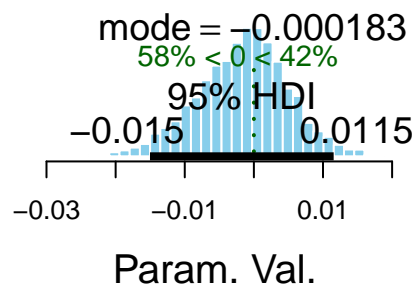
$\beta_2$



$\beta_1$

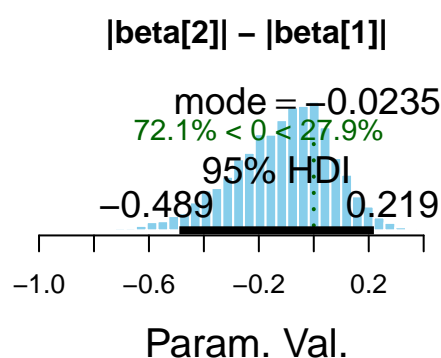
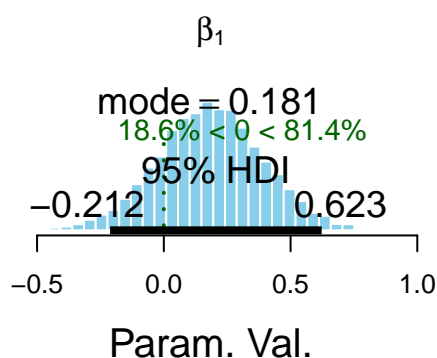
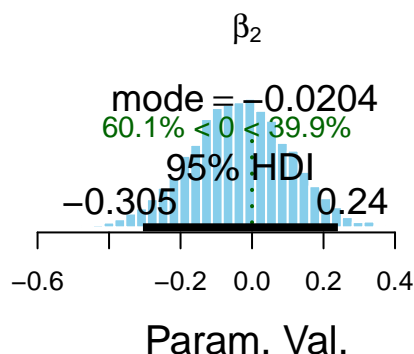
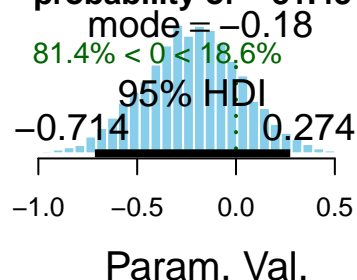


$|\text{beta}[2]| - |\text{beta}[1]|$



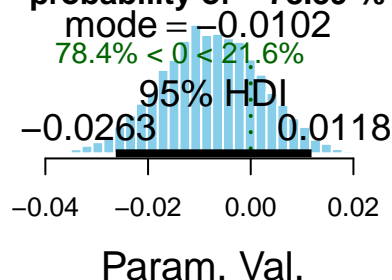
```
## [1] "-----"
## [1] " Analysis of Y= DISCL  explained by x= INIT cutted by RET"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2]  beta0[1]  beta0[2]  beta1[1]  beta1[2]  betaGFI  betaGPS
## 5385.709  5525.154  4856.758  4863.030  5385.709  5525.154  5177.121  4751.793
## betaSIZE
## 4096.012
## [1] "The difference of INIT  impact \n between RET cut samples in  DISCL has a\n probability of  -81
```

**The difference of INIT impact  
between RET cut samples in DISCL has a  
probability of -81.43 %**

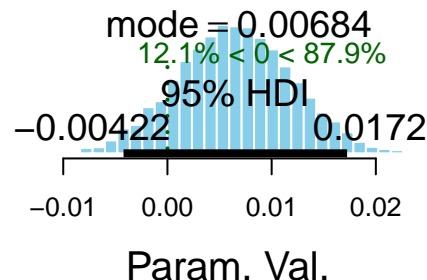


```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= EPI cutted by RET"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5325.250 3766.227 4382.169 5130.838 5325.250 3766.227 4447.717 4503.526
## betaSIZE
## 3700.583
## [1] "The difference of EPI impact \n between RET cut samples in DISCL has a\n probability of -78.1"
```

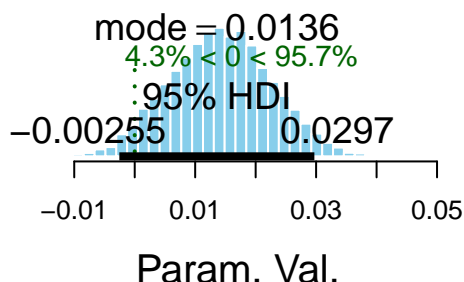
**The difference of EPI impact  
between RET cut samples in DISCL has a  
probability of -78.39 %**



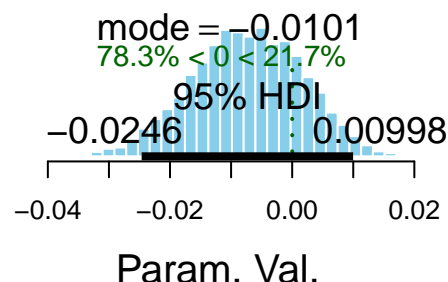
$\beta_2$



$\beta_1$

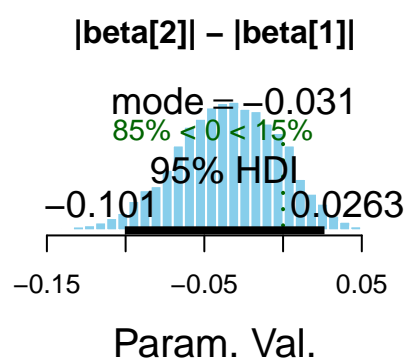
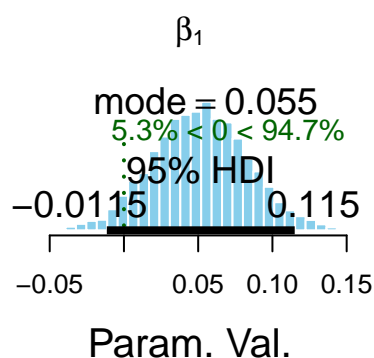
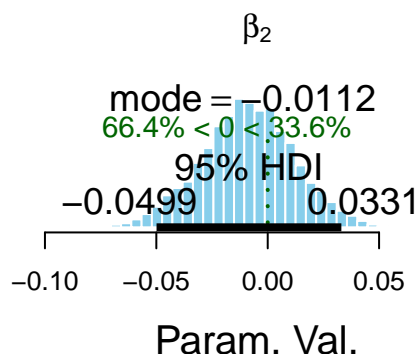
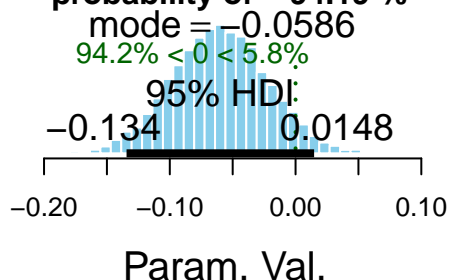


$|\text{beta}[2]| - |\text{beta}[1]|$



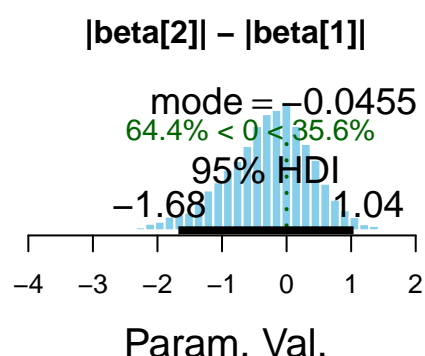
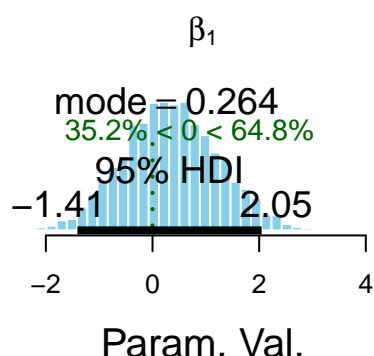
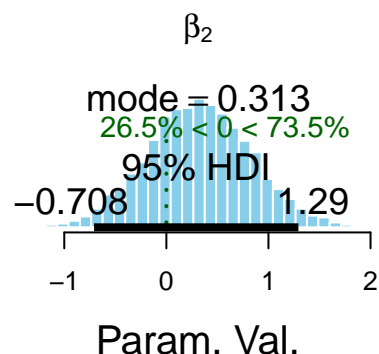
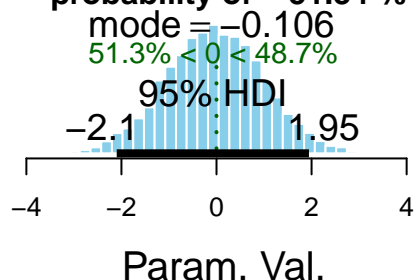
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= STEW cutted by RET"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5033.260 5350.602 4009.013 4584.923 5033.260 5350.602 5015.041 4644.403
## betaSIZE
## 4144.870
## [1] "The difference of STEW impact \n between RET cut samples in DISCL has a\n probability of -94
```

**The difference of STEW impact  
between RET cut samples in DISCL has a  
probability of -94.19 %**



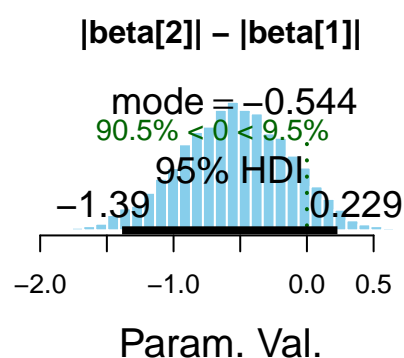
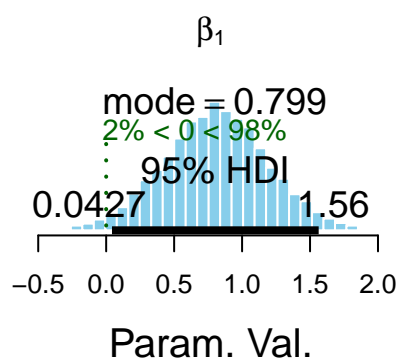
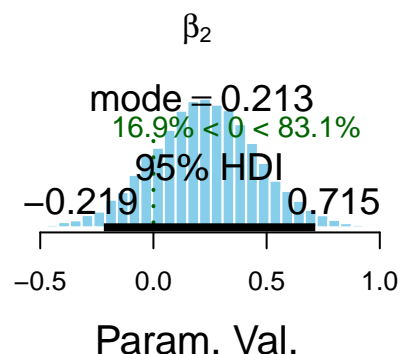
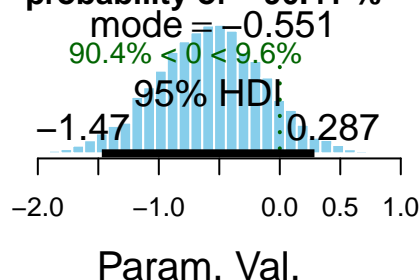
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= II_10 cutted by RET"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5679.991 5209.467 5225.883 5827.993 5679.991 5209.467 5566.614 4849.995
## betaSIZE
## 4262.225
## [1] "The difference of II_10 impact \n between RET cut samples in DISCL has a\n probability of -5
```

The difference of  $\Pi_{10}$  impact  
between RET cut samples in DISCL has a  
probability of -51.34 %



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= FOR_10 cutted by RET"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2030
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5655.334 5060.857 4739.007 4882.242 5655.334 5060.857 4980.103 4593.786
## betaSIZE
## 4326.704
## [1] "The difference of FOR_10 impact \n between RET cut samples in DISCL has a\n probability of -"
```

The difference of FOR\_10 impact  
between RET cut samples in DISCL has a  
probability of -90.41 %



```
write.csv(BLbinomCut,
  file=paste(
    'RET-binomCutResults',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

## Inter-Separated Bayesian models

### Quantitative Y

```
X$Interdich <- factor(X$INTER>median(X$INTER))
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('EPS', 'ET3', 'ER3', 'ER1', 'ER')
cut.name <- 'Interdich'
BLquantiCut <- bayesList(X, x.names, y.names, cut.name, 'model1-cut.R')

## [1] "
## [1] " Analysis of Y= EPS explained by x= PRI cutted by Interdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

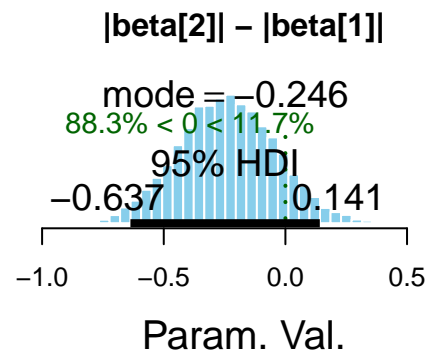
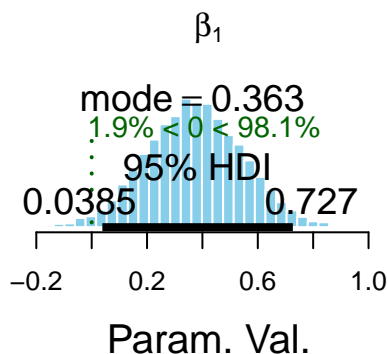
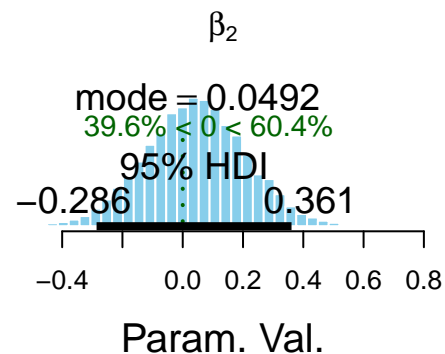
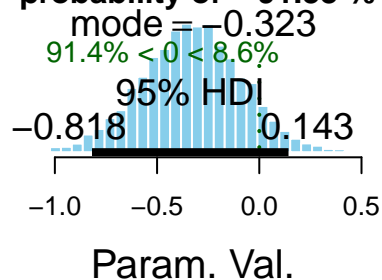
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
```

```

##      Initializing
##      Reading data back into data table
## Compiling model graph
##      Resolving undeclared variables
##      Allocating nodes
## Graph information:
##      Observed stochastic nodes: 131
##      Unobserved stochastic nodes: 7
##      Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8164.379 7713.565 8615.323 8094.043 8164.379 7713.565 7505.479 8051.091
## betaSIZE
## 7076.905
## [1] "The difference of PRI impact \n between Interdich cut samples in EPS has a\n probability of
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= INIT cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of PRI impact  
between Interdich cut samples in EPS has a  
probability of -91.38 %**



```

## Compiling data graph
##      Resolving undeclared variables
##      Allocating nodes
##      Initializing

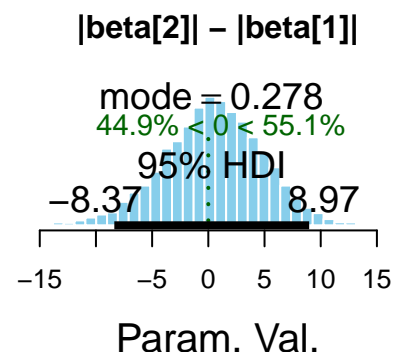
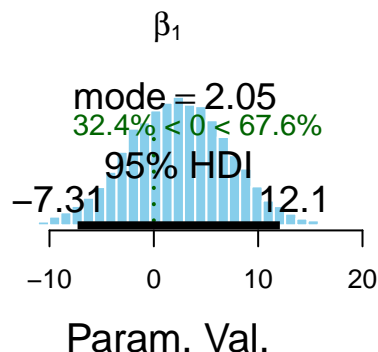
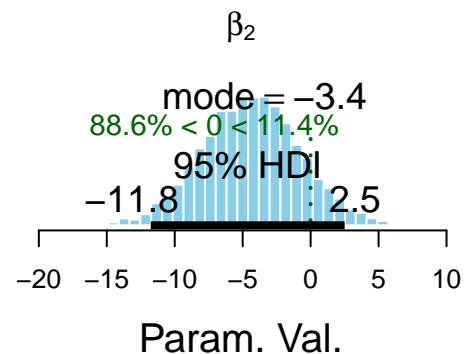
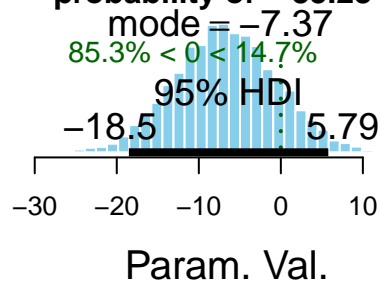
```

```

## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2052
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6991.985 7291.117 7719.536 7304.839 6991.985 7291.117 7466.107 7074.059
## betaSIZE
## 6592.902
## [1] "The difference of INIT impact \n between Interdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of INIT impact  
between Interdich cut samples in EPS has a  
probability of -85.28 %**



```

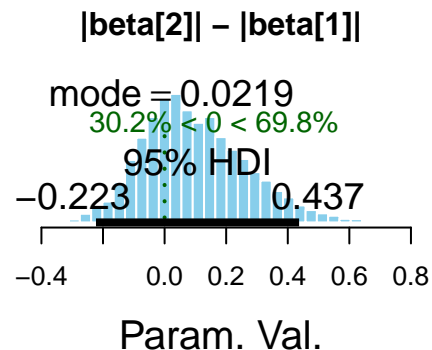
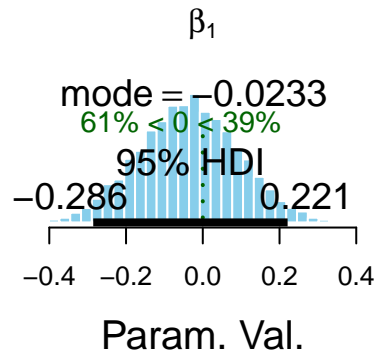
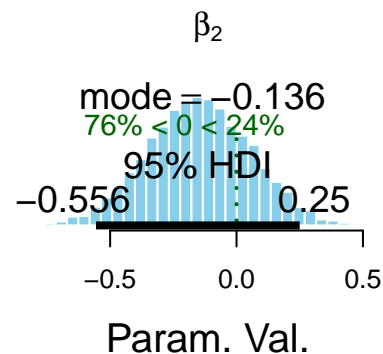
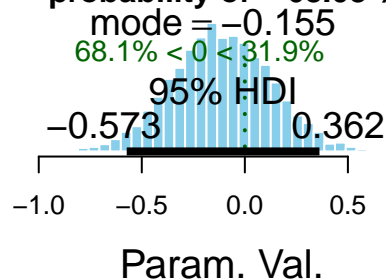
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table

```



```
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7098.463 5434.011 8842.004 7262.487 7098.463 5434.011 6414.901 7029.017
## betaSIZE
## 6225.720
## [1] "The difference of EPI impact \n between Interdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= STEW cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between Interdich cut samples in EPS has a  
probability of -68.08 %**



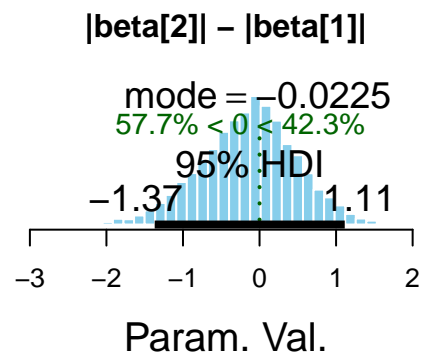
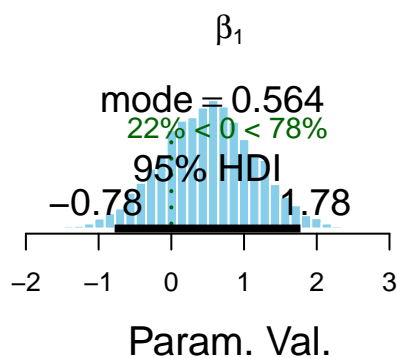
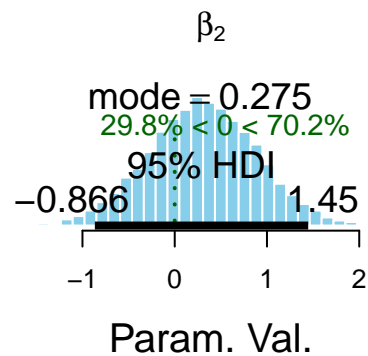
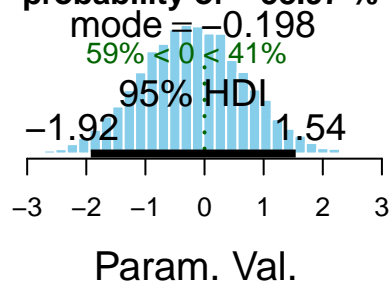
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
```

```

## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7469.017 8536.572 8532.930 8507.553 7469.017 8536.572 7762.334 7026.039
## betaSIZE
## 7139.295
## [1] "The difference of STEW impact \n between Interdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= II_10 cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of STEW impact  
between Interdich cut samples in EPS has a  
probability of -58.97 %**



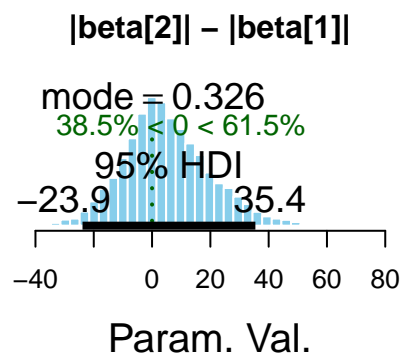
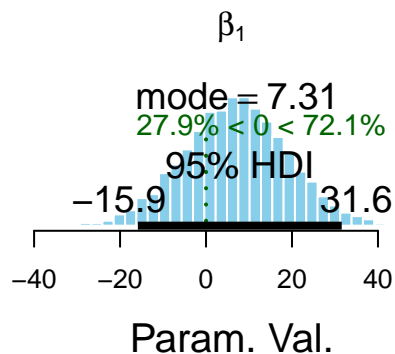
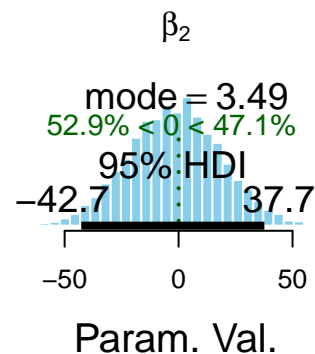
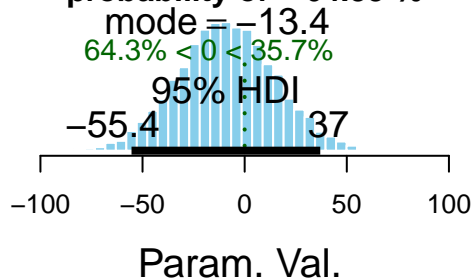
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables

```

```
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8856.414 7658.347 9747.498 8780.457 8856.414 7658.347 8288.404 6934.077
## betaSIZE
## 6203.385
## [1] "The difference of II_10 impact \n between Interdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= FOR_10 cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

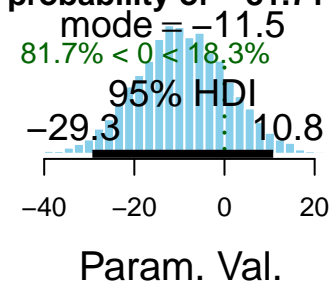
**The difference of II\_10 impact  
between Interdich cut samples in EPS has a  
probability of -64.33 %**



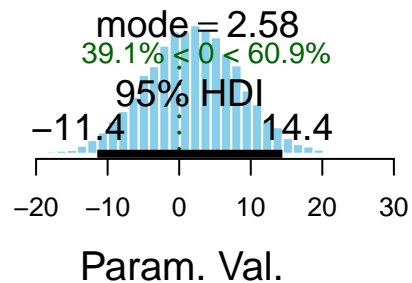
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
```

```
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7521.414 7835.525 8586.324 8327.487 7521.414 7835.525 7874.813 7553.233
## betaSIZE
## 7195.795
## [1] "The difference of FOR_10 impact \n between Interdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

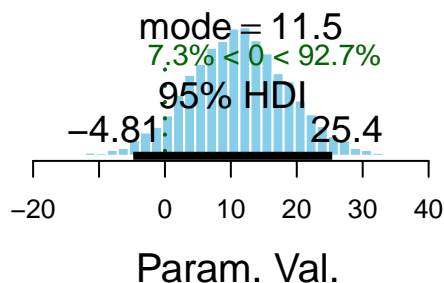
**The difference of FOR\_10 impact  
between Interdich cut samples in EPS has a  
probability of -81.71 %**



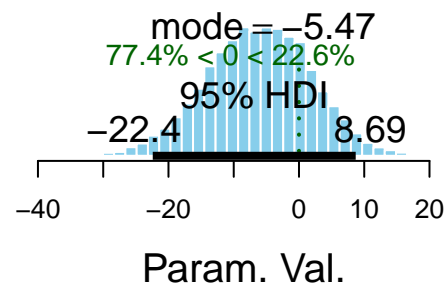
$\beta_2$



$\beta_1$



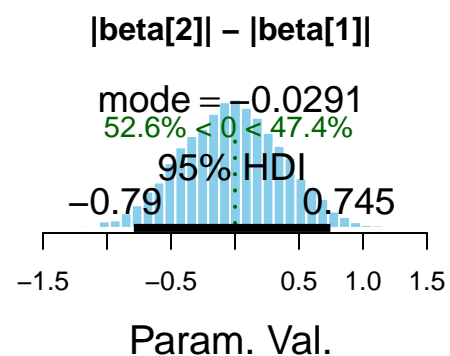
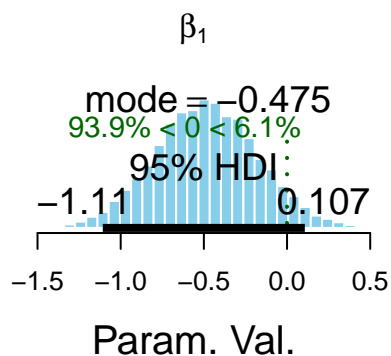
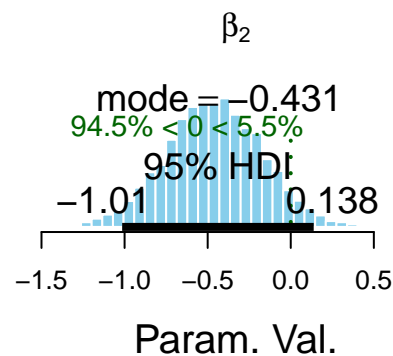
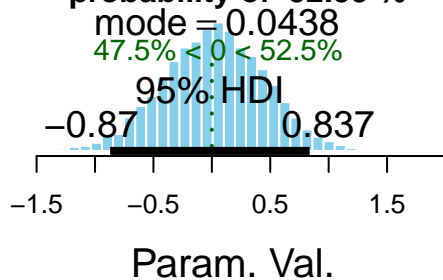
**|beta[2]| - |beta[1]|**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
```

```
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8098.530 8213.903 9207.894 8917.204 8098.530 8213.903 8214.629 7051.530
## betaSIZE
## 6884.280
## [1] "The difference of PRI impact \n between Interdich cut samples in ET3 has a\n probability of 52.53 %
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

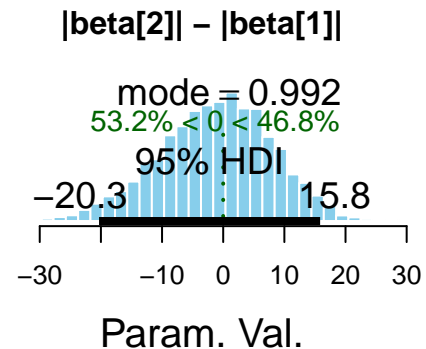
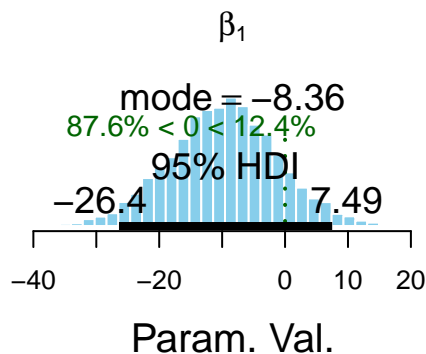
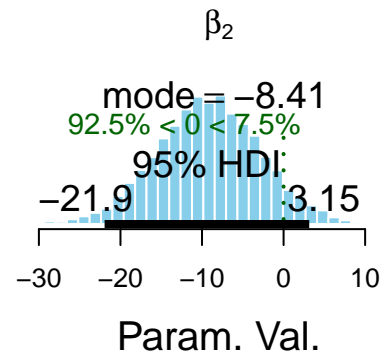
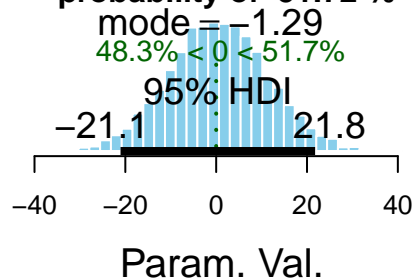
**The difference of PRI impact  
between Interdich cut samples in ET3 has a  
probability of 52.53 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
```

```
## Unobserved stochastic nodes: 7
## Total graph size: 2052
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7312.197 8027.939 7448.685 7141.483 7312.197 8027.939 7760.736 6919.187
## betaSIZE
## 6583.113
## [1] "The difference of INIT impact \n between Interdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

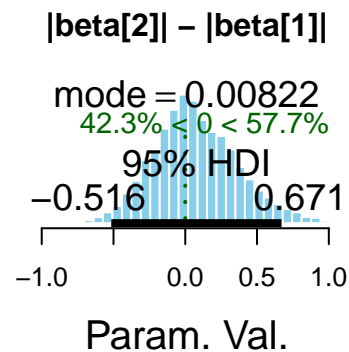
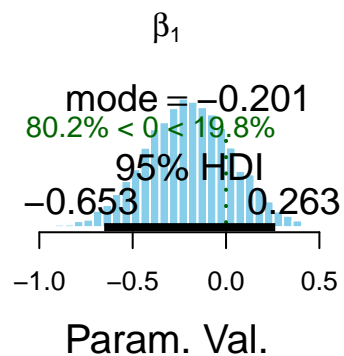
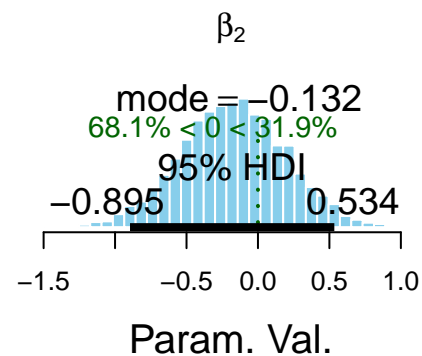
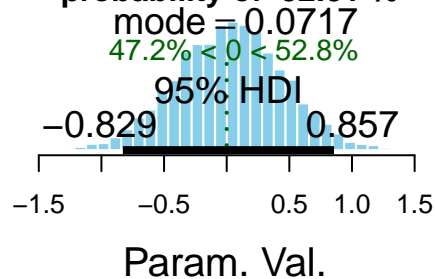
**The difference of INIT impact  
between Interdich cut samples in ET3 has a  
probability of 51.72 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
```

```
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7168.383 5912.949 8597.903 7424.336 7168.383 5912.949 6950.870 7052.578
## betaSIZE
## 6014.390
## [1] "The difference of EPI impact \n between Interdich cut samples in ET3 has a\n probability of 1
## [1] "
## [1] " Analysis of Y= ET3 explained by x= STEW cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

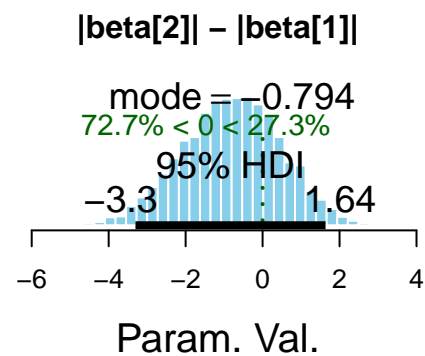
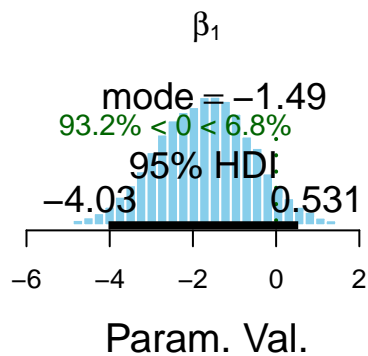
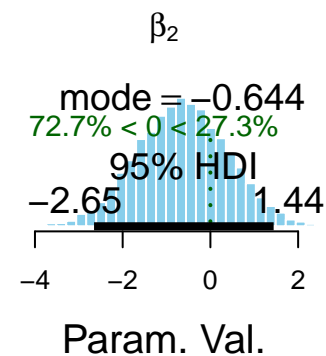
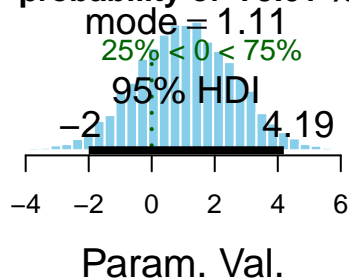
**The difference of EPI impact  
between Interdich cut samples in ET3 has a  
probability of 52.81 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
```

```
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7595.737 8531.483 8399.062 8207.227 7595.737 8531.483 7963.854 6202.357
## betaSIZE
## 6609.444
## [1] "The difference of STEW impact \n between Interdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= II_10 cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between Interdich cut samples in ET3 has a  
probability of 75.01 %**

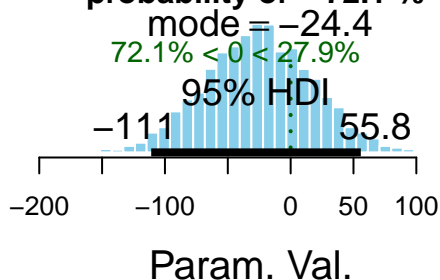


```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
```

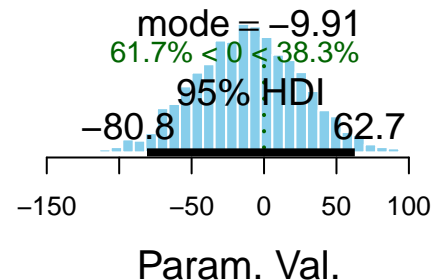


```
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8708.490 7627.463 9092.881 8143.577 8708.490 7627.463 8790.489 7282.304
## betaSIZE
## 6637.581
## [1] "The difference of II_10 impact \n between Interdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= FOR_10 cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

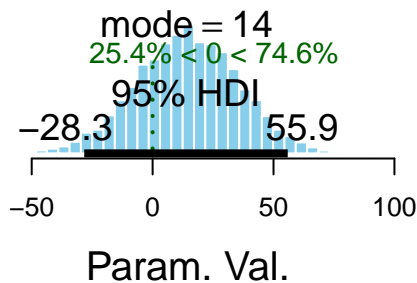
**The difference of II\_10 impact  
between Interdich cut samples in ET3 has a  
probability of -72.1 %**



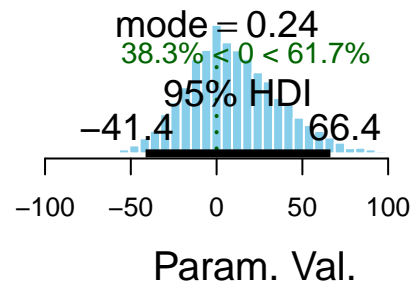
$\beta_2$



$\beta_1$



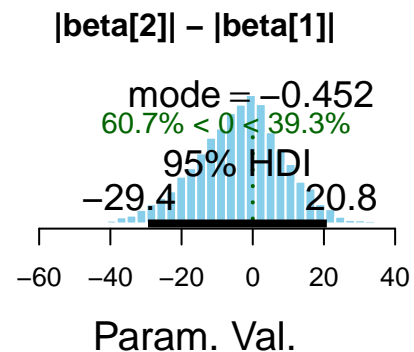
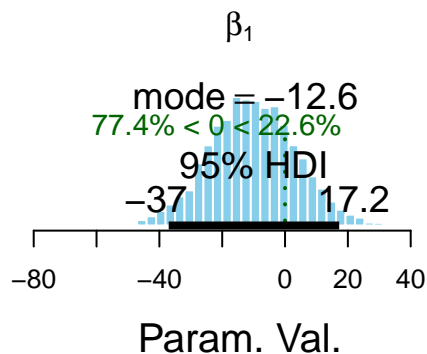
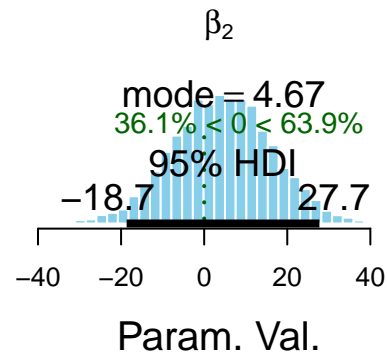
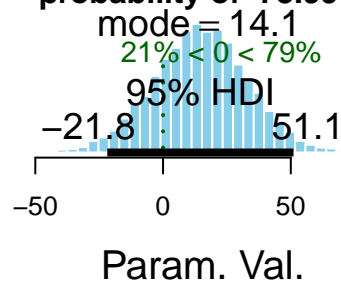
**|beta[2]| - |beta[1]|**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2043
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7434.806 7618.295 8162.428 7832.627 7434.806 7618.295 7574.789 7463.499
## betaSIZE
## 6910.902
## [1] "The difference of FOR_10 impact \n between Interdich cut samples in ET3 has a\n probability of 78.99 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= PRI cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

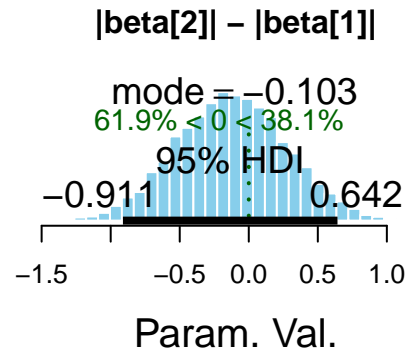
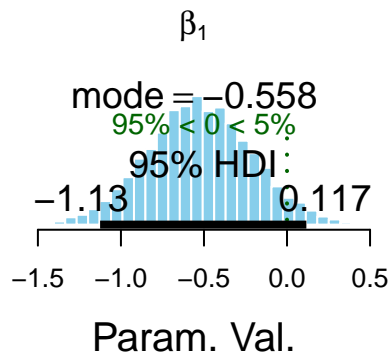
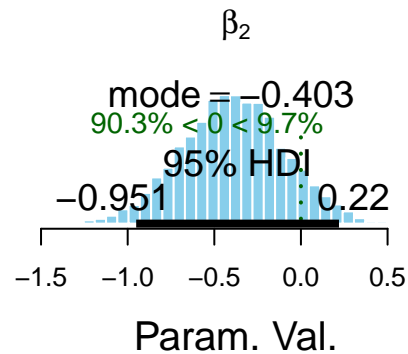
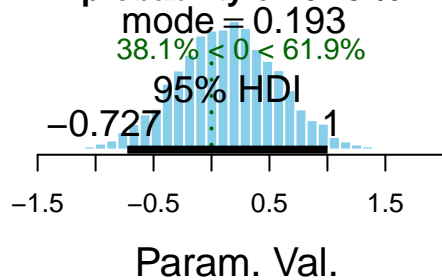
**The difference of FOR\_10 impact  
between Interdich cut samples in ET3 has a  
probability of 78.99 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
```

```
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7706.449 7894.342 8462.414 8051.657 7706.449 7894.342 7989.234 7573.322
## betaSIZE
## 6860.344
## [1] "The difference of PRI impact \n between Interdich cut samples in ER3 has a\n probability of 61.9%"
## [1] "
## [1] " Analysis of Y= ER3 explained by x= INIT cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

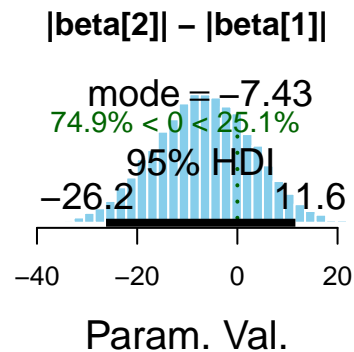
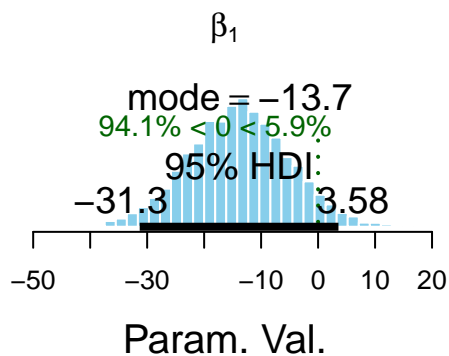
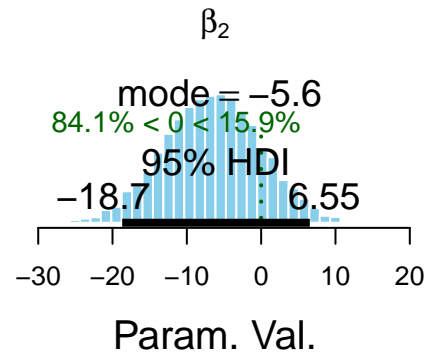
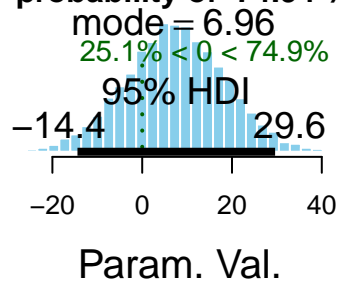
**The difference of PRI impact  
between Interdich cut samples in ER3 has a  
probability of 61.9 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2052
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
```

```
## 7074.708 8237.445 7382.292 7093.084 7074.708 8237.445 7852.127 7135.171
## betaSIZE
## 7699.150
## [1] "The difference of INIT impact \n between Interdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= EPI cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

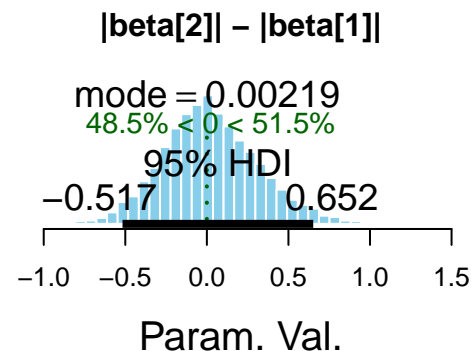
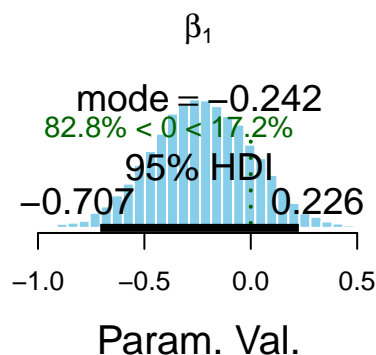
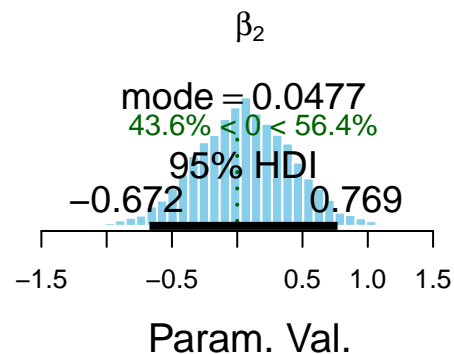
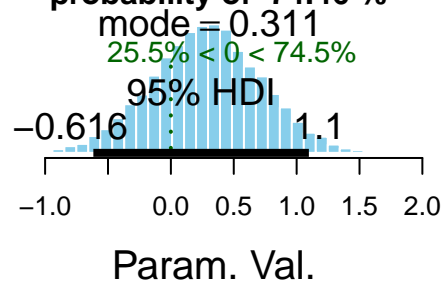
**The difference of INIT impact  
between Interdich cut samples in ER3 has a  
probability of 74.94 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7381.743 5555.489 8331.148 7239.348 7381.743 5555.489 6613.531 7585.928
```

```
## betaSIZE
## 6073.898
## [1] "The difference of EPI impact \n between Interdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= STEW cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

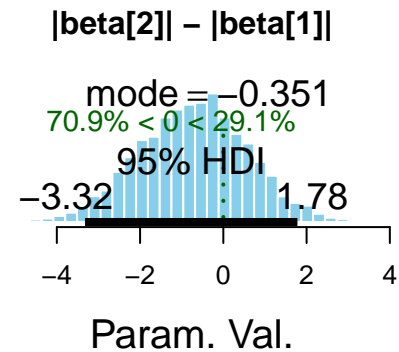
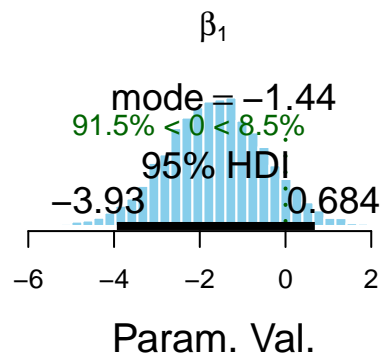
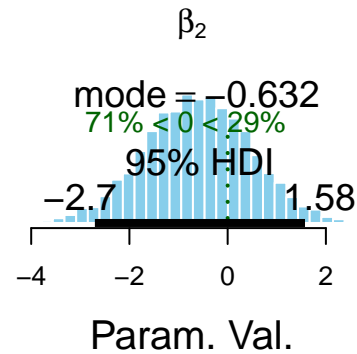
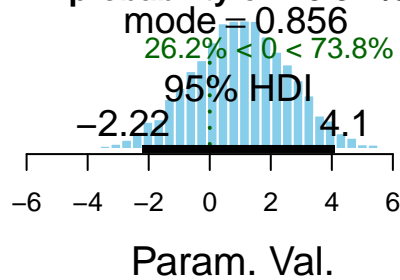
**The difference of EPI impact  
between Interdich cut samples in ER3 has a  
probability of 74.46 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8220.106 9000.000 8486.466 8138.594 8220.106 9000.000 7711.627 7058.381
## betaSIZE
```

```
## 7039.568
## [1] "The difference of STEW impact \n between Interdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= II_10 cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

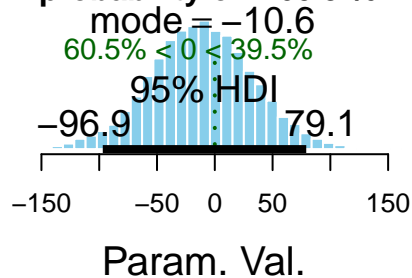
**The difference of STEW impact  
between Interdich cut samples in ER3 has a  
probability of 73.84 %**



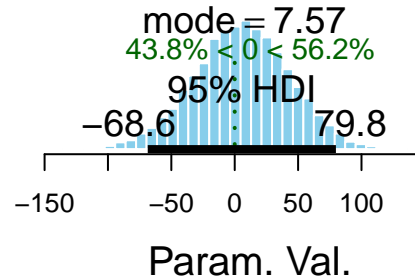
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8790.986 8344.237 9169.382 8757.599 8790.986 8344.237 8746.179 7389.717
## betaSIZE
## 6664.464
```

```
## [1] "The difference of II_10 impact \n between Interdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= FOR_10 cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

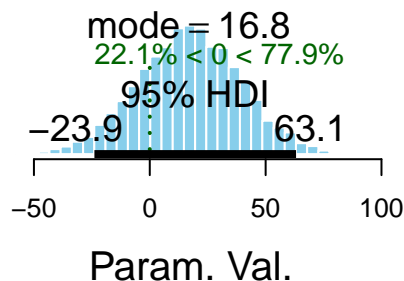
**The difference of II\_10 impact  
between Interdich cut samples in ER3 has a  
probability of -60.5 %**



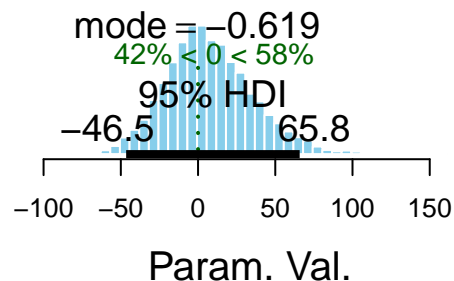
$\beta_2$



$\beta_1$



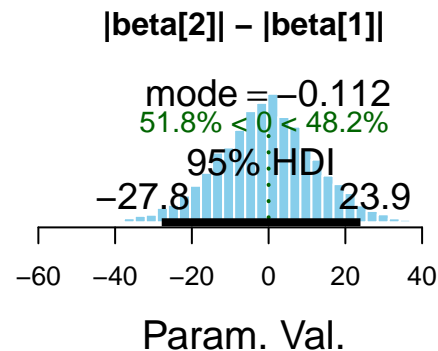
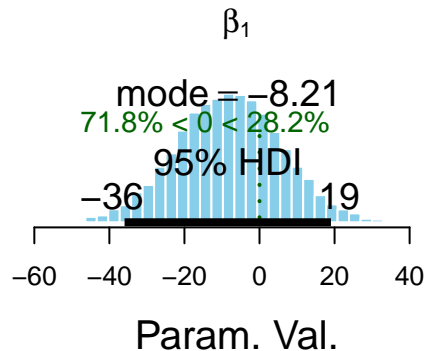
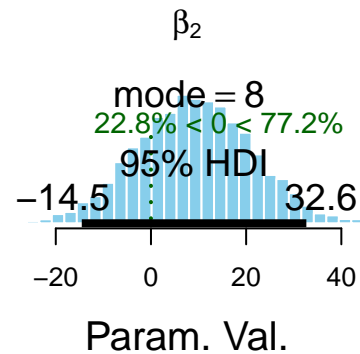
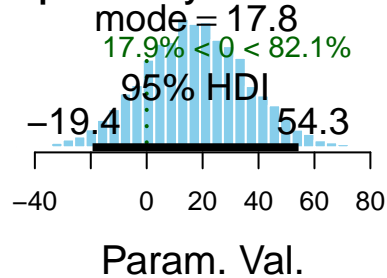
$|\beta_2| - |\beta_1|$



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7667.462 7749.236 7977.365 7676.303 7667.462 7749.236 8010.275 7319.072
## betaSIZE
## 7106.336
## [1] "The difference of FOR_10 impact \n between Interdich cut samples in ER3 has a\n probability of
```

```
## [1] "
## [1] " Analysis of Y= ER1  explained by x= PRI cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of FOR<sub>10</sub> impact  
between Interdich cut samples in ER3 has a  
probability of 82.11 %**

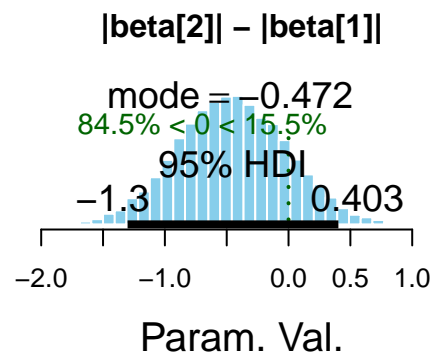
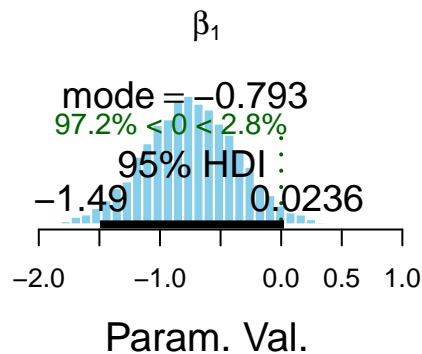
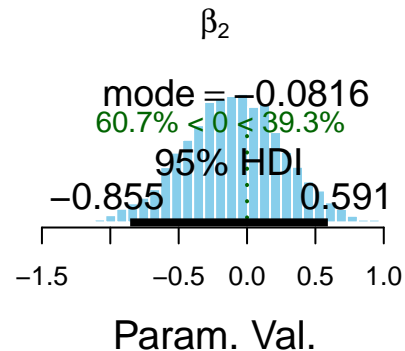
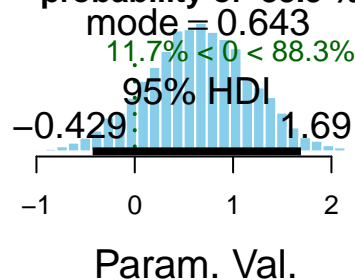


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8272.998 7882.326 8462.460 8316.893 8272.998 7882.326 8531.974 7027.392
## betaSIZE
## 7004.093
## [1] "The difference of PRI impact \n between Interdich cut samples in ER1 has a\n probability of 8
## [1] "
## [1] "
## [1] "
```



```
## [1] " Analysis of Y= ER1  explained by x= INIT cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

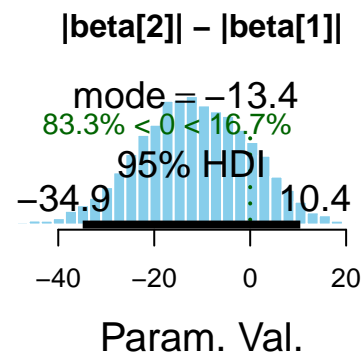
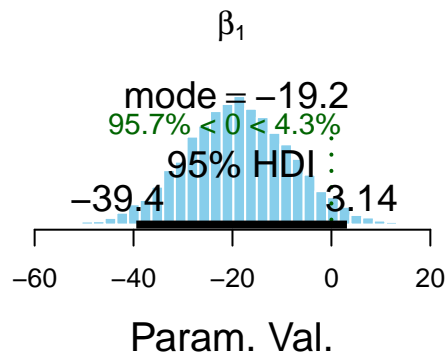
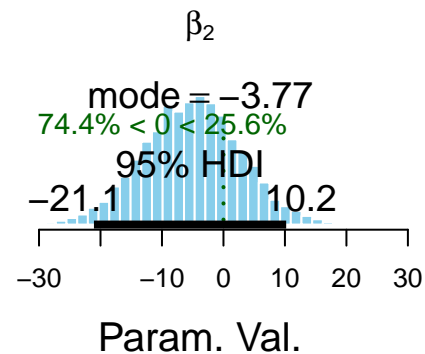
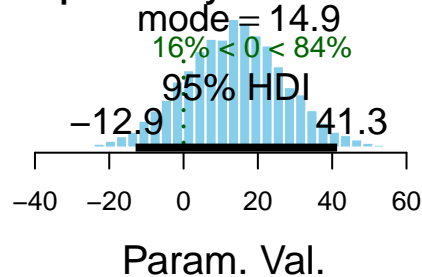
**The difference of PRI impact  
between Interdich cut samples in ER1 has a  
probability of 88.3 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2052
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6884.332 7960.054 7420.778 7148.470 6884.332 7960.054 7679.815 6702.119
## betaSIZE
## 6431.885
## [1] "The difference of INIT impact \n between Interdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER1  explained by x= EPI cutted by Interdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

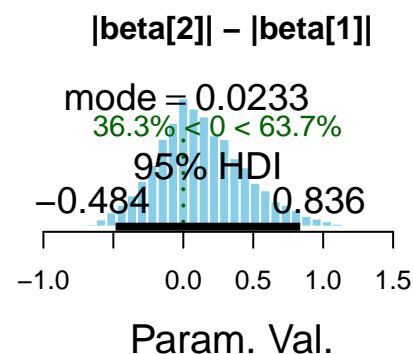
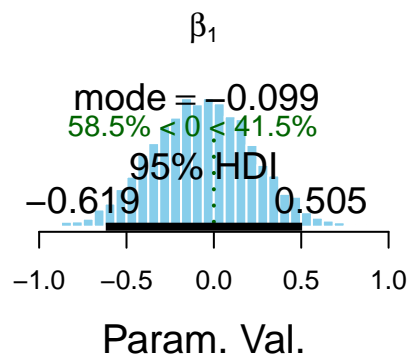
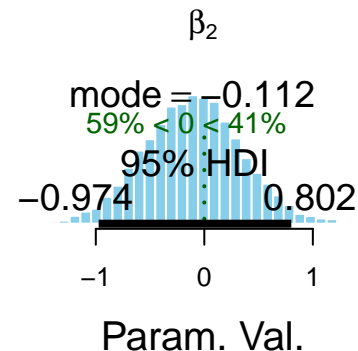
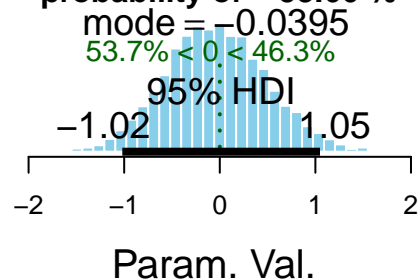
**The difference of INIT impact  
between Interdich cut samples in ER1 has a  
probability of 84.03 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6797.493 6692.932 7737.021 7025.438 6797.493 6692.932 7195.183 6526.961
## betaSIZE
## 6306.631
## [1] "The difference of EPI impact \n between Interdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ER1 explained by x= STEW cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
```

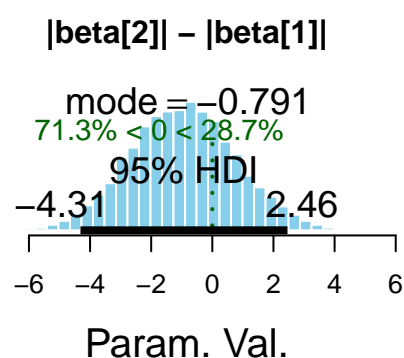
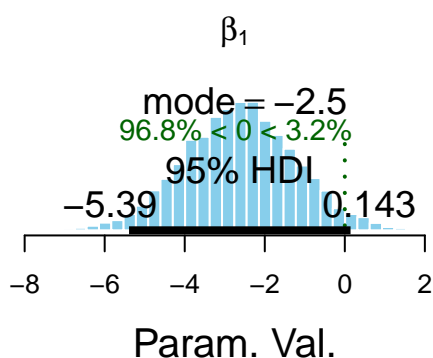
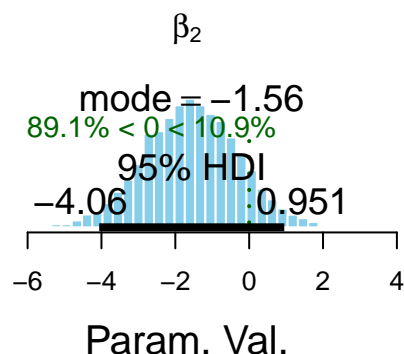
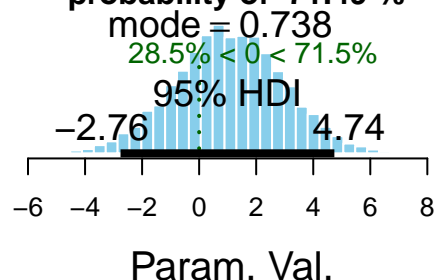
```
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between Interdich cut samples in ER1 has a  
probability of -53.66 %**



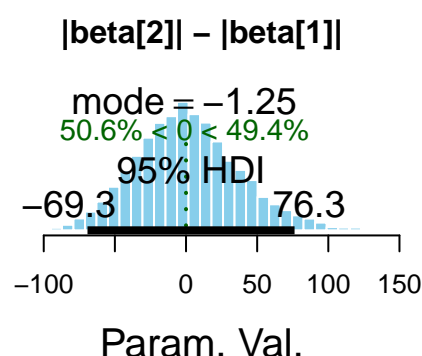
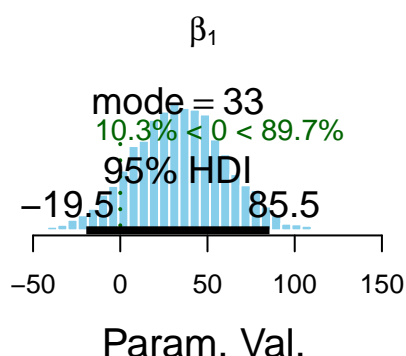
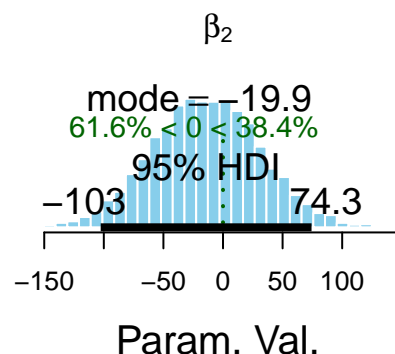
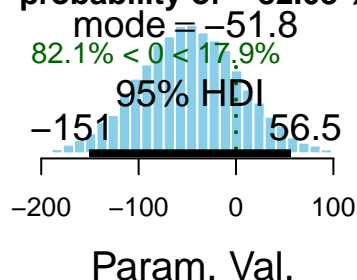
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7319.627 9097.269 8856.829 8774.518 7319.627 9097.269 7512.766 7274.341
## betaSIZE
## 7064.293
## [1] "The difference of STEW impact \n between Interdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ER1 explained by x= II_10 cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between Interdich cut samples in ER1 has a  
probability of 71.49 %**



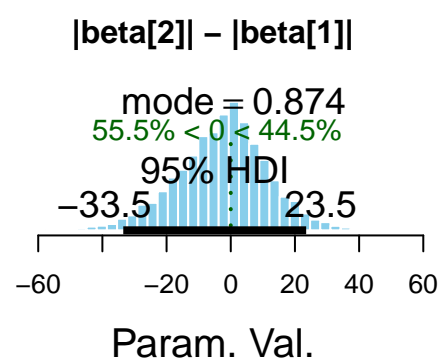
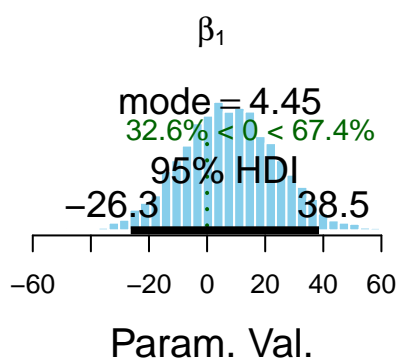
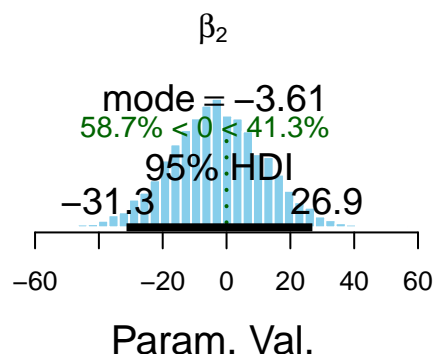
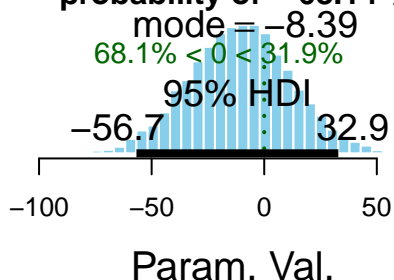
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 7898.967 9000.000 8473.120 9000.000 7898.967 8608.220 6882.463
## betaSIZE
## 6755.330
## [1] "The difference of II_10 impact \n between Interdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER1 explained by x= FOR_10 cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\text{II}_{10}$  impact  
between Interdich cut samples in ER1 has a  
probability of  $-82.08\%$



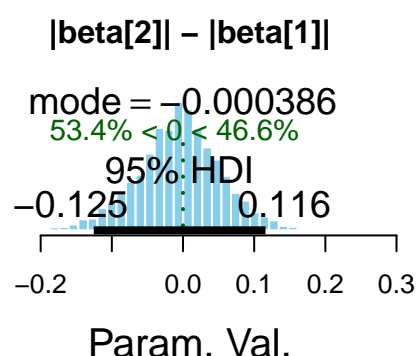
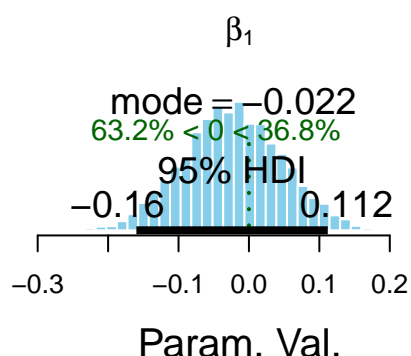
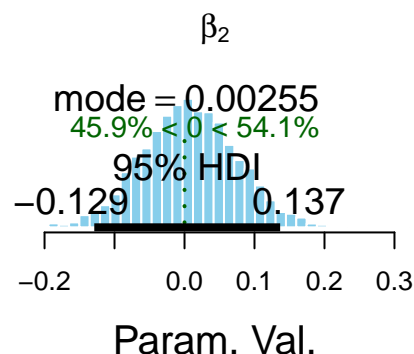
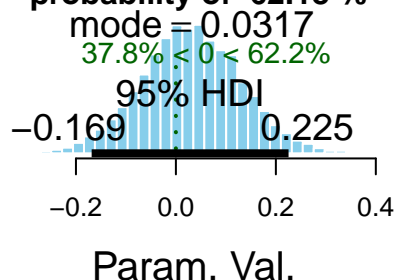
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7631.892 7433.130 7596.613 7368.803 7631.892 7433.130 8035.980 7148.159
## betaSIZE
## 6964.219
## [1] "The difference of FOR_10 impact \n between Interdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= PRI cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of FOR\_10 impact  
between Interdich cut samples in ER1 has a  
probability of -68.14 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8118.560 8787.565 9000.000 8626.740 8118.560 8787.565 7937.463 7235.933
## betaSIZE
## 6796.996
## [1] "The difference of PRI impact \n between Interdich cut samples in ER has a\n probability of 6
## [1] "
## [1] " Analysis of Y= ER explained by x= INIT cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of PRI impact  
between Interdich cut samples in ER has a  
probability of 62.18 %



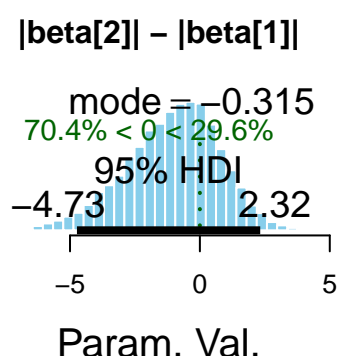
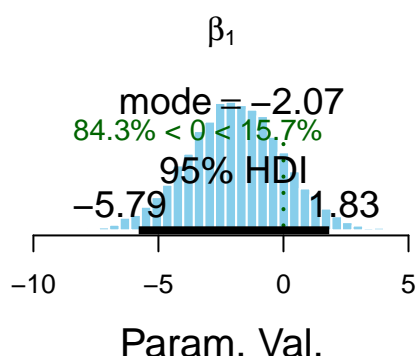
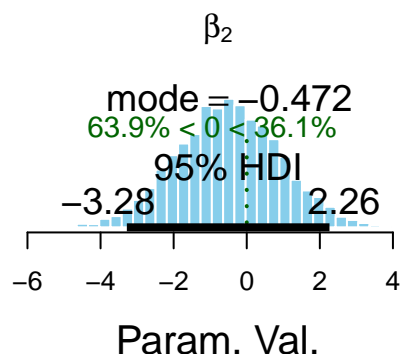
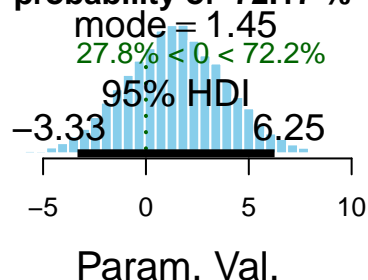
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2052
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7000.089 7786.485 9396.566 8665.714 7000.089 7786.485 7933.298 6740.534
## betaSIZE
## 7034.696
## [1] "The difference of INIT impact \n between Interdich cut samples in ER has a\n probability of "
```

-----

```
## [1] " Analysis of Y= ER explained by x= EPI cutted by Interdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

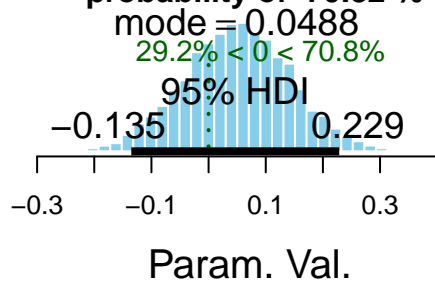
The difference of INIT impact  
between Interdich cut samples in ER has a  
probability of 72.17 %



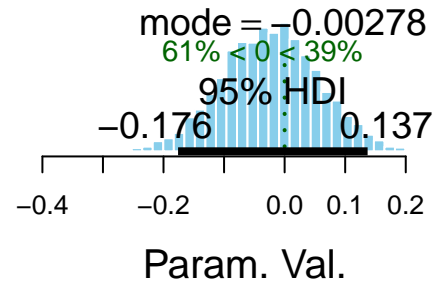
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7759.296 5830.119 8315.794 7888.925 7759.296 5830.119 6876.217 6962.347
## betaSIZE
## 6607.470
## [1] "The difference of EPI impact \n between Interdich cut samples in ER has a\n probability of 7
## [1] "
## [1] " Analysis of Y= ER explained by x= STEW cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```



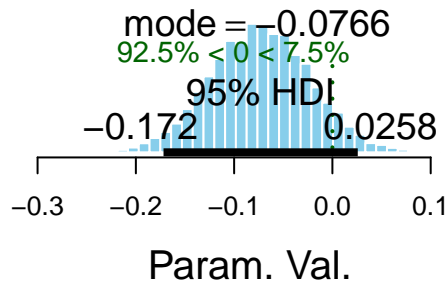
The difference of EPI impact  
between Interdich cut samples in ER has a  
probability of 70.82 %



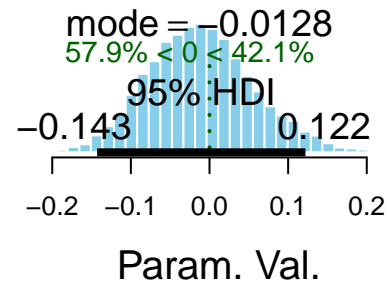
$\beta_2$



$\beta_1$

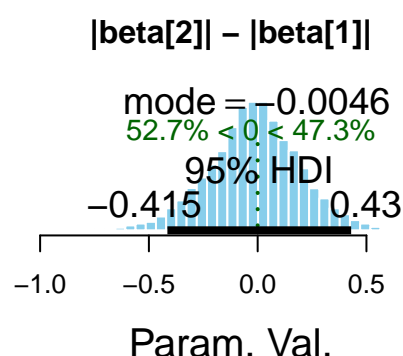
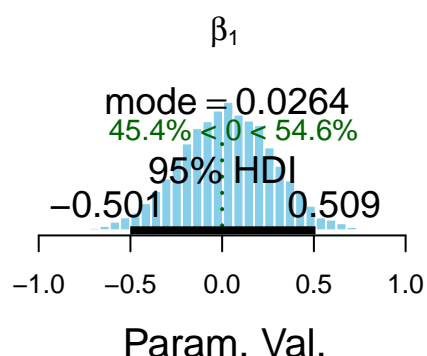
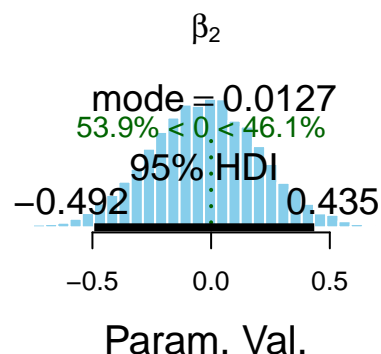
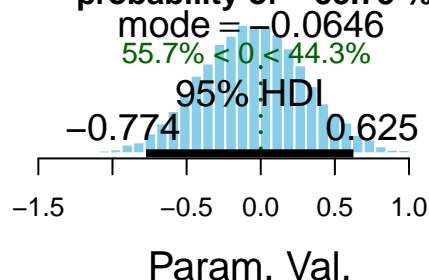


$|\text{beta}[2]| - |\text{beta}[1]|$



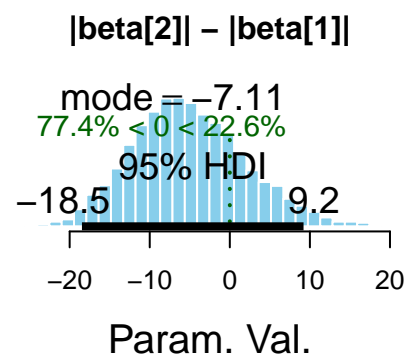
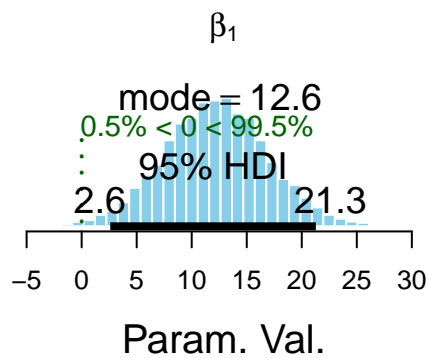
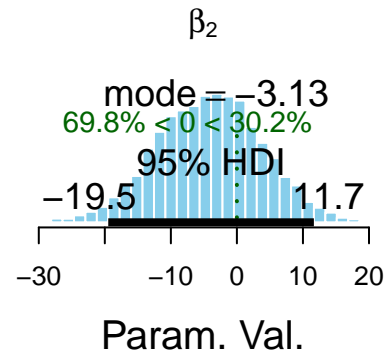
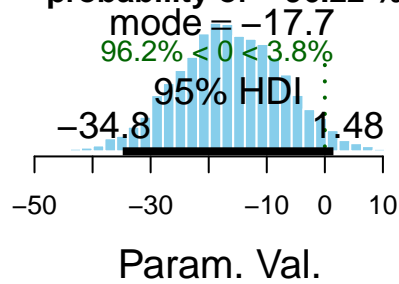
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7928.356 8331.901 9136.952 9087.594 7928.356 8331.901 8104.090 6663.972
## betaSIZE
## 7121.032
## [1] "The difference of STEW impact \n between Interdich cut samples in ER has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= II_10 cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between Interdich cut samples in ER has a  
probability of -55.73 %**



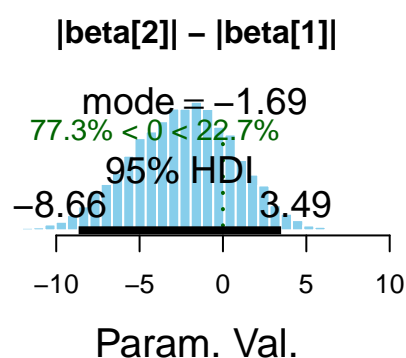
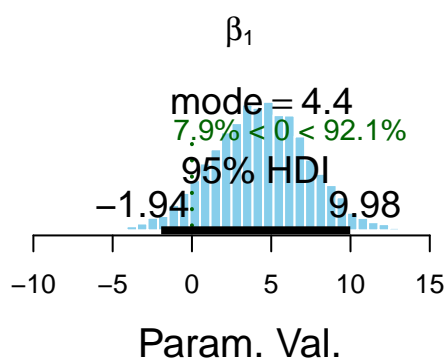
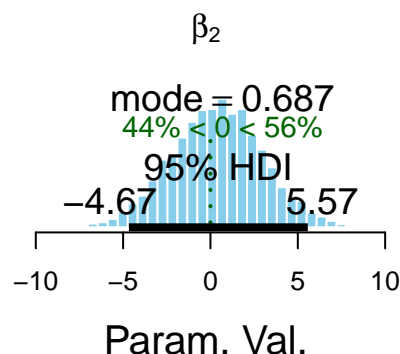
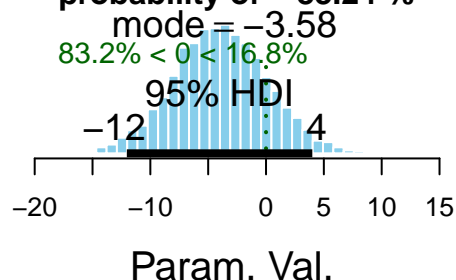
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8283.642 7509.507 9032.722 8929.847 8283.642 7509.507 8395.463 7143.527
## betaSIZE
## 6541.556
## [1] "The difference of II_10 impact \n between Interdich cut samples in ER has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= FOR_10 cutted by Interdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\text{II}_{10}$  impact  
between Interdich cut samples in ER has a  
probability of  $-96.22\%$



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7385.839 7530.724 9000.000 9000.000 7385.839 7530.724 7960.826 6852.810
## betaSIZE
## 6845.637
## [1] "The difference of FOR_10 impact \n between Interdich cut samples in ER has a\n probability of
```

The difference of FOR<sub>10</sub> impact  
between Interdich cut samples in ER has a  
probability of -83.24 %



```
write.csv(BLquantiCut,
  file=paste(
    'INTER-quantiResults-cut',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

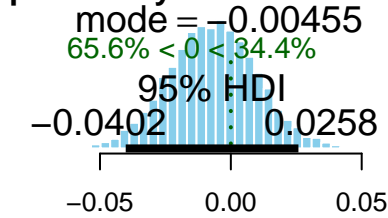
## Binomial Y

```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('CP', 'DISCL')
BLbinomCut <- bayesList(X, x.names, y.names, cut.name, 'model2-cut.R')
```

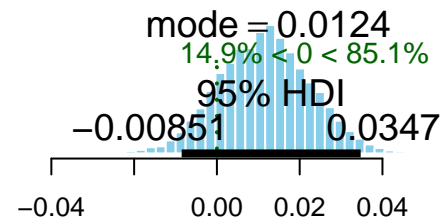
```
## [1] "
## [1] " Analysis of Y= CP explained by x= PRI cutted by Interdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
```

```
## Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5350.331 5120.951 5182.947 5363.525 5350.331 5120.951 4994.435 4379.031
## betaSIZE
## 4560.733
## [1] "The difference of PRI impact \n between Interdich cut samples in CP has a\n probability of -"
```

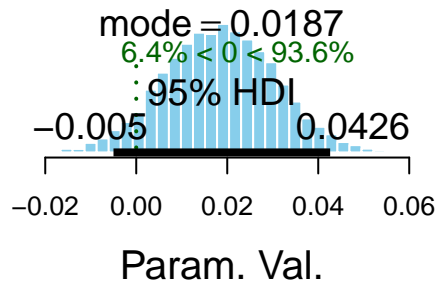
**The difference of PRI impact  
between Interdich cut samples in CP has a  
probability of -65.58 %**



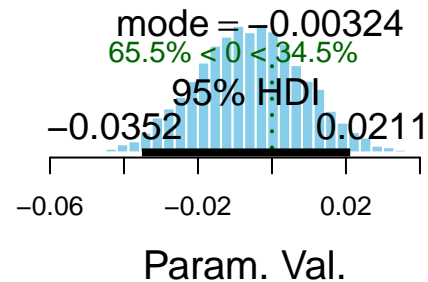
$\beta_2$



$\beta_1$



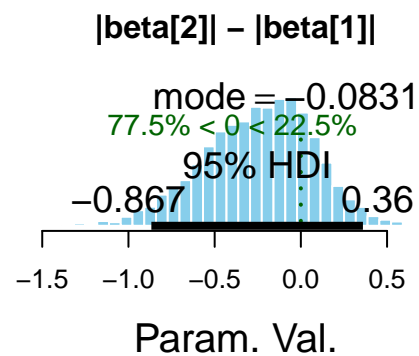
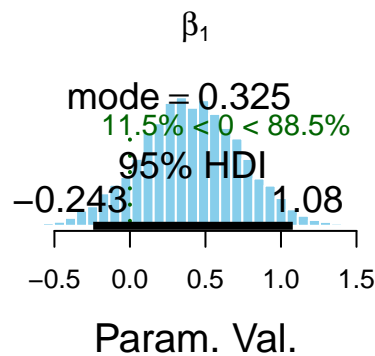
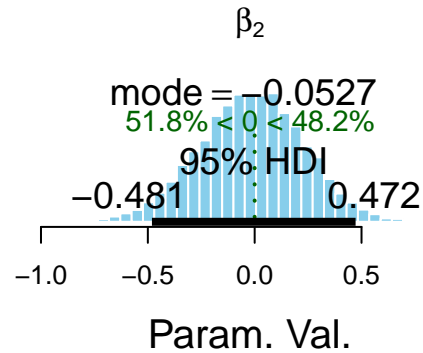
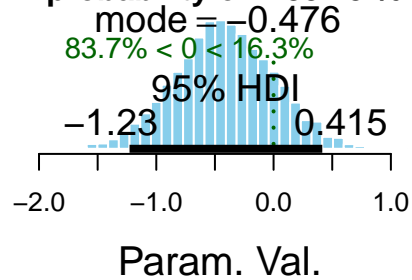
**|beta[2]| - |beta[1]|**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= INIT cutted by Interdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2038
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4925.139 5073.785 4979.134 5139.231 4925.139 5073.785 5245.506 5149.538
## betaSIZE
## 4293.785
## [1] "The difference of INIT impact \n between Interdich cut samples in CP has a\n probability of "
```

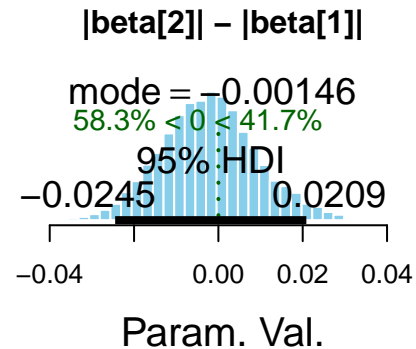
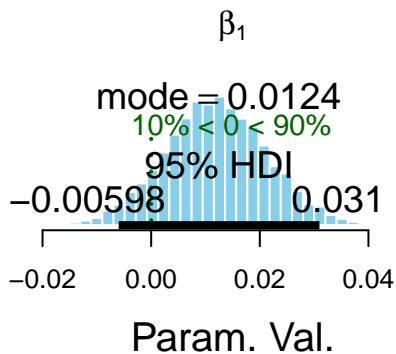
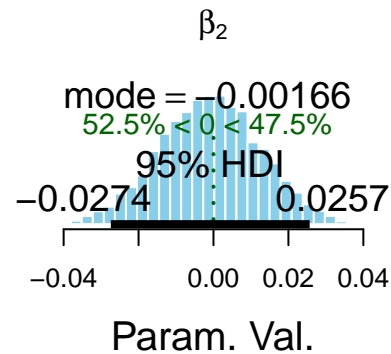
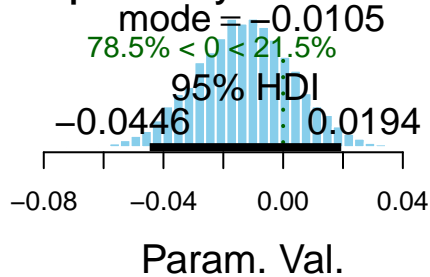
**The difference of INIT impact  
between Interdich cut samples in CP has a  
probability of -83.73 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= EPI cutted by Interdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5007.918 3737.240 4638.685 5403.467 5007.918 3737.240 4353.067 4258.490
```

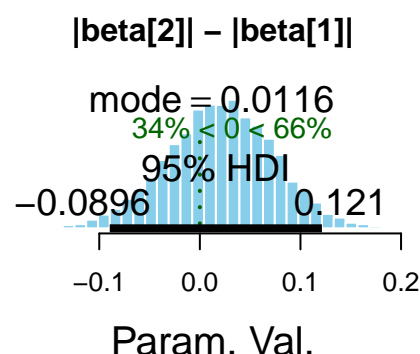
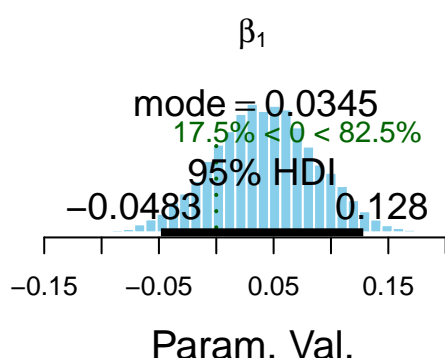
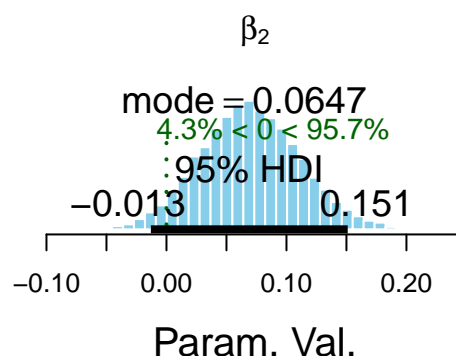
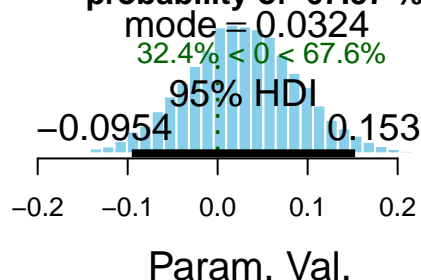
```
## betaSIZE
## 3965.200
## [1] "The difference of EPI impact \n between Interdich cut samples in CP has a\n probability of -"
```

**The difference of EPI impact  
between Interdich cut samples in CP has a  
probability of -78.51 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= STEW cutted by Interdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5062.012 5003.442 5361.218 5248.402 5062.012 5003.442 4472.528 4731.313
## betaSIZE
## 4600.645
## [1] "The difference of STEW impact \n between Interdich cut samples in CP has a\n probability of "
```

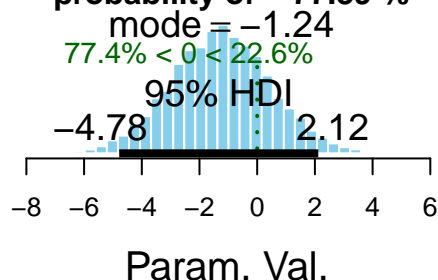
The difference of STEW impact  
between Interdich cut samples in CP has a  
probability of 67.57 %



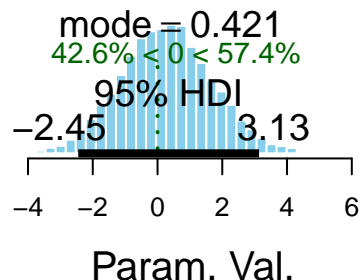
```
## [1] "-----"
## [1] " Analysis of Y= CP explained by x= II_10 cutted by Interdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5552.512 4960.800 5390.787 6048.671 5552.512 4960.800 5280.750 4537.154
## betaSIZE
## 4158.992
## [1] "The difference of II_10 impact \n between Interdich cut samples in CP has a\n probability of
```



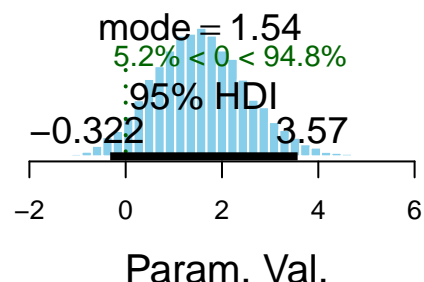
The difference of  $\text{II}_{10}$  impact  
between Interdich cut samples in CP has a  
probability of  $-77.39\%$



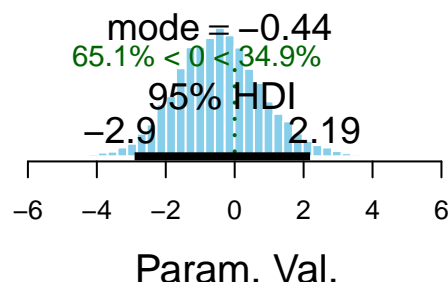
$\beta_2$



$\beta_1$

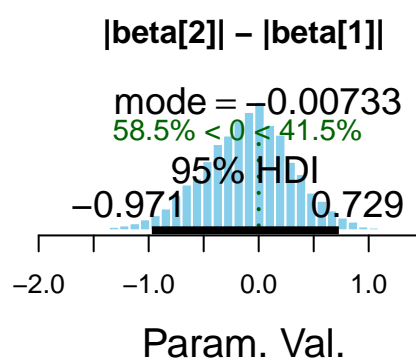
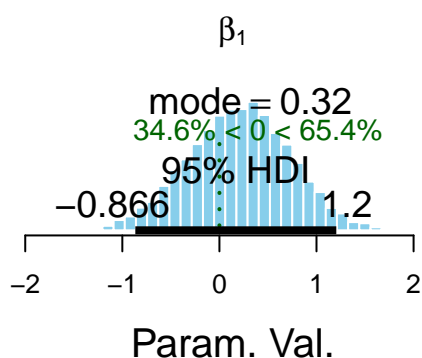
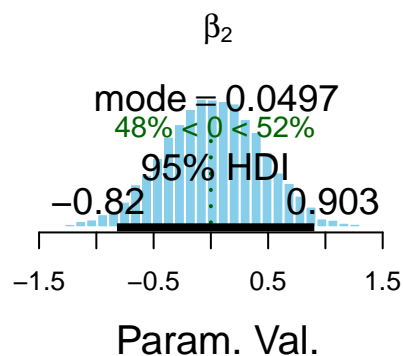
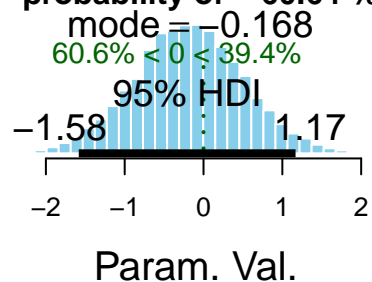


$|\text{beta}[2]| - |\text{beta}[1]|$



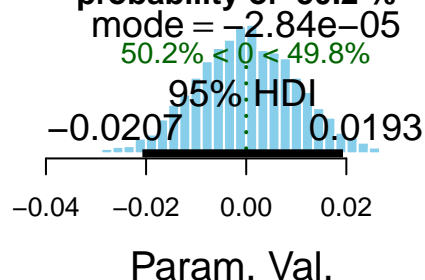
```
## [1] "
## [1] " Analysis of Y= CP explained by x= FOR_10 cutted by Interdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2029
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4990.448 4165.859 4702.921 5147.529 4990.448 4165.859 4803.955 4347.100
## betaSIZE
## 4366.682
## [1] "The difference of FOR_10 impact \n between Interdich cut samples in CP has a\n probability of
```

The difference of FOR\_10 impact  
between Interdich cut samples in CP has a  
probability of -60.64 %

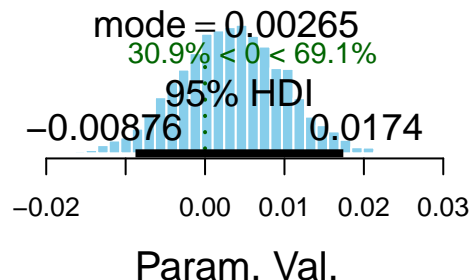


```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= PRI cutted by Interdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5150.479 5126.401 5262.982 5419.358 5150.479 5126.401 5350.501 4370.252
## betaSIZE
## 4479.226
## [1] "The difference of PRI impact \n between Interdich cut samples in DISCL has a\n probability of
```

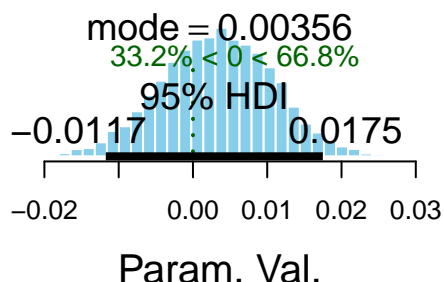
The difference of PRI impact  
between Interdich cut samples in DISCL has a  
probability of 50.2 %



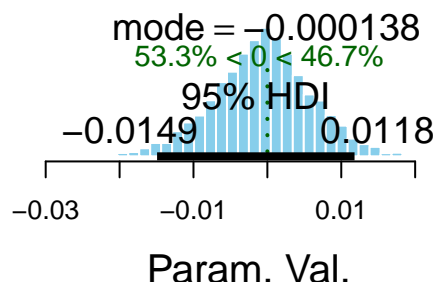
$\beta_2$



$\beta_1$

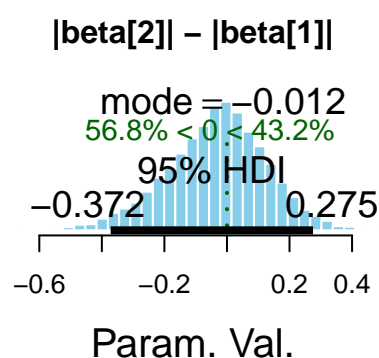
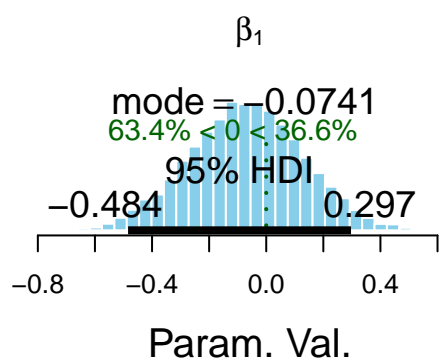
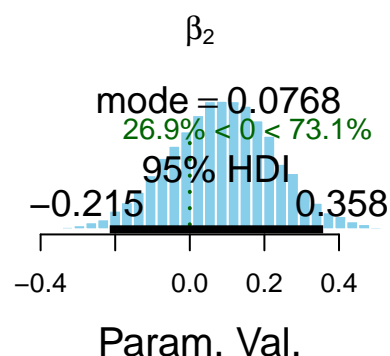
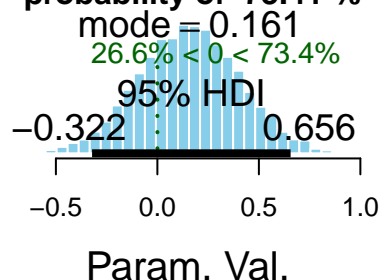


$|\text{beta}[2]| - |\text{beta}[1]|$



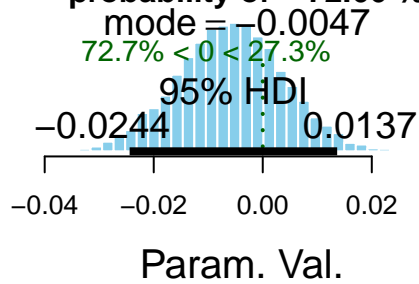
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= INIT cutted by Interdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2038
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4663.313 5023.012 4690.645 4748.881 4663.313 5023.012 5027.683 4463.081
## betaSIZE
## 4173.918
## [1] "The difference of INIT impact \n between Interdich cut samples in DISCL has a\n probability o
```

The difference of INIT impact  
between Interdich cut samples in DISCL has a  
probability of 73.41 %

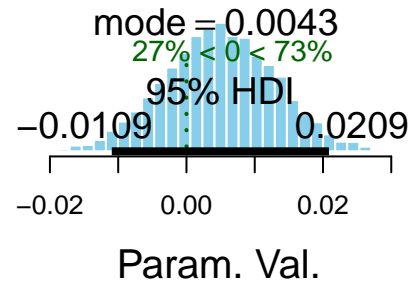


```
## [1] "-----"
## [1] " Analysis of Y= DISCL  explained by x= EPI cutted by Interdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2]  beta0[1]  beta0[2]  beta1[1]  beta1[2]  betaGFI  betaGPS
## 4809.956 3656.676 4924.051 5729.638 4809.956 3656.676 4580.466 4692.541
## betaSIZE
## 4206.217
## [1] "The difference of EPI  impact \n between Interdich cut samples in DISCL has a\n probability of
```

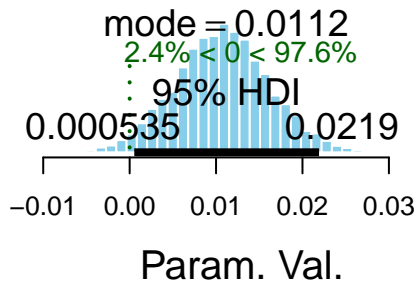
The difference of EPI impact  
between Interdich cut samples in DISCL has a  
probability of -72.66 %



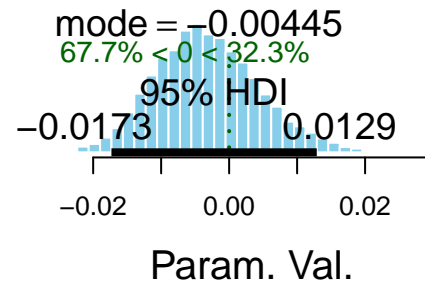
$\beta_2$



$\beta_1$

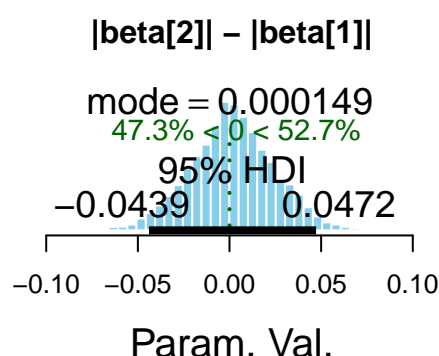
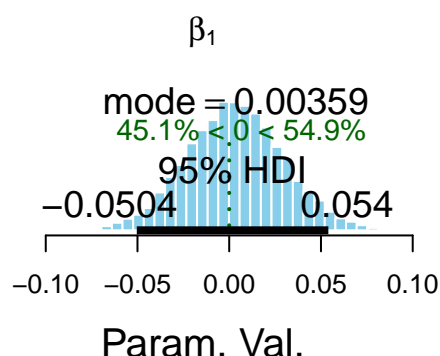
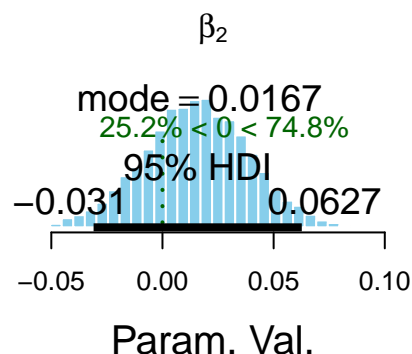
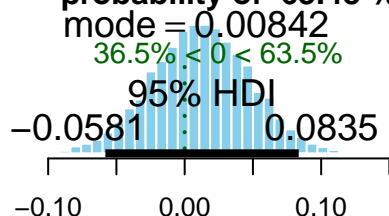


$|\text{beta}[2]| - |\text{beta}[1]|$



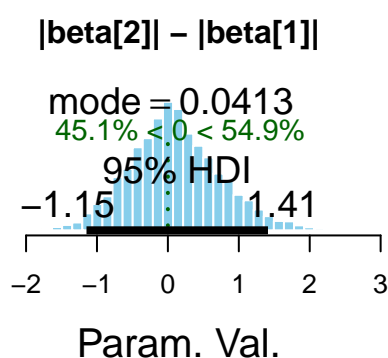
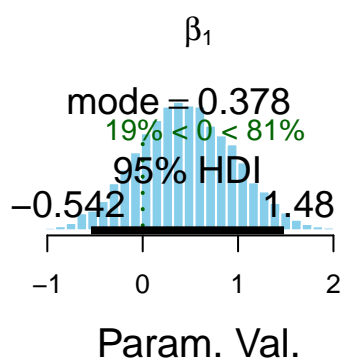
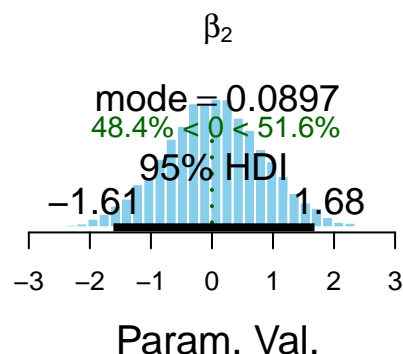
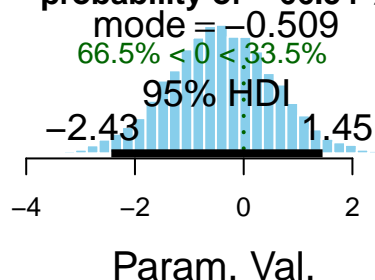
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= STEW cutted by Interdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5028.655 5509.059 5491.211 5569.811 5028.655 5509.059 4950.227 4419.661
## betaSIZE
## 4726.100
## [1] "The difference of STEW impact \n between Interdich cut samples in DISCL has a\n probability o
```

**The difference of STEW impact  
between Interdich cut samples in DISCL has a  
probability of 63.48 %**



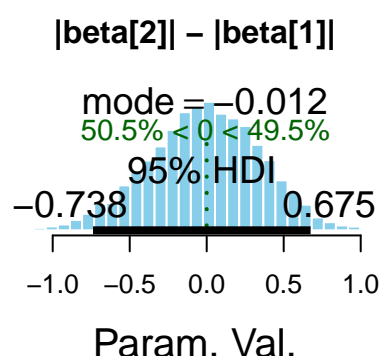
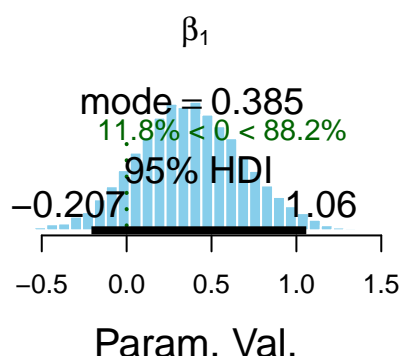
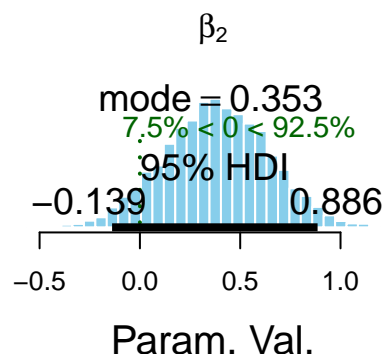
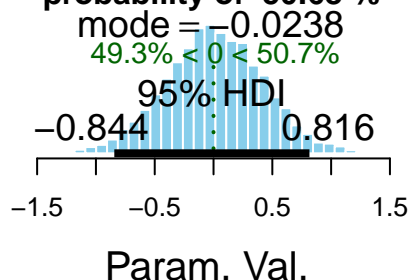
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= II_10 cutted by Interdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5641.493 5239.140 5293.652 5736.137 5641.493 5239.140 5361.941 4772.306
## betaSIZE
## 4119.596
## [1] "The difference of II_10 impact \n between Interdich cut samples in DISCL has a\n probability of 63.48 %"
```

The difference of  $\beta_2$  impact  
between Interdich cut samples in DISCL has a  
probability of -66.54 %



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= FOR_10 cutted by Interdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2029
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5114.520 4834.513 5195.375 5263.024 5114.520 4834.513 4942.176 4250.604
## betaSIZE
## 4487.661
## [1] "The difference of FOR_10 impact \n between Interdich cut samples in DISCL has a\n probability
```

The difference of FOR\_10 impact  
between Interdich cut samples in DISCL has a  
probability of 50.68 %



```
write.csv(BLbinomCut,
          file=paste(
            'INTER-binomCutResults',
            format(Sys.time(), "%d-%b-%H-%M-%S"),
            '.csv')
)
```

## DE-Separated Bayesian models

### Quantitative Y

```
X$DEdich <- factor(X$DE>median(X$DE))
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('EPS', 'ET3', 'ER3', 'ER1', 'ER')
cut.name <- 'DEdich'
BLquantiCut <- bayesList(X, x.names, y.names, cut.name, 'model1-cut.R')

## [1] "
## [1] " Analysis of Y= EPS explained by x= PRI cutted by DEdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
```

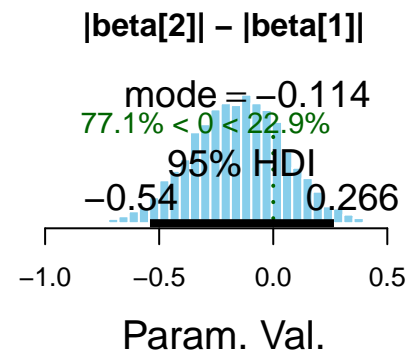
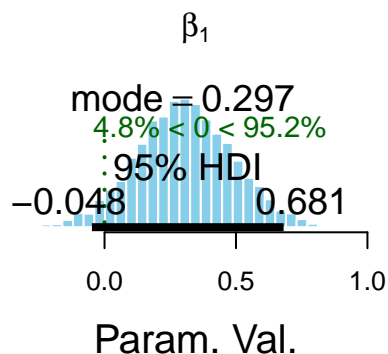
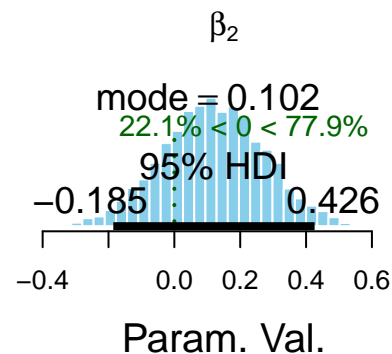
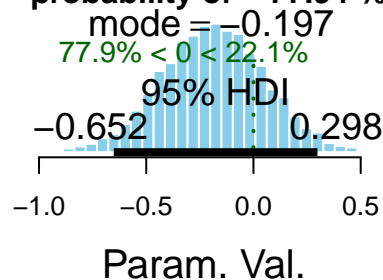


```

## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8757.876 8493.828 9198.206 8877.221 8757.876 8493.828 8195.648 8615.491
## betaSIZE
## 6740.517
## [1] "The difference of PRI impact \n between DEdich cut samples in EPS has a\n probability of -77
## [1] "
## [1] " Analysis of Y= EPS explained by x= INIT cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of PRI impact  
between DEdich cut samples in EPS has a  
probability of -77.94 %**



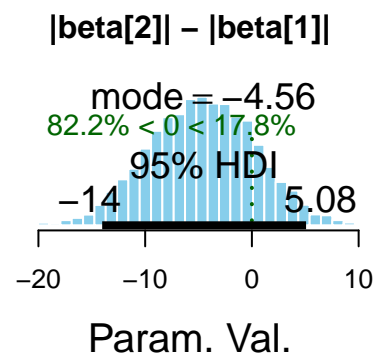
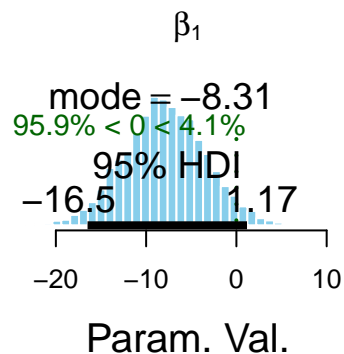
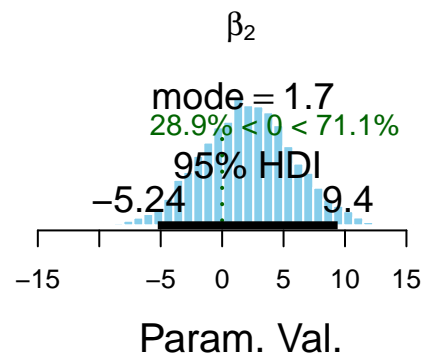
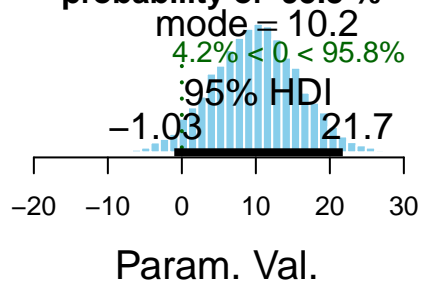
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing

```

```
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7304.854 8283.974 7579.637 7226.179 7304.854 8283.974 8217.548 6918.183
## betaSIZE
## 6781.647
## [1] "The difference of INIT impact \n between DEdich cut samples in EPS has a\n probability of 95
## [1] "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of INIT impact  
between DEdich cut samples in EPS has a  
probability of 95.8 %**



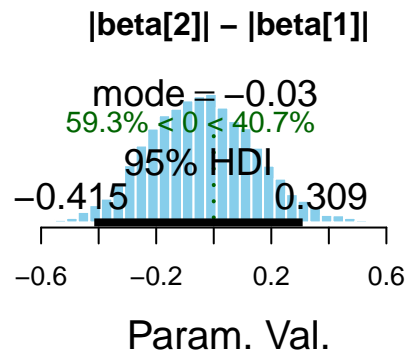
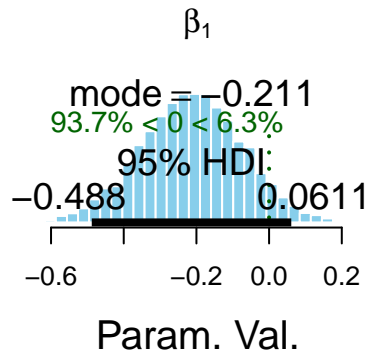
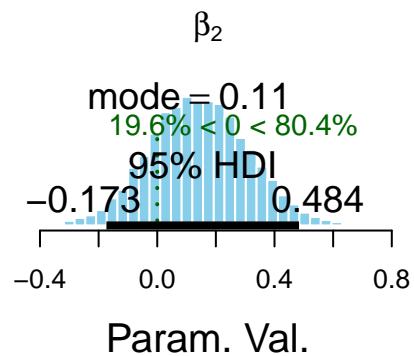
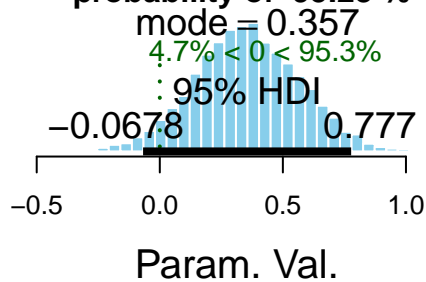
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
```

```

## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6879.105 6702.780 10210.639 9114.043 6879.105 6702.780 6866.518 6503.733
## betaSIZE
## 6394.278
## [1] "The difference of EPI impact \n between DEdich cut samples in EPS has a\n probability of 95.28 %
## [1] "
## [1] " Analysis of Y= EPS explained by x= STEW cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of EPI impact  
between DEdich cut samples in EPS has a  
probability of 95.28 %**



```

## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph

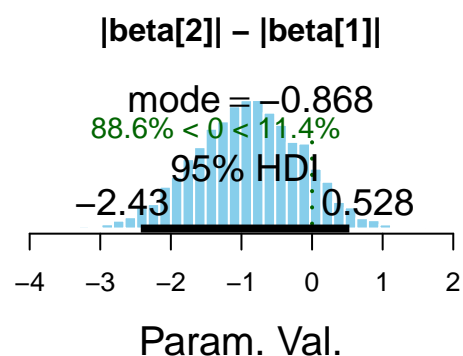
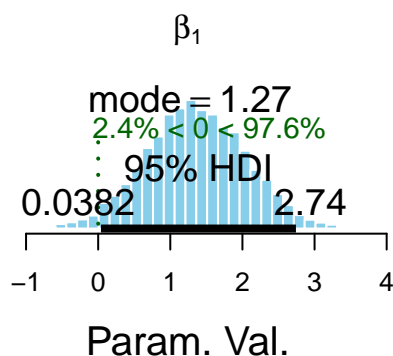
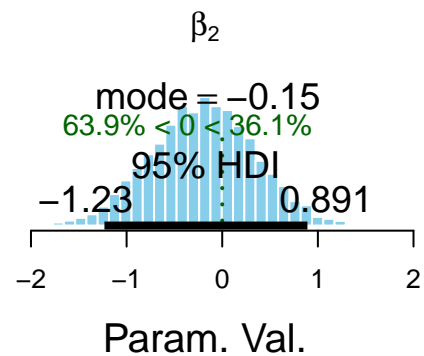
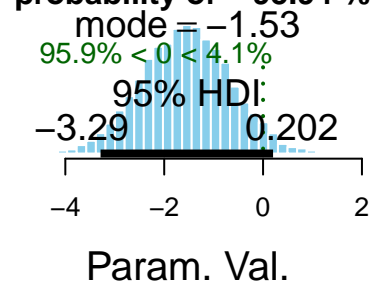
```

```

## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7698.345 8927.531 9000.000 8549.090 7698.345 8927.531 7985.447 6859.986
## betaSIZE
## 6823.250
## [1] "The difference of STEW impact \n between DEdich cut samples in EPS has a\n probability of -9
## [1] "
## [1] " Analysis of Y= EPS explained by x= II_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of STEW impact  
between DEdich cut samples in EPS has a  
probability of -95.94 %**



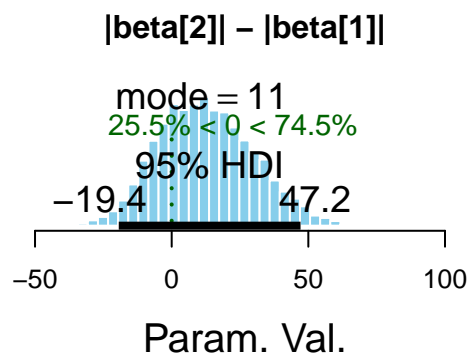
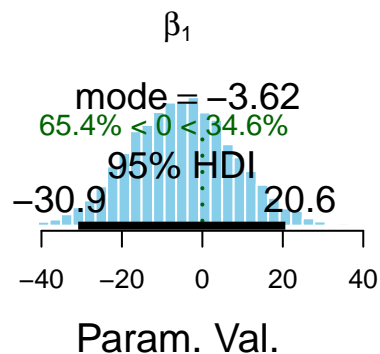
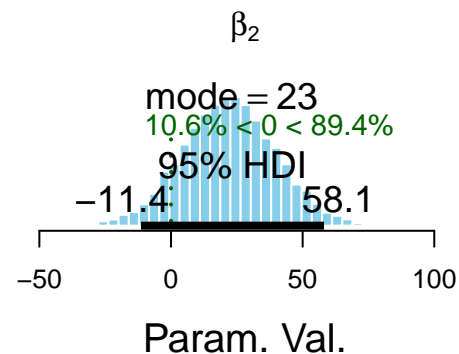
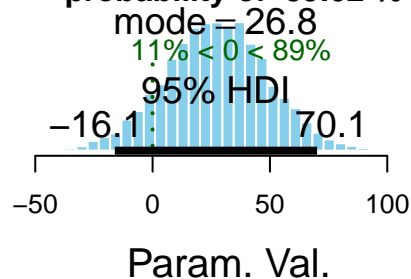
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables

```

```
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8631.328 7936.506 9406.095 8124.709 8631.328 7936.506 8526.384 6871.798
## betaSIZE
## 6741.771
## [1] "The difference of II_10 impact \n between DEdich cut samples in EPS has a\n probability of 89.02 %"
## [1] "
## [1] " Analysis of Y= EPS explained by x= FOR_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

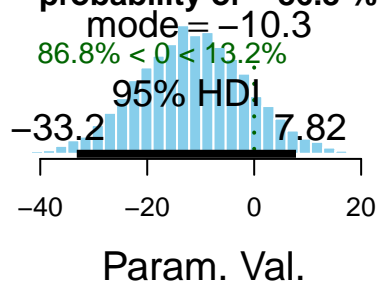
**The difference of II\_10 impact  
between DEdich cut samples in EPS has a  
probability of 89.02 %**



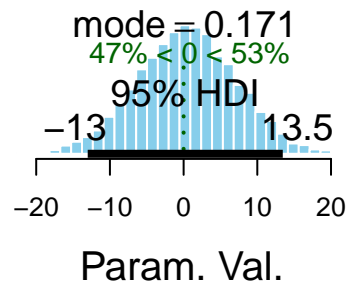
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
```

```
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8015.620 7575.831 8683.412 8509.196 8015.620 7575.831 7651.935 8012.040
## betaSIZE
## 6072.195
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

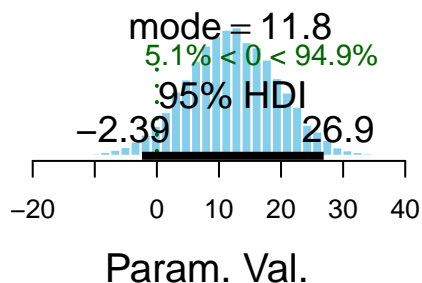
**The difference of FOR\_10 impact  
between DEdich cut samples in EPS has a  
probability of -86.8 %**



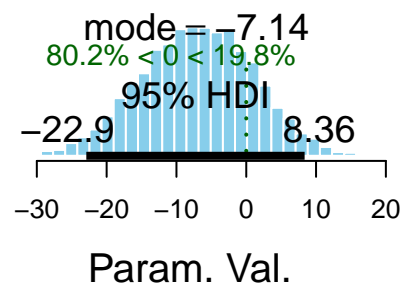
$\beta_2$



$\beta_1$



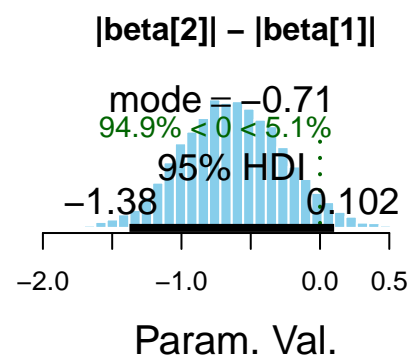
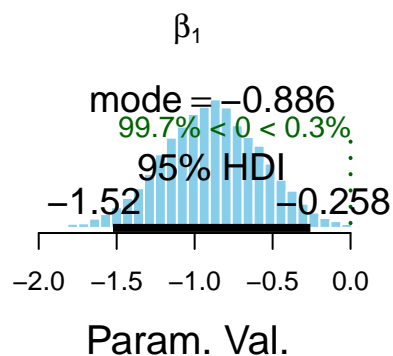
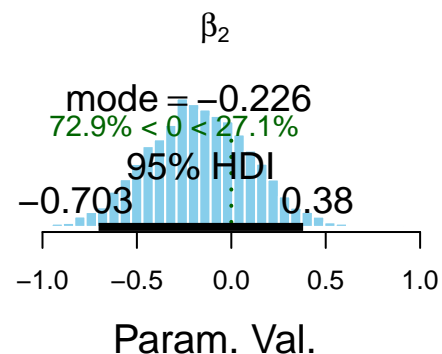
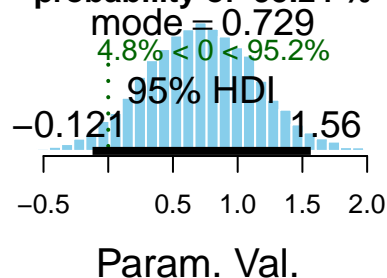
$|\beta_2| - |\beta_1|$



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
```

```
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8513.158 8624.990 9207.580 8788.502 8513.158 8624.990 8325.882 7184.620
## betaSIZE
## 7147.759
## [1] "The difference of PRI impact \n between DEdich cut samples in ET3 has a\n probability of 95.24 %
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

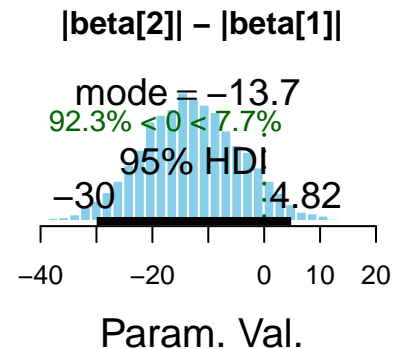
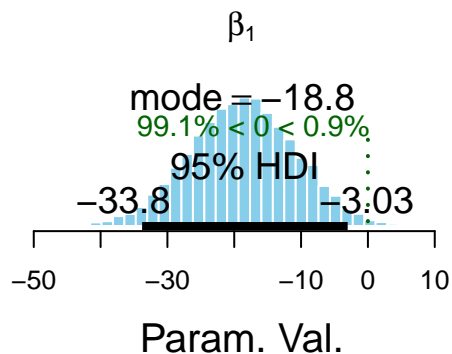
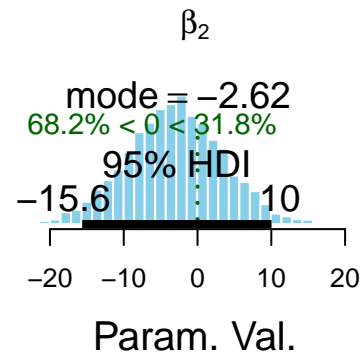
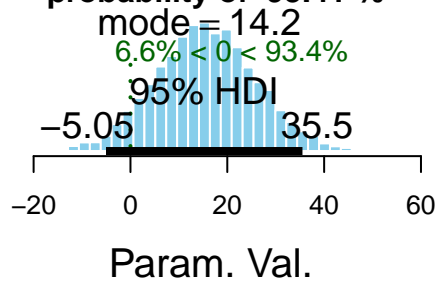
**The difference of PRI impact  
between DEdich cut samples in ET3 has a  
probability of 95.24 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
```

```
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6885.186 7632.507 7706.243 7416.724 6885.186 7632.507 7905.542 6968.772
## betaSIZE
## 6293.636
## [1] "The difference of INIT impact \n between DEdich cut samples in ET3 has a\n probability of 93
## [1] "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of INIT impact  
between DEdich cut samples in ET3 has a  
probability of 93.41 %**

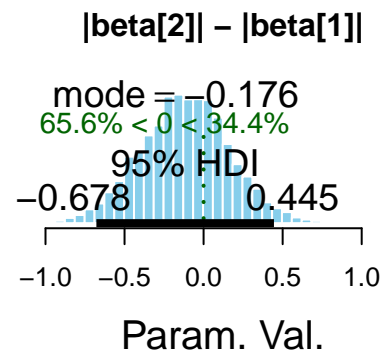
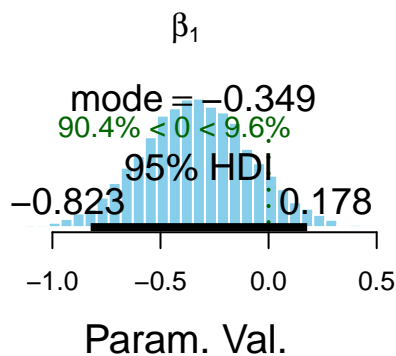
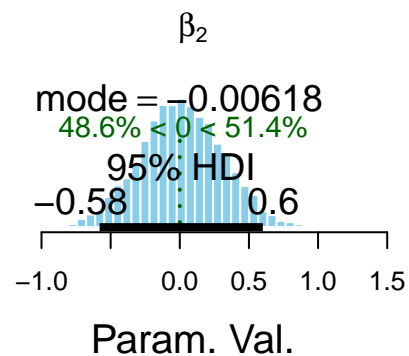
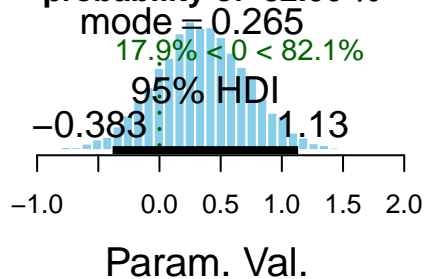


```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
```



```
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7379.459 5907.465 8685.396 7908.062 7379.459 5907.465 6719.581 7588.355
## betaSIZE
## 6277.602
## [1] "The difference of EPI impact \n between DEdich cut samples in ET3 has a\n probability of 82.06 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ET3 explained by x= STEW cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

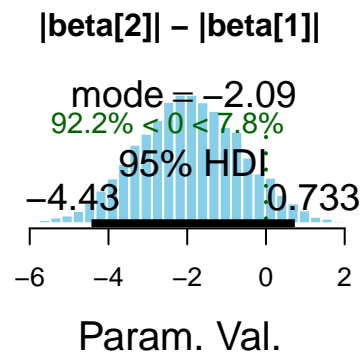
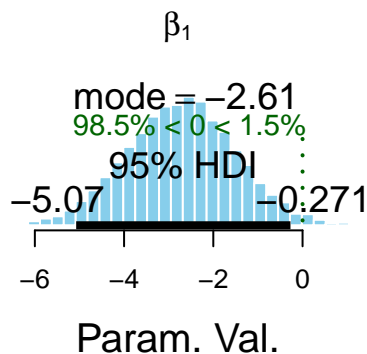
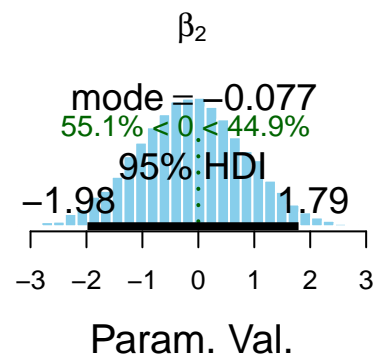
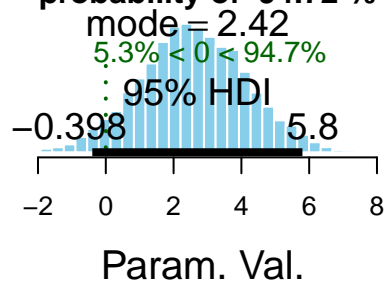
**The difference of EPI impact  
between DEdich cut samples in ET3 has a  
probability of 82.06 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
```

```
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7957.988 9000.000 8996.186 8952.072 7957.988 9000.000 7997.621 7774.785
## betaSIZE
## 6717.948
## [1] "The difference of STEW impact \n between DEdich cut samples in ET3 has a\n probability of 94
## [1] "
## [1] " Analysis of Y= ET3 explained by x= II_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

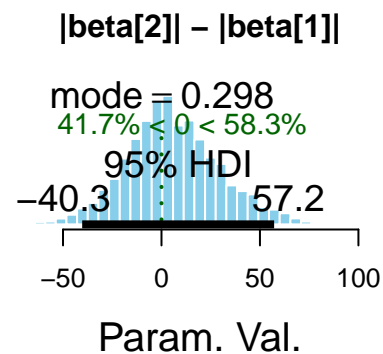
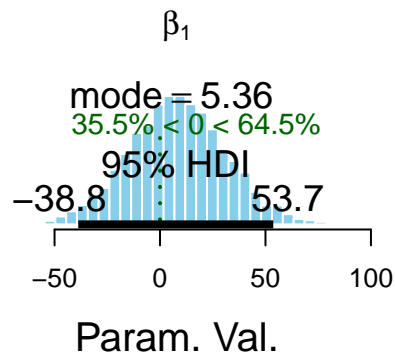
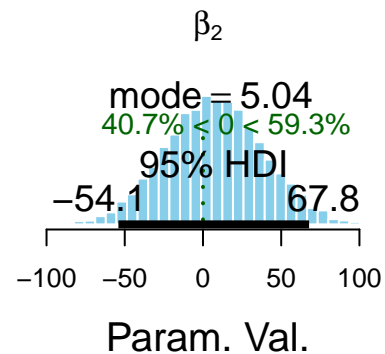
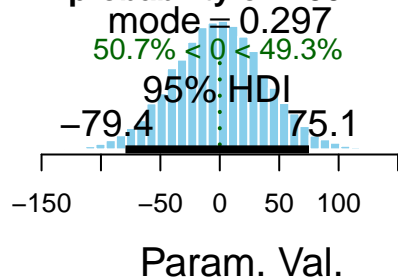
**The difference of STEW impact  
between DEdich cut samples in ET3 has a  
probability of 94.72 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
```

```
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8430.470 8220.495 9000.000 8453.297 8430.470 8220.495 9427.264 7472.868
## betaSIZE
## 7278.762
## [1] "The difference of II_10 impact \n between DEdich cut samples in ET3 has a\n probability of -"
## [1] "
## [1] " Analysis of Y= ET3 explained by x= FOR_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

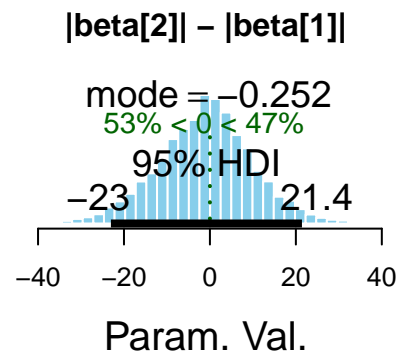
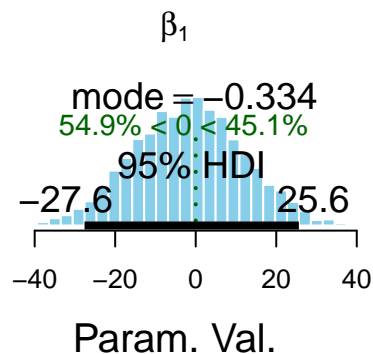
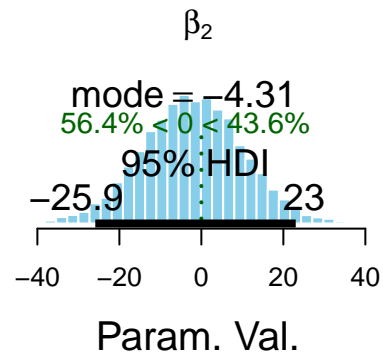
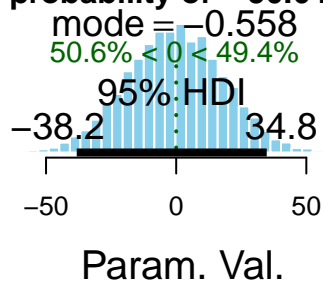
**The difference of II\_10 impact  
between DEdich cut samples in ET3 has a  
probability of -50.72 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2043
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6919.892 7735.045 9063.335 8656.890 6919.892 7735.045 7059.985 6975.334
## betaSIZE
## 6409.183
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= PRI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

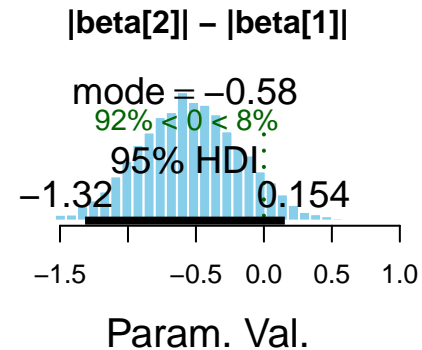
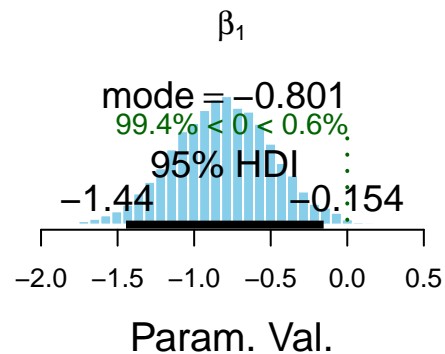
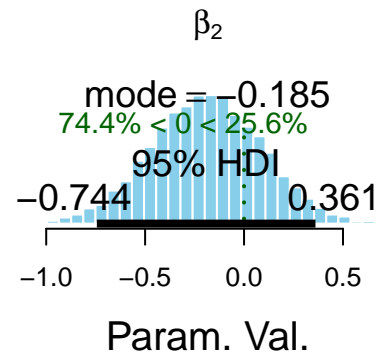
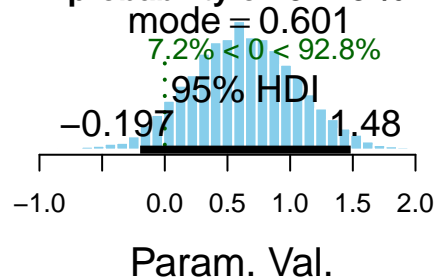
**The difference of FOR\_10 impact  
between DEdich cut samples in ET3 has a  
probability of -50.64 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
```

```
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8309.847 9484.263 8463.552 8357.328 8309.847 9484.263 8623.800 6947.636
## betaSIZE
## 7512.418
## [1] "The difference of PRI impact \n between DEdich cut samples in ER3 has a\n probability of 92.78 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= INIT cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

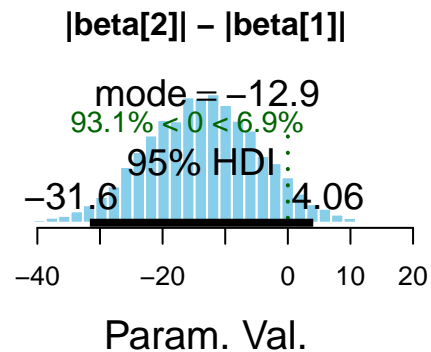
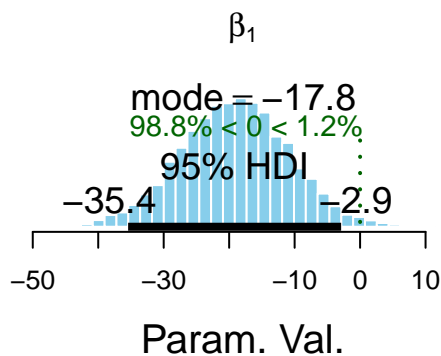
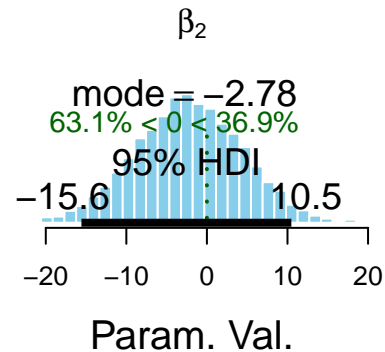
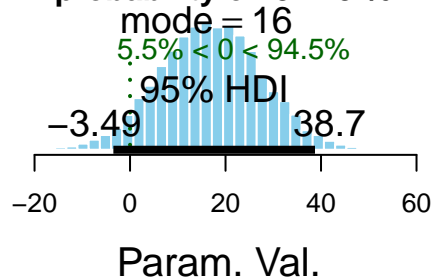
**The difference of PRI impact  
between DEdich cut samples in ER3 has a  
probability of 92.78 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
```

```
## 6482.540 8164.488 7412.179 7149.633 6482.540 8164.488 8567.238 6760.097
## betaSIZE
## 6597.715
## [1] "The difference of INIT impact \n between DEdich cut samples in ER3 has a\n probability of 94
## [1] "
## [1] " Analysis of Y= ER3 explained by x= EPI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

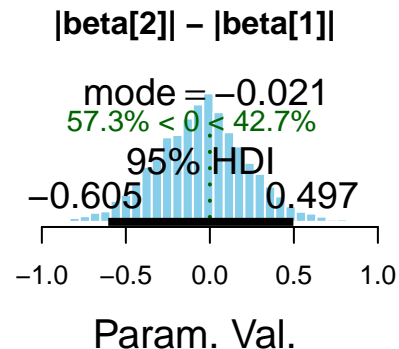
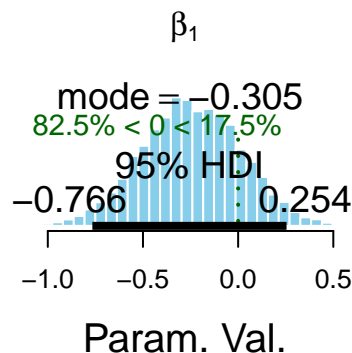
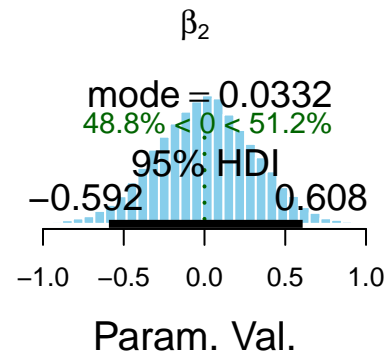
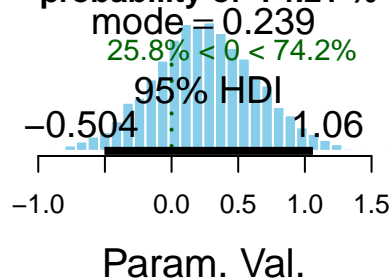
**The difference of INIT impact  
between DEdich cut samples in ER3 has a  
probability of 94.49 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7201.276 6467.897 7938.697 7232.003 7201.276 6467.897 6774.374 7400.038
```

```
## betaSIZE
## 6208.611
## [1] "The difference of EPI impact \n between DEdich cut samples in ER3 has a\n probability of 74.21 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= STEW cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

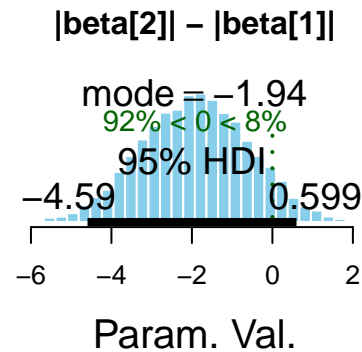
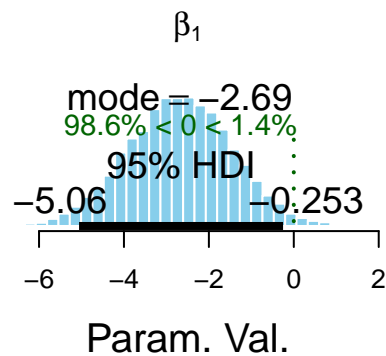
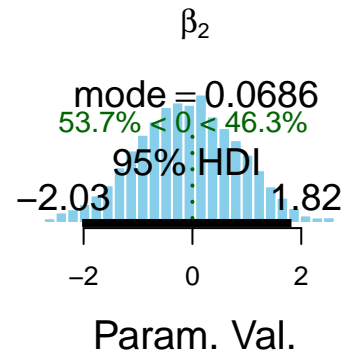
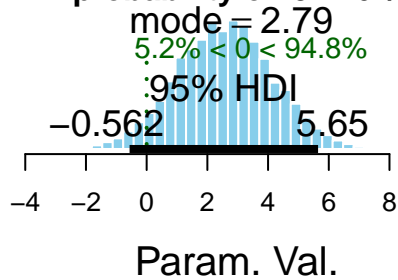
**The difference of EPI impact  
between DEdich cut samples in ER3 has a  
probability of 74.21 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8062.517 9000.000 8602.755 8474.431 8062.517 9000.000 8527.275 7085.642
## betaSIZE
```

```
## 6551.219
## [1] "The difference of STEW impact \n between DEdich cut samples in ER3 has a\n probability of 94
## [1] "
## [1] " Analysis of Y= ER3 explained by x= II_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between DEdich cut samples in ER3 has a  
probability of 94.76 %**

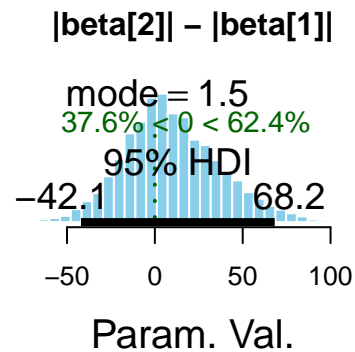
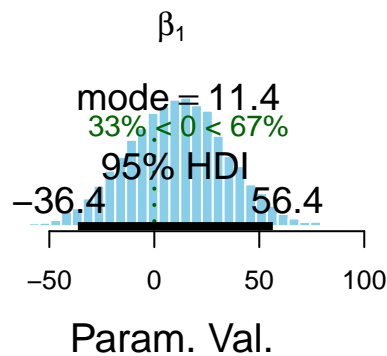
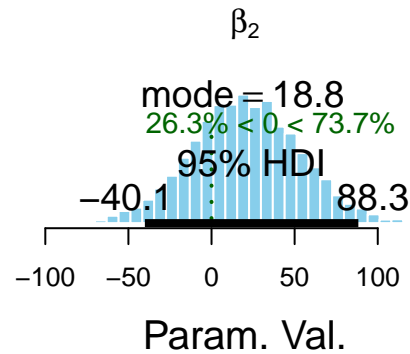
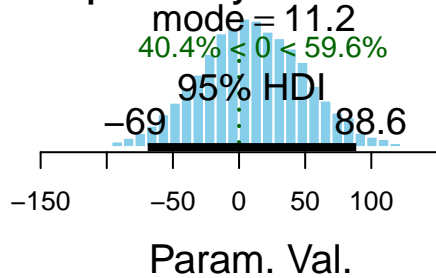


```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8212.398 8698.366 9227.842 8518.004 8212.398 8698.366 8269.134 6953.866
## betaSIZE
## 6519.508
```



```
## [1] "The difference of II_10 impact \n between DEdich cut samples in ER3 has a\n probability of 5
## [1] "
## [1] " Analysis of Y= ER3 explained by x= FOR_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of II\_10 impact  
between DEdich cut samples in ER3 has a  
probability of 59.61 %**

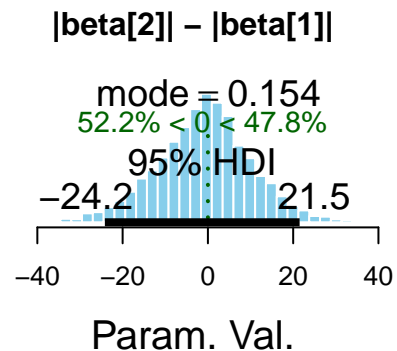
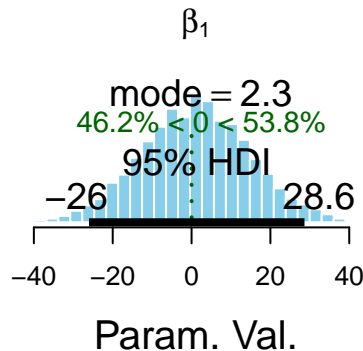
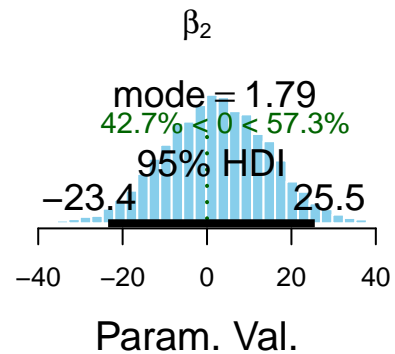
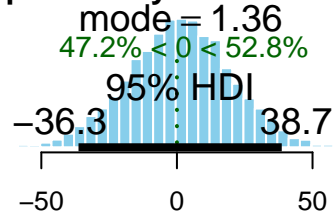


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7653.718 7534.497 8595.169 8556.016 7653.718 7534.497 7300.875 7405.337
## betaSIZE
## 7027.751
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in ER3 has a\n probability of 5"
```

```
## [1] "
## [1] " Analysis of Y= ER1  explained by x= PRI  cutted by DEdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of FOR<sub>10</sub> impact  
between DEdich cut samples in ER3 has a  
probability of 52.76 %**

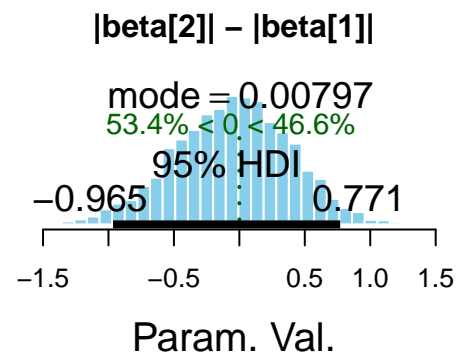
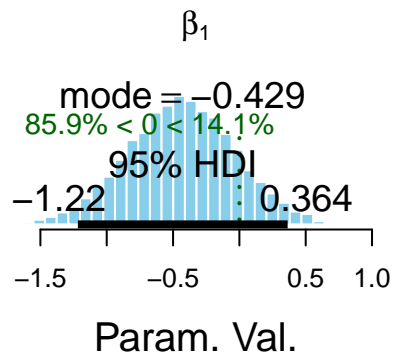
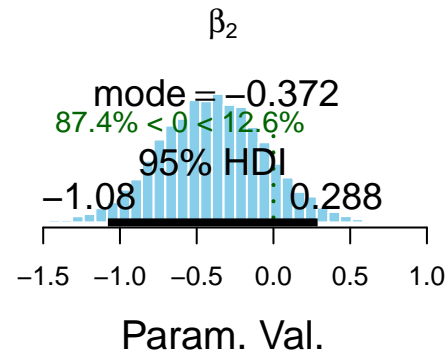
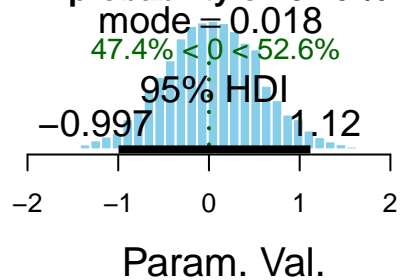


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9498.198 8779.952 9158.280 8927.197 9498.198 8779.952 8594.547 6895.098
## betaSIZE
## 6805.050
## [1] "The difference of PRI  impact \n between DEdich cut samples in ER1 has a\n probability of 52.
## [1] "
## [1] "
## [1] "
```

```
## [1] " Analysis of Y= ER1  explained by x= INIT cutted by DEdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of PRI impact  
between DEdich cut samples in ER1 has a  
probability of 52.6 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
```

```
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7389.089 8068.079 8240.143 8007.511 7389.089 8068.079 8366.647 6859.423
## betaSIZE
## 7868.405
```

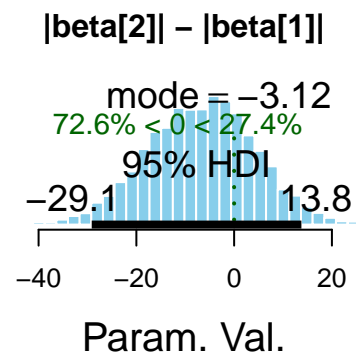
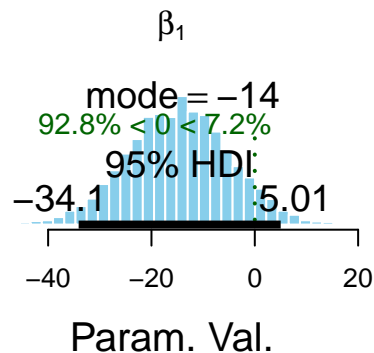
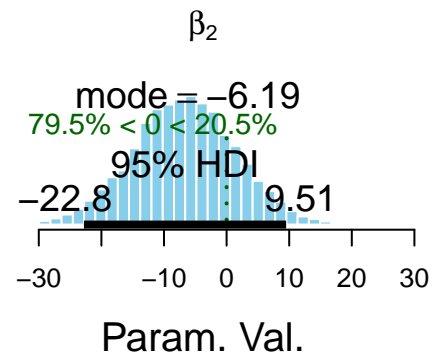
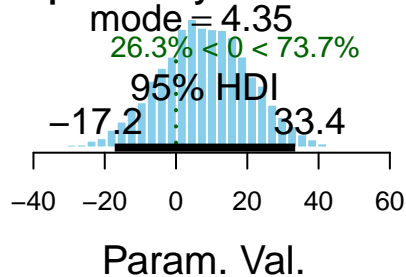
```
## [1] "The difference of INIT impact \n between DEdich cut samples in ER1 has a\n probability of 73
```

```
## [1] " ----- "
```

```
## [1] " Analysis of Y= ER1  explained by x= EPI cutted by DEdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

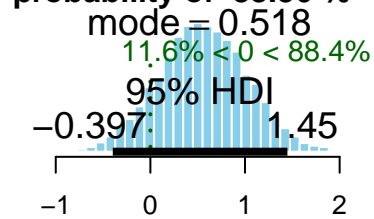
**The difference of INIT impact  
between DEdich cut samples in ER1 has a  
probability of 73.7 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6880.532 6264.773 7570.727 6961.278 6880.532 6264.773 7091.259 7743.685
## betaSIZE
## 6170.987
## [1] "The difference of EPI impact \n between DEdich cut samples in ER1 has a\n probability of 88.
## [1] "
## [1] " Analysis of Y= ER1 explained by x= STEW cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
```

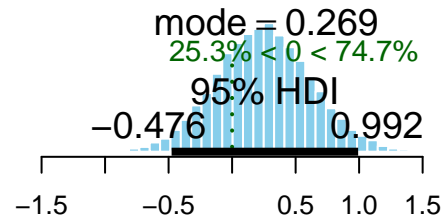
```
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between DEdich cut samples in ER1 has a  
probability of 88.36 %**



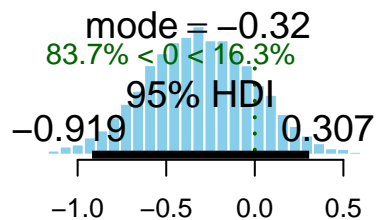
Param. Val.

$\beta_2$



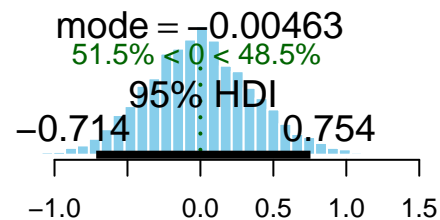
Param. Val.

$\beta_1$



Param. Val.

$|\beta_2| - |\beta_1|$



Param. Val.

```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
```

```
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7710.347 8779.463 9306.873 8899.466 7710.347 8779.463 8035.645 6704.369
## betaSIZE
## 6793.268
```

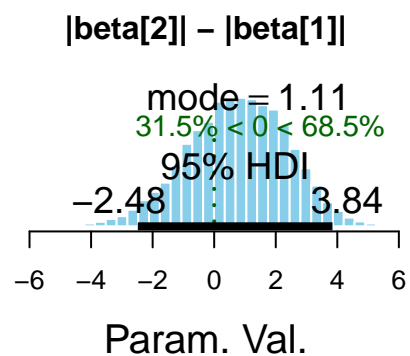
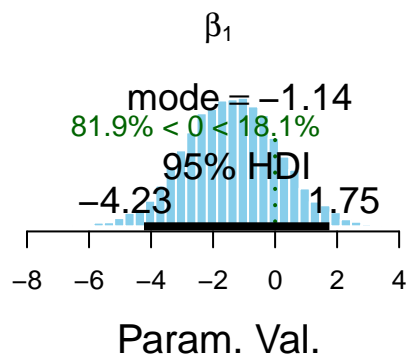
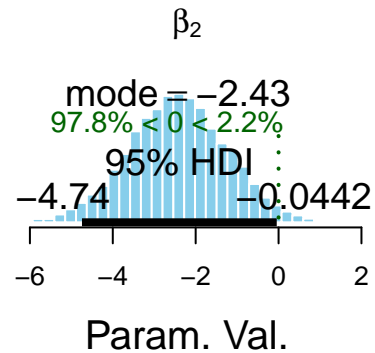
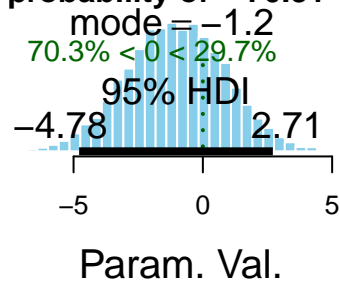
```
## [1] "The difference of STEW impact \n between DEdich cut samples in ER1 has a\n probability of -7
```

```
## [1] " ----- "
```

```
## [1] " Analysis of Y= ER1 explained by x= II_10 cutted by DEdich"
```

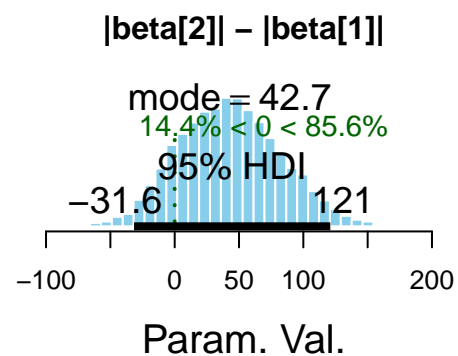
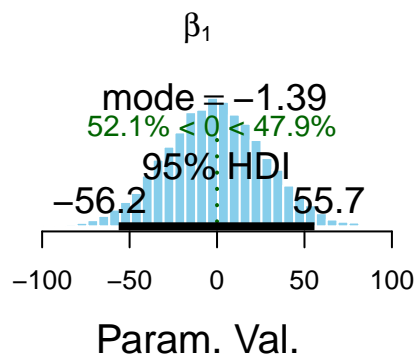
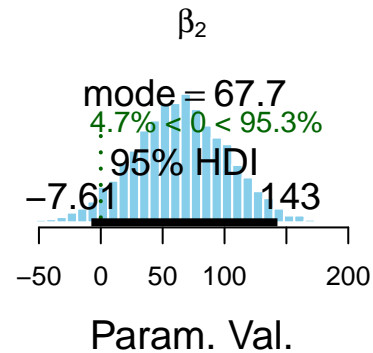
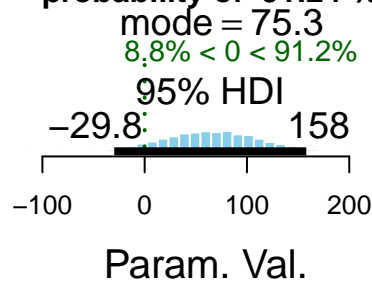
```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between DEdich cut samples in ER1 has a  
probability of -70.31 %**



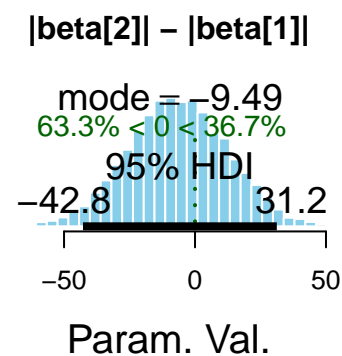
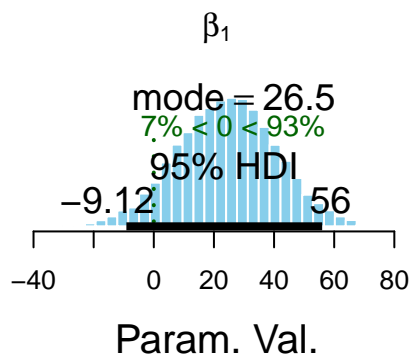
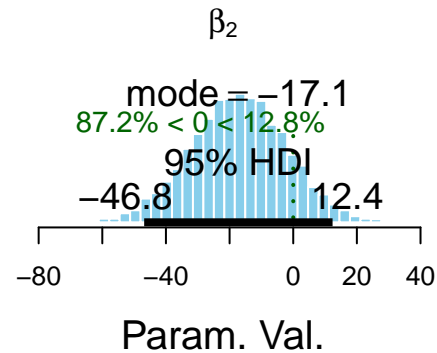
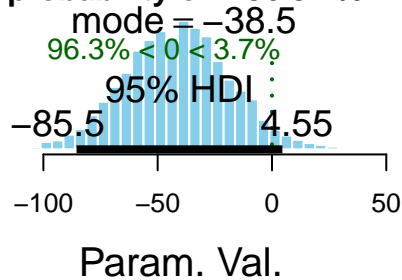
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8735.078 8516.382 9115.333 7973.991 8735.078 8516.382 8387.564 7050.999
## betaSIZE
## 6968.678
## [1] "The difference of II_10 impact \n between DEdich cut samples in ER1 has a\n probability of 9
## [1] "
## [1] " Analysis of Y= ER1 explained by x= FOR_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\text{II}_{10}$  impact  
between DEdich cut samples in ER1 has a  
probability of 91.24 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6359.063 7843.589 9000.000 9000.000 6359.063 7843.589 7651.222 7385.679
## betaSIZE
## 6564.718
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in ER1 has a\n probability of .
## [1] "
## [1] " Analysis of Y= ER explained by x= PRI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

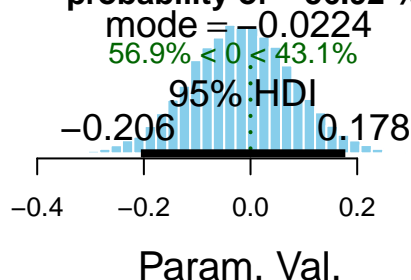
The difference of FOR<sub>10</sub> impact  
between DEdich cut samples in ER1 has a  
probability of -96.34 %



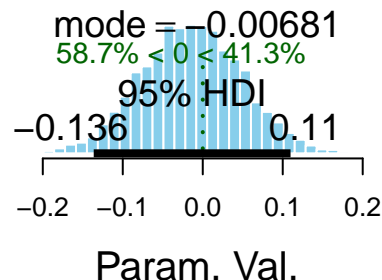
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8267.452 8531.837 9000.000 9000.000 8267.452 8531.837 8659.722 7459.799
## betaSIZE
## 6877.041
## [1] "The difference of PRI impact \n between DEdich cut samples in ER has a\n probability of -56.
## [1] "
## [1] " Analysis of Y= ER explained by x= INIT cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```



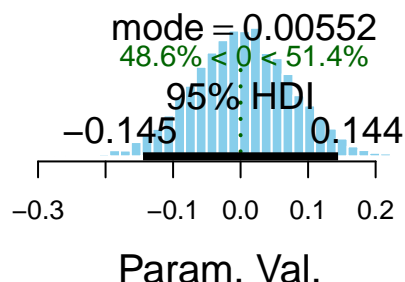
**The difference of PRI impact  
between DEdich cut samples in ER has a  
probability of -56.92 %**



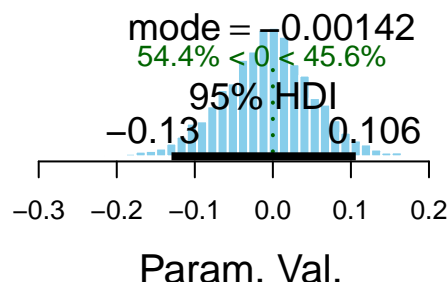
$\beta_2$



$\beta_1$

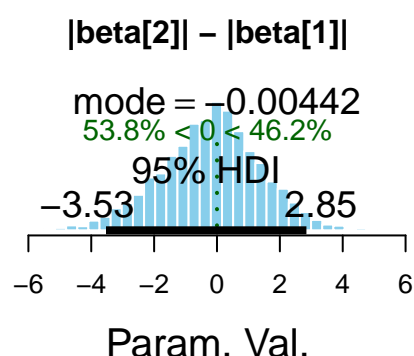
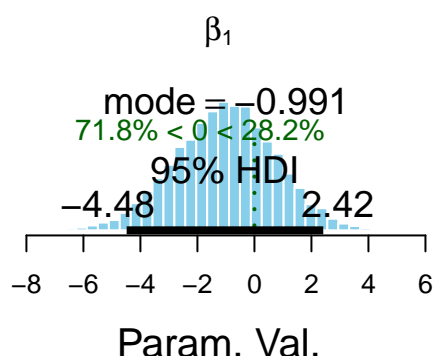
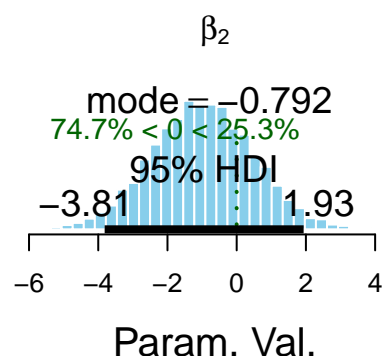
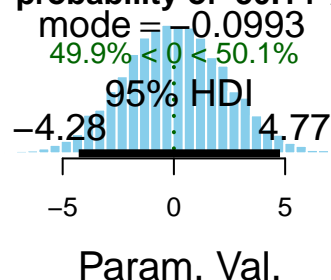


$|\text{beta}[2]| - |\text{beta}[1]|$



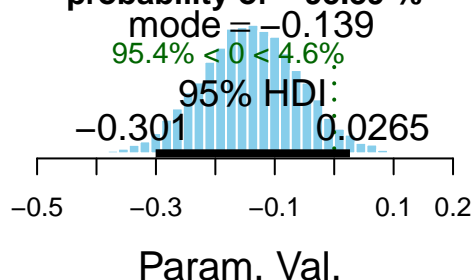
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7128.388 7929.898 8192.268 7746.370 7128.388 7929.898 8004.832 6403.738
## betaSIZE
## 6726.192
## [1] "The difference of INIT impact \n between DEdich cut samples in ER has a\n probability of 50.
## [1] "
## [1] " Analysis of Y= ER explained by x= EPI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of INIT impact  
between DEdich cut samples in ER has a  
probability of 50.14 %

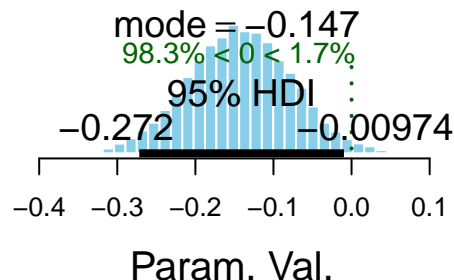


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7430.927 6439.994 8402.727 8157.616 7430.927 6439.994 6763.045 7255.403
## betaSIZE
## 6418.475
## [1] "The difference of EPI impact \n between DEdich cut samples in ER has a\n probability of -95.
## [1] "
## [1] " Analysis of Y= ER explained by x= STEW cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

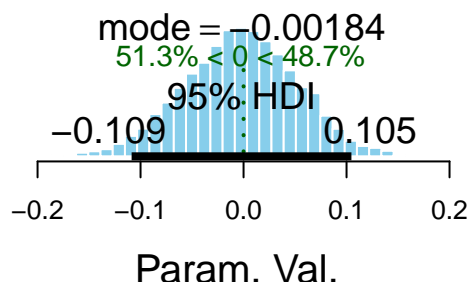
**The difference of EPI impact  
between DEdich cut samples in ER has a  
probability of -95.39 %**



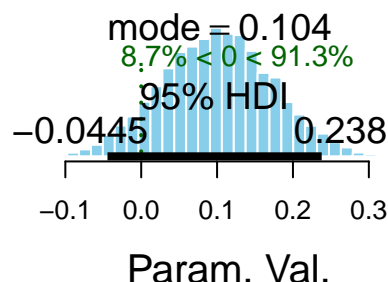
$\beta_2$



$\beta_1$

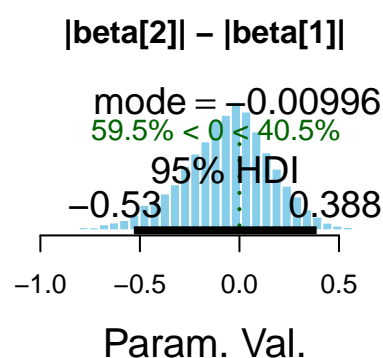
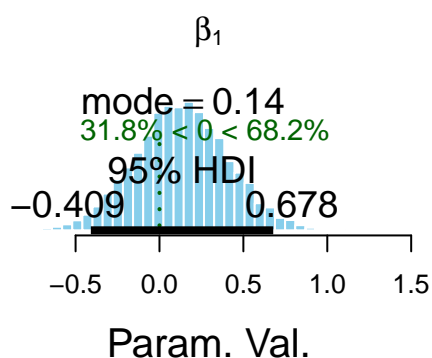
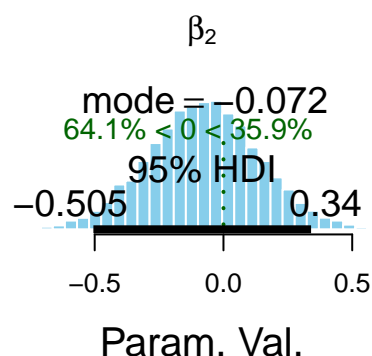
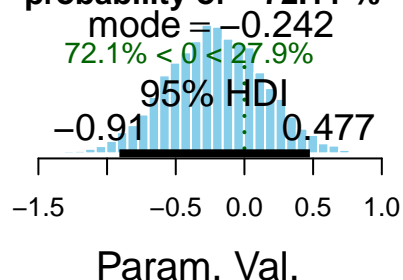


$|\text{beta}[2]| - |\text{beta}[1]|$



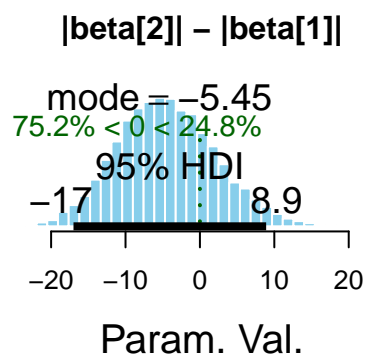
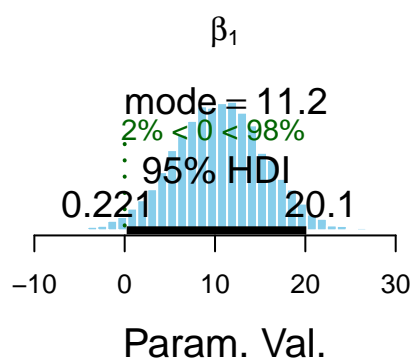
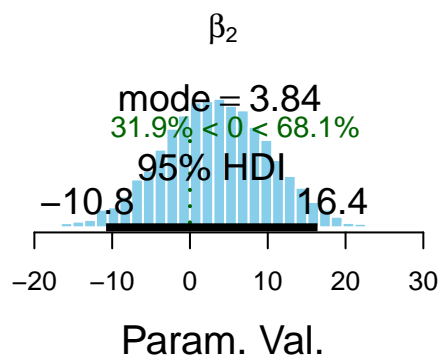
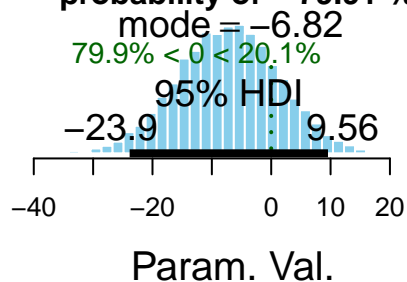
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8589.384 8791.083 9145.241 8387.728 8589.384 8791.083 7677.711 6325.085
## betaSIZE
## 6746.742
## [1] "The difference of STEW impact \n between DEdich cut samples in ER has a\n probability of -72
## [1] "
## [1] " Analysis of Y= ER explained by x= II_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between DEdich cut samples in ER has a  
probability of -72.11 %**



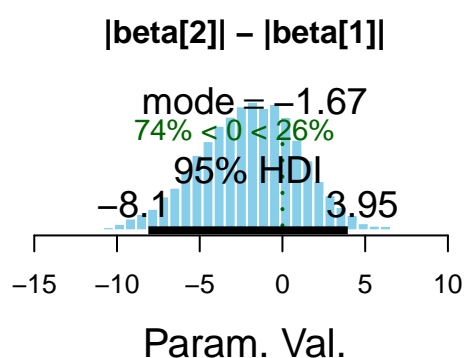
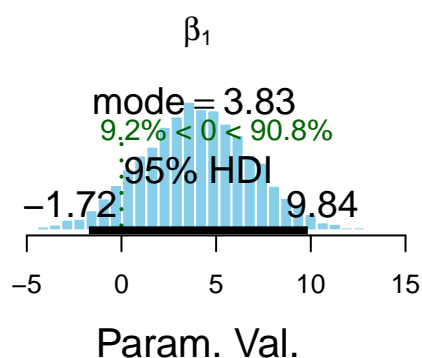
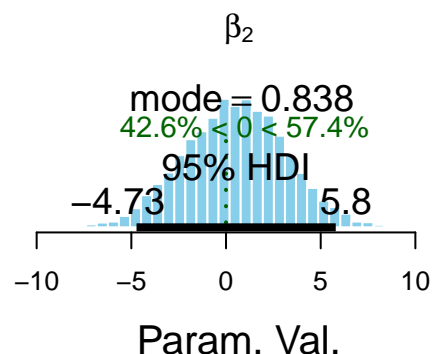
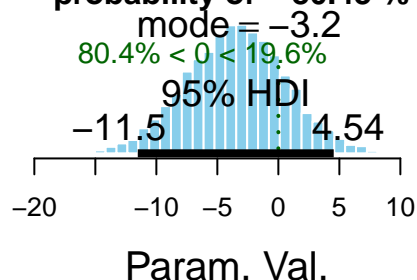
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8252.739 8455.715 10492.311 8594.411 8252.739 8455.715 8326.526 7402.783
## betaSIZE
## 6997.143
## [1] "The difference of II_10 impact \n between DEdich cut samples in ER has a\n probability of -72.11 %
## [1] "
## [1] " Analysis of Y= ER explained by x= FOR_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\Pi_{10}$  impact  
between DEdich cut samples in ER has a  
probability of -79.91 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7155.467 7294.703 9132.172 9240.078 7155.467 7294.703 8134.007 6853.882
## betaSIZE
## 6336.175
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in ER has a\n probability of -"
```

The difference of FOR<sub>10</sub> impact  
between DEdich cut samples in ER has a  
probability of -80.43 %



```
write.csv(BLquantiCut,
  file=paste(
    'DE-quantiResults-cut',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

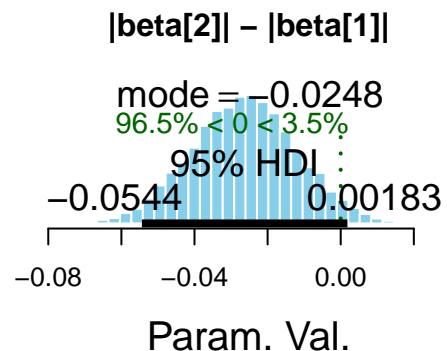
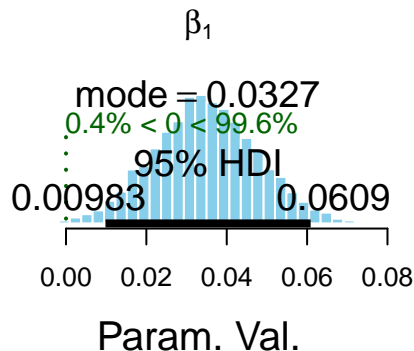
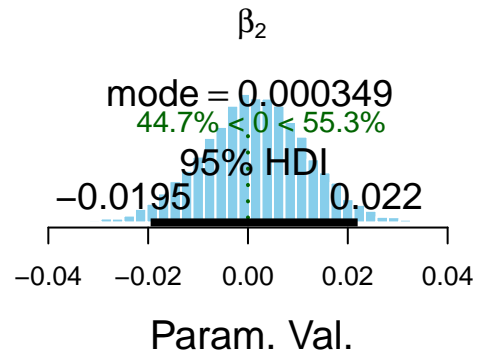
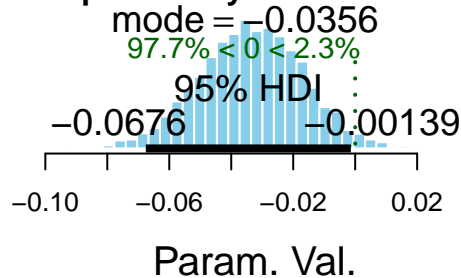
## Binomial Y

```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('CP', 'DISCL')
BLbinomCut <- bayesList(X, x.names, y.names, cut.name, 'model2-cut.R')
```

```
## [1] "
## [1] " Analysis of Y= CP explained by x= PRI cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
```

```
## Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5555.835 5119.663 5124.133 5442.765 5555.835 5119.663 4935.014 4577.265
## betaSIZE
## 4560.077
## [1] "The difference of PRI impact \n between DEdich cut samples in CP has a\n probability of -97.71 %"
```

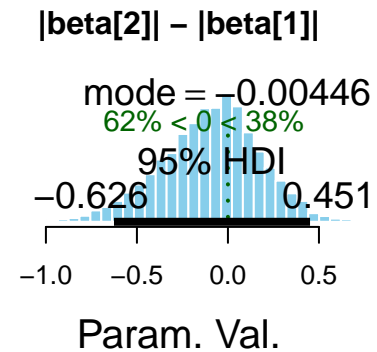
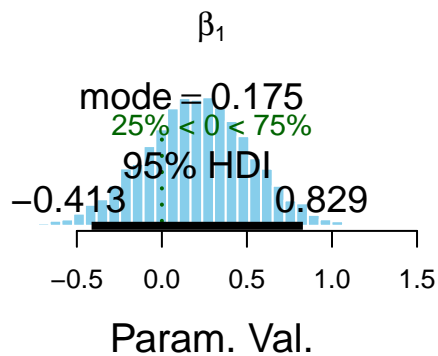
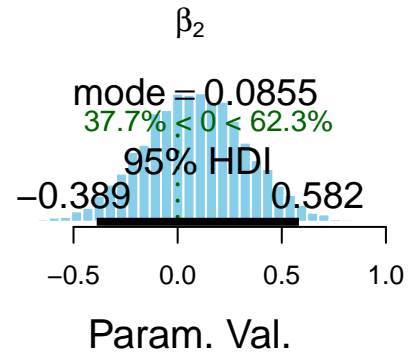
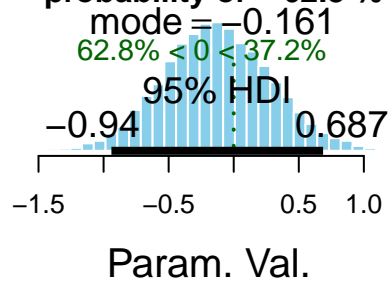
**The difference of PRI impact  
between DEdich cut samples in CP has a  
probability of -97.71 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= INIT cutted by DEdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2039
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4948.366 5008.594 5205.363 4947.967 4948.366 5008.594 5027.981 4483.954
## betaSIZE
## 4408.843
## [1] "The difference of INIT impact \n between DEdich cut samples in CP has a\n probability of -62.8 %"
```

**The difference of INIT impact  
between DEdich cut samples in CP has a  
probability of -62.8 %**

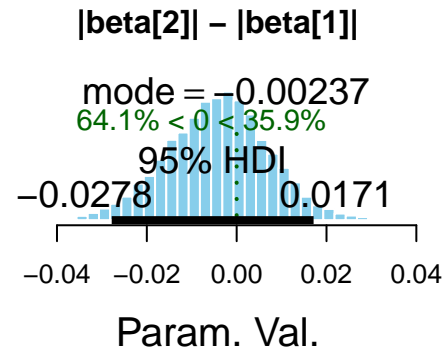
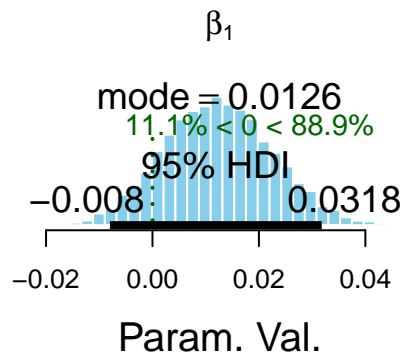
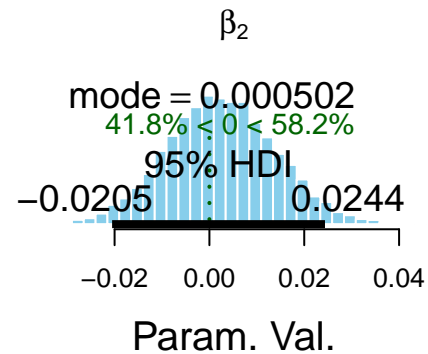
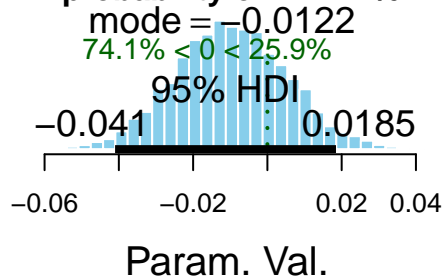


```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= EPI cutted by DEdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5130.903 4207.513 4746.108 5146.337 5130.903 4207.513 4727.274 4954.803
```



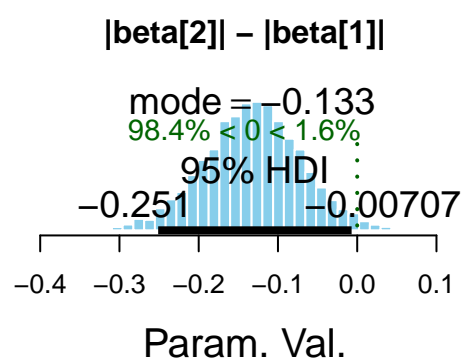
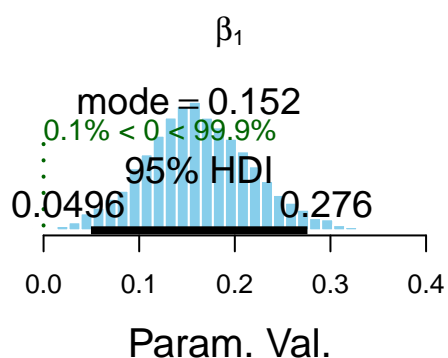
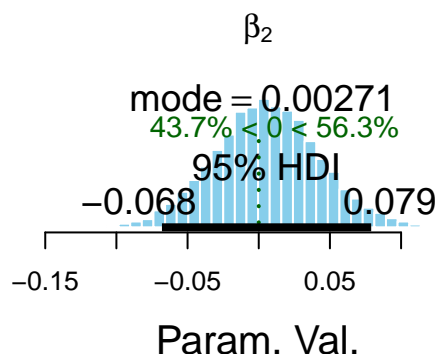
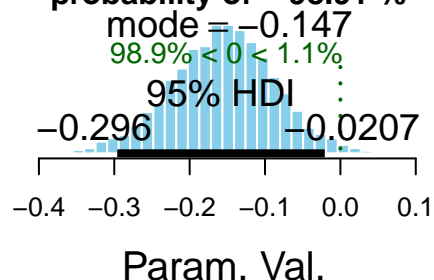
```
## betaSIZE
## 3946.170
## [1] "The difference of EPI impact \n between DEdich cut samples in CP has a\n probability of -74.
```

**The difference of EPI impact  
between DEdich cut samples in CP has a  
probability of -74.1 %**



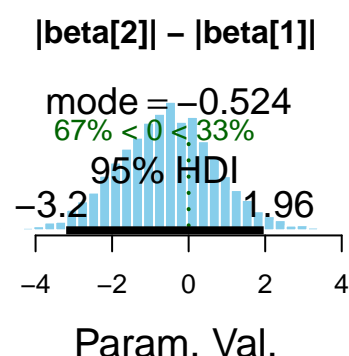
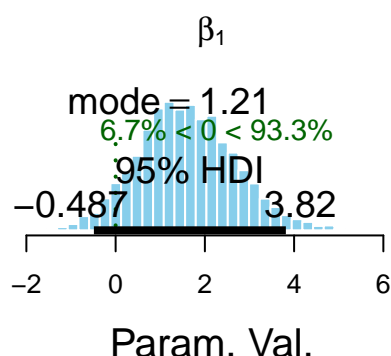
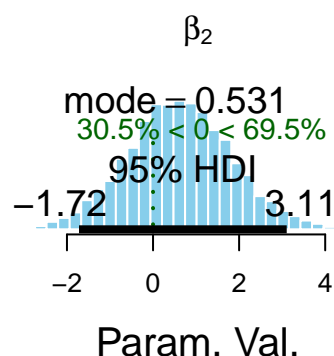
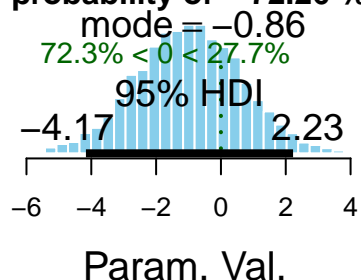
```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= STEW cutted by DEdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5346.390 5828.086 5507.379 5324.416 5346.390 5828.086 4947.459 4467.124
## betaSIZE
## 4498.666
## [1] "The difference of STEW impact \n between DEdich cut samples in CP has a\n probability of -98
```

**The difference of STEW impact  
between DEdich cut samples in CP has a  
probability of -98.91 %**



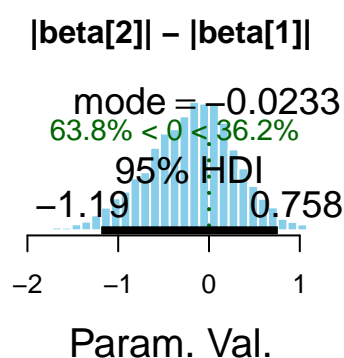
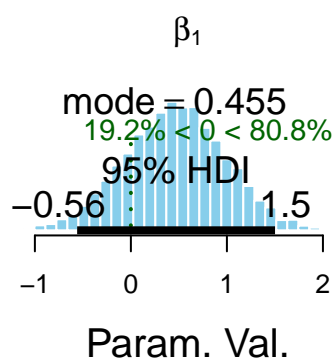
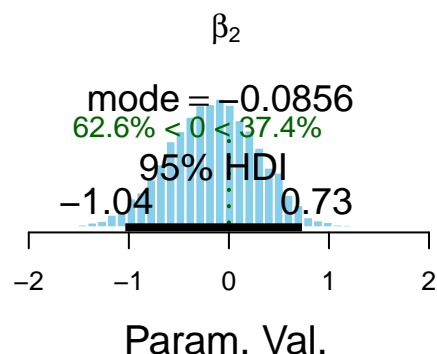
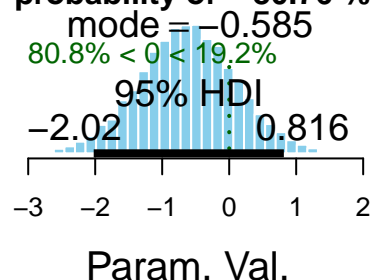
```
## [1] "
## [1] " Analysis of Y= CP explained by x= II_10 cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5421.322 5526.859 5598.730 6019.028 5421.322 5526.859 4981.288 4556.075
## betaSIZE
## 4481.603
## [1] "The difference of II_10 impact \n between DEdich cut samples in CP has a\n probability of -7"
```

The difference of  $\Pi_{10}$  impact  
between DEdich cut samples in CP has a  
probability of -72.26 %



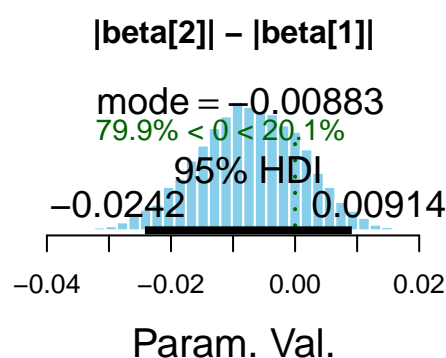
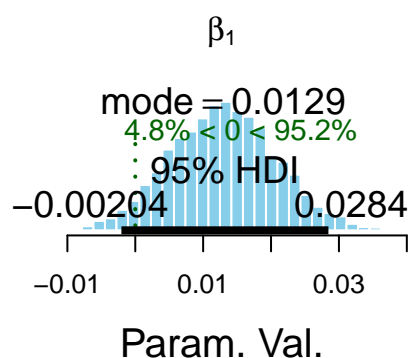
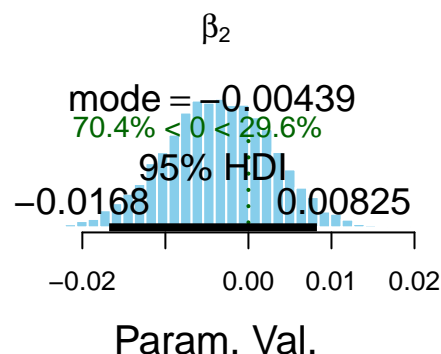
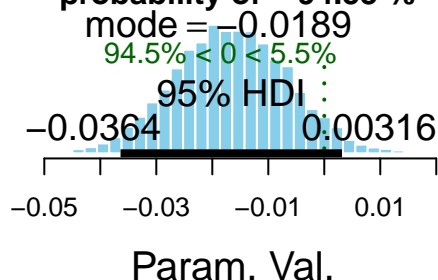
```
## [1] "
## [1] " Analysis of Y= CP explained by x= FOR_10 cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2029
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4531.778 4351.027 4212.479 4635.978 4531.778 4351.027 4838.773 4673.077
## betaSIZE
## 4052.425
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in CP has a\n probability of -"
```

The difference of FOR\_10 impact  
between DEdich cut samples in CP has a  
probability of -80.76 %



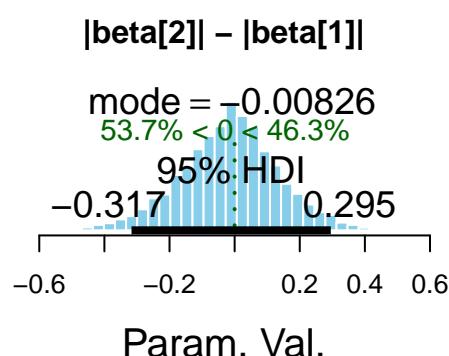
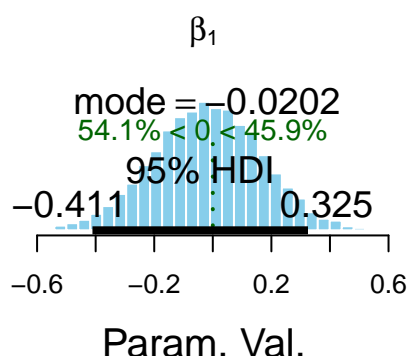
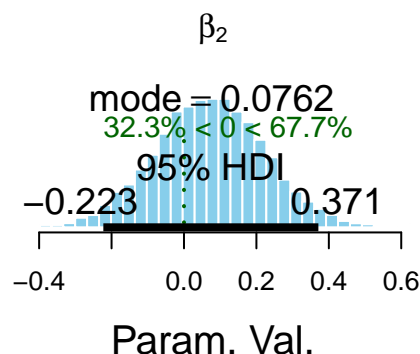
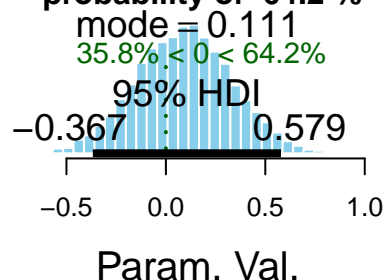
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= PRI cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5602.798 5545.653 5320.396 5449.180 5602.798 5545.653 5096.266 4876.995
## betaSIZE
## 4564.278
## [1] "The difference of PRI impact \n between DEdich cut samples in DISCL has a\n probability of -"
```

The difference of PRI impact  
between DEdich cut samples in DISCL has a  
probability of **-94.53 %**



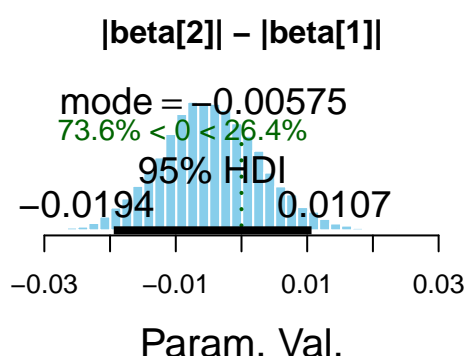
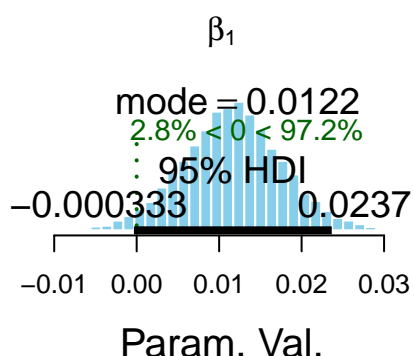
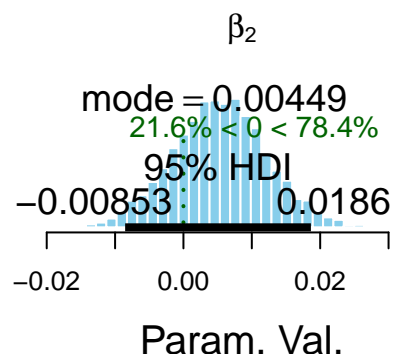
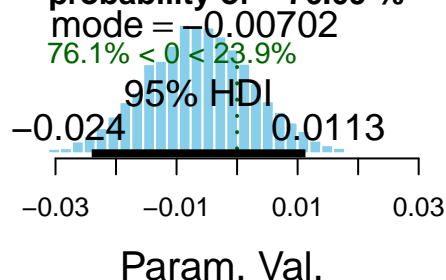
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= INIT cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4664.806 5135.701 5136.442 4996.685 4664.806 5135.701 5255.285 4134.069
## betaSIZE
## 4240.802
## [1] "The difference of INIT impact \n between DEdich cut samples in DISCL has a\n probability of 0"
```

The difference of INIT impact  
between DEdich cut samples in DISCL has a  
probability of 64.2 %



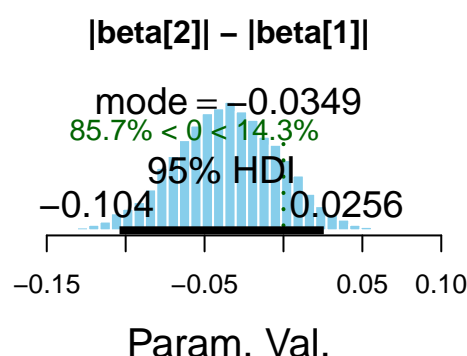
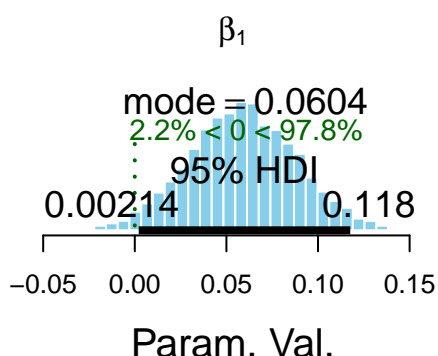
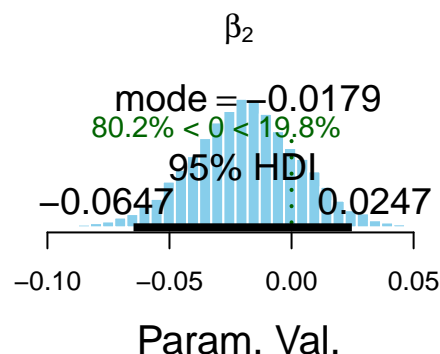
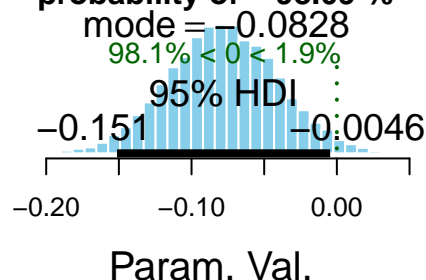
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= EPI cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5072.349 3953.342 5373.911 5524.744 5072.349 3953.342 4718.338 4524.878
## betaSIZE
## 4008.940
## [1] "The difference of EPI impact \n between DEdich cut samples in DISCL has a\n probability of -"
```

The difference of EPI impact  
between DEdich cut samples in DISCL has a  
probability of -76.09 %



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= STEW cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4852.490 5619.906 4900.282 4710.899 4852.490 5619.906 5297.104 4269.093
## betaSIZE
## 4046.935
## [1] "The difference of STEW impact \n between DEdich cut samples in DISCL has a\n probability of "
```

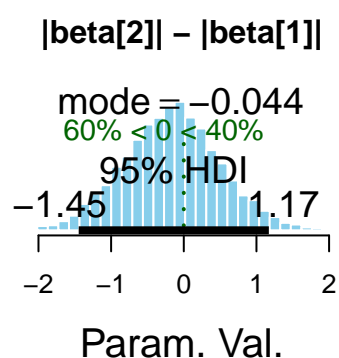
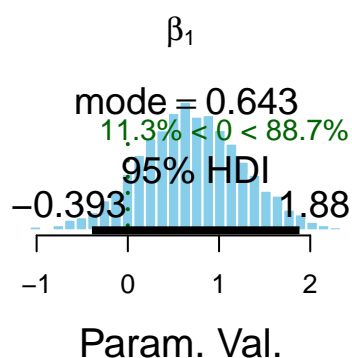
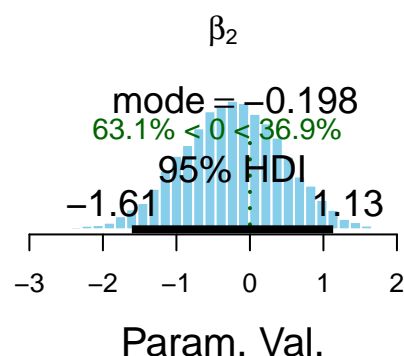
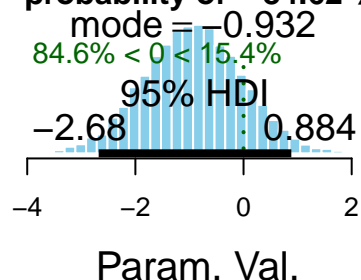
The difference of STEW impact  
between DEdich cut samples in DISCL has a  
probability of -98.09 %



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= II_10 cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5213.124 5311.152 5776.855 5907.739 5213.124 5311.152 5798.998 4531.389
## betaSIZE
## 4168.177
## [1] "The difference of II_10 impact \n between DEdich cut samples in DISCL has a\n probability of
```

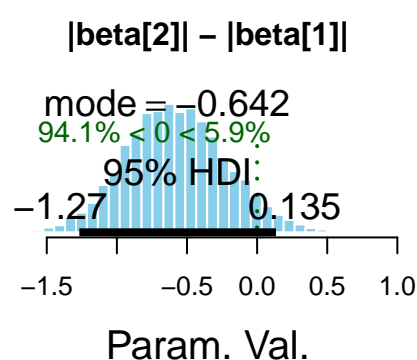
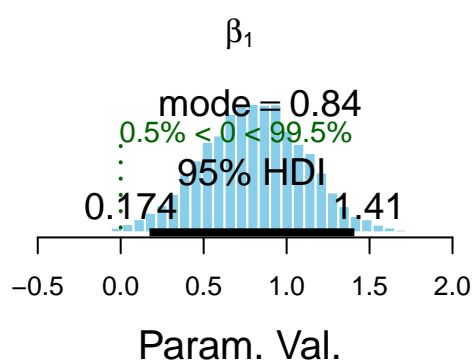
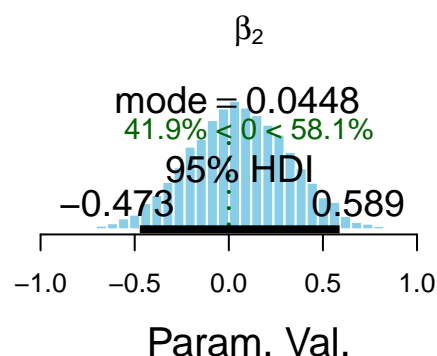
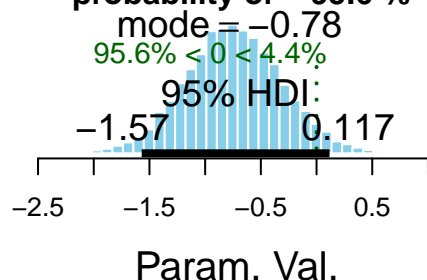


The difference of  $\text{II}_{10}$  impact  
between DEdich cut samples in DISCL has a  
probability of **-84.62 %**



```
## [1] "
## [1] " Analysis of Y= DISCL  explained by x= FOR_10  cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2029
##
## Initializing model
##
## alpha1[1] alpha1[2]  beta0[1]  beta0[2]  beta1[1]  beta1[2]  betaGFI  betaGPS
## 4553.819 4444.071 4120.785 4426.868 4553.819 4444.071 5186.688 4491.776
## betaSIZE
## 3846.214
## [1] "The difference of FOR_10  impact \n between DEdich cut samples in DISCL has a\n probability of
```

The difference of FOR\_10 impact  
between DEdich cut samples in DISCL has a  
probability of **-95.6 %**



```
write.csv(BLbinomCut,
          file=paste(
            'DE-binomCutResults',
            format(Sys.time(), "%d-%b-%H-%M-%S"),
            '.csv')
)
```

## DE5-Separated Bayesian models

### Quantitative Y

```
X$DEdich <- factor(X$DE_5>median(X$DE_5))
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('EPS', 'ET3', 'ER3', 'ER1', 'ER')
cut.name <- 'DEdich'
BLquantiCut <- bayesList(X, x.names, y.names, cut.name, 'model1-cut.R')

## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= PRI cutted by DEdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

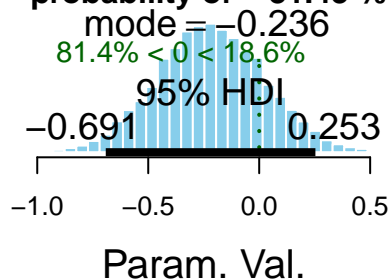
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
```

```

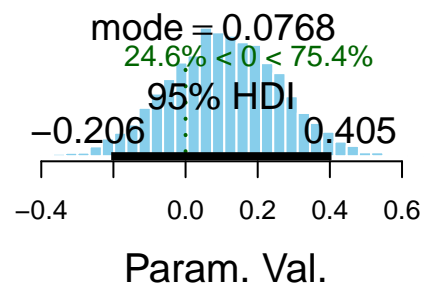
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8526.643 8761.275 9050.943 8826.623 8526.643 8761.275 7621.372 7341.210
## betaSIZE
## 7547.219
## [1] "The difference of PRI impact \n between DEdich cut samples in EPS has a\n probability of -81
## [1] "
## [1] " Analysis of Y= EPS explained by x= INIT cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

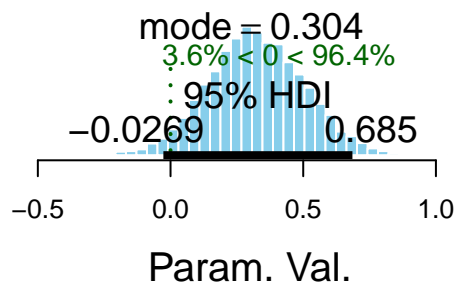
**The difference of PRI impact  
between DEdich cut samples in EPS has a  
probability of -81.43 %**



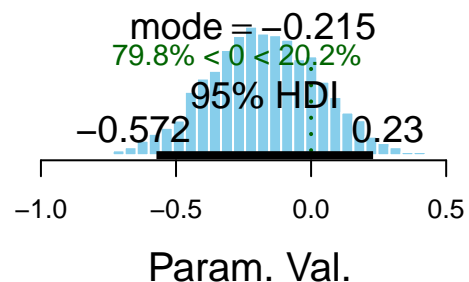
$\beta_2$



$\beta_1$



**|beta[2]| - |beta[1]|**



```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing

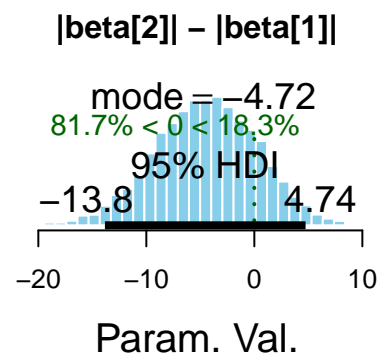
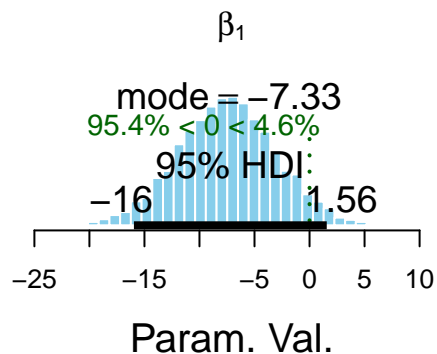
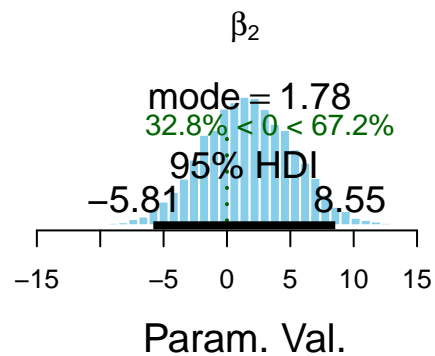
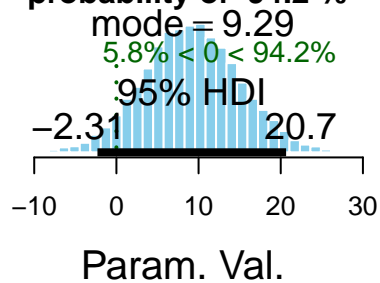
```

```

## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7359.215 8527.941 8231.770 7865.541 7359.215 8527.941 8147.045 7059.857
## betaSIZE
## 6861.876
## [1] "The difference of INIT impact \n between DEdich cut samples in EPS has a\n probability of 94
## [1] "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of INIT impact  
between DEdich cut samples in EPS has a  
probability of 94.2 %**



```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table

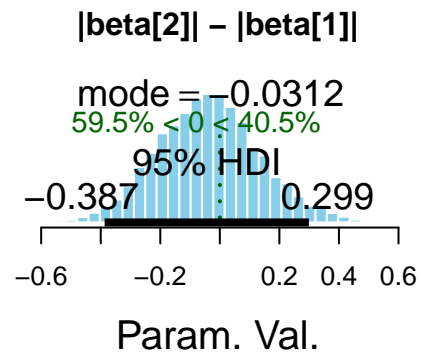
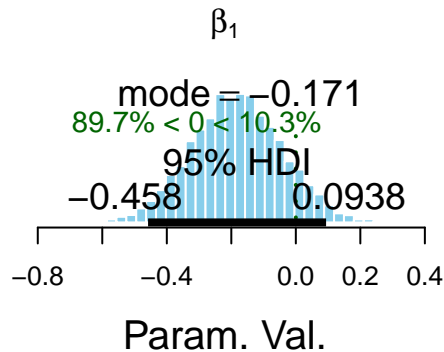
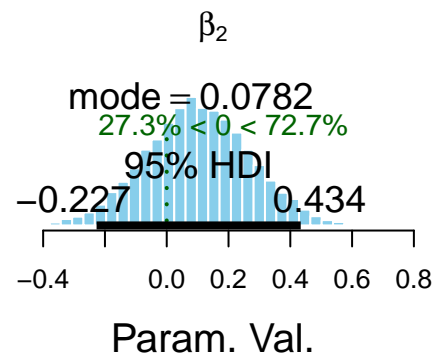
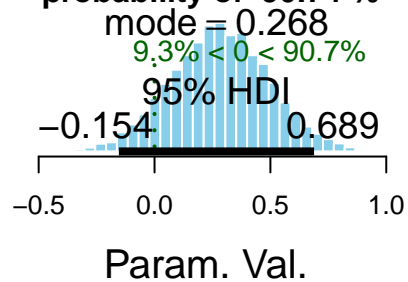
```

```

## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7034.801 6388.083 8850.546 7571.843 7034.801 6388.083 6677.855 6808.528
## betaSIZE
## 6909.590
## [1] "The difference of EPI impact \n between DEdich cut samples in EPS has a\n probability of 90.74 %
## [1] "
## [1] " Analysis of Y= EPS explained by x= STEW cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of EPI impact  
between DEdich cut samples in EPS has a  
probability of 90.74 %**



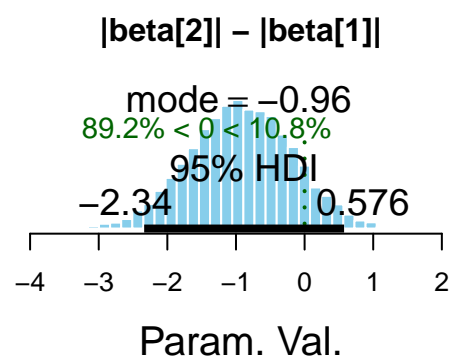
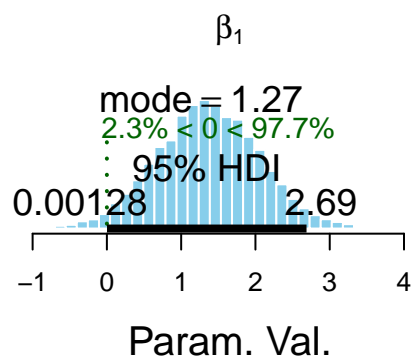
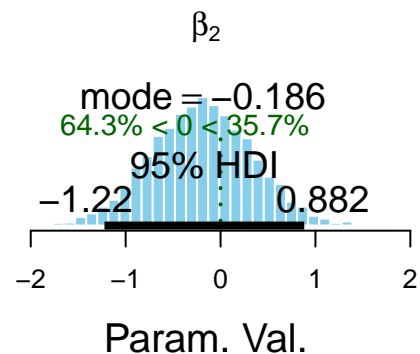
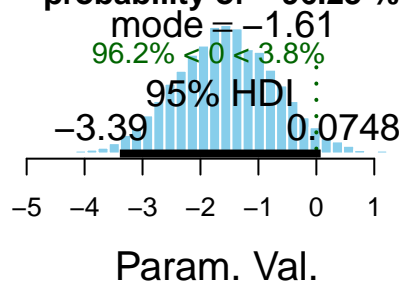
```

## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph

```

```
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8042.384 8828.374 9886.104 9180.434 8042.384 8828.374 8847.193 6828.768
## betaSIZE
## 7251.637
## [1] "The difference of STEW impact \n between DEdich cut samples in EPS has a\n probability of -9
## [1] "
## [1] " Analysis of Y= EPS explained by x= II_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between DEdich cut samples in EPS has a  
probability of -96.23 %**



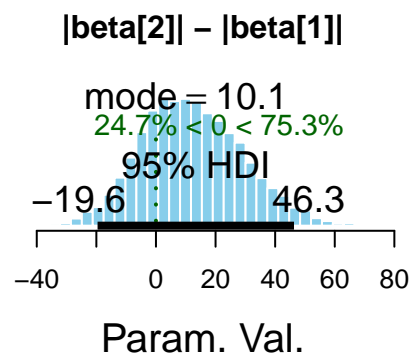
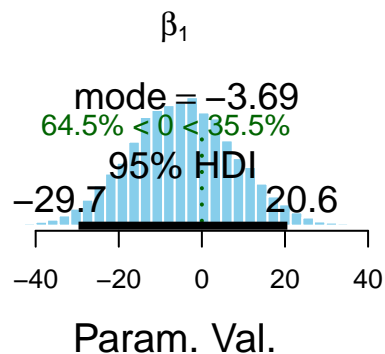
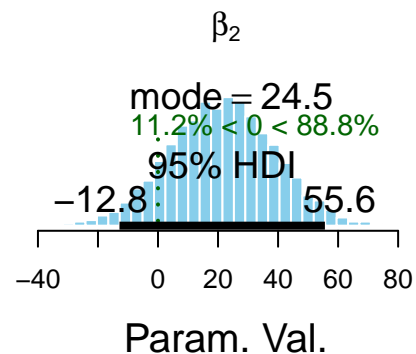
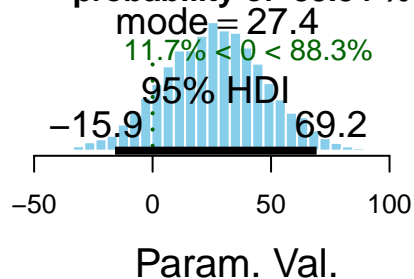
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
```

```

## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8099.323 8795.201 9207.072 7926.559 8099.323 8795.201 8342.809 7018.282
## betaSIZE
## 6816.302
## [1] "The difference of II_10 impact \n between DEdich cut samples in EPS has a\n probability of 88.34 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= FOR_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of II\_10 impact  
between DEdich cut samples in EPS has a  
probability of 88.34 %**



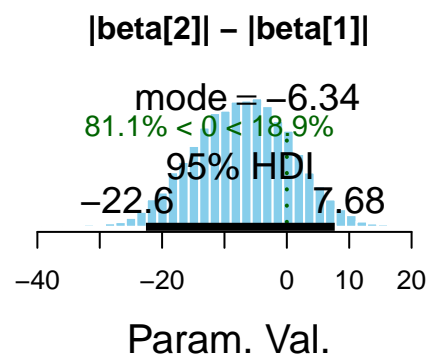
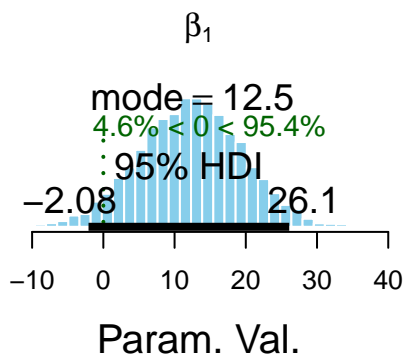
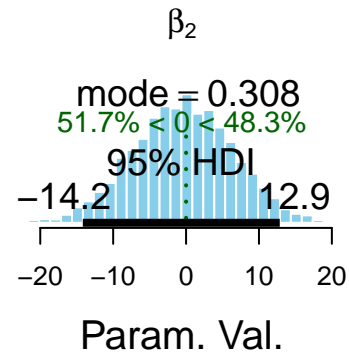
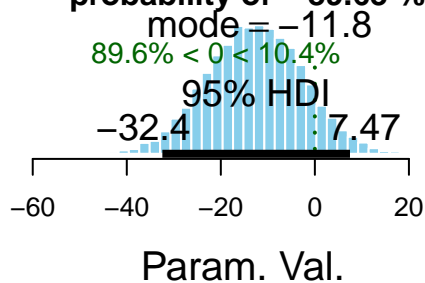
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes

```

```
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7619.773 7545.812 9000.000 9000.000 7619.773 7545.812 7461.574 6938.315
## betaSIZE
## 6644.979
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of FOR\_10 impact  
between DEdich cut samples in EPS has a  
probability of -89.63 %**

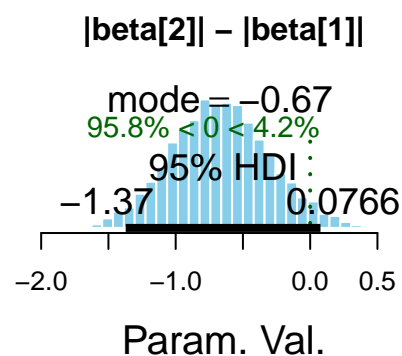
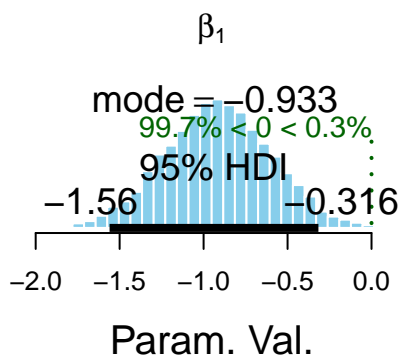
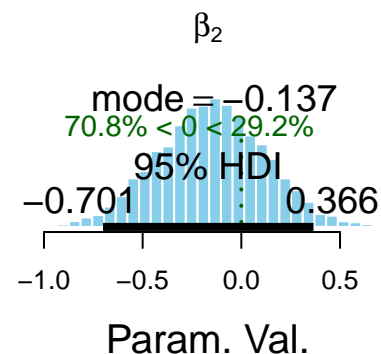
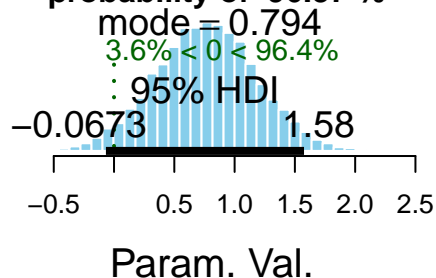


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
```



```
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8798.613 8461.417 9178.910 9000.000 8798.613 8461.417 8688.507 6627.396
## betaSIZE
## 6978.993
## [1] "The difference of PRI impact \n between DEdich cut samples in ET3 has a\n probability of 96.37 %
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

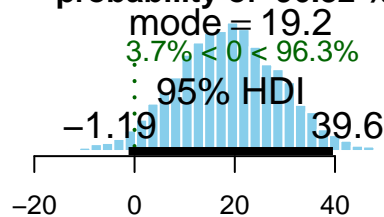
**The difference of PRI impact  
between DEdich cut samples in ET3 has a  
probability of 96.37 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
```

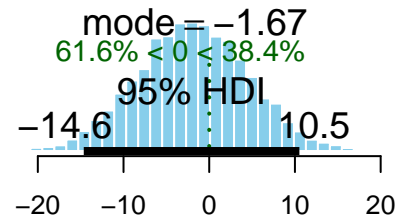
```
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7128.389 8635.705 8186.025 7896.770 7128.389 8635.705 8367.429 6841.630
## betaSIZE
## 6345.267
## [1] "The difference of INIT impact \n between DEdich cut samples in ET3 has a\n probability of 96
## [1] "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of INIT impact  
between DEdich cut samples in ET3 has a  
probability of 96.32 %**



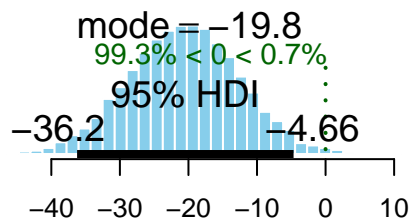
Param. Val.

$\beta_2$



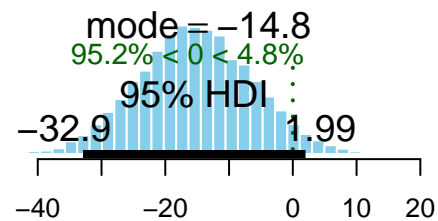
Param. Val.

$\beta_1$



Param. Val.

**|beta[2]| - |beta[1]|**

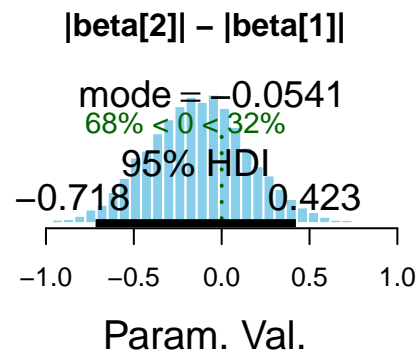
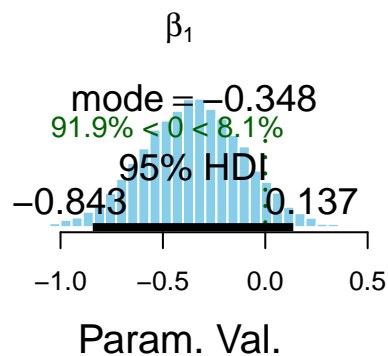
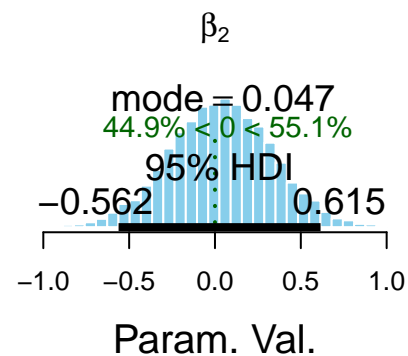
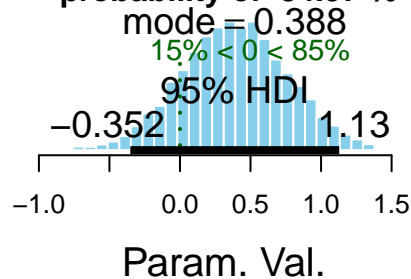


Param. Val.

```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
```

```
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6671.455 6743.787 8303.204 7438.370 6671.455 6743.787 6749.998 7287.821
## betaSIZE
## 6555.754
## [1] "The difference of EPI impact \n between DEdich cut samples in ET3 has a\n probability of 84.9
## [1] "
## [1] " Analysis of Y= ET3 explained by x= STEW cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

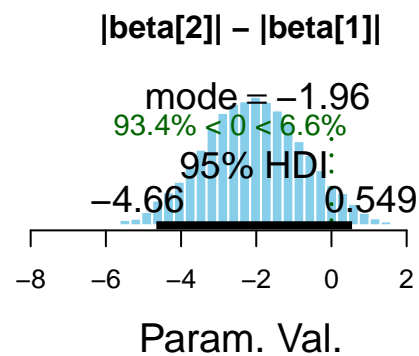
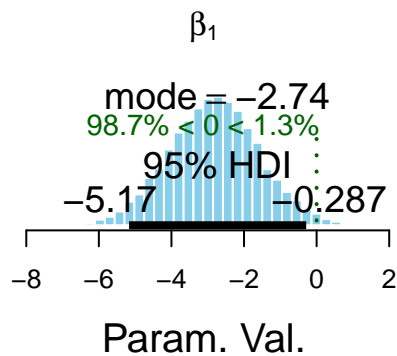
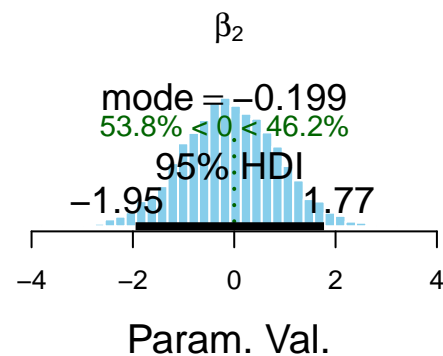
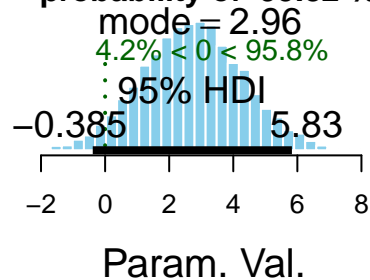
**The difference of EPI impact  
between DEdich cut samples in ET3 has a  
probability of 84.97 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
```

```
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7372.892 8569.069 9000.000 8809.369 7372.892 8569.069 8665.171 6964.258
## betaSIZE
## 6665.217
## [1] "The difference of STEW impact \n between DEdich cut samples in ET3 has a\n probability of 95
## [1] "
## [1] " Analysis of Y= ET3 explained by x= II_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

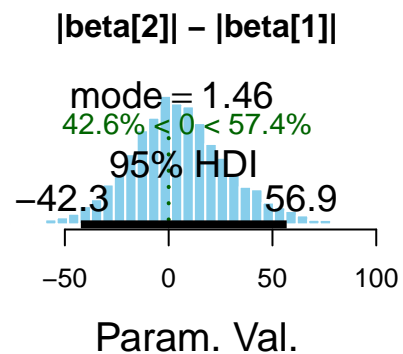
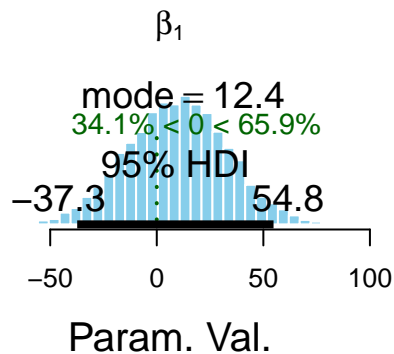
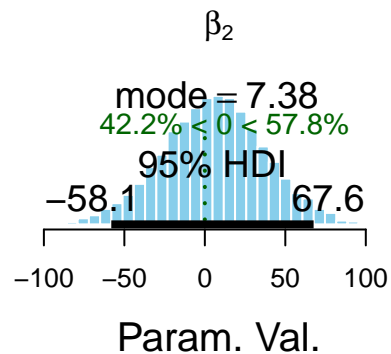
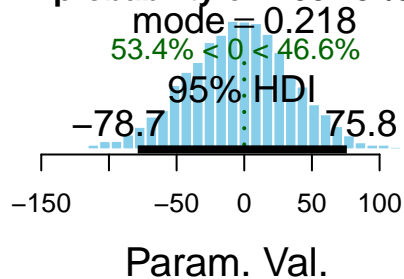
**The difference of STEW impact  
between DEdich cut samples in ET3 has a  
probability of 95.82 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
```

```
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9486.524 8322.366 8894.001 8090.293 9486.524 8322.366 8682.948 7458.156
## betaSIZE
## 6343.837
## [1] "The difference of II_10 impact \n between DEdich cut samples in ET3 has a\n probability of -"
## [1] "
## [1] " Analysis of Y= ET3 explained by x= FOR_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

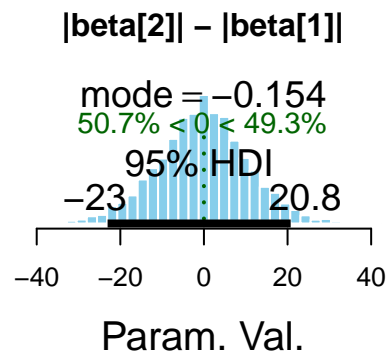
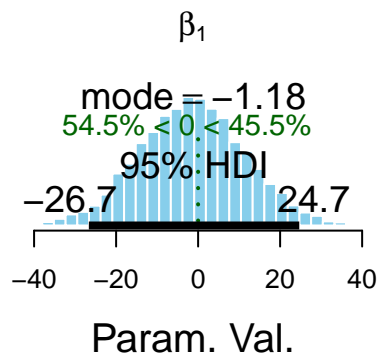
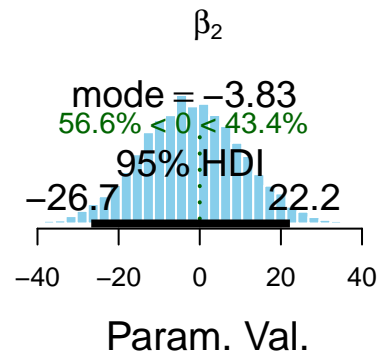
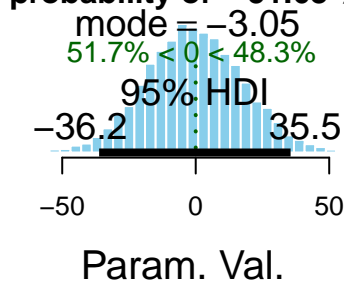
**The difference of II\_10 impact  
between DEdich cut samples in ET3 has a  
probability of -53.43 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2043
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7185.583 7703.839 9000.000 9000.000 7185.583 7703.839 7077.221 6823.085
## betaSIZE
## 7078.224
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= PRI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

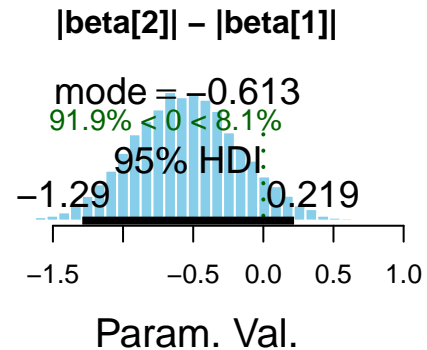
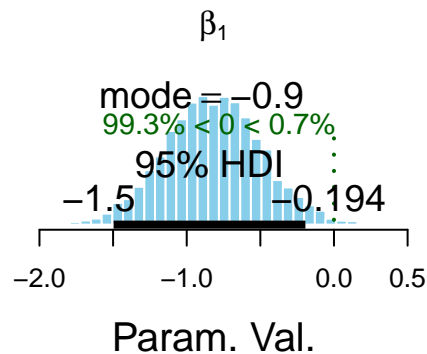
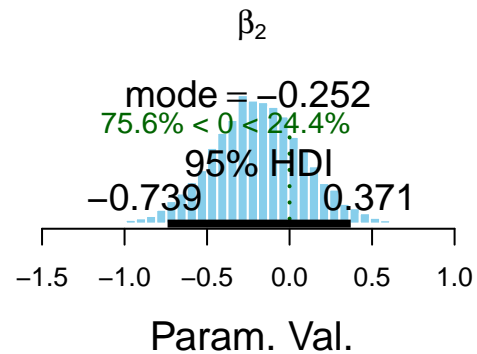
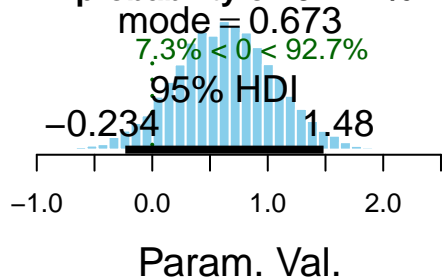
**The difference of FOR\_10 impact  
between DEdich cut samples in ET3 has a  
probability of -51.68 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
```

```
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 8774.016 8489.009 8373.509 9000.000 8774.016 8609.492 6869.160
## betaSIZE
## 6915.277
## [1] "The difference of PRI impact \n between DEdich cut samples in ER3 has a\n probability of 92.7"
## [1] "
## [1] " Analysis of Y= ER3 explained by x= INIT cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

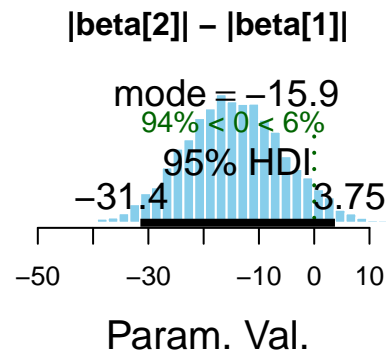
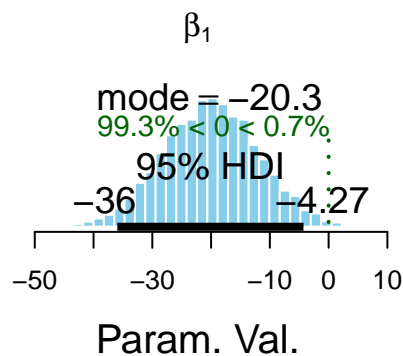
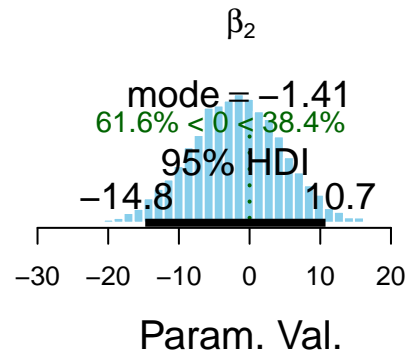
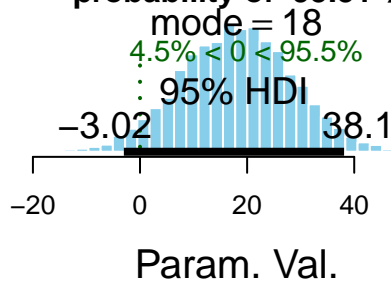
**The difference of PRI impact  
between DEdich cut samples in ER3 has a  
probability of 92.74 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
```

```
## 7688.220 8654.765 7751.379 7769.365 7688.220 8654.765 8069.602 7321.878
## betaSIZE
## 6553.847
## [1] "The difference of INIT impact \n between DEdich cut samples in ER3 has a\n probability of 95
## [1] "
## [1] " Analysis of Y= ER3 explained by x= EPI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of INIT impact  
between DEdich cut samples in ER3 has a  
probability of 95.51 %**

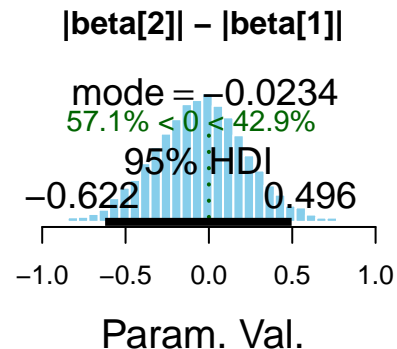
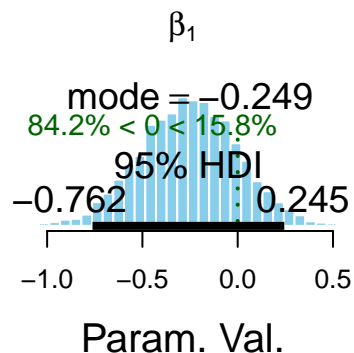
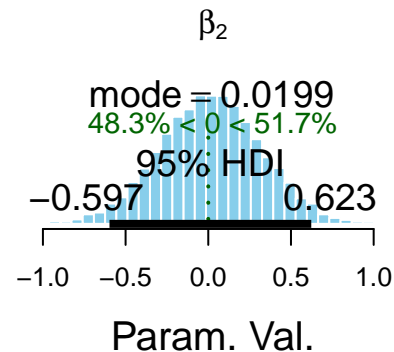
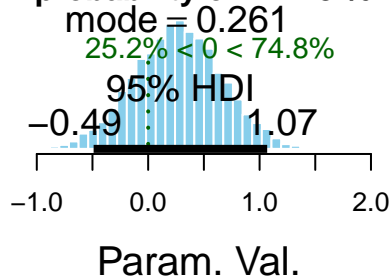


```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7540.432 6171.245 8402.497 7440.746 7540.432 6171.245 6665.094 7147.468
```



```
## betaSIZE
## 6298.206
## [1] "The difference of EPI impact \n between DEdich cut samples in ER3 has a\n probability of 74.78 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= STEW cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

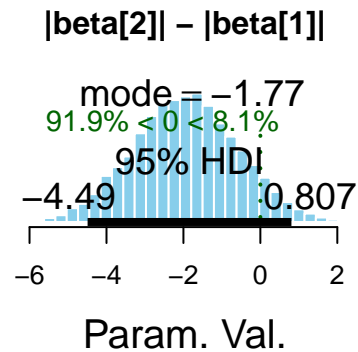
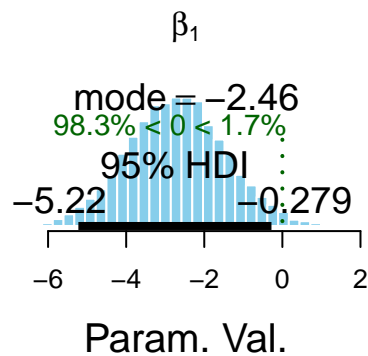
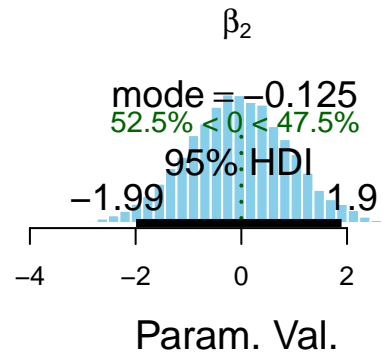
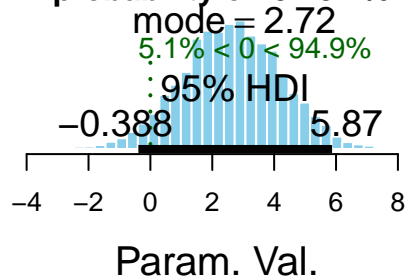
**The difference of EPI impact  
between DEdich cut samples in ER3 has a  
probability of 74.78 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8096.347 8726.938 8483.592 8277.511 8096.347 8726.938 7860.771 6878.160
## betaSIZE
```

```
## 6881.950
## [1] "The difference of STEW impact \n between DEdich cut samples in ER3 has a\n probability of 94
## [1] "
## [1] " Analysis of Y= ER3 explained by x= II_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

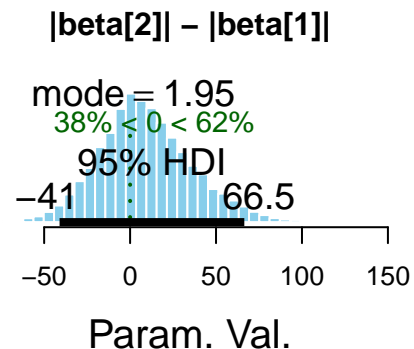
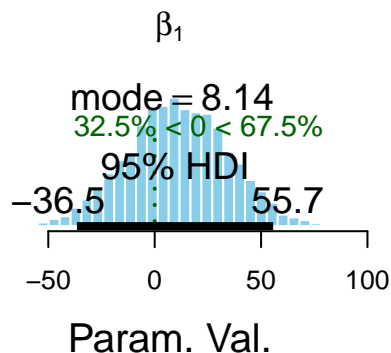
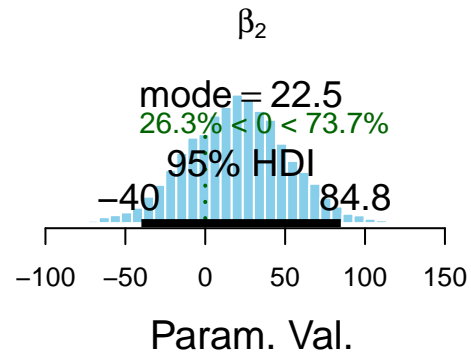
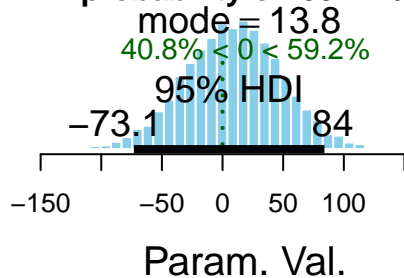
**The difference of STEW impact  
between DEdich cut samples in ER3 has a  
probability of 94.87 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8194.686 7666.560 9553.968 8693.461 8194.686 7666.560 7951.917 7503.619
## betaSIZE
## 6338.092
```

```
## [1] "The difference of II_10 impact \n between DEdich cut samples in ER3 has a\n probability of 59.21 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= FOR_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of II\_10 impact  
between DEdich cut samples in ER3 has a  
probability of 59.21 %**

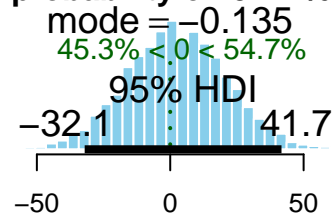


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8498.800 7578.125 9000.000 8826.777 8498.800 7578.125 7541.987 6795.656
## betaSIZE
## 6689.094
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in ER3 has a\n probability of 59.21 %"
```

```
## [1] "
## [1] " Analysis of Y= ER1  explained by x= PRI  cutted by DEdich"

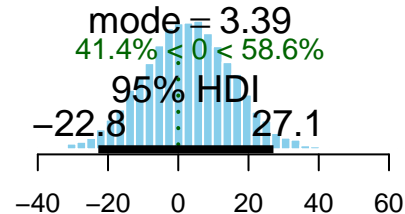
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of FOR<sub>10</sub> impact  
between DEdich cut samples in ER3 has a  
probability of 54.7 %**



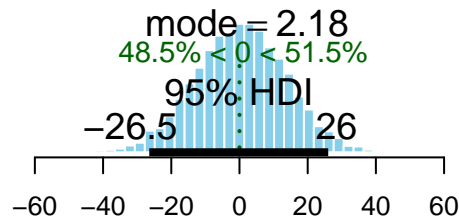
Param. Val.

$\beta_2$



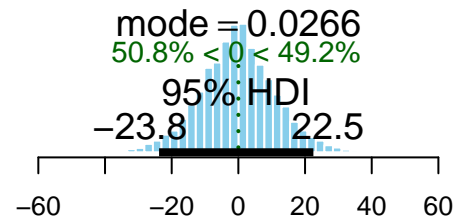
Param. Val.

$\beta_1$



Param. Val.

$|\text{beta}[2]| - |\text{beta}[1]|$

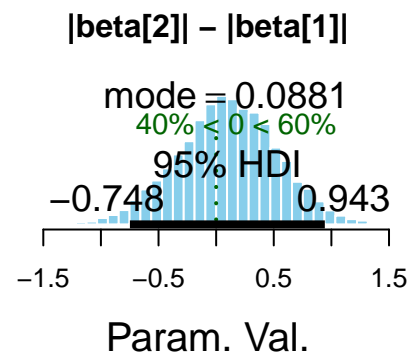
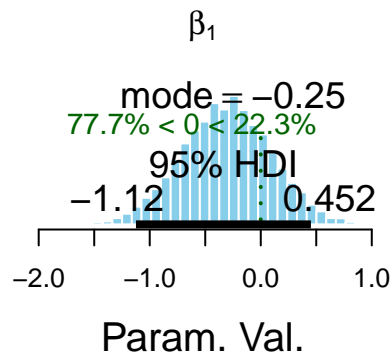
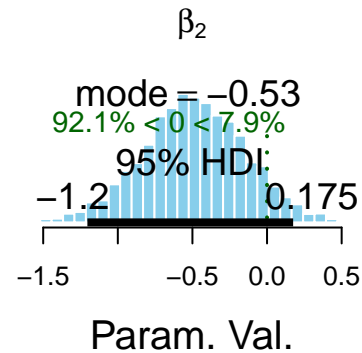
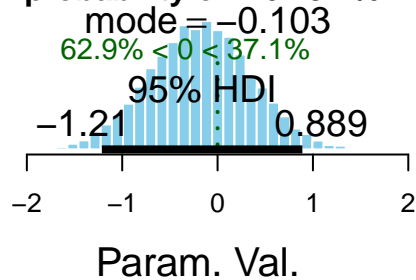


Param. Val.

```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9067.083 9000.000 8609.518 8551.628 9067.083 9000.000 8344.274 7104.700
## betaSIZE
## 7356.859
## [1] "The difference of PRI  impact \n between DEdich cut samples in ER1 has a\n probability of -62
## [1] "
## ----- "
```

```
## [1] " Analysis of Y= ER1  explained by x= INIT cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

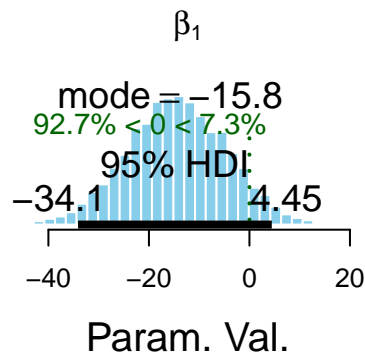
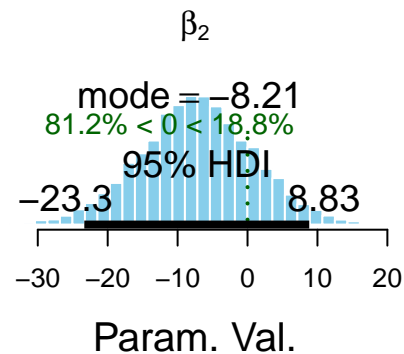
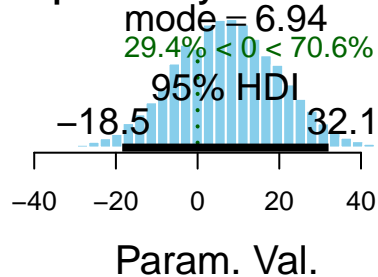
**The difference of PRI impact  
between DEdich cut samples in ER1 has a  
probability of -62.91 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7139.986 8223.961 8273.046 8034.127 7139.986 8223.961 8735.776 6789.786
## betaSIZE
## 6672.408
## [1] "The difference of INIT impact \n between DEdich cut samples in ER1 has a\n probability of 70
## [1] "
## [1] " Analysis of Y= ER1  explained by x= EPI cutted by DEdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

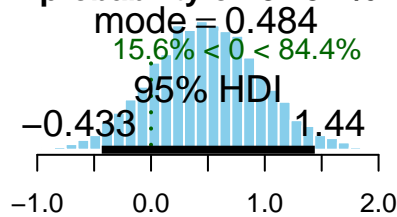
**The difference of INIT impact  
between DEdich cut samples in ER1 has a  
probability of 70.59 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7928.641 6559.991 8051.495 7342.515 7928.641 6559.991 7190.447 7068.218
## betaSIZE
## 6639.691
## [1] "The difference of EPI impact \n between DEdich cut samples in ER1 has a\n probability of 84.
## [1] "
## [1] " Analysis of Y= ER1 explained by x= STEW cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
```

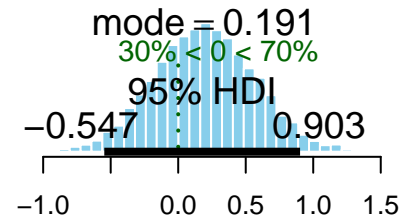
```
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between DEdich cut samples in ER1 has a  
probability of 84.37 %**



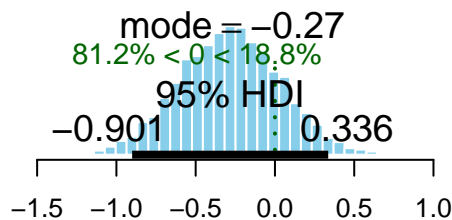
Param. Val.

$\beta_2$



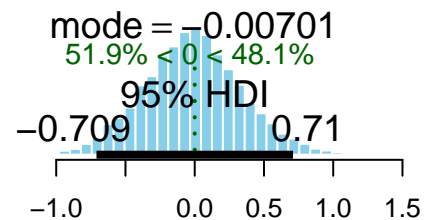
Param. Val.

$\beta_1$



Param. Val.

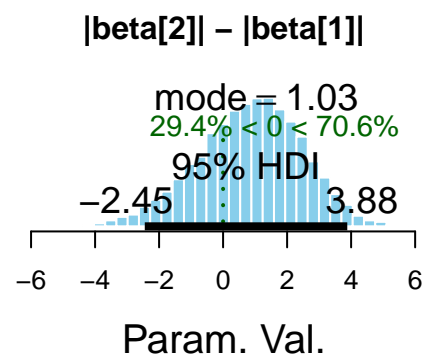
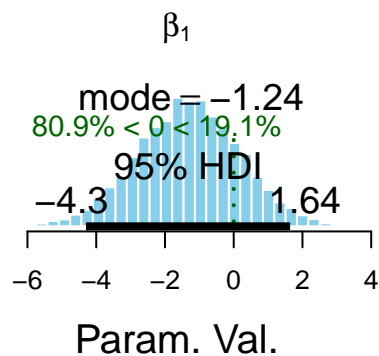
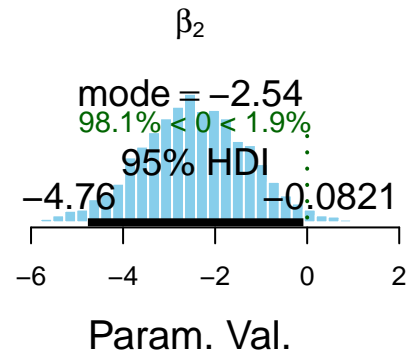
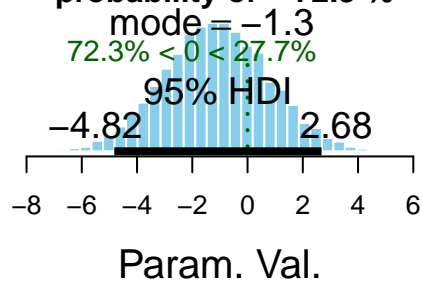
**|beta[2]| - |beta[1]|**



Param. Val.

```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8174.490 8836.019 9000.000 8833.211 8174.490 8836.019 8414.898 7048.970
## betaSIZE
## 6416.758
## [1] "The difference of STEW impact \n between DEdich cut samples in ER1 has a\n probability of -7
## [1] "
## [1] " Analysis of Y= ER1 explained by x= II_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

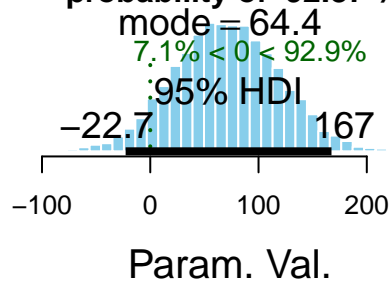
**The difference of STEW impact  
between DEdich cut samples in ER1 has a  
probability of -72.3 %**



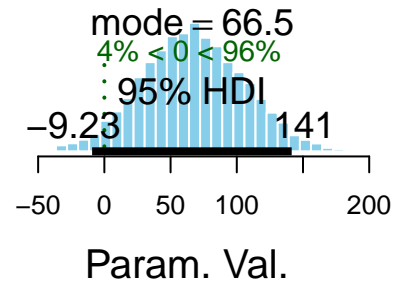
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8102.913 8396.043 8282.356 7589.239 8102.913 8396.043 8249.904 6341.905
## betaSIZE
## 6732.834
## [1] "The difference of II_10 impact \n between DEdich cut samples in ER1 has a\n probability of 9
## [1] "
## [1] " Analysis of Y= ER1 explained by x= FOR_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```



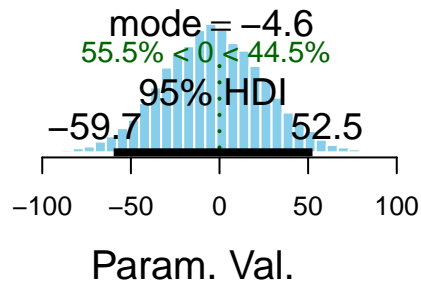
The difference of  $\beta_{10}$  impact  
between DEdich cut samples in ER1 has a  
probability of 92.87 %



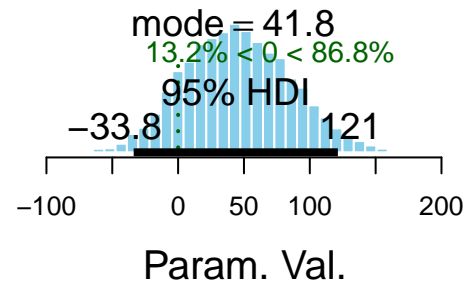
$\beta_2$



$\beta_1$

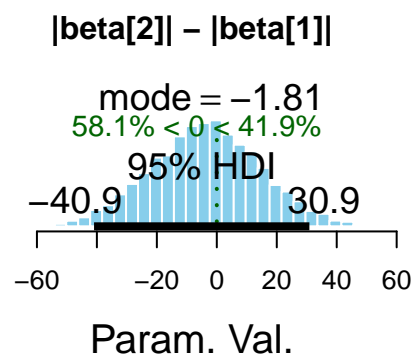
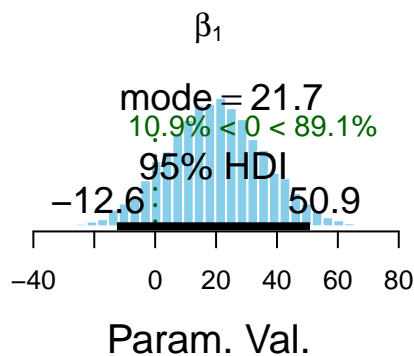
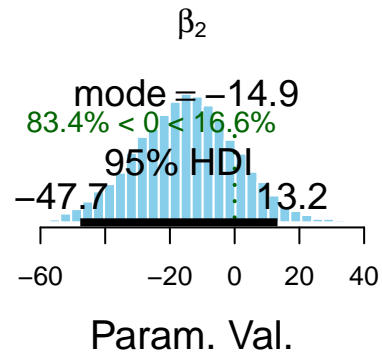
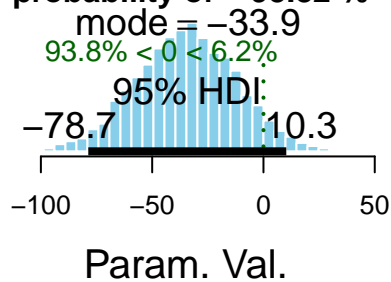


$|\beta_2| - |\beta_1|$



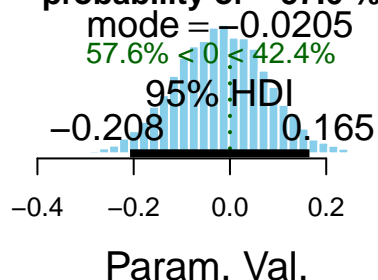
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7266.427 7945.811 8830.799 8784.140 7266.427 7945.811 7214.168 7030.141
## betaSIZE
## 6511.484
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= PRI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of FOR\_10 impact  
between DEdich cut samples in ER1 has a  
probability of -93.82 %

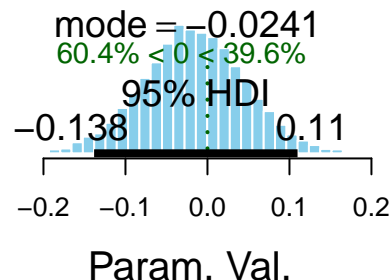


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8727.489 9720.558 9193.793 9000.000 8727.489 9720.558 8433.894 7124.215
## betaSIZE
## 7241.813
## [1] "The difference of PRI impact \n between DEdich cut samples in ER has a\n probability of -57.
## [1] "
## [1] " Analysis of Y= ER explained by x= INIT cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

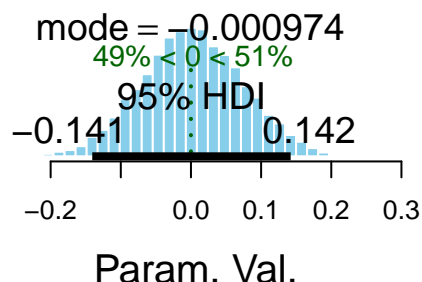
**The difference of PRI impact  
between DEdich cut samples in ER has a  
probability of -57.6 %**



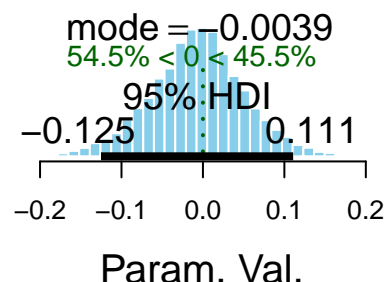
$\beta_2$



$\beta_1$

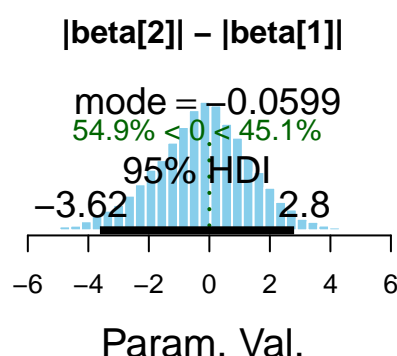
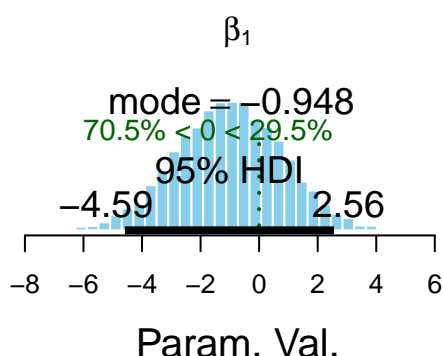
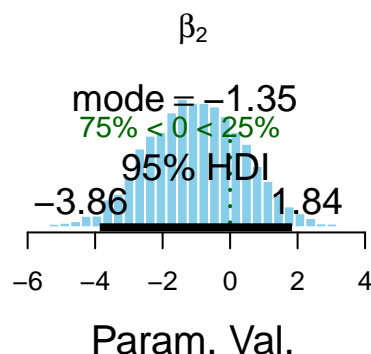
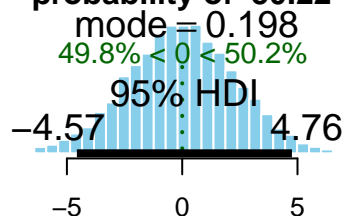


$|\text{beta}[2]| - |\text{beta}[1]|$



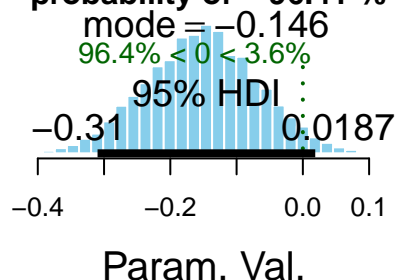
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7498.002 8226.675 8930.188 8267.561 7498.002 8226.675 8171.121 7041.819
## betaSIZE
## 6263.487
## [1] "The difference of INIT impact \n between DEdich cut samples in ER has a\n probability of 50.1%"
## [1] "
## [1] " Analysis of Y= ER explained by x= EPI cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of INIT impact  
between DEdich cut samples in ER has a  
probability of 50.22 %

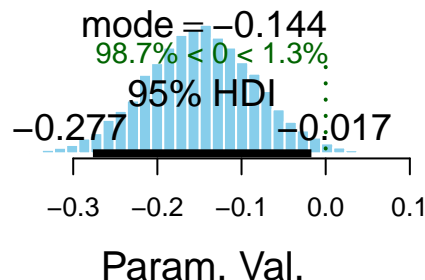


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7166.057 6660.100 9000.000 7983.221 7166.057 6660.100 7146.303 7012.106
## betaSIZE
## 6599.669
## [1] "The difference of EPI impact \n between DEdich cut samples in ER has a\n probability of -96.
## [1] "
## [1] " Analysis of Y= ER explained by x= STEW cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

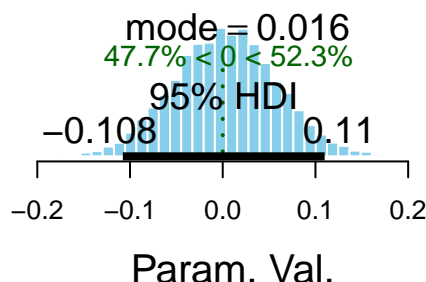
**The difference of EPI impact  
between DEdich cut samples in ER has a  
probability of -96.41 %**



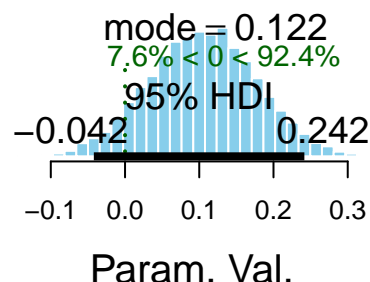
$\beta_2$



$\beta_1$

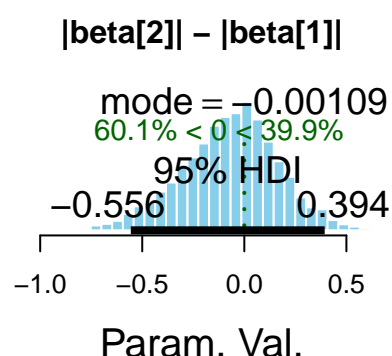
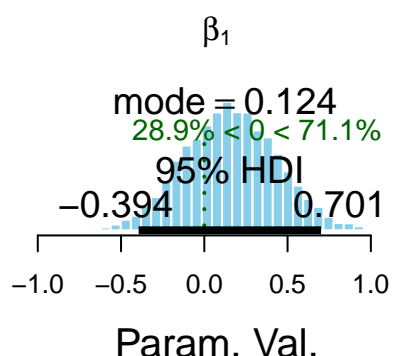
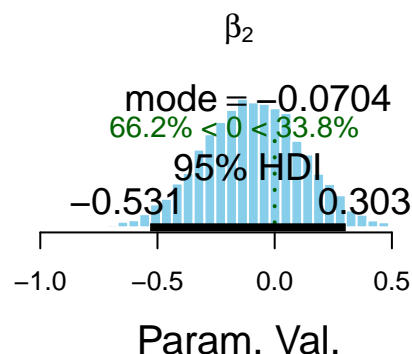
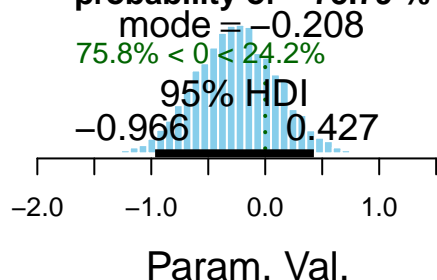


$|\text{beta}[2]| - |\text{beta}[1]|$



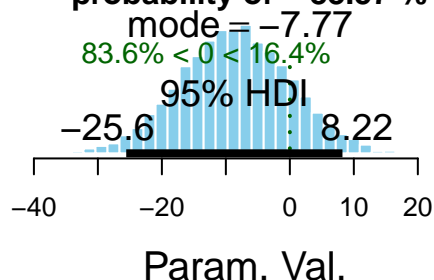
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7733.873 8923.268 8531.600 8173.113 7733.873 8923.268 8653.205 6993.049
## betaSIZE
## 6403.326
## [1] "The difference of STEW impact \n between DEdich cut samples in ER has a\n probability of -75
## [1] "
## [1] " Analysis of Y= ER explained by x= II_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between DEdich cut samples in ER has a  
probability of -75.79 %**

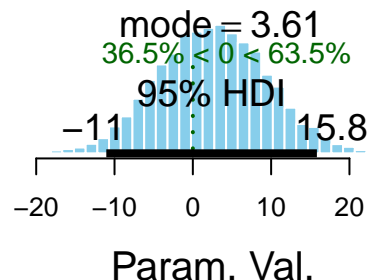


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7925.196 8695.714 9740.631 8371.192 7925.196 8695.714 7982.547 6947.302
## betaSIZE
## 6529.631
## [1] "The difference of II_10 impact \n between DEdich cut samples in ER has a\n probability of -8
## [1] "
## [1] " Analysis of Y= ER explained by x= FOR_10 cutted by DEdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

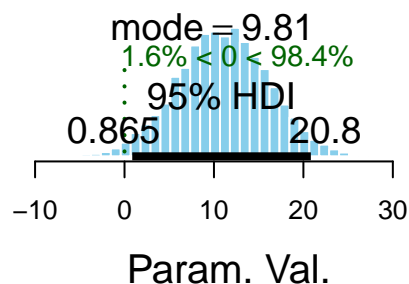
The difference of II\_10 impact  
between DEdich cut samples in ER has a  
probability of -83.57 %



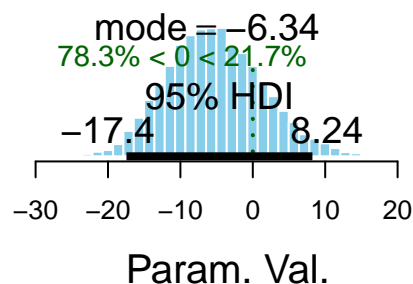
$\beta_2$



$\beta_1$

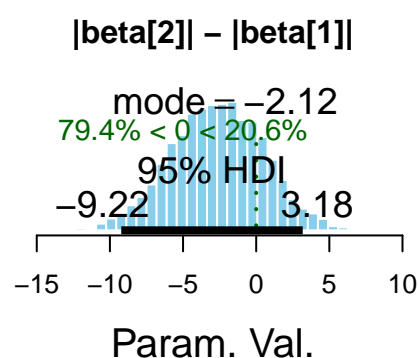
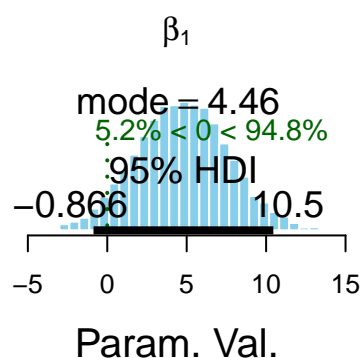
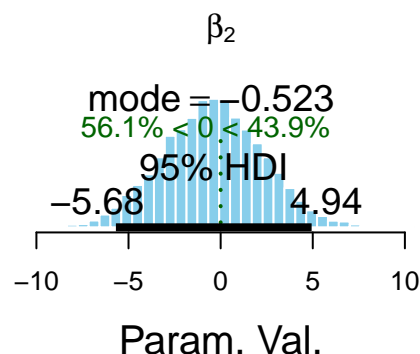
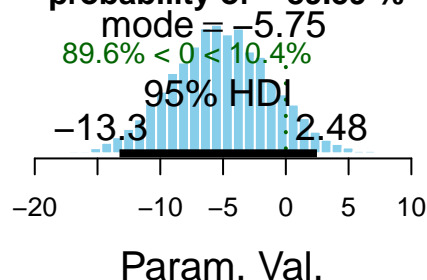


$|\text{beta}[2]| - |\text{beta}[1]|$



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7384.010 7554.259 8596.650 8676.169 7384.010 7554.259 7547.147 7256.819
## betaSIZE
## 6945.660
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in ER has a\n probability of -"
```

The difference of FOR<sub>10</sub> impact  
between DEdich cut samples in ER has a  
probability of **-89.59 %**



```
write.csv(BLquantCut,
  file=paste(
    'DE5-quantResults-cut',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

## Binomial Y

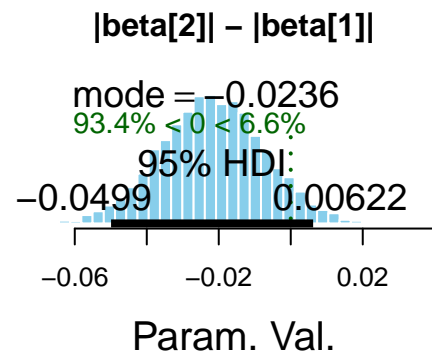
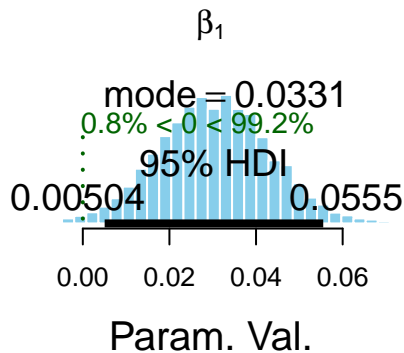
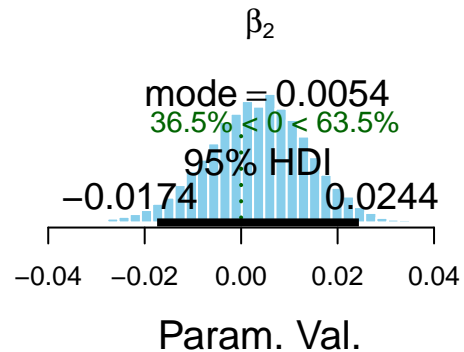
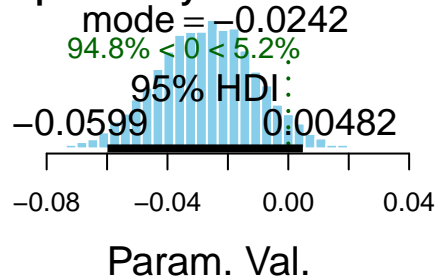
```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('CP', 'DISCL')
BLbinomCut <- bayesList(X, x.names, y.names, cut.name, 'model2-cut.R')
```

```
## [1] "
## [1] " Analysis of Y= CP explained by x= PRI cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
```



```
## Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5713.719 5359.921 5642.456 5729.496 5713.719 5359.921 5700.464 4270.843
## betaSIZE
## 4820.099
## [1] "The difference of PRI impact \n between DEdich cut samples in CP has a\n probability of -94."
```

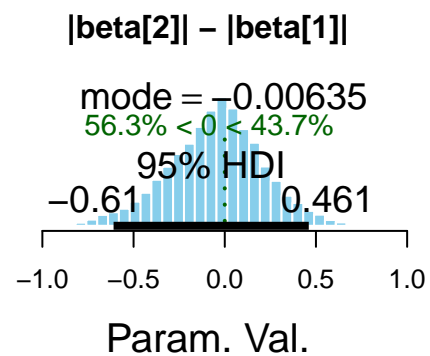
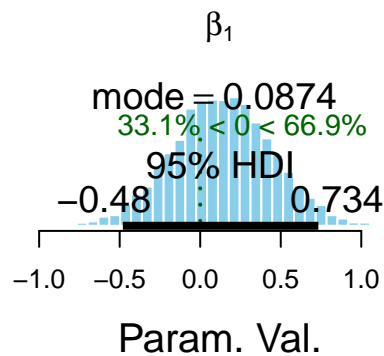
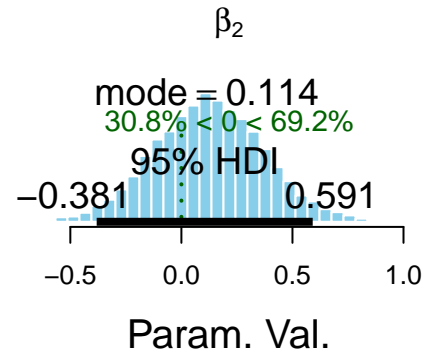
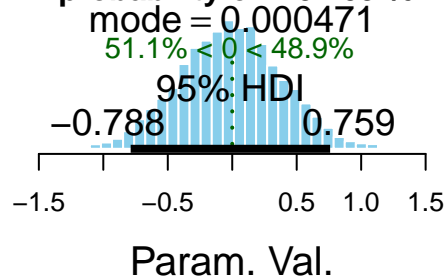
**The difference of PRI impact  
between DEdich cut samples in CP has a  
probability of -94.79 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= INIT cutted by DEdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2039
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5122.974 5315.612 4999.184 4694.119 5122.974 5315.612 5024.422 4554.543
## betaSIZE
## 4309.087
## [1] "The difference of INIT impact \n between DEdich cut samples in CP has a\n probability of -51
```

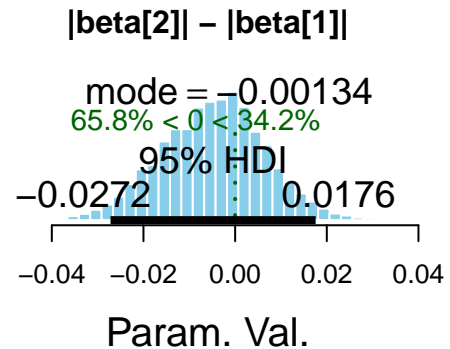
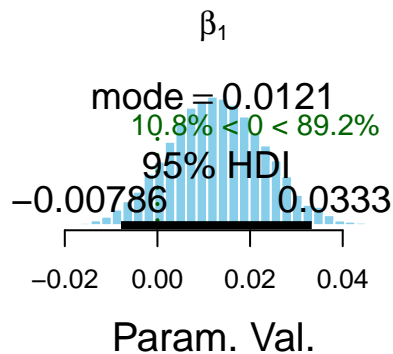
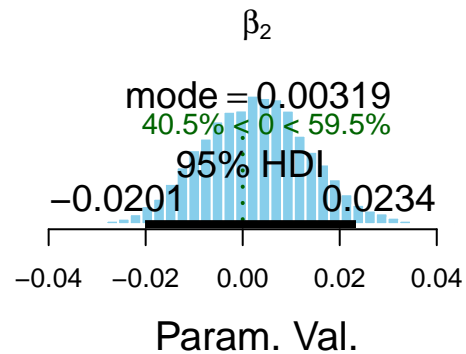
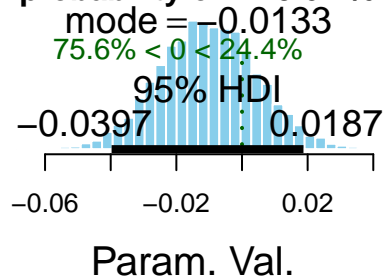
**The difference of INIT impact  
between DEdich cut samples in CP has a  
probability of -51.09 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= EPI cutted by DEdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4770.884 3754.775 4894.663 4591.999 4770.884 3754.775 4805.248 4720.133
```

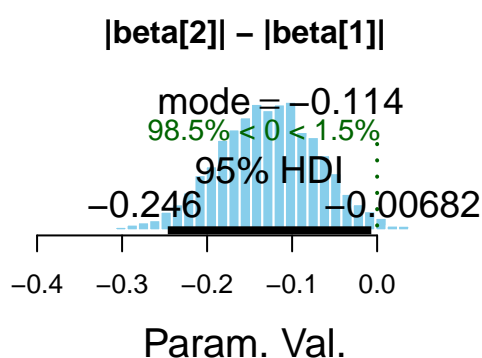
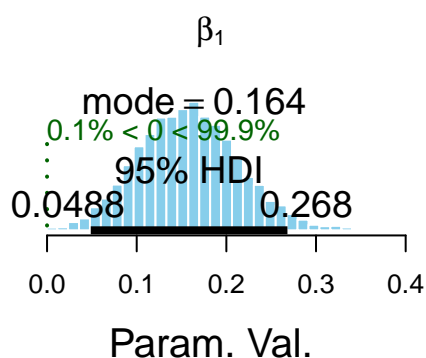
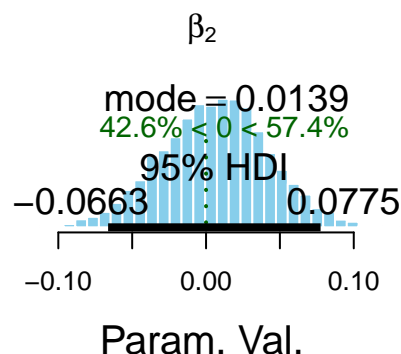
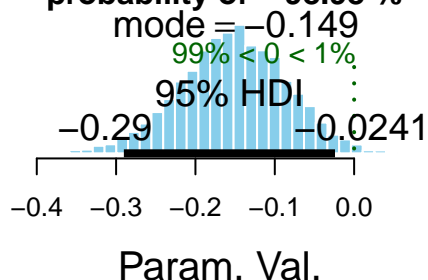
```
## betaSIZE
## 3808.278
## [1] "The difference of EPI impact \n between DEdich cut samples in CP has a\n probability of -75.64 %"
```

**The difference of EPI impact  
between DEdich cut samples in CP has a  
probability of -75.64 %**



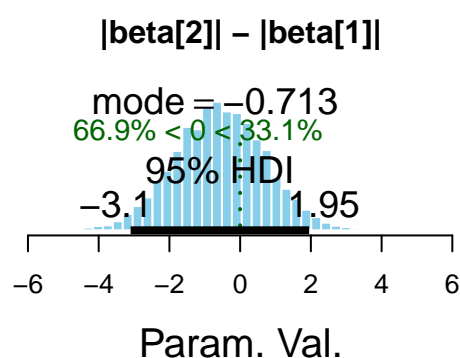
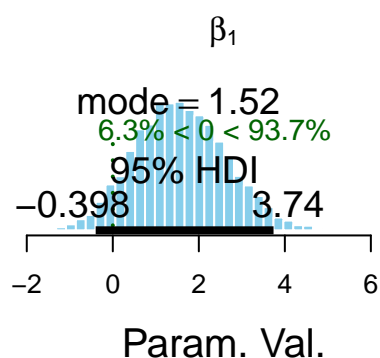
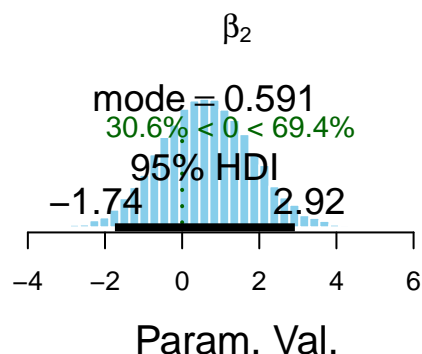
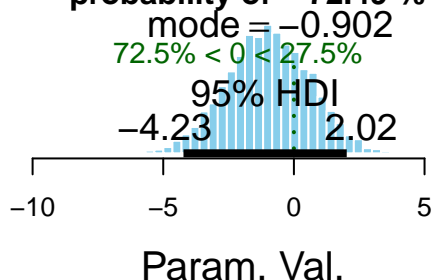
```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= STEW cutted by DEdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5509.232 5101.684 5278.687 4998.113 5509.232 5101.684 5145.619 4317.086
## betaSIZE
## 4362.784
## [1] "The difference of STEW impact \n between DEdich cut samples in CP has a\n probability of -98.2 %"
```

**The difference of STEW impact  
between DEdich cut samples in CP has a  
probability of -98.98 %**



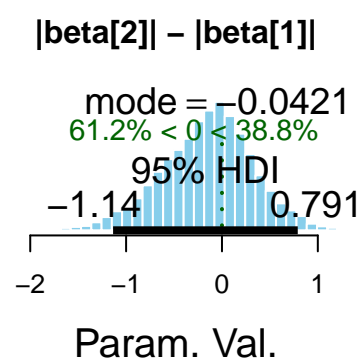
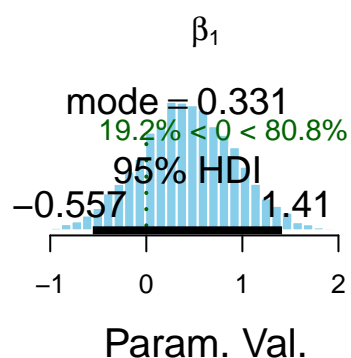
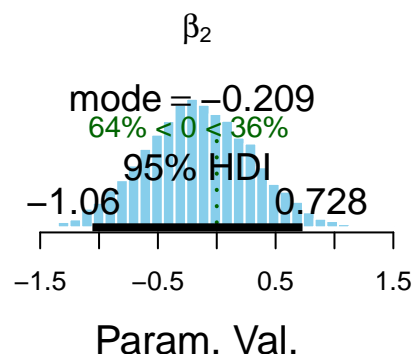
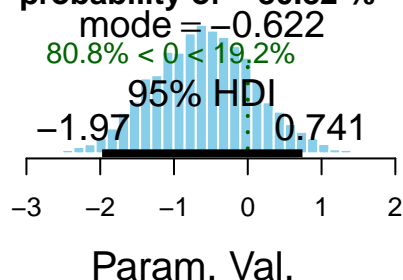
```
## [1] "
## [1] " Analysis of Y= CP explained by x= II_10 cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4800.309 4996.739 5488.766 5144.251 4800.309 4996.739 5213.467 4685.212
## betaSIZE
## 4173.416
## [1] "The difference of II_10 impact \n between DEdich cut samples in CP has a\n probability of -7"
```

The difference of  $\Pi_{10}$  impact  
between DEdich cut samples in CP has a  
probability of -72.49 %



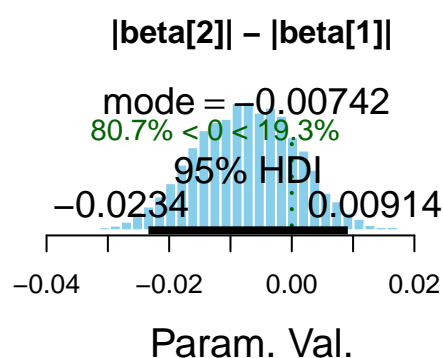
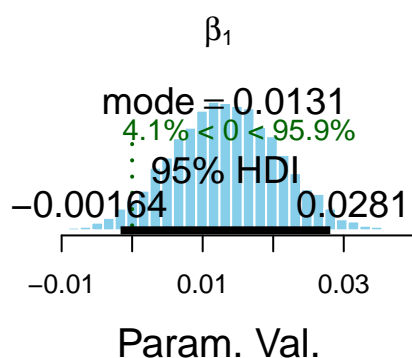
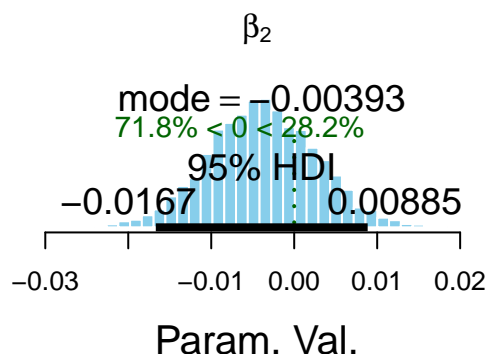
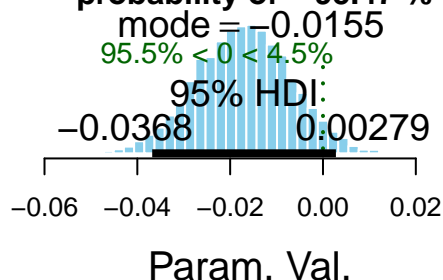
```
## [1] "
## [1] " Analysis of Y= CP explained by x= FOR_10 cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2029
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4344.468 4594.844 4311.855 4638.173 4344.468 4594.844 4919.992 4221.407
## betaSIZE
## 4477.561
## [1] "The difference of FOR_10 impact \n between DEdich cut samples in CP has a\n probability of -"
```

The difference of FOR\_10 impact  
between DEdich cut samples in CP has a  
probability of -80.82 %



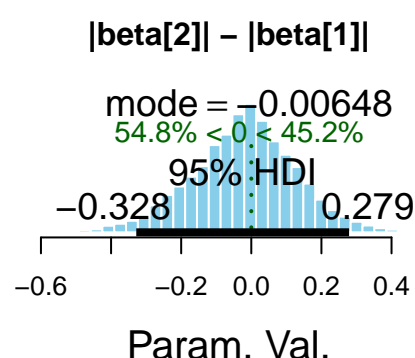
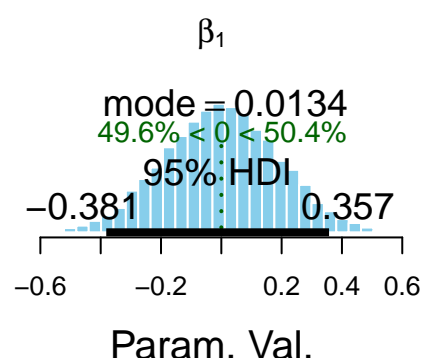
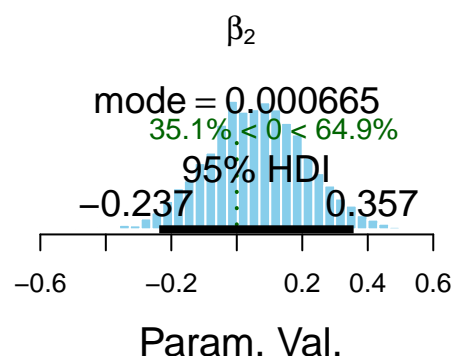
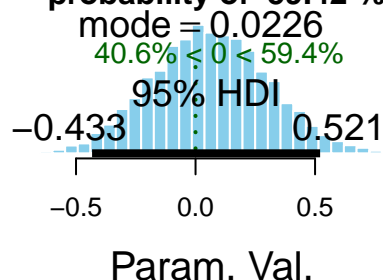
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= PRI cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5249.997 5219.367 5159.839 5200.245 5249.997 5219.367 4650.444 4402.209
## betaSIZE
## 4501.678
## [1] "The difference of PRI impact \n between DEdich cut samples in DISCL has a\n probability of -"
```

The difference of PRI impact  
between DEdich cut samples in DISCL has a  
probability of **-95.47 %**



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= INIT cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4122.649 4980.105 5220.970 4883.382 4122.649 4980.105 4749.559 4344.584
## betaSIZE
## 4303.981
## [1] "The difference of INIT impact \n between DEdich cut samples in DISCL has a\n probability of "
```

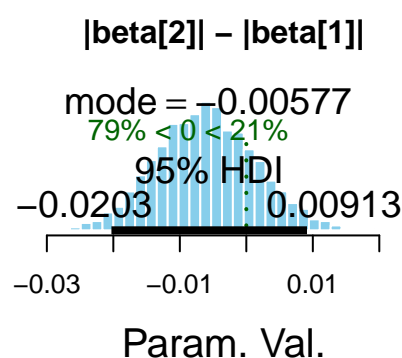
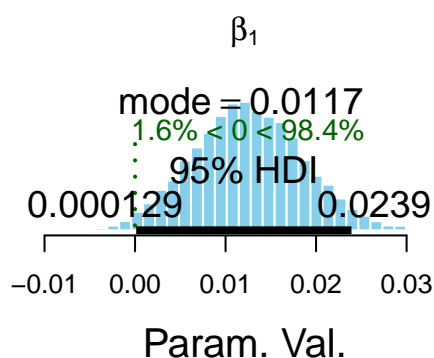
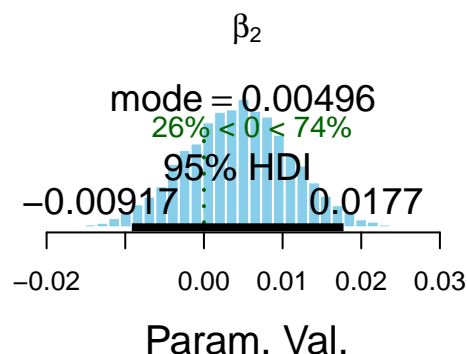
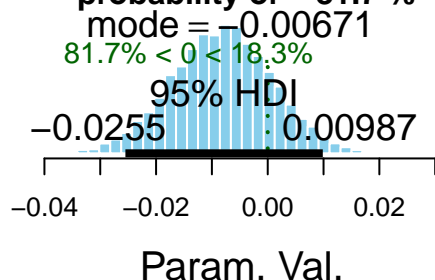
The difference of INIT impact  
between DEdich cut samples in DISCL has a  
probability of 59.42 %



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= EPI cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4997.468 4154.518 5856.451 5265.541 4997.468 4154.518 4060.505 4219.901
## betaSIZE
## 4265.838
## [1] "The difference of EPI impact \n between DEdich cut samples in DISCL has a\n probability of -"
```

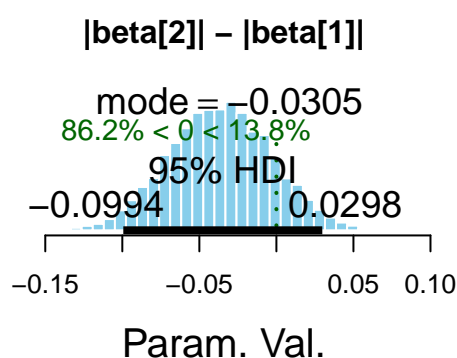
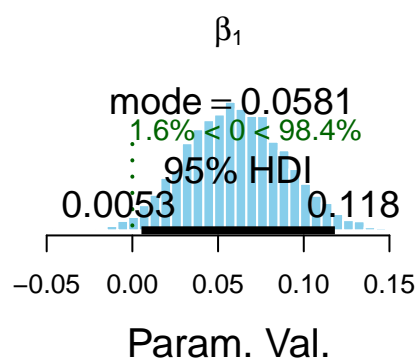
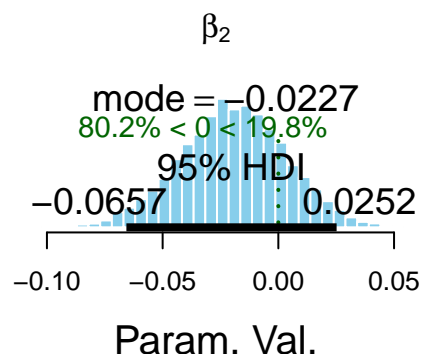
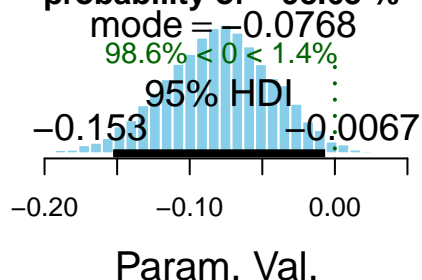


The difference of EPI impact  
between DEdich cut samples in DISCL has a  
probability of -81.7 %



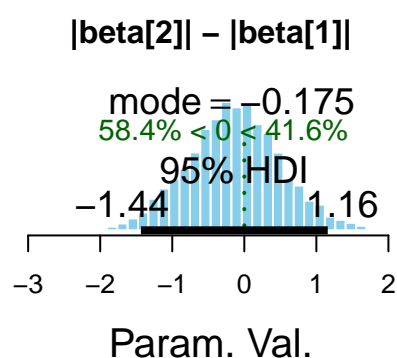
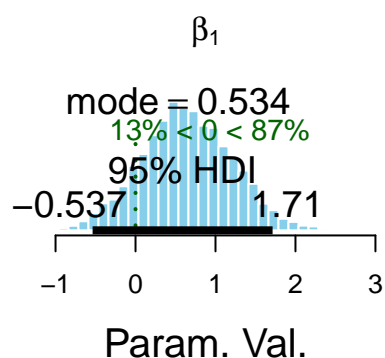
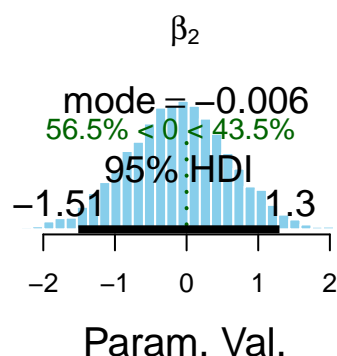
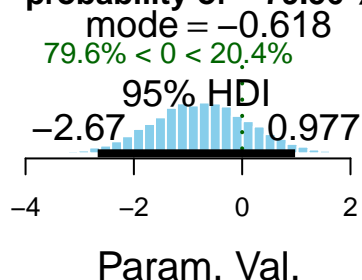
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= STEW cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4914.248 5345.030 5711.672 5279.405 4914.248 5345.030 5445.865 4268.017
## betaSIZE
## 4552.042
## [1] "The difference of STEW impact \n between DEdich cut samples in DISCL has a\n probability of "
```

**The difference of STEW impact  
between DEdich cut samples in DISCL has a  
probability of -98.63 %**



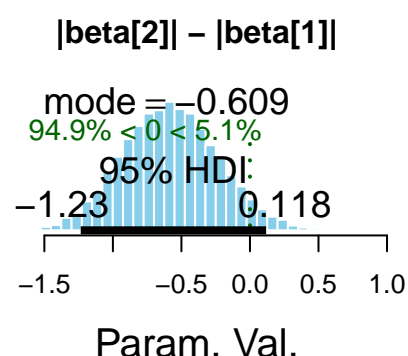
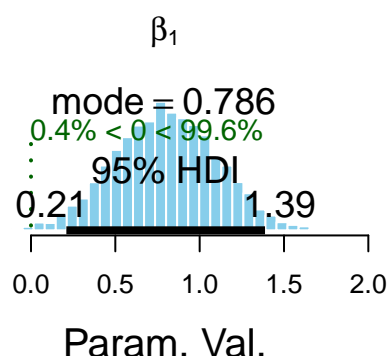
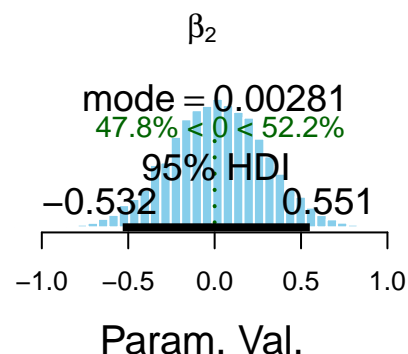
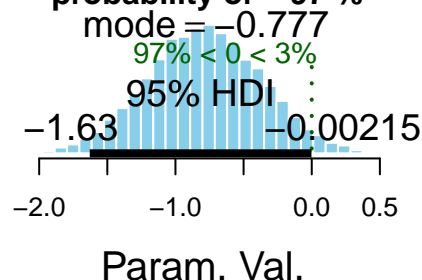
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= II_10 cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5006.129 6017.355 5969.497 5877.770 5006.129 6017.355 5259.187 4732.707
## betaSIZE
## 4331.023
## [1] "The difference of II_10 impact \n between DEdich cut samples in DISCL has a\n probability of
```

The difference of  $II_{10}$  impact  
between DEdich cut samples in DISCL has a  
probability of **-79.56 %**



```
## [1] "
## [1] " Analysis of Y= DISCL  explained by x= FOR_10 cutted by DEdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2029
##
## Initializing model
##
## alpha1[1] alpha1[2]  beta0[1]  beta0[2]  beta1[1]  beta1[2]  betaGFI  betaGPS
## 5282.312 4864.581 4720.118 5299.728 5282.312 4864.581 5105.510 4546.771
## betaSIZE
## 4348.166
## [1] "The difference of FOR_10  impact \n between DEdich cut samples in DISCL has a\n probability of
```

The difference of FOR<sub>10</sub> impact  
between DEdich cut samples in DISCL has a  
probability of **-97 %**



```
write.csv(BLbinomCut,
          file=paste(
            'DE5-binomCutResults',
            format(Sys.time(), "%d-%b-%H-%M-%S"),
            '.csv')
)
```

## DC-Separated Bayesian models

### Quantitative Y

```
X$DCdich <- factor(X$DC>median(X$DC))
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('EPS', 'ET3', 'ER3', 'ER1', 'ER')
cut.name <- 'DCdich'
BLquantiCut <- bayesList(X, x.names, y.names, cut.name, 'model1-cut.R')

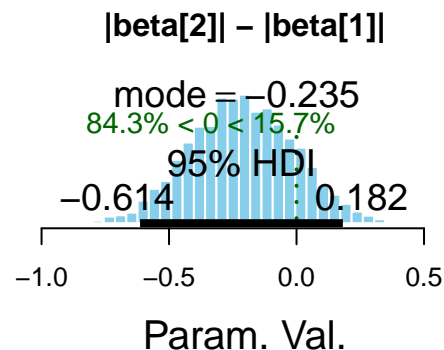
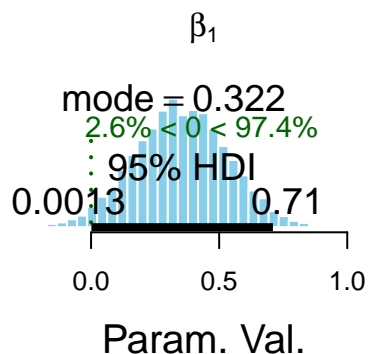
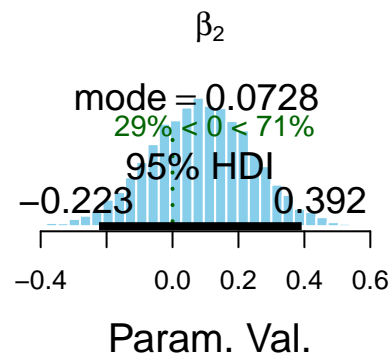
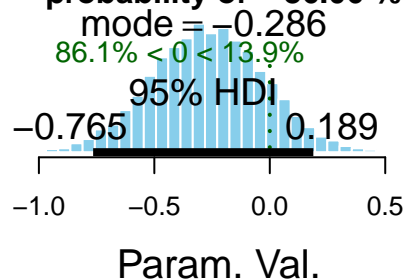
## [1] "
## [1] " Analysis of Y= EPS explained by x= PRI cutted by DCdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
```

```
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8806.693 8757.208 9000.000 8805.182 8806.693 8757.208 8505.732 7044.755
## betaSIZE
## 7005.671
## [1] "The difference of PRI impact \n between DCdich cut samples in EPS has a\n probability of -86
## [1] "
## [1] " Analysis of Y= EPS explained by x= INIT cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of PRI impact  
between DCdich cut samples in EPS has a  
probability of -86.06 %**



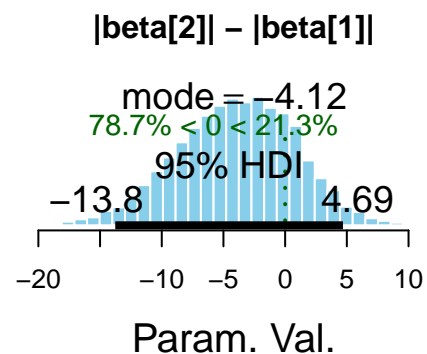
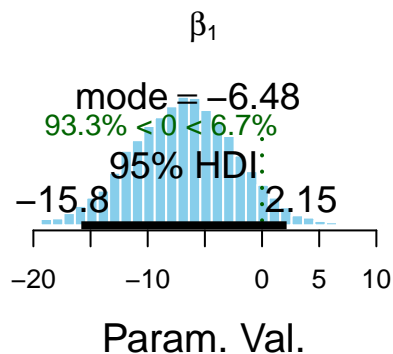
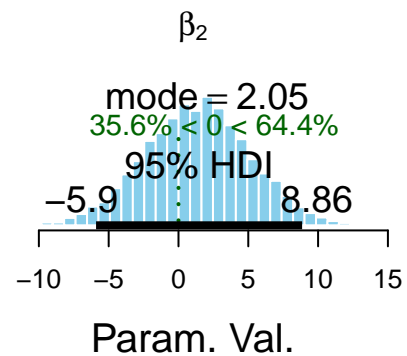
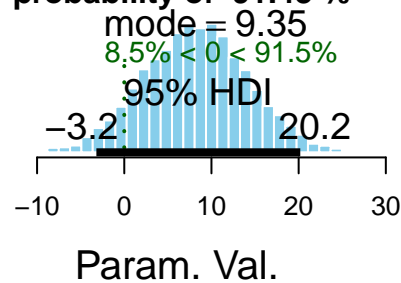
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
```

```

## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7217.574 8059.318 7878.809 7529.011 7217.574 8059.318 8286.339 6698.804
## betaSIZE
## 6901.906
## [1] "The difference of INIT impact \n between DCdich cut samples in EPS has a\n probability of 91
## [1] "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of INIT impact  
between DCdich cut samples in EPS has a  
probability of 91.48 %**



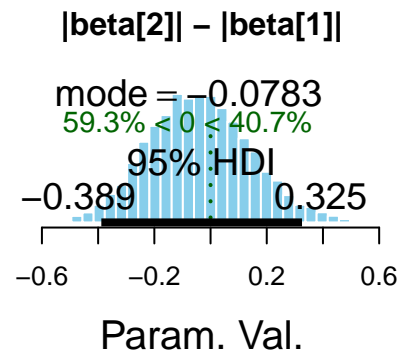
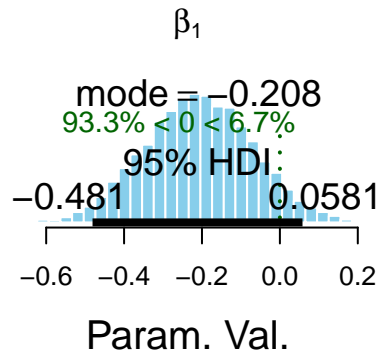
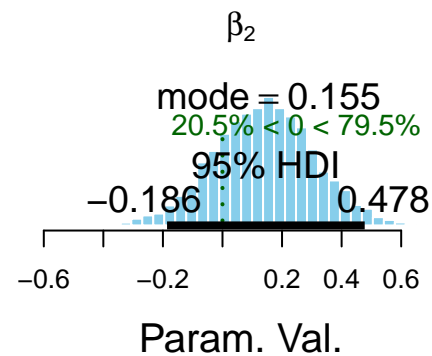
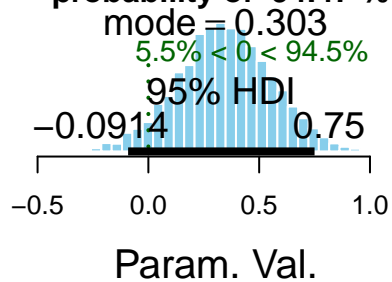
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table

```

```
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7425.194 6533.821 8632.377 7677.665 7425.194 6533.821 7018.817 7329.574
## betaSIZE
## 6299.472
## [1] "The difference of EPI impact \n between DCdich cut samples in EPS has a\n probability of 94.47 %
## [1] "
## [1] " Analysis of Y= EPS explained by x= STEW cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between DCdich cut samples in EPS has a  
probability of 94.47 %**



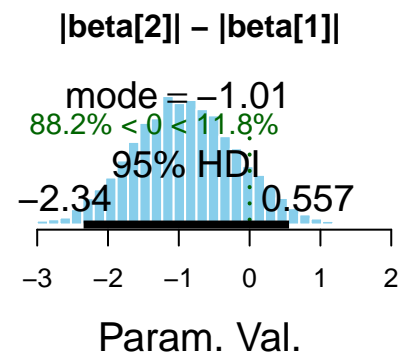
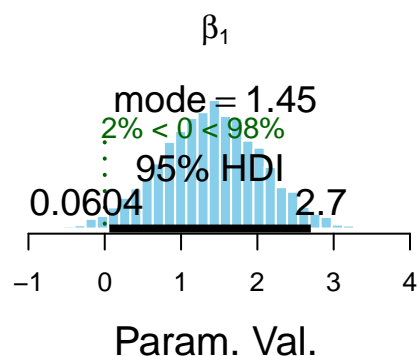
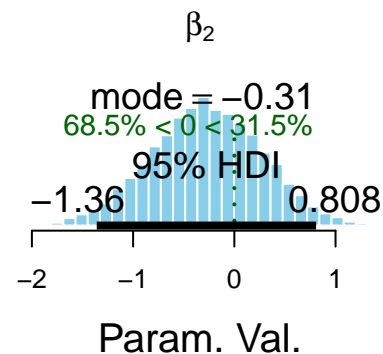
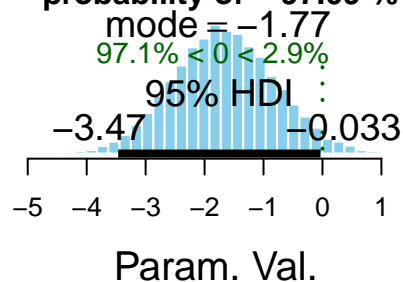
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
```

```

## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7664.104 8207.300 9000.000 9786.511 7664.104 8207.300 7823.457 6982.579
## betaSIZE
## 6674.229
## [1] "The difference of STEW impact \n between DCdich cut samples in EPS has a\n probability of -9
## [1] "
## [1] " Analysis of Y= EPS explained by x= II_10 cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of STEW impact  
between DCdich cut samples in EPS has a  
probability of -97.09 %**



```

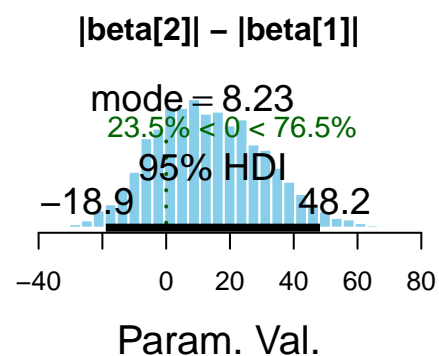
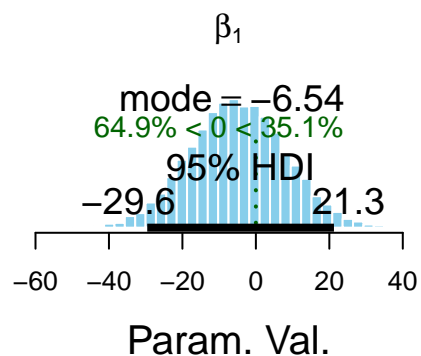
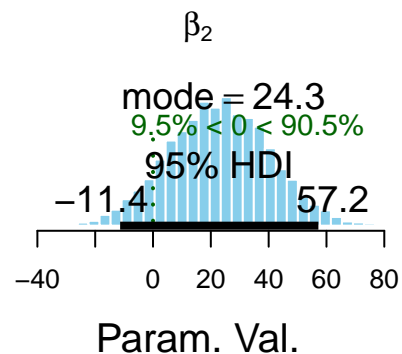
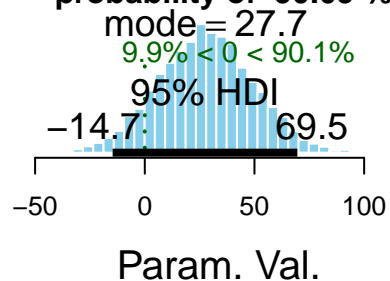
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables

```



```
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8210.040 8542.983 9327.632 8382.241 8210.040 8542.983 8730.585 6540.577
## betaSIZE
## 6697.894
## [1] "The difference of II_10 impact \n between DCdich cut samples in EPS has a\n probability of 90.09 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= FOR_10 cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

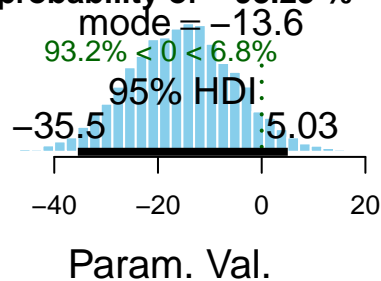
**The difference of II\_10 impact  
between DCdich cut samples in EPS has a  
probability of 90.09 %**



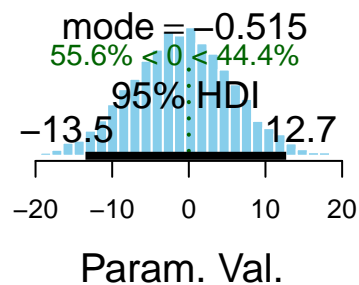
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
```

```
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7221.581 7805.325 8759.351 8747.590 7221.581 7805.325 7775.812 7204.915
## betaSIZE
## 6444.973
## [1] "The difference of FOR_10 impact \n between DCdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

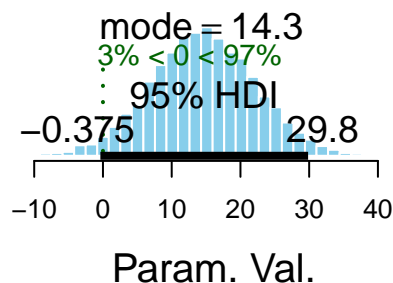
**The difference of FOR\_10 impact  
between DCdich cut samples in EPS has a  
probability of -93.23 %**



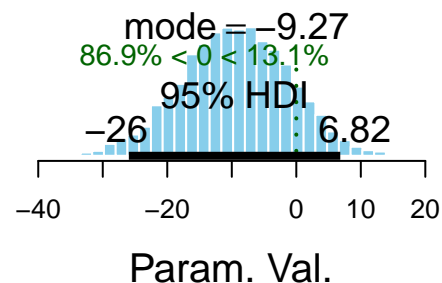
$\beta_2$



$\beta_1$



**|beta[2]| - |beta[1]|**



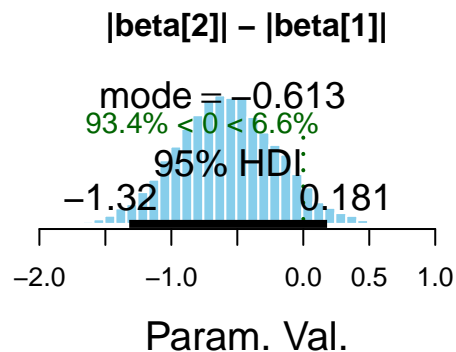
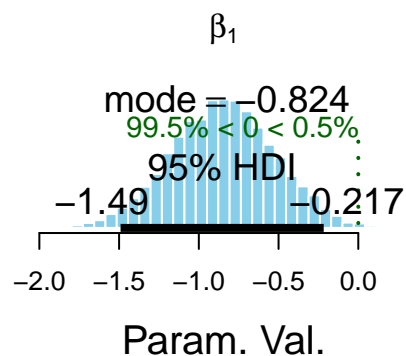
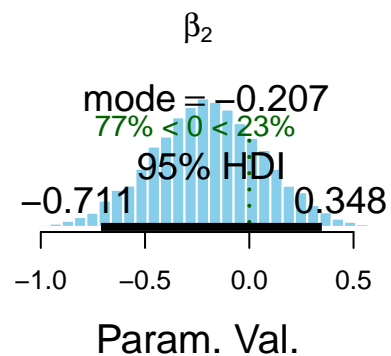
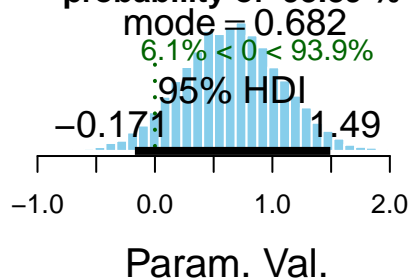
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
```

```

## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 8785.144 8826.936 8453.760 9000.000 8785.144 8266.880 7216.193
## betaSIZE
## 7190.785
## [1] "The difference of PRI impact \n between DCdich cut samples in ET3 has a\n probability of 93.9
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of PRI impact  
between DCdich cut samples in ET3 has a  
probability of 93.89 %**



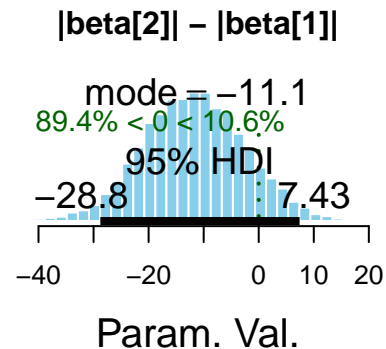
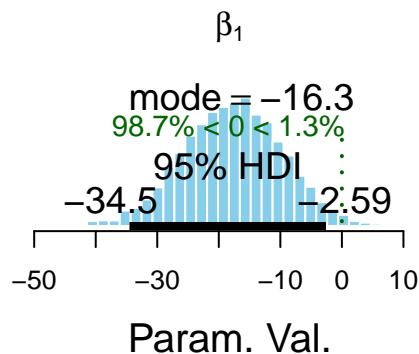
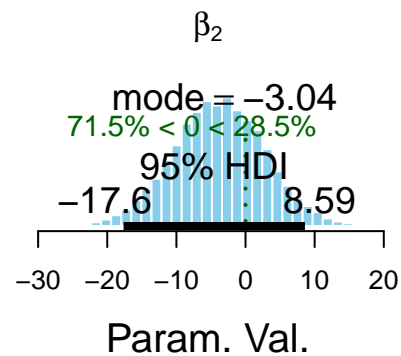
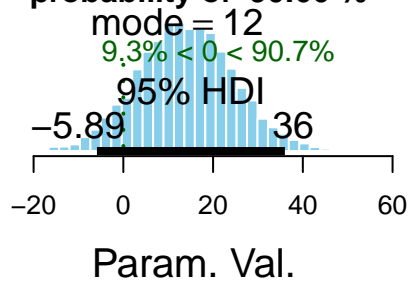
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131

```

```
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8446.946 7317.702 7657.502 7381.111 8446.946 7317.702 8427.891 6841.104
## betaSIZE
## 6620.044
## [1] "The difference of INIT impact \n between DCdich cut samples in ET3 has a\n probability of 90
## [1] "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

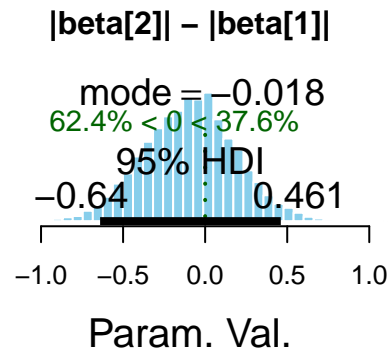
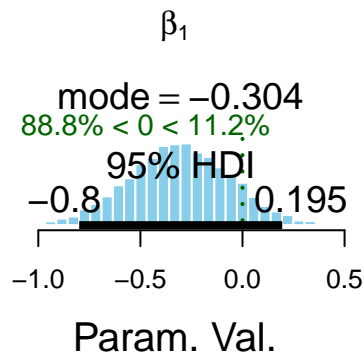
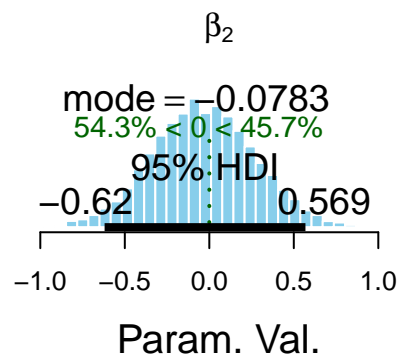
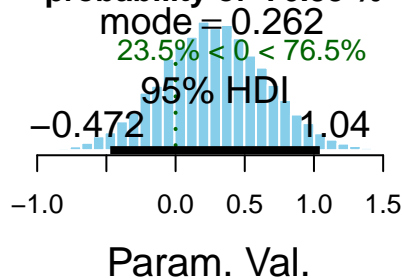
**The difference of INIT impact  
between DCdich cut samples in ET3 has a  
probability of 90.66 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
```

```
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7046.507 6945.439 8079.357 7184.948 7046.507 6945.439 6743.019 6851.531
## betaSIZE
## 6529.552
## [1] "The difference of EPI impact \n between DCdich cut samples in ET3 has a\n probability of 76.53 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ET3 explained by x= STEW cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

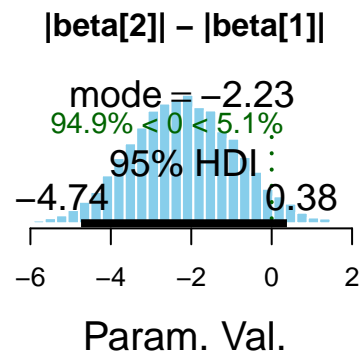
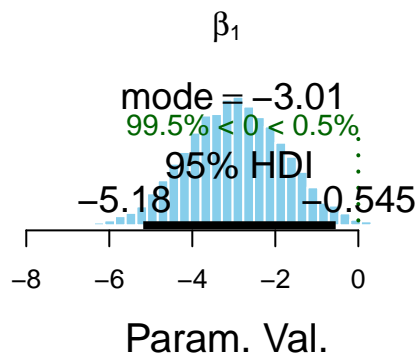
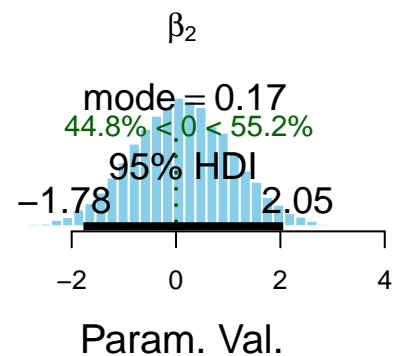
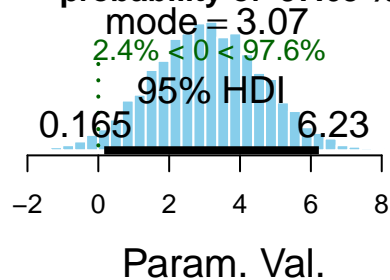
**The difference of EPI impact  
between DCdich cut samples in ET3 has a  
probability of 76.53 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
```

```
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8928.406 9000.000 9171.756 9000.000 8928.406 9000.000 8217.008 6595.363
## betaSIZE
## 7162.329
## [1] "The difference of STEW impact \n between DCdich cut samples in ET3 has a\n probability of 97
## [1] "
## [1] " Analysis of Y= ET3 explained by x= II_10 cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

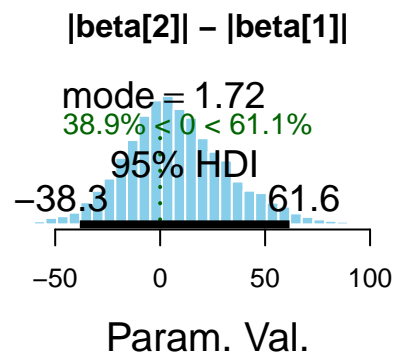
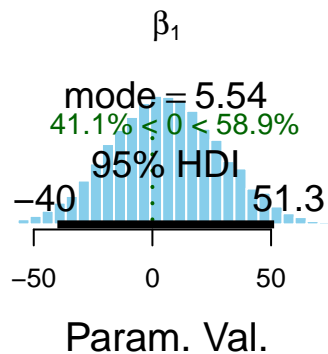
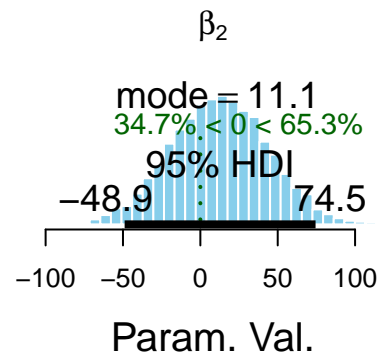
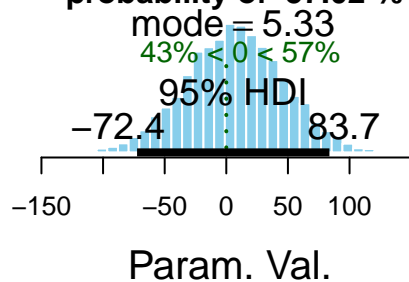
**The difference of STEW impact  
between DCdich cut samples in ET3 has a  
probability of 97.63 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
```

```
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8266.458 8633.999 8530.946 8192.610 8266.458 8633.999 8457.954 7195.760
## betaSIZE
## 6806.319
## [1] "The difference of II_10 impact \n between DCdich cut samples in ET3 has a\n probability of 57.02 %
## [1] "
## [1] " Analysis of Y= ET3 explained by x= FOR_10 cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

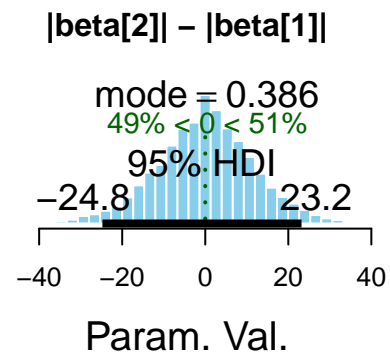
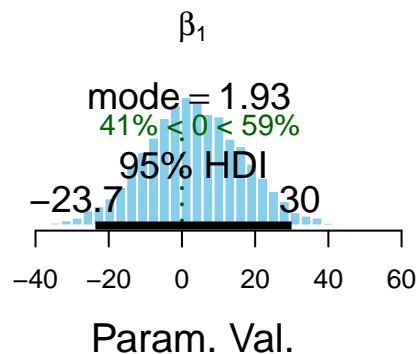
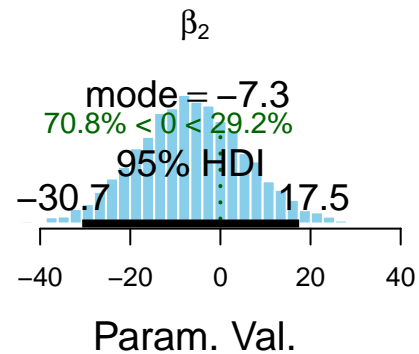
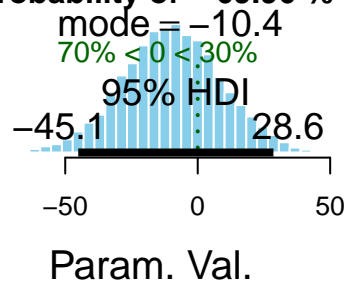
**The difference of II\_10 impact  
between DCdich cut samples in ET3 has a  
probability of 57.02 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2043
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7404.019 7629.532 9000.000 9000.000 7404.019 7629.532 7718.785 7431.351
## betaSIZE
## 6131.305
## [1] "The difference of FOR_10 impact \n between DCdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= PRI cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of FOR\_10 impact  
between DCdich cut samples in ET3 has a  
probability of -69.96 %**

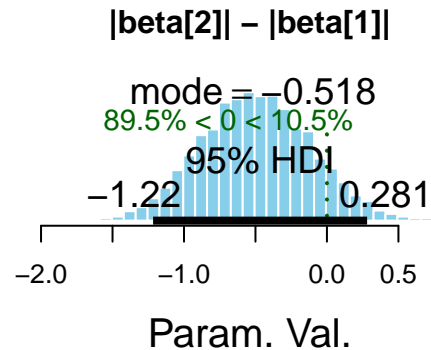
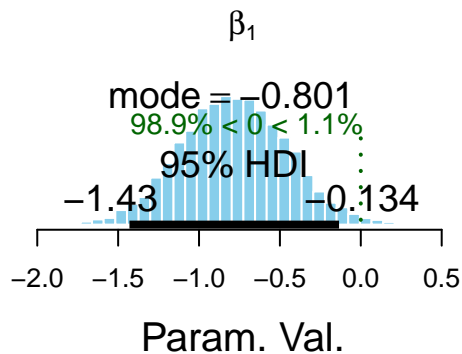
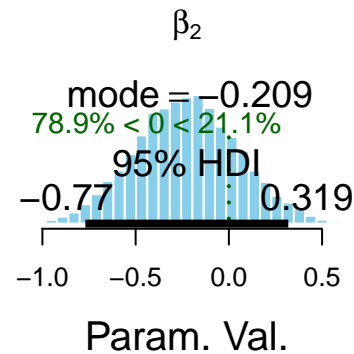
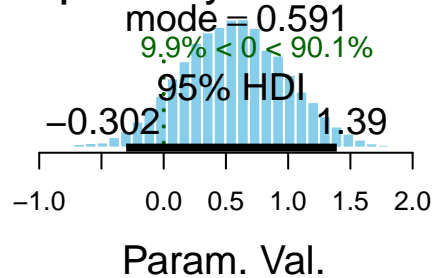


```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
```



```
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8807.432 8806.200 8740.188 8651.024 8807.432 8806.200 8413.207 7009.764
## betaSIZE
## 6957.090
## [1] "The difference of PRI impact \n between DCdich cut samples in ER3 has a\n probability of 90.06 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ER3 explained by x= INIT cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

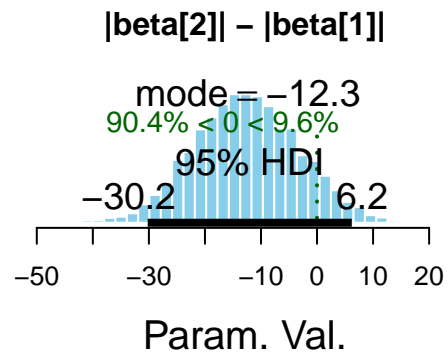
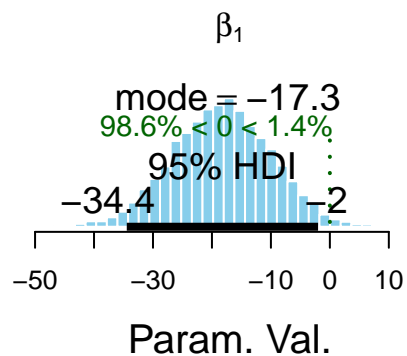
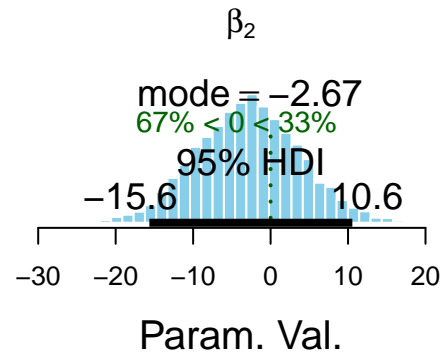
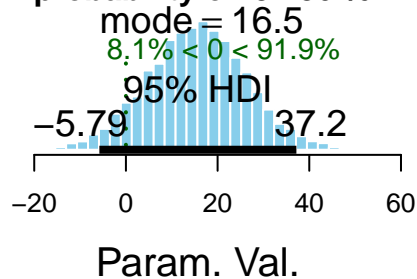
**The difference of PRI impact  
between DCdich cut samples in ER3 has a  
probability of 90.06 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
```

```
## 6388.297 8076.460 8017.954 7675.948 6388.297 8076.460 7922.711 6674.883
## betaSIZE
## 6782.179
## [1] "The difference of INIT impact \n between DCdich cut samples in ER3 has a\n probability of 91
## [1] "
## [1] " Analysis of Y= ER3 explained by x= EPI cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

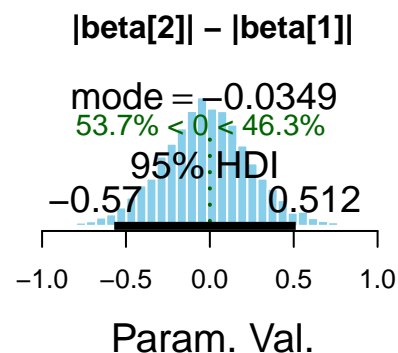
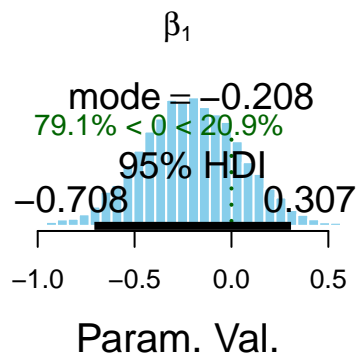
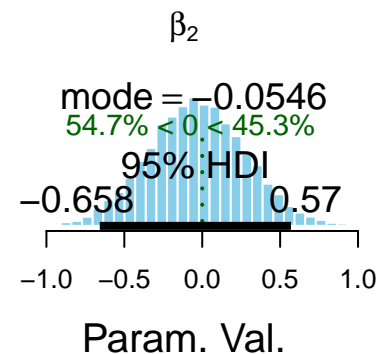
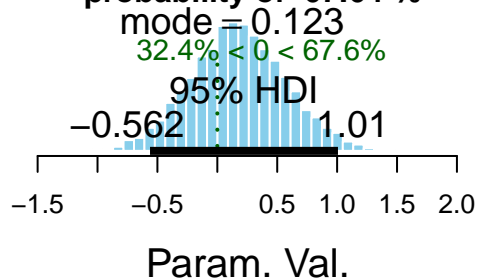
**The difference of INIT impact  
between DCdich cut samples in ER3 has a  
probability of 91.86 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7640.649 6573.362 8241.528 7199.679 7640.649 6573.362 6822.637 7047.804
```

```
## betaSIZE
## 6154.544
## [1] "The difference of EPI impact \n between DCdich cut samples in ER3 has a\n probability of 67.64 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= STEW cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

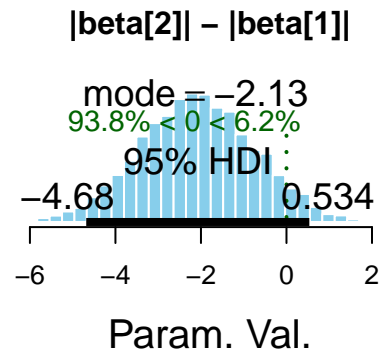
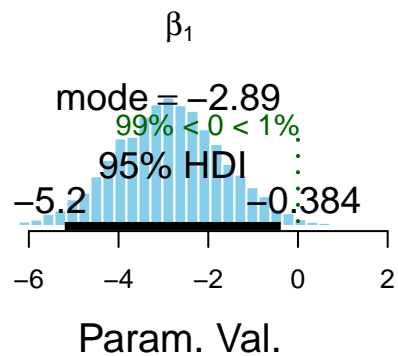
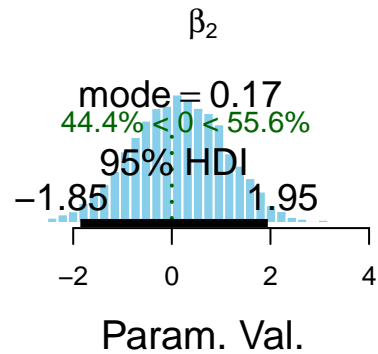
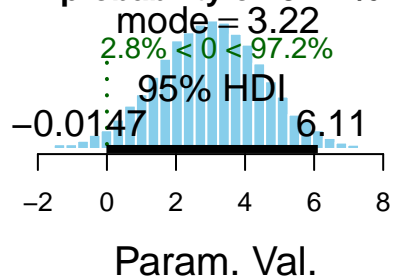
**The difference of EPI impact  
between DCdich cut samples in ER3 has a  
probability of 67.64 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8119.312 9000.000 9330.160 9247.735 8119.312 9000.000 8751.298 6959.124
## betaSIZE
```

```
## 6806.520
## [1] "The difference of STEW impact \n between DCdich cut samples in ER3 has a\n probability of 97
## [1] "
## [1] " Analysis of Y= ER3 explained by x= II_10 cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

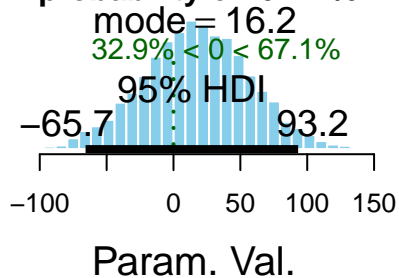
**The difference of STEW impact  
between DCdich cut samples in ER3 has a  
probability of 97.2 %**



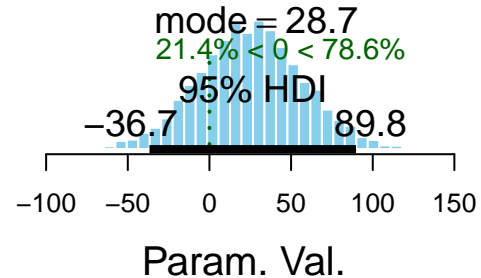
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8448.608 8716.389 9000.000 8420.151 8448.608 8716.389 8226.183 7067.559
## betaSIZE
## 6474.958
```

```
## [1] "The difference of II_10 impact \n between DCdich cut samples in ER3 has a\n probability of 67.1 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= FOR_10 cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

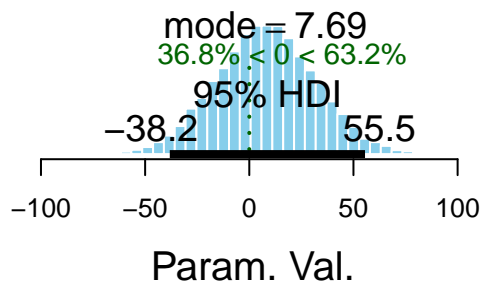
**The difference of II\_10 impact  
between DCdich cut samples in ER3 has a  
probability of 67.1 %**



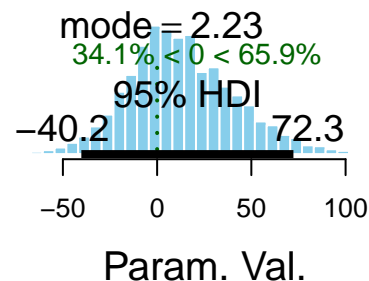
$\beta_2$



$\beta_1$



**|beta[2]| - |beta[1]|**

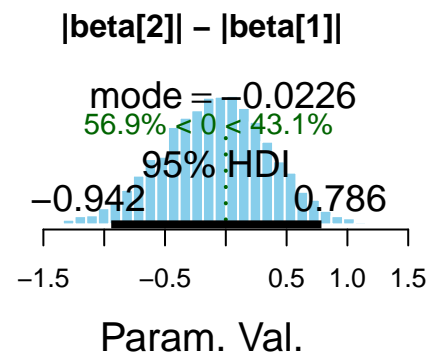
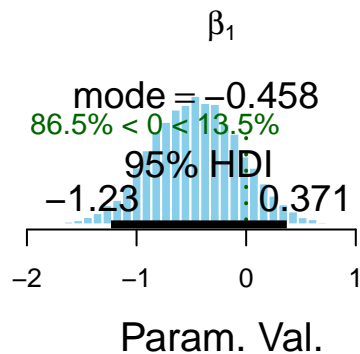
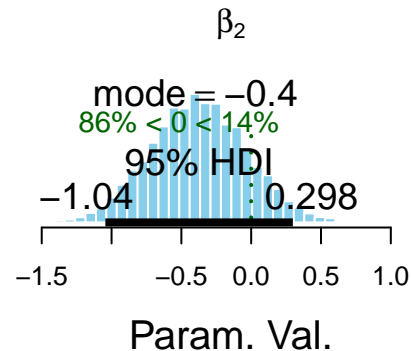
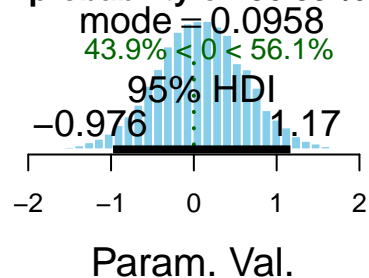


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7421.529 7467.179 9307.119 9239.111 7421.529 7467.179 7399.967 7239.725
## betaSIZE
## 6494.540
## [1] "The difference of FOR_10 impact \n between DCdich cut samples in ER3 has a\n probability of 67.1 %"
```



```
## [1] " Analysis of Y= ER1  explained by x= INIT cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

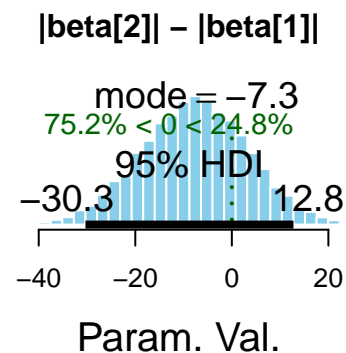
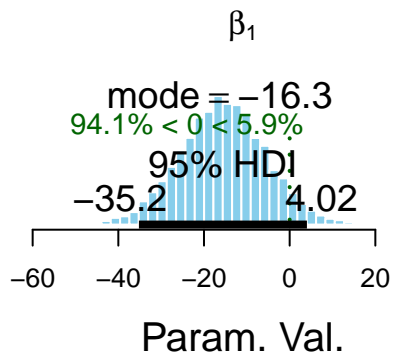
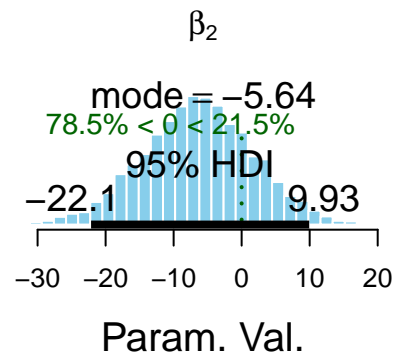
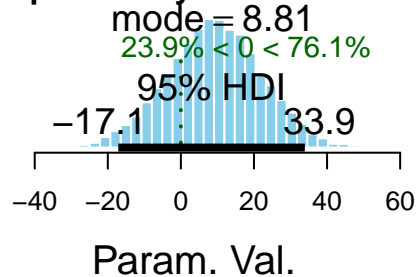
**The difference of PRI impact  
between DCdich cut samples in ER1 has a  
probability of 56.08 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7523.305 7962.245 8453.696 8136.412 7523.305 7962.245 8202.974 7615.861
## betaSIZE
## 6529.998
## [1] "The difference of INIT impact \n between DCdich cut samples in ER1 has a\n probability of 76
## [1] "
## [1] " Analysis of Y= ER1  explained by x= EPI cutted by DCdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of INIT impact  
between DCdich cut samples in ER1 has a  
probability of 76.12 %**

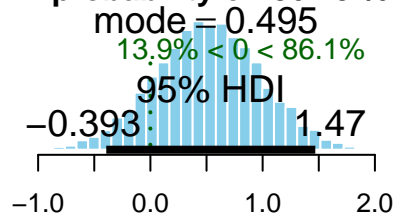


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6860.712 6439.395 8028.454 7315.455 6860.712 6439.395 6774.133 7317.470
## betaSIZE
## 6381.143
## [1] "The difference of EPI impact \n between DCdich cut samples in ER1 has a\n probability of 86.
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ER1 explained by x= STEW cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
```



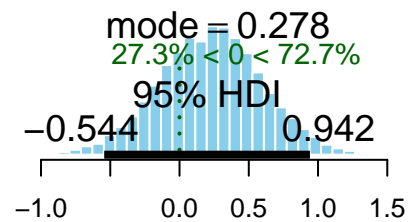
```
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between DCdich cut samples in ER1 has a  
probability of 86.13 %**



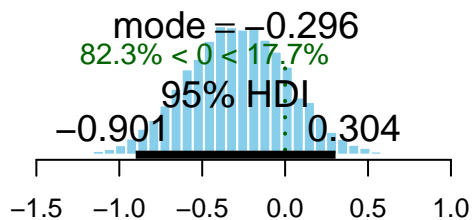
Param. Val.

$\beta_2$



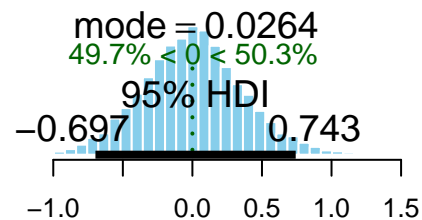
Param. Val.

$\beta_1$



Param. Val.

$|\beta_2| - |\beta_1|$



Param. Val.

```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
```

```
## Initializing model
```

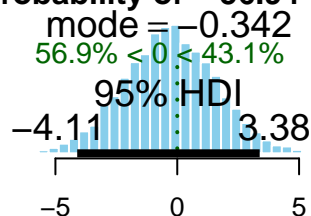
```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7990.358 8783.844 9000.000 9000.000 7990.358 8783.844 8529.508 6977.584
## betaSIZE
## 6628.840
```

```
## [1] "The difference of STEW impact \n between DCdich cut samples in ER1 has a\n probability of -5
```

```
## [1] "
## [1] " Analysis of Y= ER1 explained by x= II_10 cutted by DCdich"
```

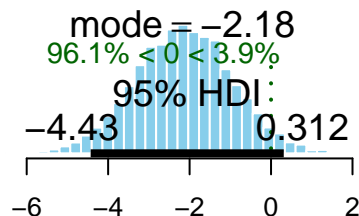
```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of STEW impact  
between DCdich cut samples in ER1 has a  
probability of -56.94 %



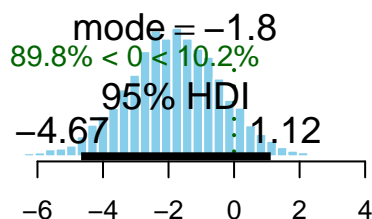
Param. Val.

$\beta_2$



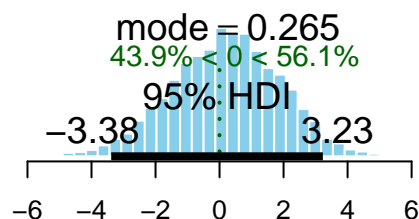
Param. Val.

$\beta_1$



Param. Val.

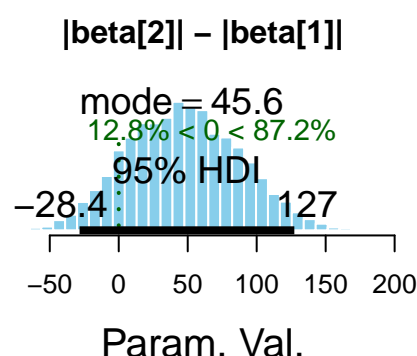
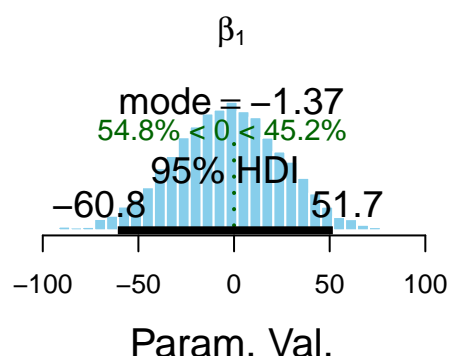
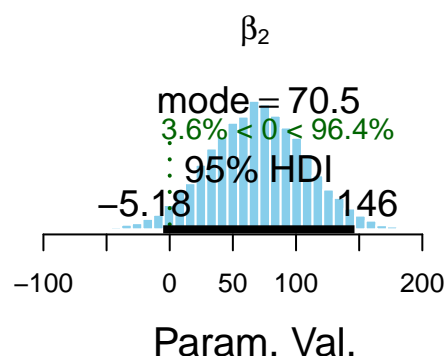
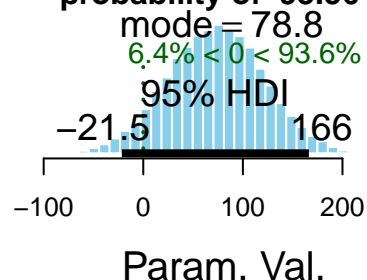
$|\text{beta}[2]| - |\text{beta}[1]|$



Param. Val.

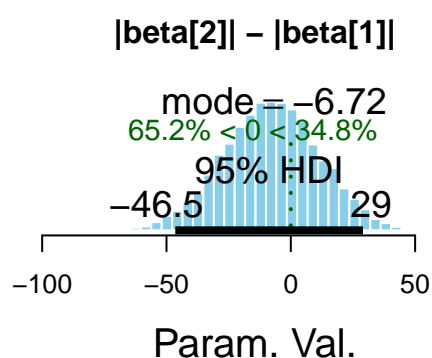
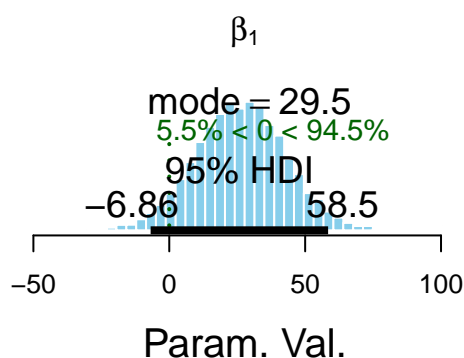
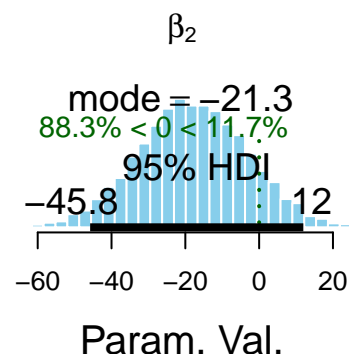
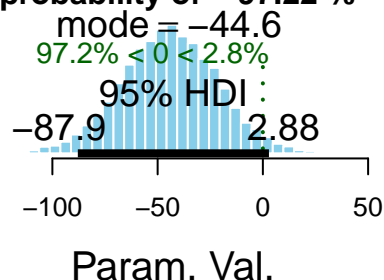
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8492.713 8846.083 8659.603 7988.682 8492.713 8846.083 8932.658 7154.124
## betaSIZE
## 6525.444
## [1] "The difference of II_10 impact \n between DCdich cut samples in ER1 has a\n probability of 9
## [1] "
## [1] " Analysis of Y= ER1 explained by x= FOR_10 cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $II_{10}$  impact  
between DCdich cut samples in ER1 has a  
probability of 93.56 %



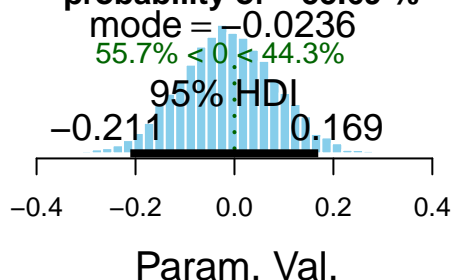
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7535.692 7597.748 9000.000 8812.200 7535.692 7597.748 7382.185 6953.886
## betaSIZE
## 6257.749
## [1] "The difference of FOR_10 impact \n between DCdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= PRI cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of FOR\_10 impact  
between DCdich cut samples in ER1 has a  
probability of -97.22 %

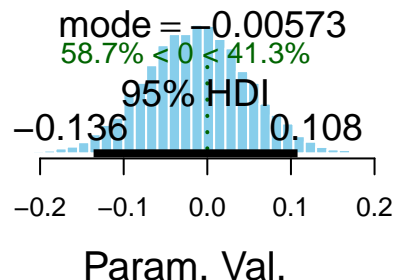


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8840.354 8592.533 9000.000 8774.485 8840.354 8592.533 8513.784 7142.772
## betaSIZE
## 6859.248
## [1] "The difference of PRI impact \n between DCdich cut samples in ER has a\n probability of -55.
## [1] "
## [1] " Analysis of Y= ER explained by x= INIT cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

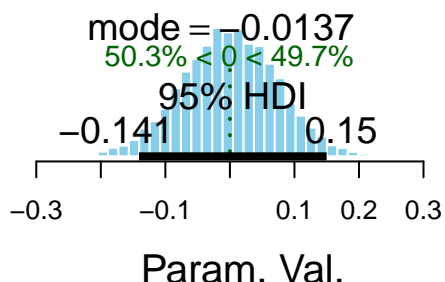
**The difference of PRI impact  
between DCdich cut samples in ER has a  
probability of -55.69 %**



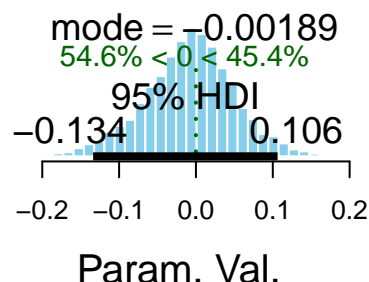
$\beta_2$



$\beta_1$

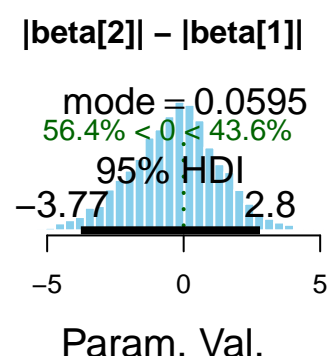
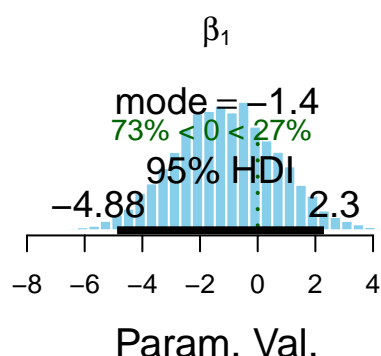
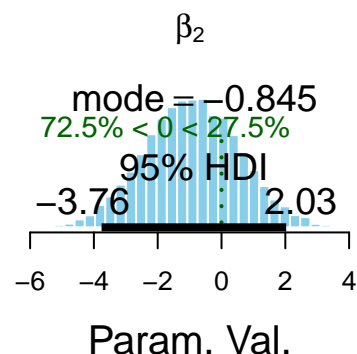
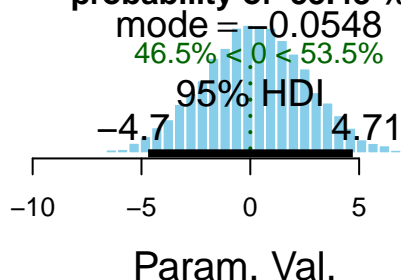


$|\text{beta}[2]| - |\text{beta}[1]|$



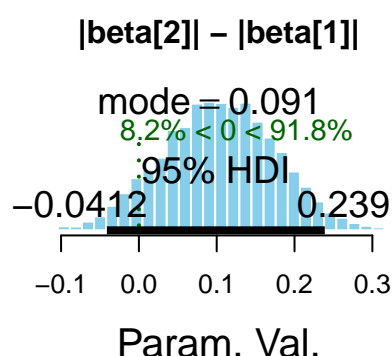
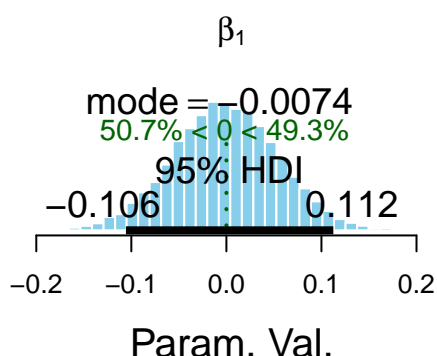
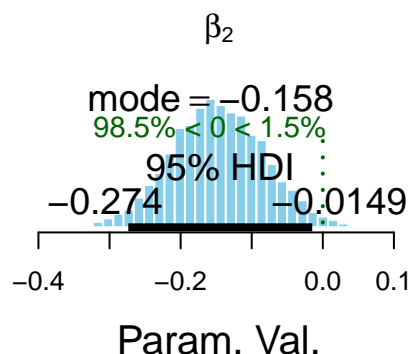
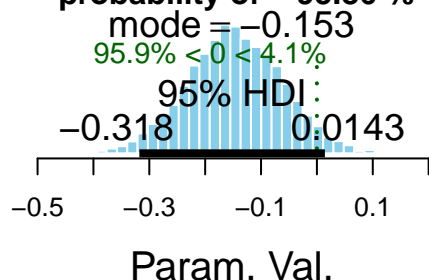
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6964.508 7994.077 8179.963 7807.169 6964.508 7994.077 8549.964 7202.941
## betaSIZE
## 6813.698
## [1] "The difference of INIT impact \n between DCdich cut samples in ER has a\n probability of 53.
## [1] "
## [1] " Analysis of Y= ER explained by x= EPI cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of INIT impact  
between DCdich cut samples in ER has a  
probability of 53.48 %



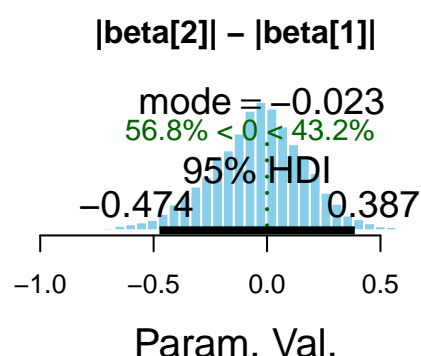
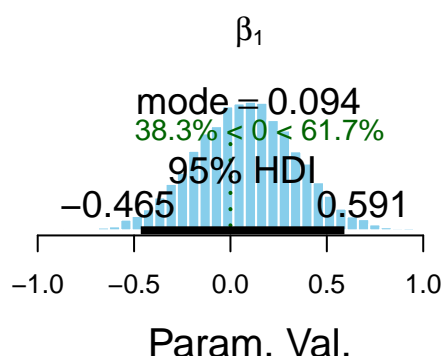
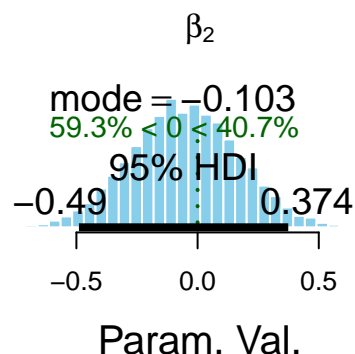
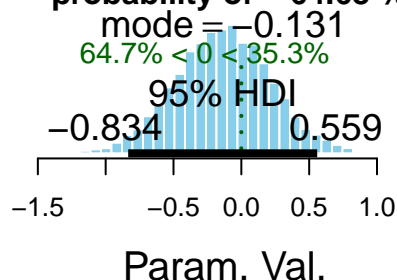
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7039.550 6741.916 8236.121 7567.062 7039.550 6741.916 6957.564 6959.713
## betaSIZE
## 6198.422
## [1] "The difference of EPI impact \n between DCdich cut samples in ER has a\n probability of -95.
## [1] "
## [1] " Analysis of Y= ER explained by x= STEW cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of EPI impact  
between DCdich cut samples in ER has a  
probability of -95.86 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2047
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8569.216 9293.505 9000.000 8135.315 8569.216 9293.505 8342.123 6933.033
## betaSIZE
## 6821.183
## [1] "The difference of STEW impact \n between DCdich cut samples in ER has a\n probability of -64
## [1] "
## [1] " Analysis of Y= ER explained by x= II_10 cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

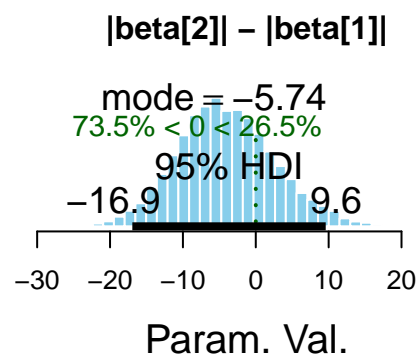
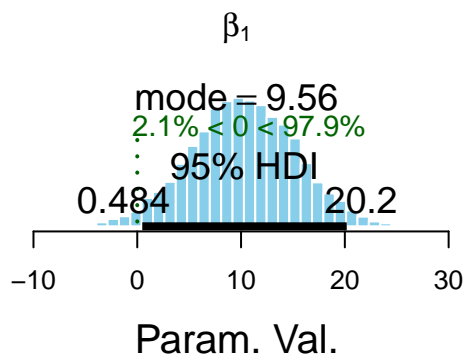
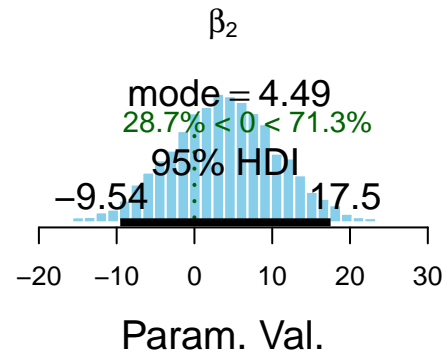
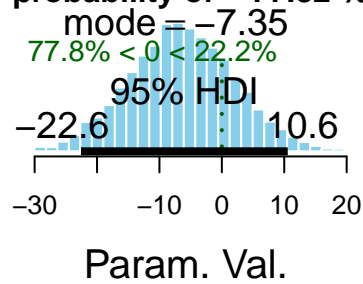
**The difference of STEW impact  
between DCdich cut samples in ER has a  
probability of -64.68 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8753.429 9074.812 10231.582 9000.000 8753.429 9074.812 8564.664 7252.797
## betaSIZE
## 6238.788
## [1] "The difference of II_10 impact \n between DCdich cut samples in ER has a\n probability of -7"
## [1] "
## [1] " Analysis of Y= ER explained by x= FOR_10 cutted by DCdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

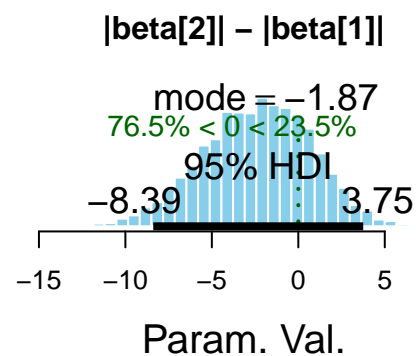
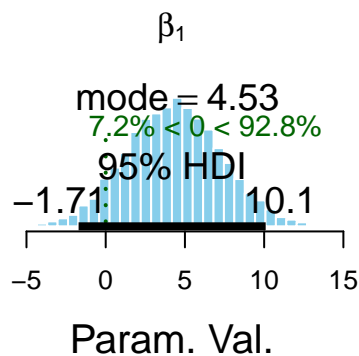
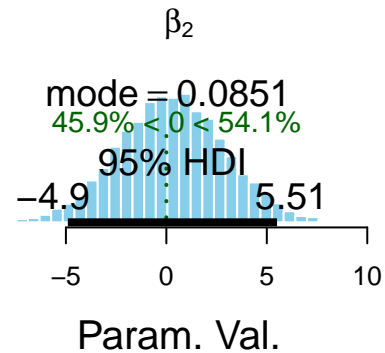
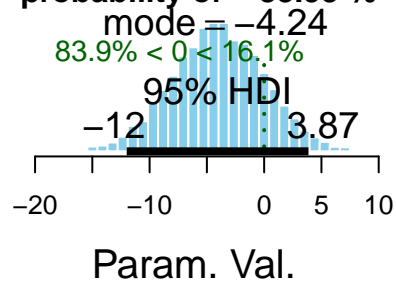


The difference of  $\Pi_{10}$  impact  
between DCdich cut samples in ER has a  
probability of -77.82 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7282.438 7427.638 9085.303 9372.956 7282.438 7427.638 7616.469 6905.509
## betaSIZE
## 6365.888
## [1] "The difference of FOR_10 impact \n between DCdich cut samples in ER has a\n probability of -"
```

The difference of FOR\_10 impact  
between DCdich cut samples in ER has a  
probability of -83.93 %



```
write.csv(BLquantiCut,
  file=paste(
    'DC-quantiResults-cut',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

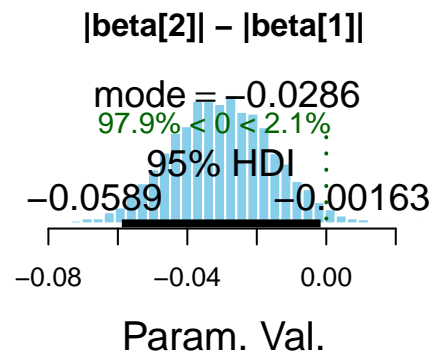
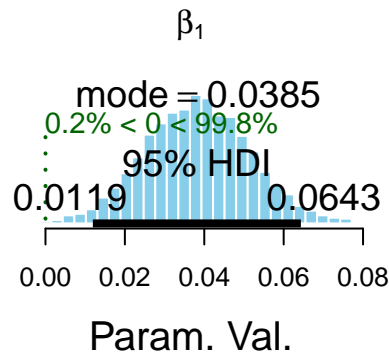
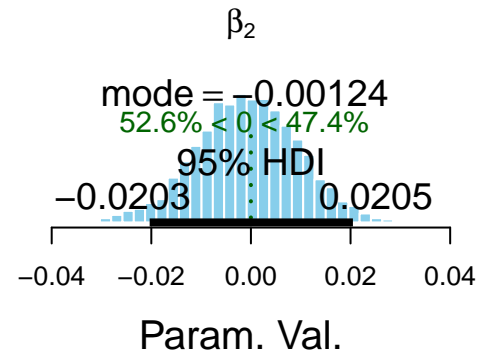
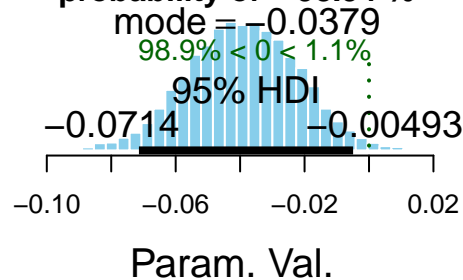
## Binomial Y

```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('CP', 'DISCL')
BLbinomCut <- bayesList(X, x.names, y.names, cut.name, 'model2-cut.R')
```

```
## [1] "
## [1] " Analysis of Y= CP explained by x= PRI cutted by DCdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
```

```
## Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5769.080 5288.419 5017.788 5450.250 5769.080 5288.419 5299.797 4415.848
## betaSIZE
## 4653.378
## [1] "The difference of PRI impact \n between DCdich cut samples in CP has a\n probability of -98.94 %"
```

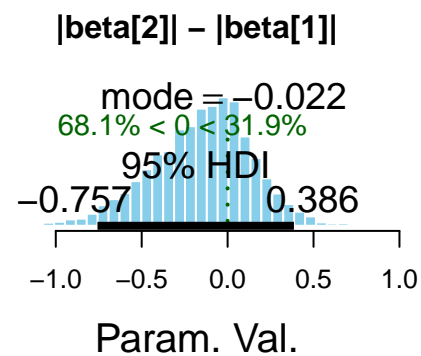
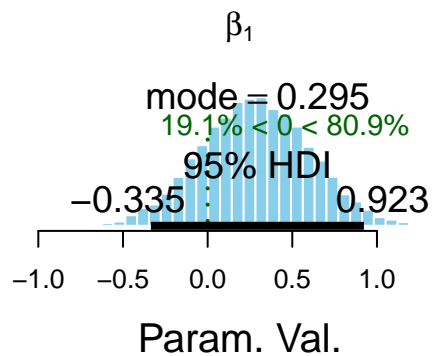
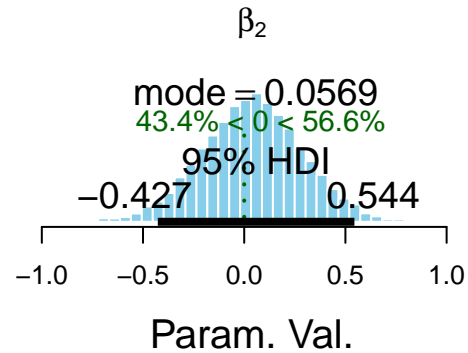
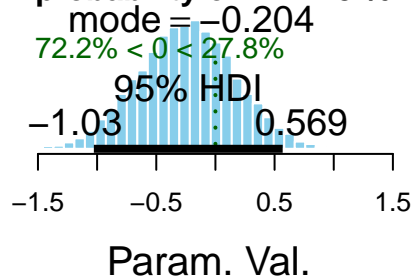
**The difference of PRI impact  
between DCdich cut samples in CP has a  
probability of -98.94 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= INIT cutted by DCdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2039
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4850.628 4975.120 5205.860 4734.718 4850.628 4975.120 5527.087 4823.635
## betaSIZE
## 4404.400
## [1] "The difference of INIT impact \n between DCdich cut samples in CP has a\n probability of -72
```

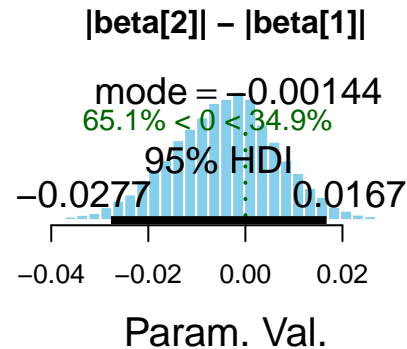
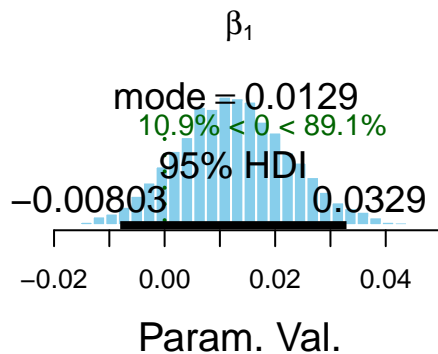
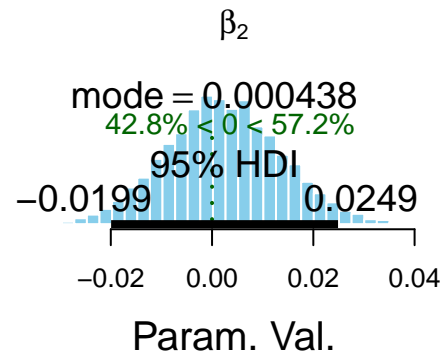
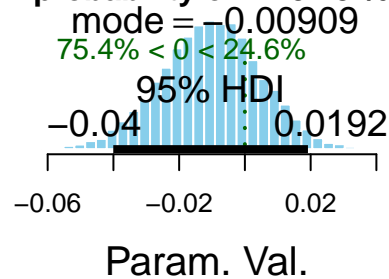
**The difference of INIT impact  
between DCdich cut samples in CP has a  
probability of -72.23 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= EPI cutted by DCdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4827.504 3706.833 5553.319 5777.422 4827.504 3706.833 4502.044 4450.617
```

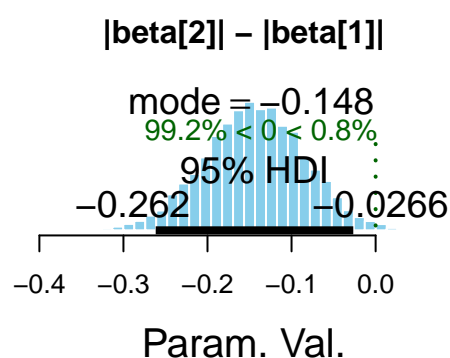
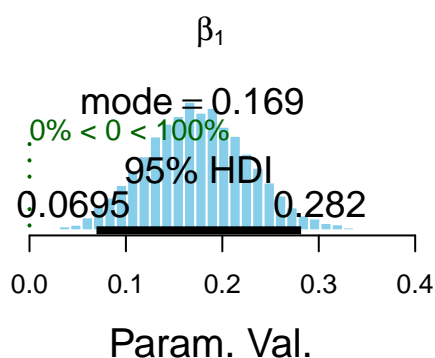
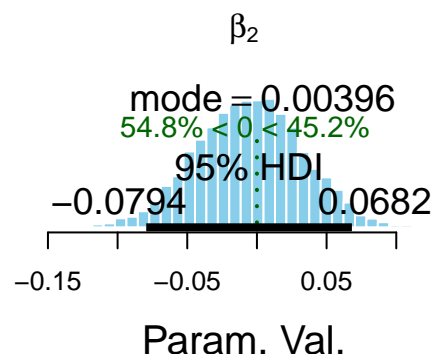
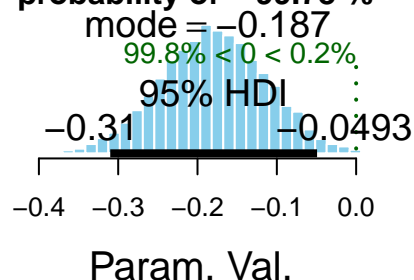
```
## betaSIZE
## 4413.961
## [1] "The difference of EPI impact \n between DCdich cut samples in CP has a\n probability of -75.4"
```

**The difference of EPI impact  
between DCdich cut samples in CP has a  
probability of -75.43 %**



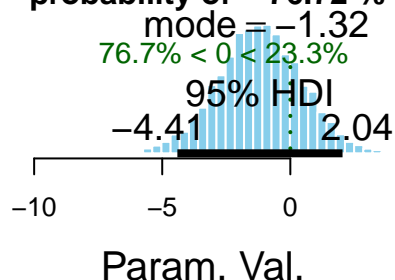
```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= STEW cutted by DCdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5158.251 5072.927 5369.438 5468.876 5158.251 5072.927 5630.023 4022.419
## betaSIZE
## 4381.423
## [1] "The difference of STEW impact \n between DCdich cut samples in CP has a\n probability of -99"
```

**The difference of STEW impact  
between DCdich cut samples in CP has a  
probability of -99.78 %**

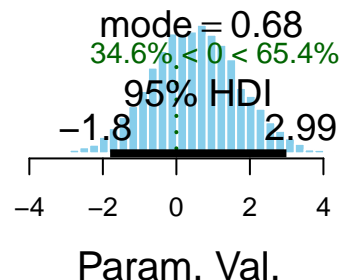


```
## [1] "
## [1] " Analysis of Y= CP explained by x= II_10 cutted by DCdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5436.663 5296.495 5446.670 5867.147 5436.663 5296.495 5698.017 4678.560
## betaSIZE
## 4380.231
## [1] "The difference of II_10 impact \n between DCdich cut samples in CP has a\n probability of -7
```

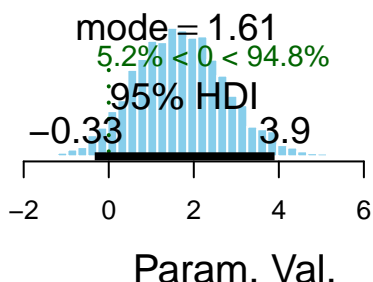
The difference of  $\text{II}_{10}$  impact  
between DCdich cut samples in CP has a  
probability of  $-76.72\%$



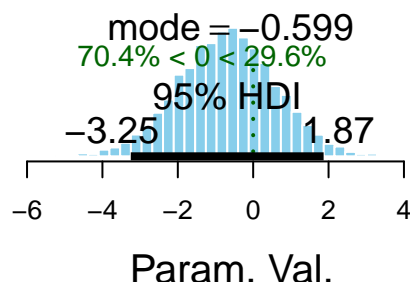
$\beta_2$



$\beta_1$

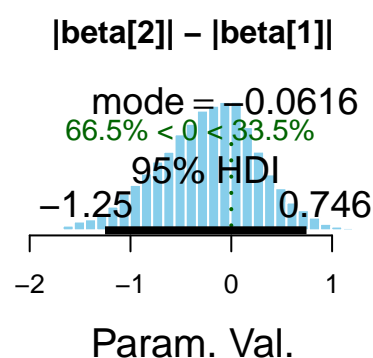
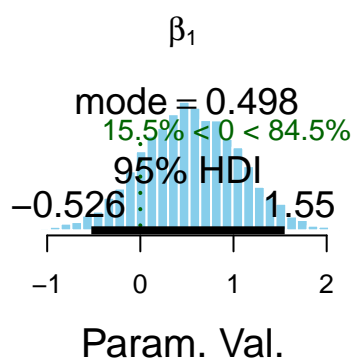
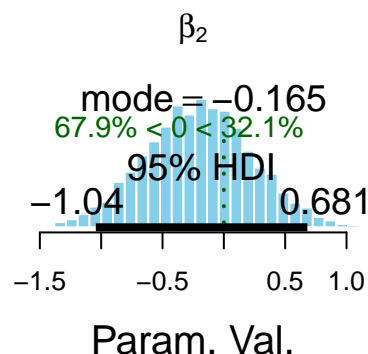
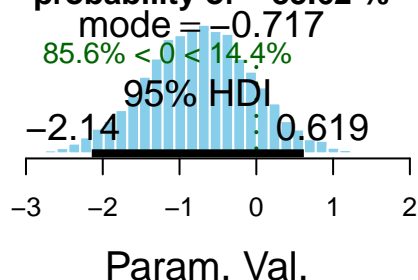


$|\text{beta}[2]| - |\text{beta}[1]|$



```
## [1] "
## [1] " Analysis of Y= CP explained by x= FOR_10 cutted by DCdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2029
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4703.152 4695.923 4047.282 4398.439 4703.152 4695.923 5114.249 4359.002
## betaSIZE
## 3956.137
## [1] "The difference of FOR_10 impact \n between DCdich cut samples in CP has a\n probability of -"
```

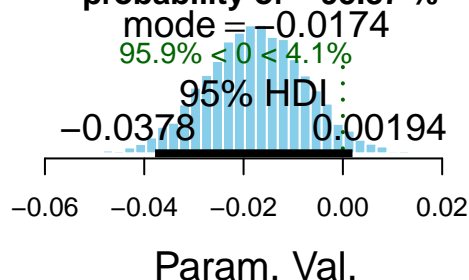
The difference of FOR\_10 impact  
between DCdich cut samples in CP has a  
probability of -85.62 %



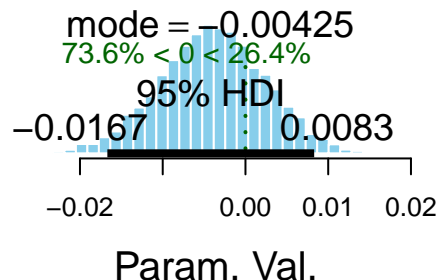
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= PRI cutted by DCdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5091.422 5715.918 4941.448 5126.471 5091.422 5715.918 5202.241 4155.157
## betaSIZE
## 4426.922
## [1] "The difference of PRI impact \n between DCdich cut samples in DISCL has a\n probability of -"
```



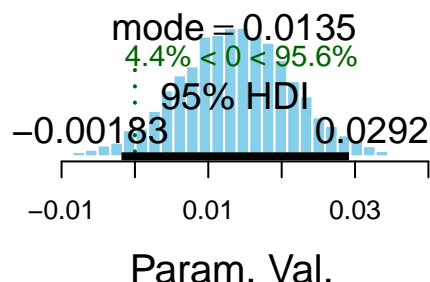
The difference of PRI impact  
between DCdich cut samples in DISCL has a  
probability of -95.87 %



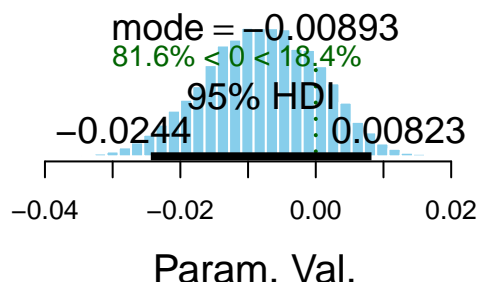
$\beta_2$



$\beta_1$

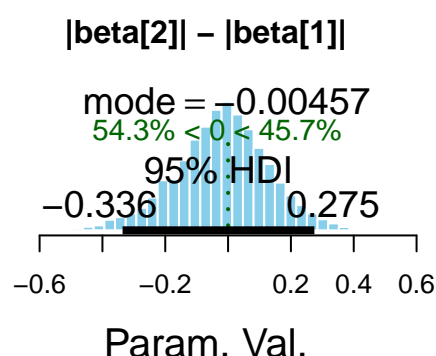
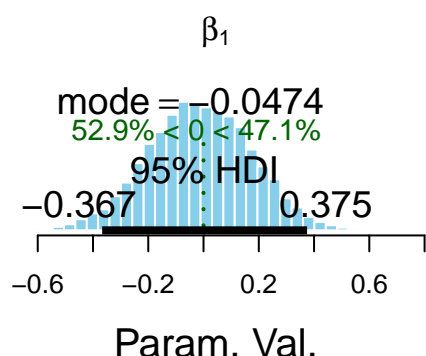
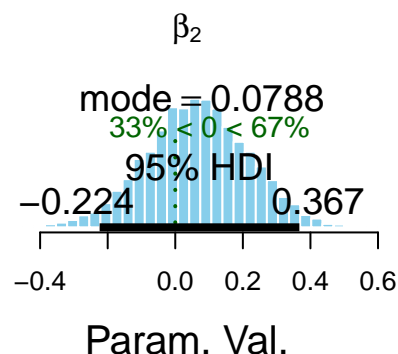
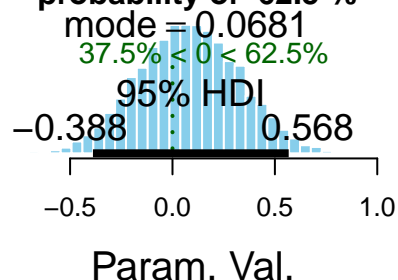


$|\text{beta}[2]| - |\text{beta}[1]|$



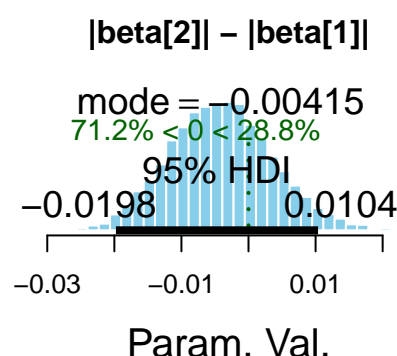
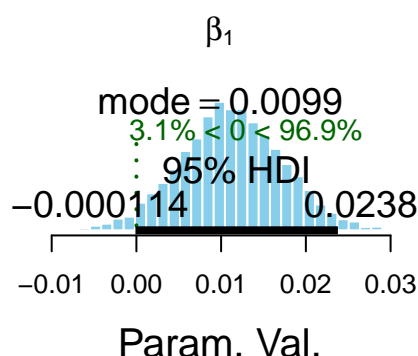
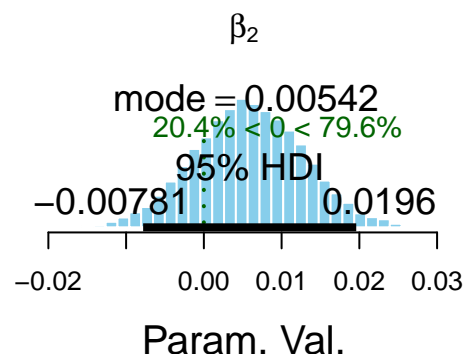
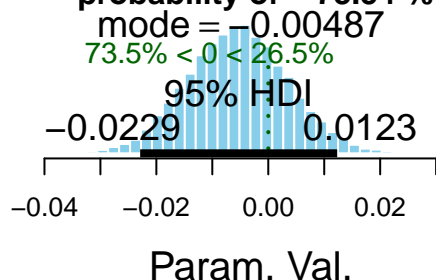
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= INIT cutted by DCdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4521.766 4971.058 4962.600 4477.048 4521.766 4971.058 4859.904 4790.565
## betaSIZE
## 4047.703
## [1] "The difference of INIT impact \n between DCdich cut samples in DISCL has a\n probability of 0"
```

The difference of INIT impact  
between DCdich cut samples in DISCL has a  
probability of 62.5 %



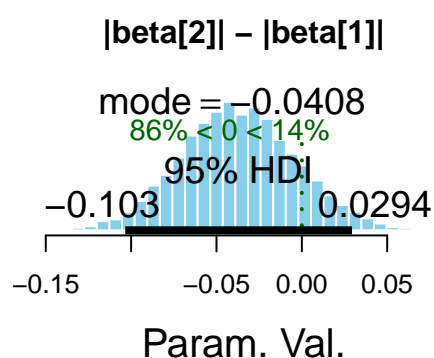
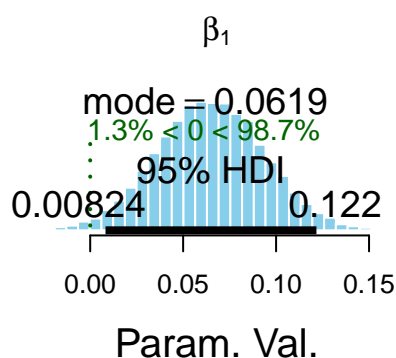
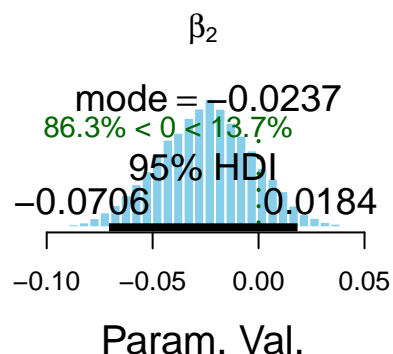
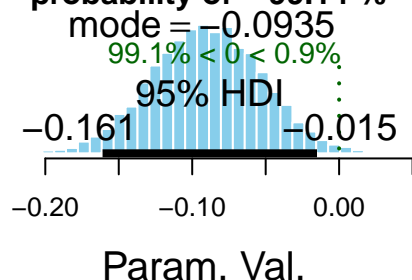
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= EPI cutted by DCdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4605.628 3990.628 5145.902 5269.161 4605.628 3990.628 4498.522 4147.121
## betaSIZE
## 4072.307
## [1] "The difference of EPI impact \n between DCdich cut samples in DISCL has a\n probability of -"
```

The difference of EPI impact  
between DCdich cut samples in DISCL has a  
probability of -73.54 %



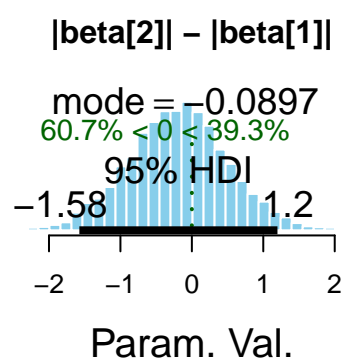
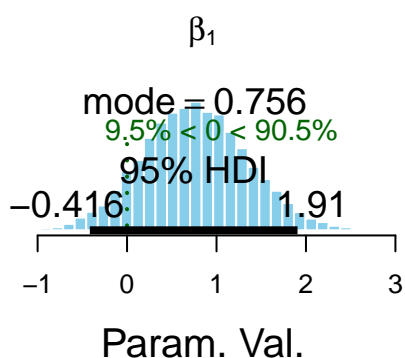
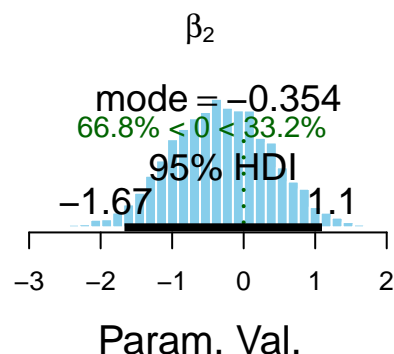
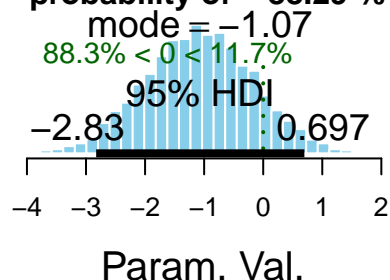
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= STEW cutted by DCdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2033
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5024.304 5663.503 5290.124 5117.009 5024.304 5663.503 4903.761 4158.593
## betaSIZE
## 4359.272
## [1] "The difference of STEW impact \n between DCdich cut samples in DISCL has a\n probability of "
```

The difference of STEW impact  
between DCdich cut samples in DISCL has a  
probability of -99.14 %



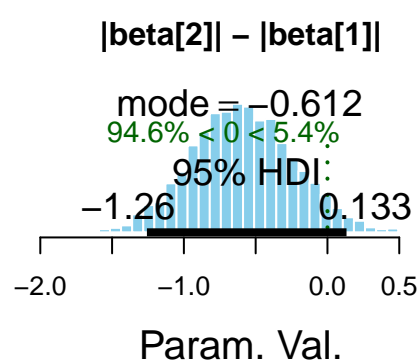
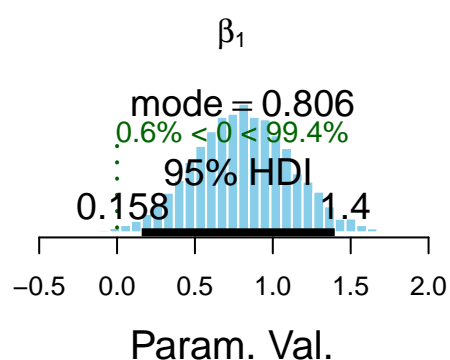
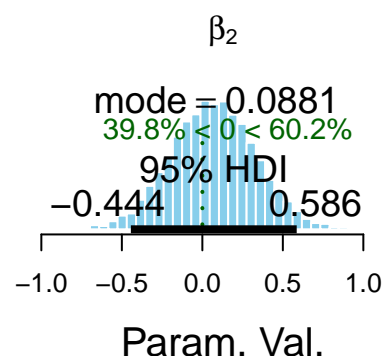
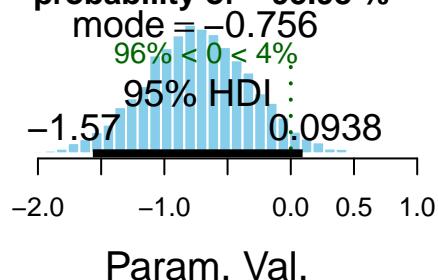
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= II_10 cutted by DCdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4901.697 5300.674 5641.217 6264.121 4901.697 5300.674 5355.316 4473.762
## betaSIZE
## 4244.281
## [1] "The difference of II_10 impact \n between DCdich cut samples in DISCL has a\n probability of
```

The difference of  $\text{II}_{10}$  impact  
between DCdich cut samples in DISCL has a  
probability of  $-88.29\%$



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= FOR_10 cutted by DCdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2029
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4868.873 4577.709 4001.673 4245.275 4868.873 4577.709 4978.162 4441.819
## betaSIZE
## 3763.327
## [1] "The difference of FOR_10 impact \n between DCdich cut samples in DISCL has a\n probability of
```

The difference of FOR<sub>10</sub> impact  
between DCdich cut samples in DISCL has a  
probability of **-95.98 %**



```
write.csv(BLbinomCut,
          file=paste(
            'DC-binomCutResults',
            format(Sys.time(), "%d-%b-%H-%M-%S"),
            '.csv')
)
```

## BRCR-Separated Bayesian models

### Quantitative Y

```
X$BRCRdich <- factor(X$BRCR>median(X$BRCR))
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('EPS', 'ET3', 'ER3', 'ER1', 'ER')
cut.name <- 'BRCRdich'
BLquantiCut <- bayesList(X, x.names, y.names, cut.name, 'model1-cut.R')

## [1] "
## [1] " Analysis of Y= EPS explained by x= PRI cutted by BRCRdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

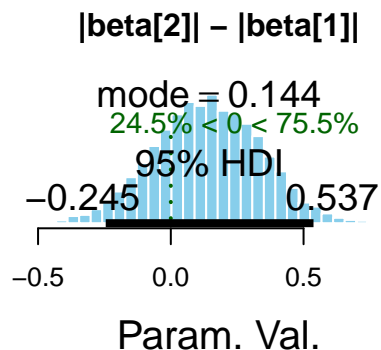
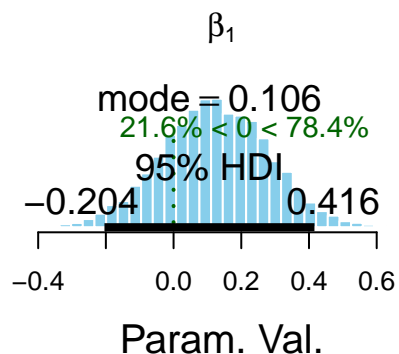
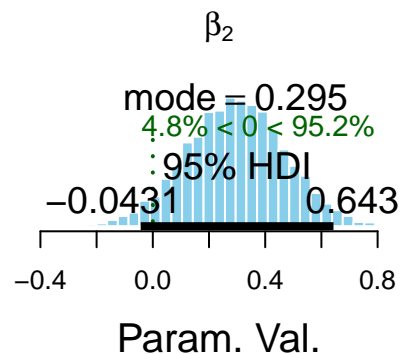
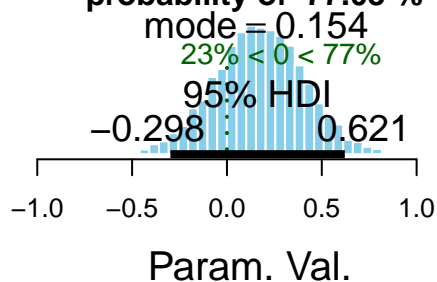
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
```

```

## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8757.246 9000.000 9000.000 8832.203 8757.246 9000.000 8076.495 6718.525
## betaSIZE
## 6522.364
## [1] "The difference of PRI impact \n between BCRdich cut samples in EPS has a\n probability of 77.03 %"
## [1] "
## [1] " Analysis of Y= EPS explained by x= INIT cutted by BCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of PRI impact  
between BCRdich cut samples in EPS has a  
probability of 77.03 %**



```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing

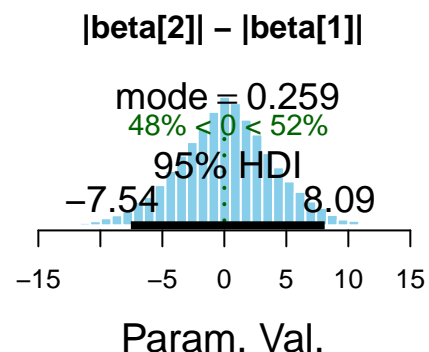
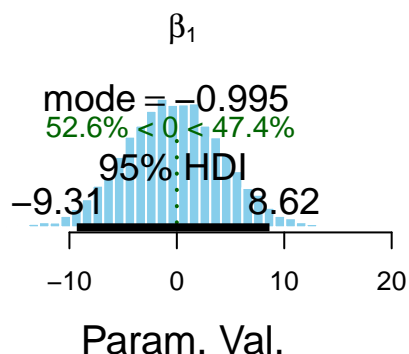
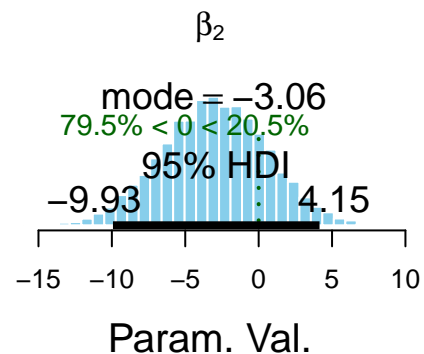
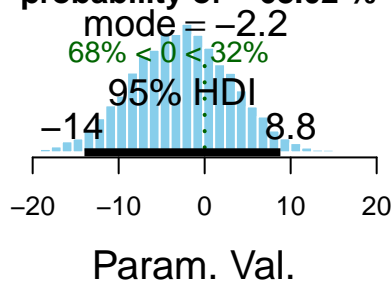
```

```

## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8266.835 8453.446 8977.608 8737.953 8266.835 8453.446 8019.948 7215.265
## betaSIZE
## 6737.853
## [1] "The difference of INIT impact \n between BCRdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by BCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of INIT impact  
between BCRdich cut samples in EPS has a  
probability of -68.02 %**



```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table

```

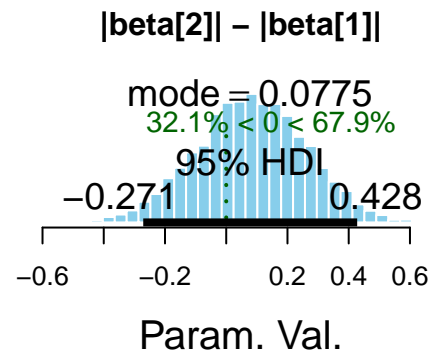
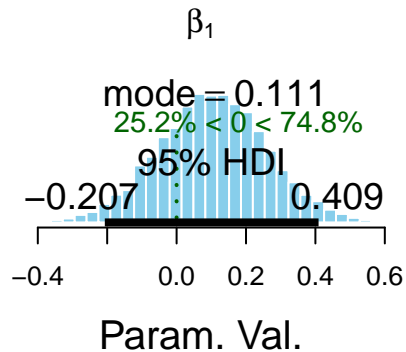
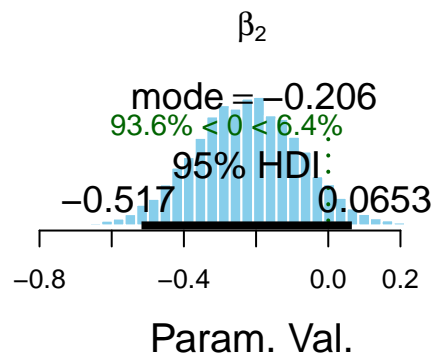
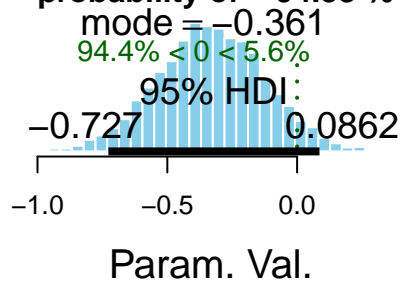


```

## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7701.880 6718.475 8822.815 8540.670 7701.880 6718.475 6290.412 7192.990
## betaSIZE
## 6617.208
## [1] "The difference of EPI impact \n between BCRdich cut samples in EPS has a\n probability of -94.38 %
## [1] "
## [1] " Analysis of Y= EPS explained by x= STEW cutted by BCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of EPI impact  
between BCRdich cut samples in EPS has a  
probability of -94.38 %**



```

## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph

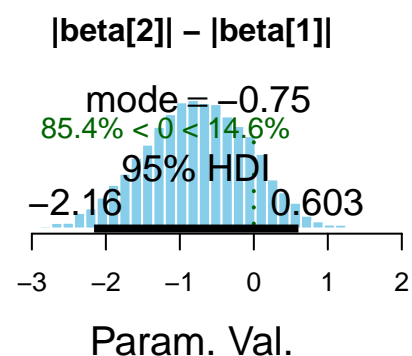
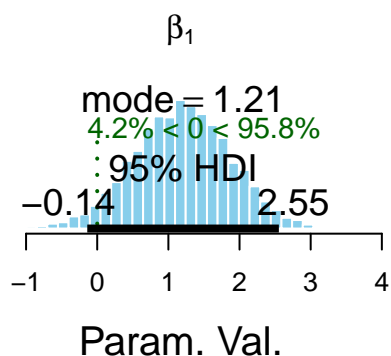
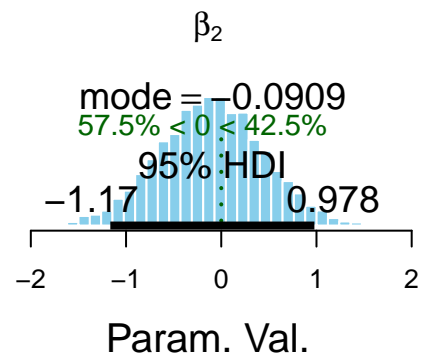
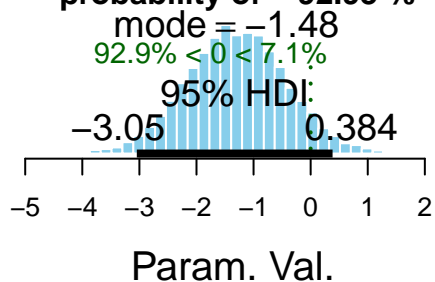
```

```

## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8116.481 9000.000 9000.000 8592.658 8116.481 9000.000 8252.029 7621.379
## betaSIZE
## 6174.531
## [1] "The difference of STEW impact \n between BRCRdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= II_10 cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of STEW impact  
between BRCRdich cut samples in EPS has a  
probability of -92.93 %**



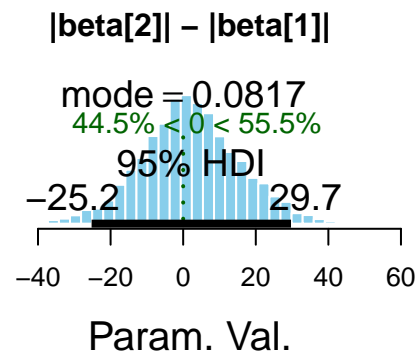
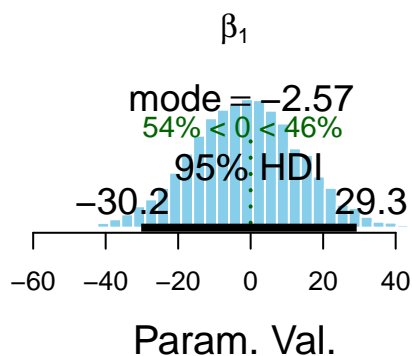
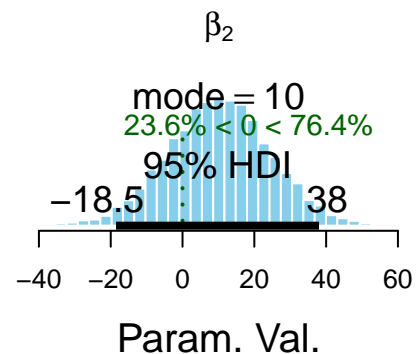
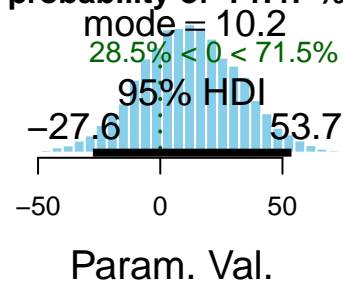
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables

```

```
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8343.593 9000.000 9236.342 9902.852 8343.593 9000.000 8757.101 6645.923
## betaSIZE
## 6735.945
## [1] "The difference of II_10 impact \n between BRCRdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= FOR_10 cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

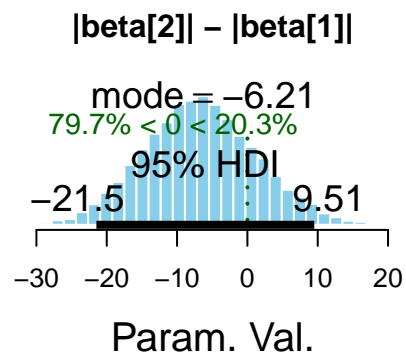
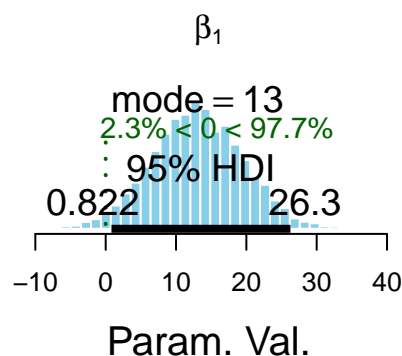
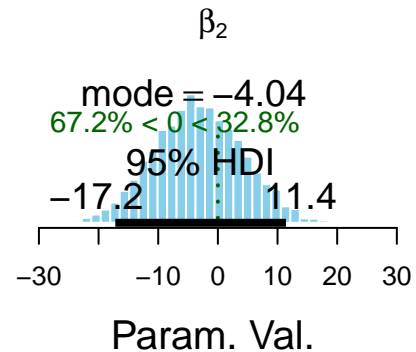
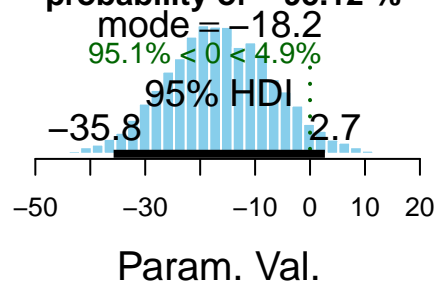
**The difference of II\_10 impact  
between BRCRdich cut samples in EPS has a  
probability of 71.47 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
```

```
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8560.232 7758.845 9533.943 9553.381 8560.232 7758.845 8561.750 7454.006
## betaSIZE
## 6643.765
## [1] "The difference of FOR_10 impact \n between BCRdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by BCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

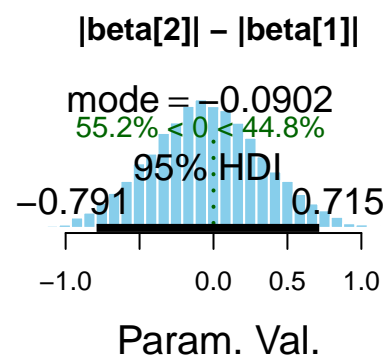
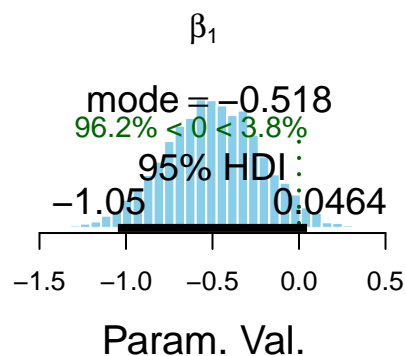
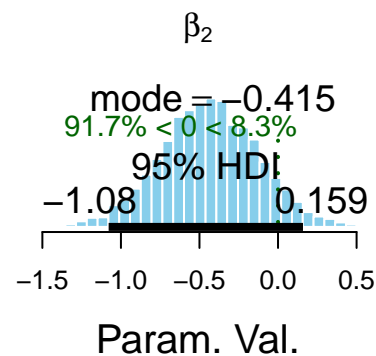
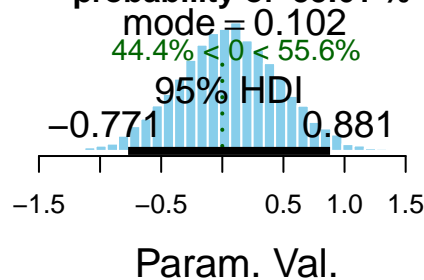
**The difference of FOR\_10 impact  
between BCRdich cut samples in EPS has a  
probability of -95.12 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
```

```
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8616.430 8759.813 8083.489 7978.716 8616.430 8759.813 8154.395 7133.433
## betaSIZE
## 6650.278
## [1] "The difference of PRI impact \n between BRCRdich cut samples in ET3 has a\n probability of 55.61 %"
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

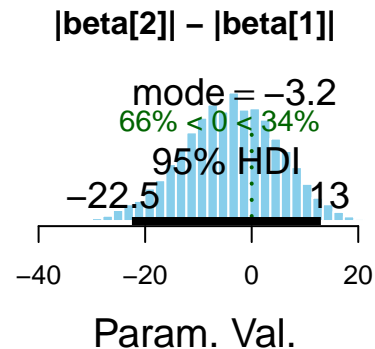
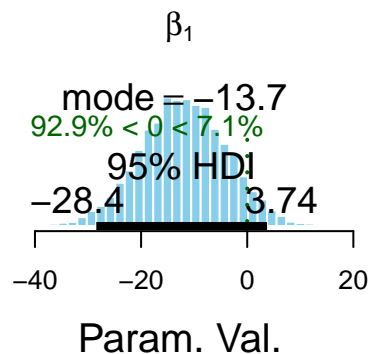
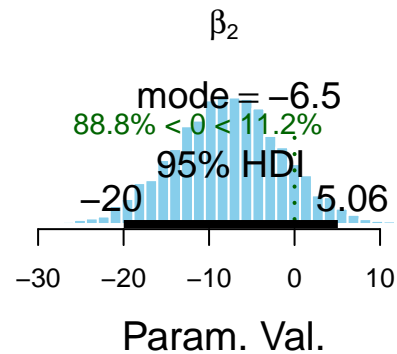
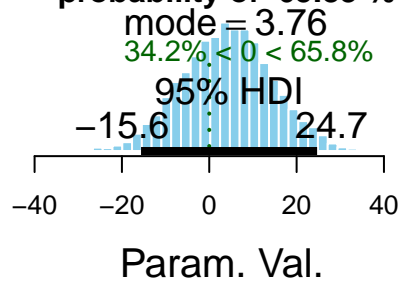
**The difference of PRI impact  
between BRCRdich cut samples in ET3 has a  
probability of 55.61 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
```

```
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7620.348 7820.497 8490.798 8258.456 7620.348 7820.497 8280.335 7416.300
## betaSIZE
## 6164.290
## [1] "The difference of INIT impact \n between BRCRdich cut samples in ET3 has a\n probability of (
## [1] "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

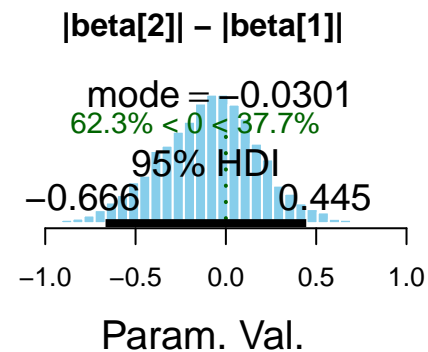
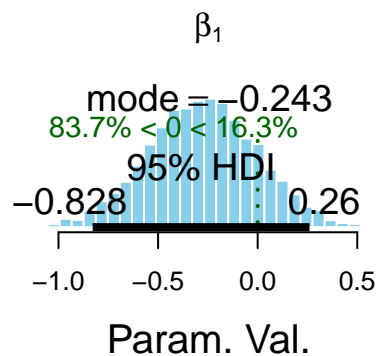
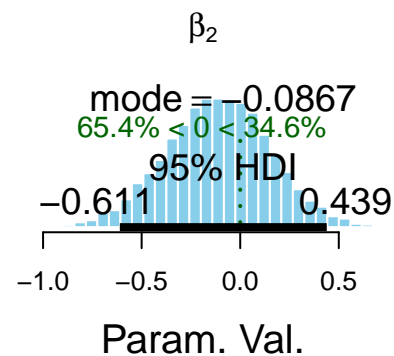
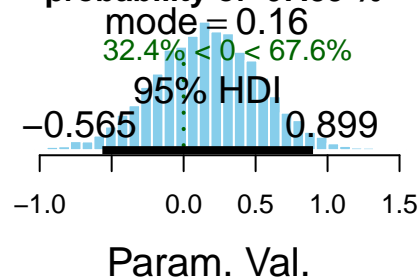
**The difference of INIT impact  
between BRCRdich cut samples in ET3 has a  
probability of 65.83 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
```

```
## Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7839.736 6725.686 8846.394 8553.793 7839.736 6725.686 7154.933 7161.607
## betaSIZE
## 7132.588
## [1] "The difference of EPI impact \n between BRCRdich cut samples in ET3 has a\n probability of 67.59 %
## [1] "
## [1] " Analysis of Y= ET3 explained by x= STEW cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

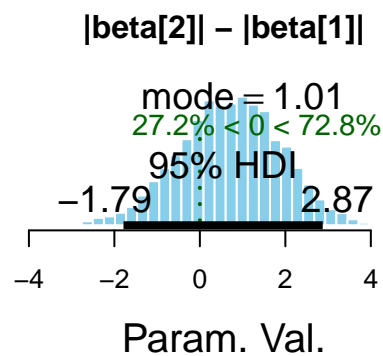
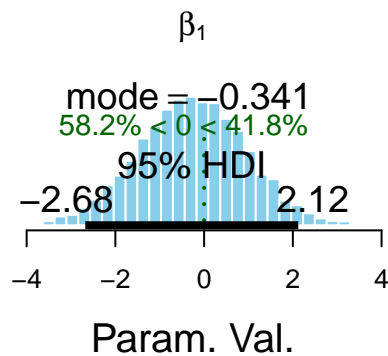
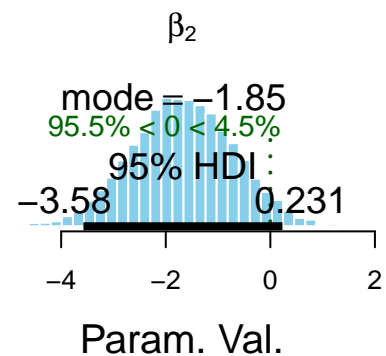
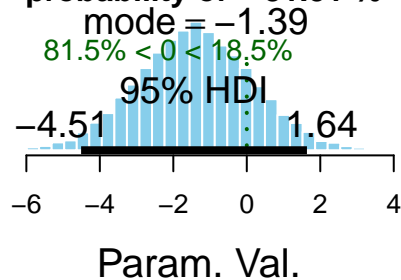
**The difference of EPI impact  
between BRCRdich cut samples in ET3 has a  
probability of 67.59 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2046
```

```
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8529.366 9000.000 9000.000 9000.000 8529.366 9000.000 7547.555 6842.984
## betaSIZE
## 7131.399
## [1] "The difference of STEW impact \n between BRCRdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= II_10 cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between BRCRdich cut samples in ET3 has a  
probability of -81.51 %**

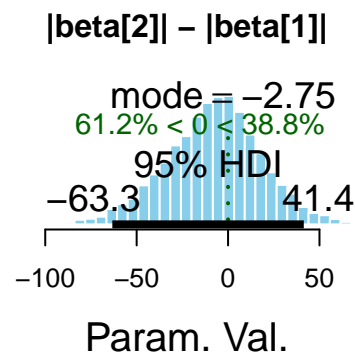
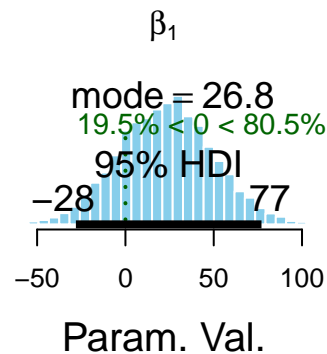
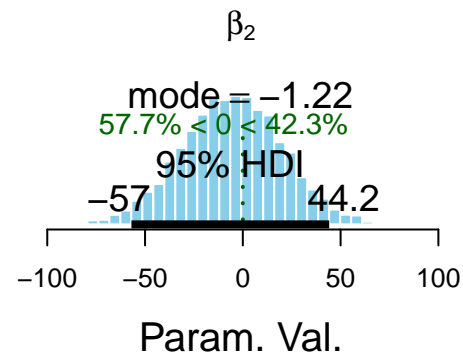
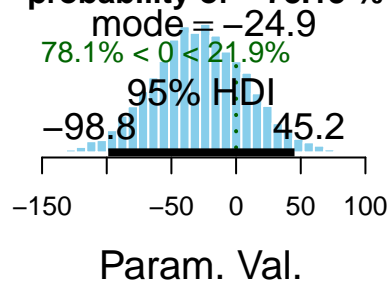


```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
```



```
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8522.705 8677.494 9000.000 9000.000 8522.705 8677.494 8429.126 7159.647
## betaSIZE
## 6780.207
## [1] "The difference of II_10 impact \n between BRCRdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= FOR_10 cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

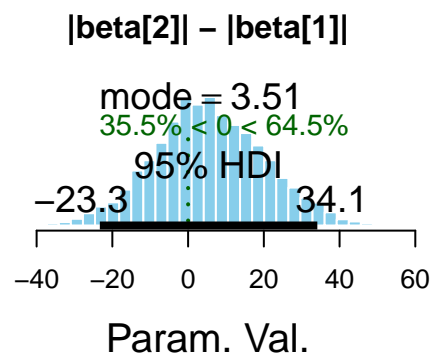
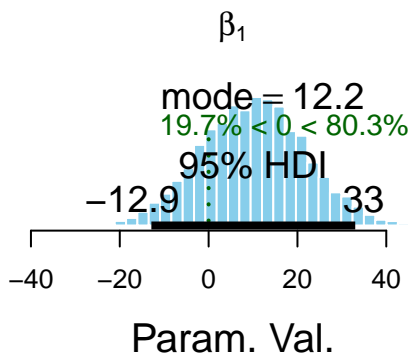
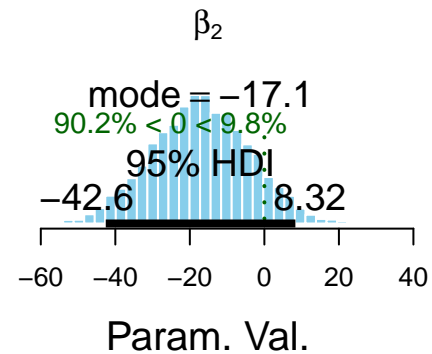
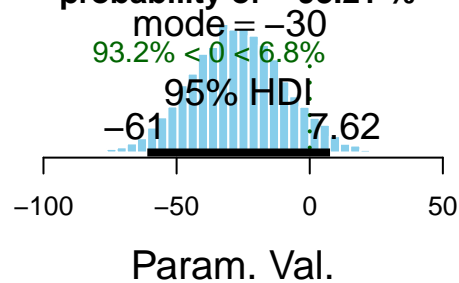
**The difference of II\_10 impact  
between BRCRdich cut samples in ET3 has a  
probability of -78.13 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2043
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8595.524 7714.796 9000.000 9000.000 8595.524 7714.796 7260.070 7134.099
## betaSIZE
## 7019.743
## [1] "The difference of FOR_10 impact \n between BRCRdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= PRI cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

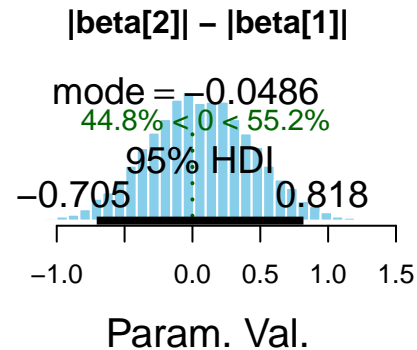
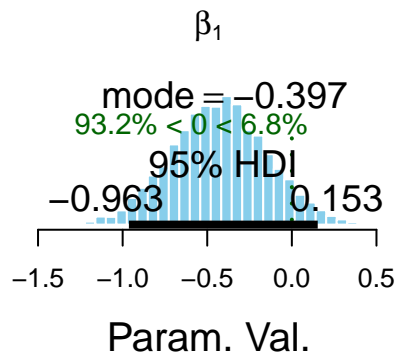
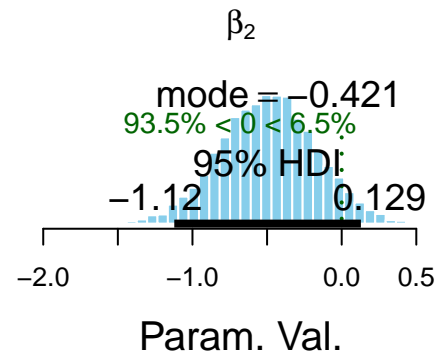
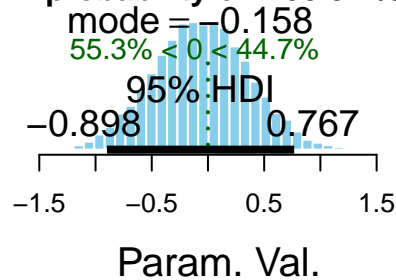
**The difference of FOR\_10 impact  
between BRCRdich cut samples in ET3 has a  
probability of -93.21 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
```

```
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8616.051 8844.970 8803.710 8732.281 8616.051 8844.970 8331.694 7225.955
## betaSIZE
## 6641.906
## [1] "The difference of PRI impact \n between BRCRdich cut samples in ER3 has a\n probability of -"
## [1] "
## [1] " Analysis of Y= ER3 explained by x= INIT cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

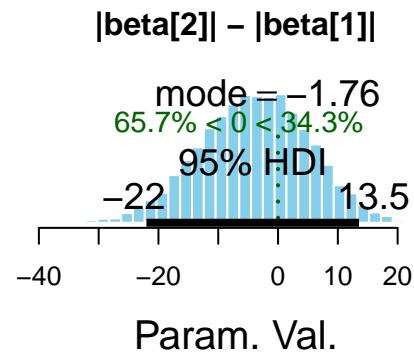
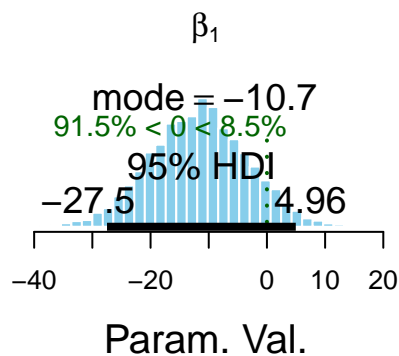
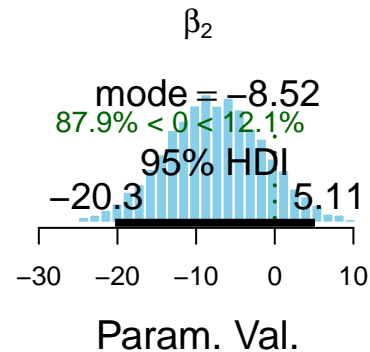
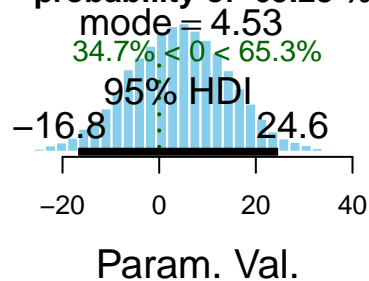
**The difference of PRI impact  
between BRCRdich cut samples in ER3 has a  
probability of -55.34 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
```

```
## 7495.061 8344.865 8808.773 8512.886 7495.061 8344.865 8382.615 6952.824
## betaSIZE
## 6561.603
## [1] "The difference of INIT impact \n between BRCRdich cut samples in ER3 has a\n probability of 65.28 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= EPI cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

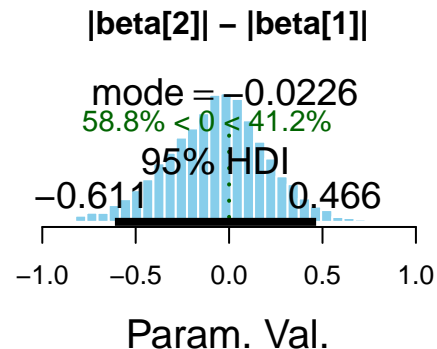
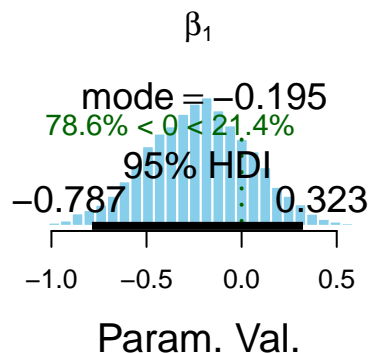
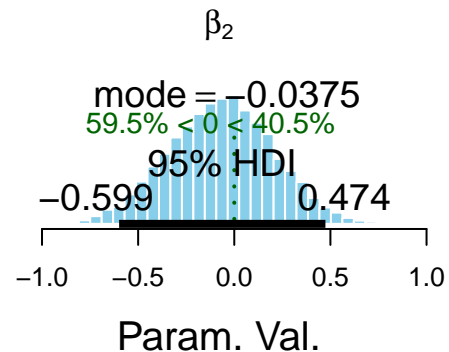
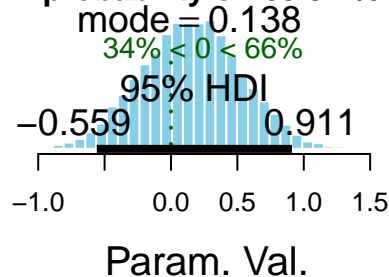
**The difference of INIT impact  
between BRCRdich cut samples in ER3 has a  
probability of 65.28 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7370.677 5772.819 8992.952 8775.204 7370.677 5772.819 6240.055 7420.521
```

```
## betaSIZE
## 6443.982
## [1] "The difference of EPI impact \n between BRCRdich cut samples in ER3 has a\n probability of 65.97 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= STEW cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

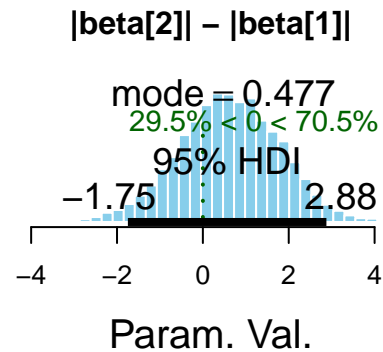
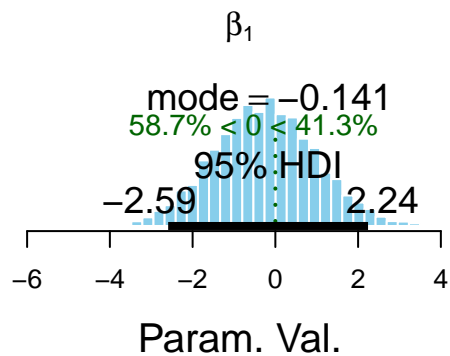
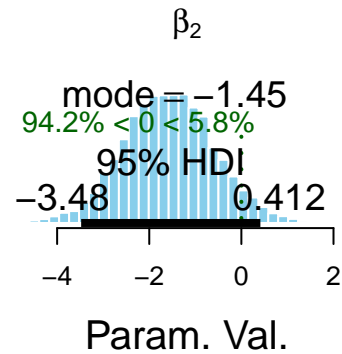
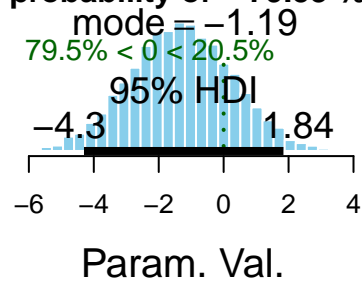
**The difference of EPI impact  
between BRCRdich cut samples in ER3 has a  
probability of 65.97 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8440.973 9000.000 9000.000 9000.000 8440.973 9000.000 8047.352 7086.287
## betaSIZE
```

```
## 6700.460
## [1] "The difference of STEW impact \n between BRCRdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= II_10 cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

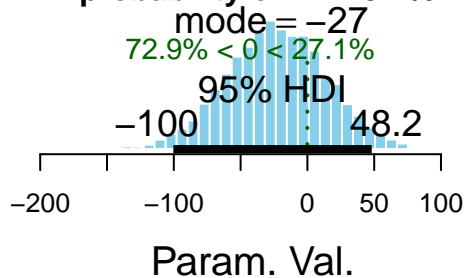
**The difference of STEW impact  
between BRCRdich cut samples in ER3 has a  
probability of -79.53 %**



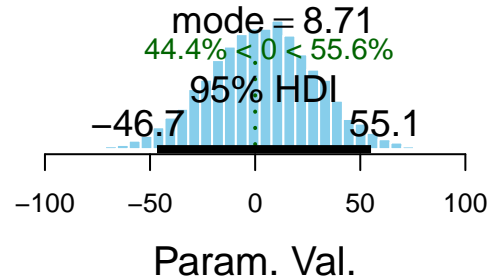
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8098.100 8867.625 9000.000 8774.590 8098.100 8867.625 8811.146 7004.394
## betaSIZE
## 6480.622
```

```
## [1] "The difference of II_10 impact \n between BRCRdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= FOR_10 cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

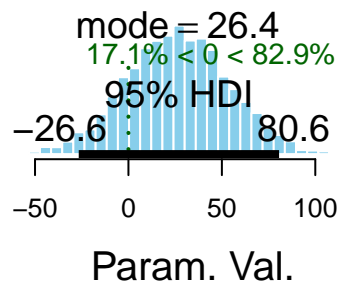
**The difference of II\_10 impact  
between BRCRdich cut samples in ER3 has a  
probability of -72.91 %**



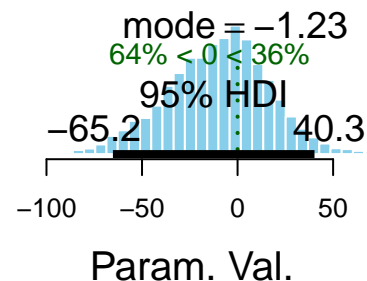
$\beta_2$



$\beta_1$



**|beta[2]| - |beta[1]|**

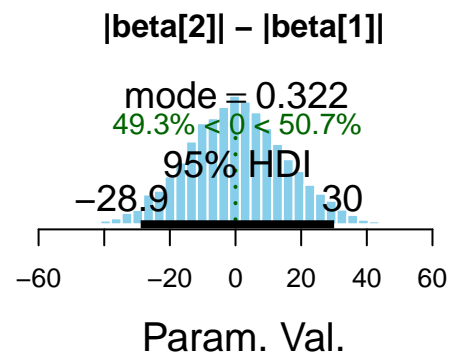
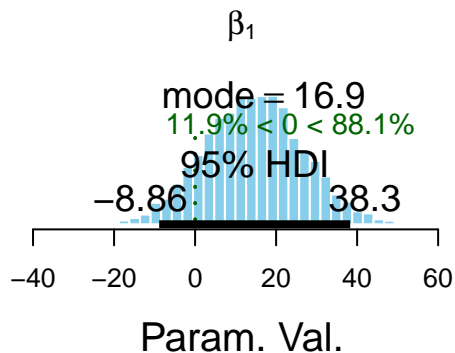
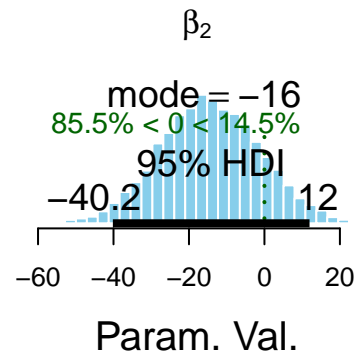
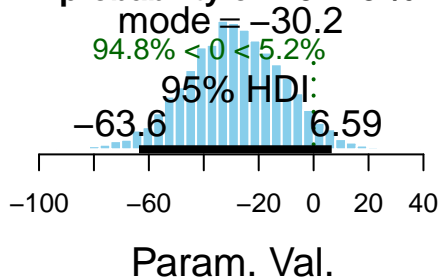


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8689.968 7038.241 9000.000 9000.000 8689.968 7038.241 7352.258 6688.527
## betaSIZE
## 6981.563
## [1] "The difference of FOR_10 impact \n between BRCRdich cut samples in ER3 has a\n probability of
```

```
## [1] "-----"
## [1] " Analysis of Y= ER1  explained by x= PRI  cutted by BRCRdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of FOR<sub>10</sub> impact  
between BRCRdich cut samples in ER3 has a  
probability of -94.78 %**

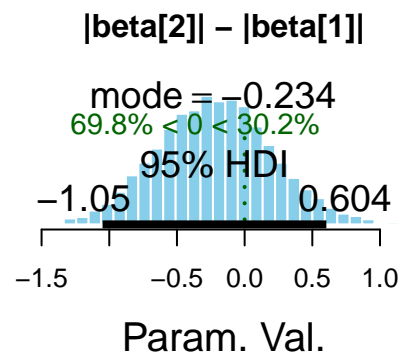
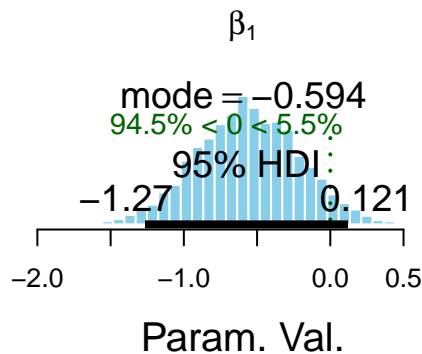
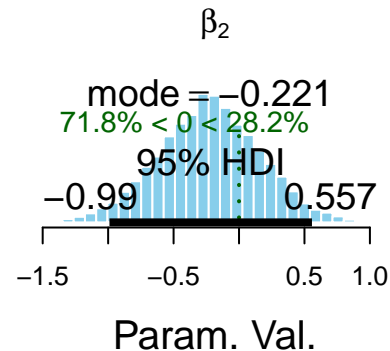
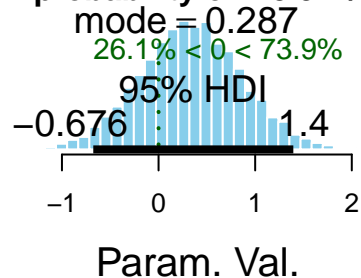


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8073.540 8848.049 9000.000 8806.321 8073.540 8848.049 8180.196 6709.768
## betaSIZE
## 6745.738
## [1] "The difference of PRI  impact \n between BRCRdich cut samples in ER1 has a\n probability of 7
## [1] "-----"
```



```
## [1] " Analysis of Y= ER1  explained by x= INIT cutted by BCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

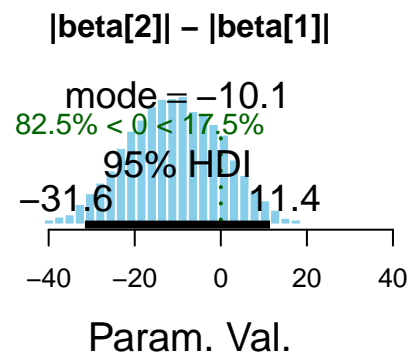
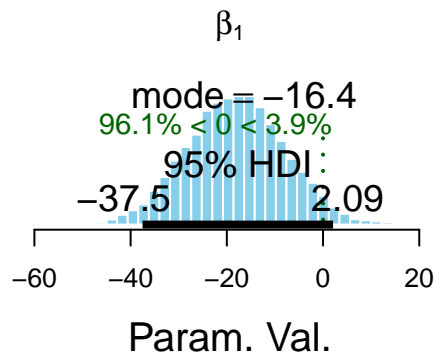
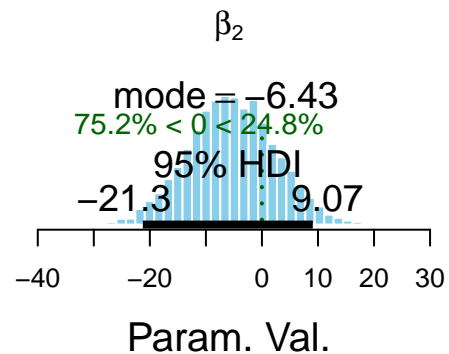
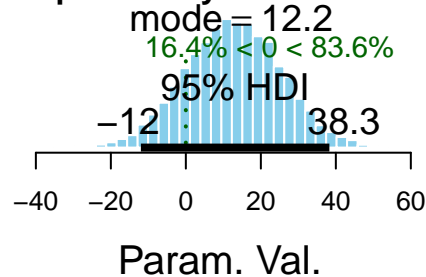
**The difference of PRI impact  
between BCRdich cut samples in ER1 has a  
probability of 73.94 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8242.471 8047.460 8631.545 8526.583 8242.471 8047.460 8459.985 6954.684
## betaSIZE
## 6583.021
## [1] "The difference of INIT impact \n between BCRdich cut samples in ER1 has a\n probability of 8
## [1] "
## [1] " Analysis of Y= ER1  explained by x= EPI cutted by BCRdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

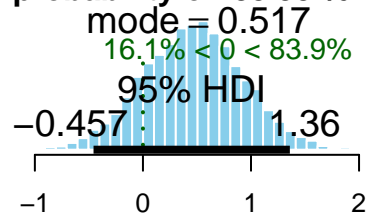
**The difference of INIT impact  
between BCRdich cut samples in ER1 has a  
probability of 83.57 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8004.323 6511.777 8814.721 8724.206 8004.323 6511.777 6442.427 7192.478
## betaSIZE
## 6725.475
## [1] "The difference of EPI impact \n between BCRdich cut samples in ER1 has a\n probability of 8
## [1] "
## [1] " Analysis of Y= ER1 explained by x= STEW cutted by BCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
```

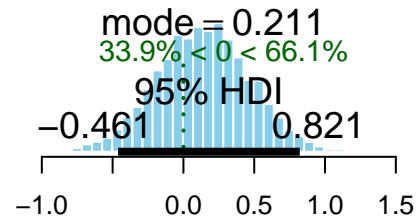
```
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between BRCRdich cut samples in ER1 has a  
probability of 83.93 %**



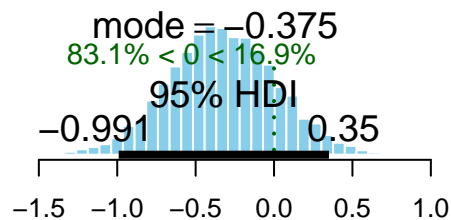
Param. Val.

$\beta_2$



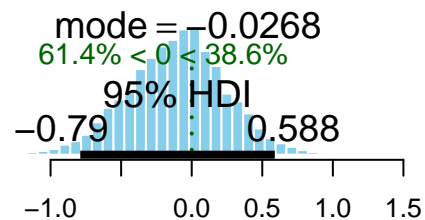
Param. Val.

$\beta_1$



Param. Val.

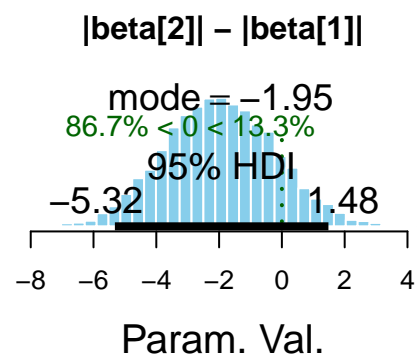
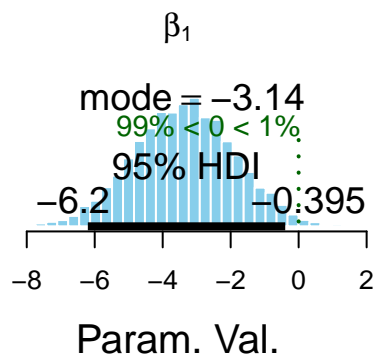
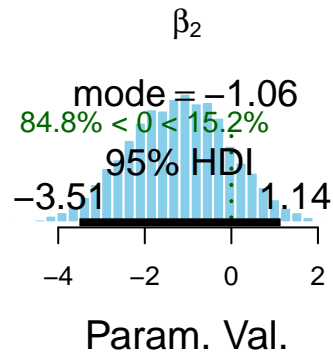
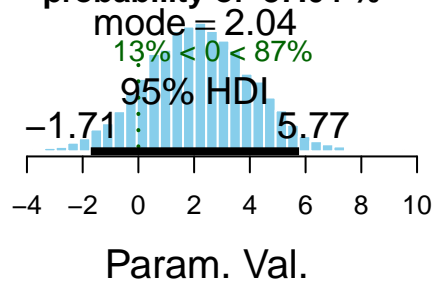
$|\text{beta}[2]| - |\text{beta}[1]|$



Param. Val.

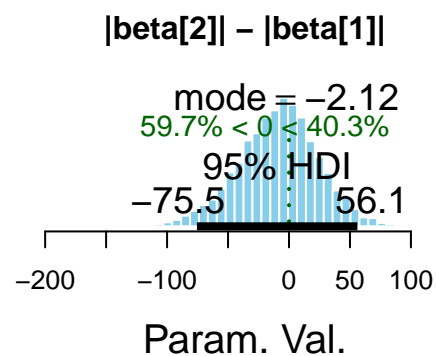
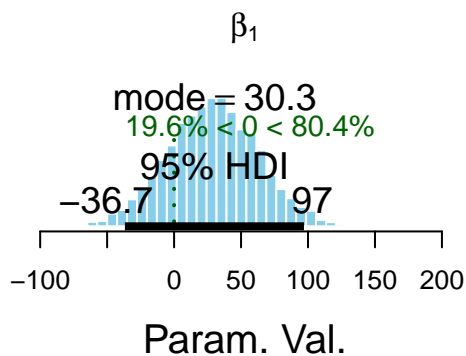
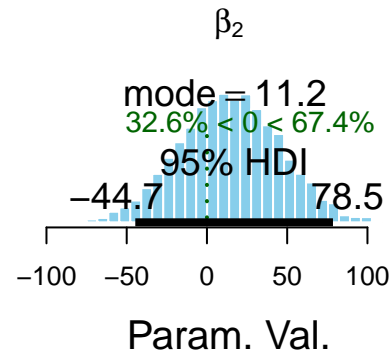
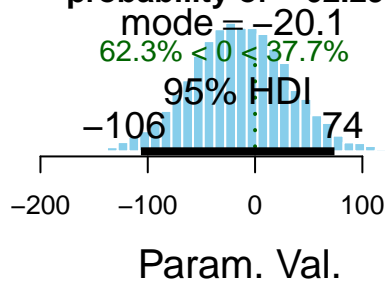
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8082.385 8828.303 9284.009 9254.223 8082.385 8828.303 7710.512 7317.299
## betaSIZE
## 6873.652
## [1] "The difference of STEW impact \n between BRCRdich cut samples in ER1 has a\n probability of 83.93 %
## [1] "
## [1] " -----
## [1] " Analysis of Y= ER1 explained by x= II_10 cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of STEW impact  
between BRCRdich cut samples in ER1 has a  
probability of 87.04 %



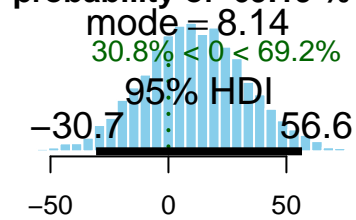
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8482.766 8766.436 9038.899 9013.520 8482.766 8766.436 9000.000 7606.934
## betaSIZE
## 6618.148
## [1] "The difference of II_10 impact \n between BRCRdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER1 explained by x= FOR_10 cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\text{II}_{10}$  impact  
between BRCRdich cut samples in ER1 has a  
probability of -62.29 %

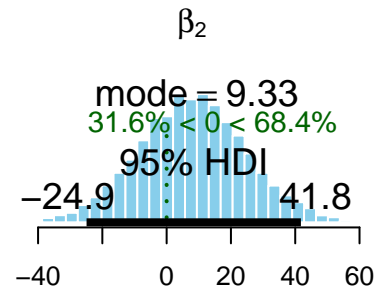


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7878.597 7255.121 9000.000 8837.935 7878.597 7255.121 7410.853 6867.083
## betaSIZE
## 6821.996
## [1] "The difference of FOR_10 impact \n between BRCRdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= PRI cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

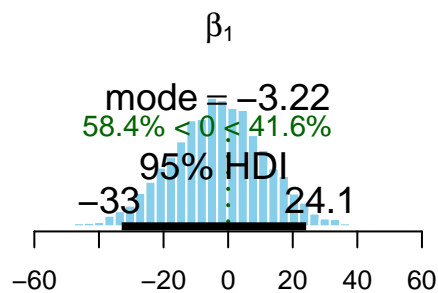
The difference of FOR\_10 impact  
between BRCRdich cut samples in ER1 has a  
probability of 69.19 %



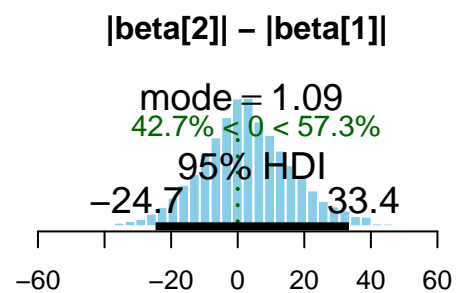
Param. Val.



Param. Val.



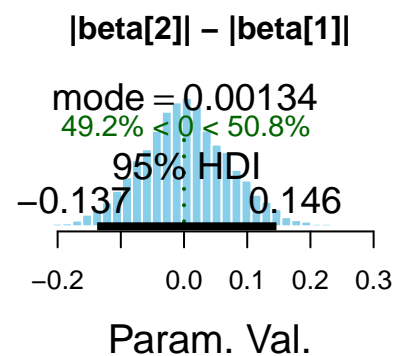
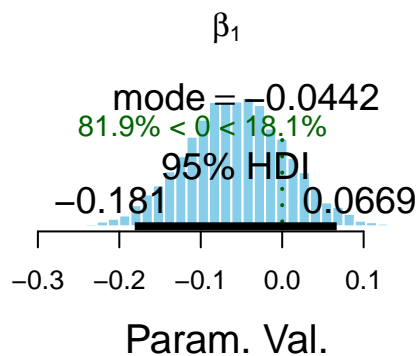
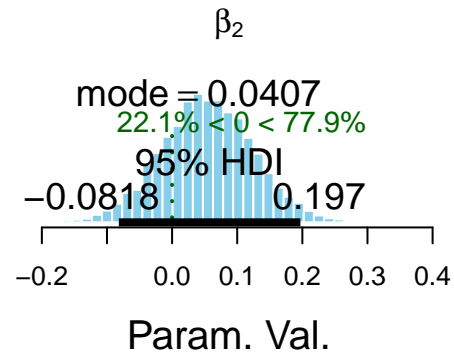
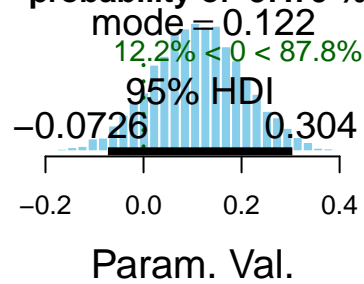
Param. Val.



Param. Val.

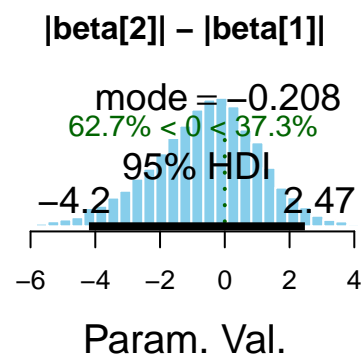
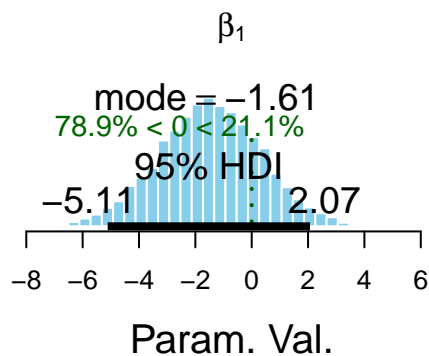
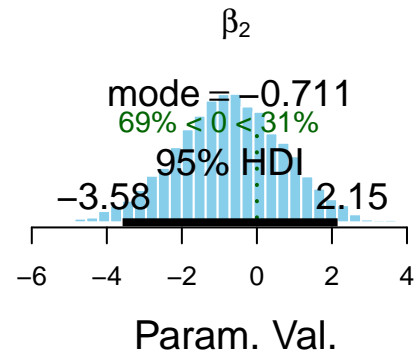
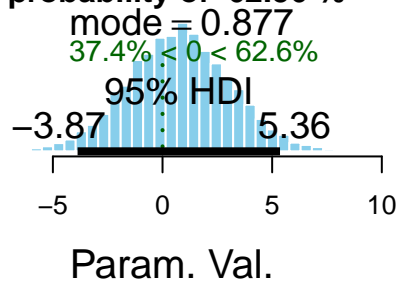
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9726.449 8699.316 9000.000 8844.957 9726.449 8699.316 8030.894 7147.257
## betaSIZE
## 6765.154
## [1] "The difference of PRI impact \n between BRCRdich cut samples in ER has a\n probability of 87
## [1] "
## [1] " Analysis of Y= ER explained by x= INIT cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of PRI impact  
between BRCRdich cut samples in ER has a  
probability of 87.79 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7882.668 8066.254 9113.297 8911.946 7882.668 8066.254 7621.965 7610.374
## betaSIZE
## 6720.132
## [1] "The difference of INIT impact \n between BRCRdich cut samples in ER has a\n probability of 6
## [1] "
## [1] " Analysis of Y= ER explained by x= EPI cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

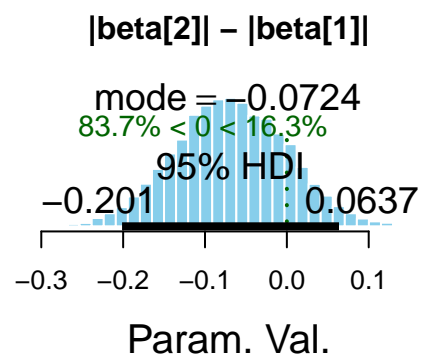
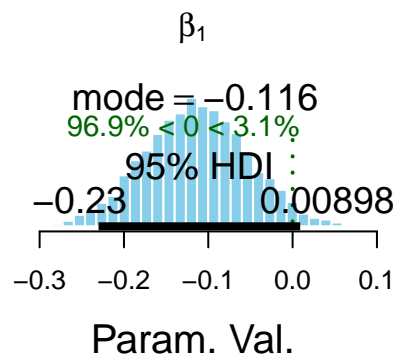
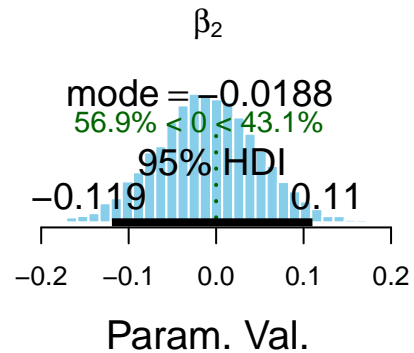
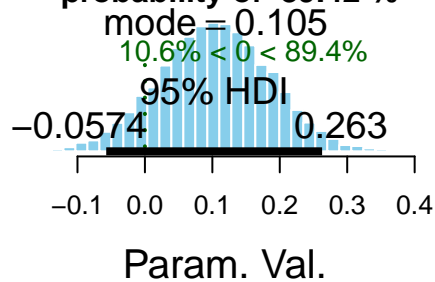
The difference of INIT impact  
between BRCRdich cut samples in ER has a  
probability of 62.56 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8173.500 6289.660 8122.122 8816.036 8173.500 6289.660 6596.179 7077.129
## betaSIZE
## 6499.960
## [1] "The difference of EPI impact \n between BRCRdich cut samples in ER has a\n probability of 89
## [1] "
## [1] " Analysis of Y= ER explained by x= STEW cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

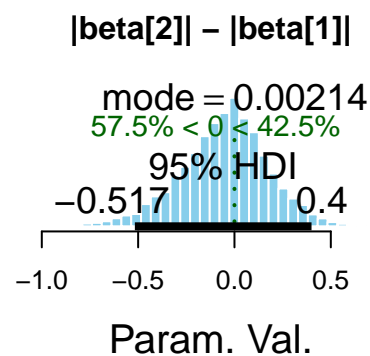
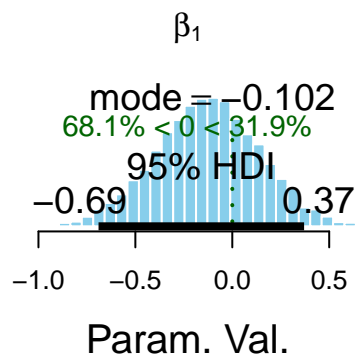
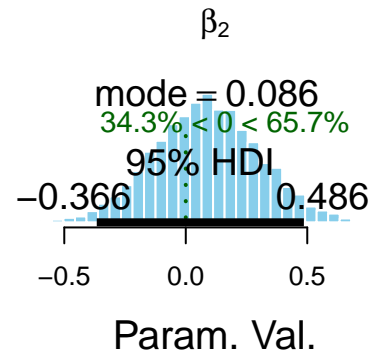
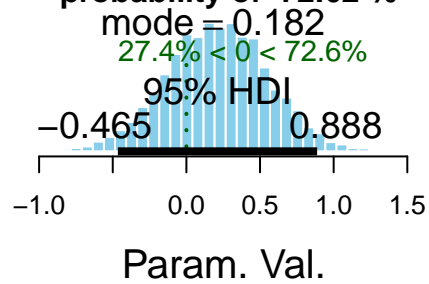


The difference of EPI impact  
between BRCRdich cut samples in ER has a  
probability of 89.42 %



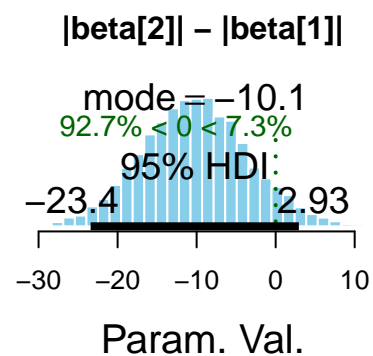
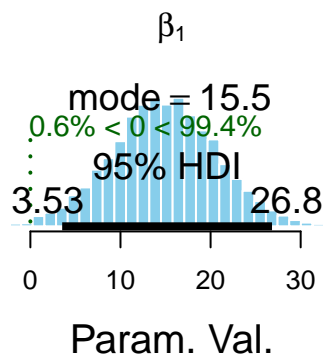
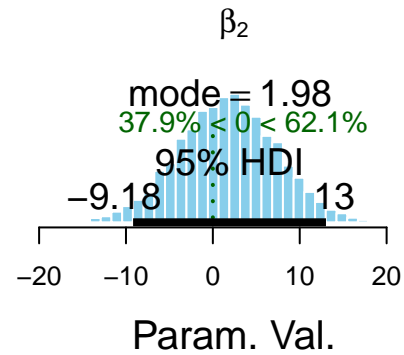
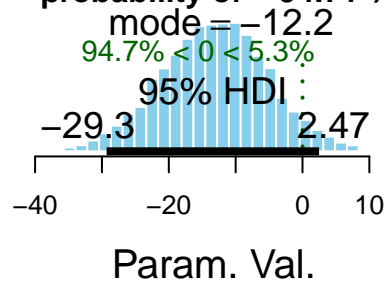
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8189.244 9760.034 9180.826 8519.248 8189.244 9760.034 7893.412 7786.553
## betaSIZE
## 6822.672
## [1] "The difference of STEW impact \n between BRCRdich cut samples in ER has a\n probability of 7
## [1] "
## [1] " Analysis of Y= ER explained by x= II_10 cutted by BRCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between BCRdich cut samples in ER has a  
probability of 72.62 %**



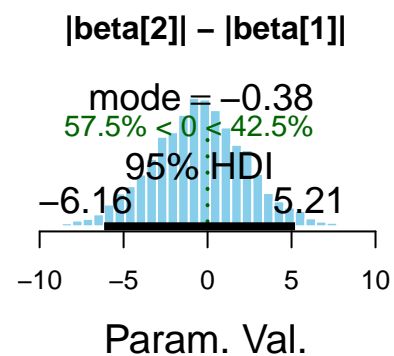
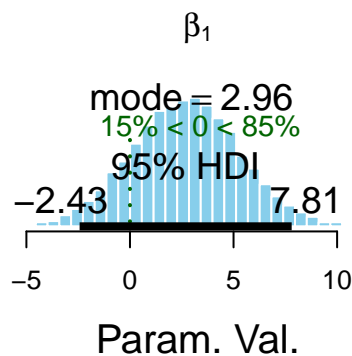
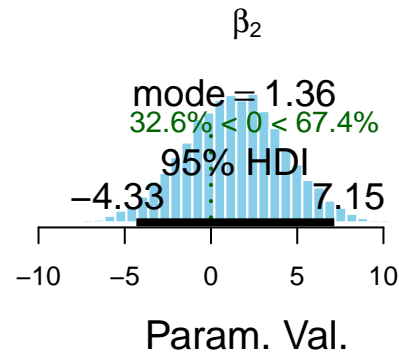
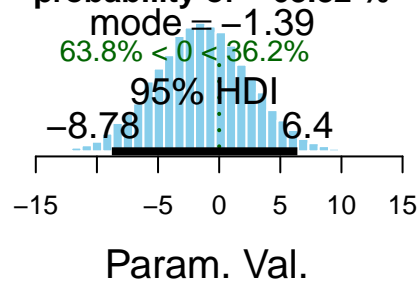
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8533.060 9000.000 10332.452 9899.403 8533.060 9000.000 8406.504 6804.872
## betaSIZE
## 6624.093
## [1] "The difference of II_10 impact \n between BCRdich cut samples in ER has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= FOR_10 cutted by BCRdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\Pi_{10}$  impact  
between BRCRdich cut samples in ER has a  
probability of  $-94.71\%$



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2043
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8079.451 7995.745 8663.417 8729.021 8079.451 7995.745 7745.384 7538.065
## betaSIZE
## 6937.100
## [1] "The difference of FOR_10 impact \n between BRCRdich cut samples in ER has a\n probability of
```

The difference of FOR\_10 impact  
between BRCRdich cut samples in ER has a  
probability of **-63.82 %**



```
write.csv(BLquantiCut,
  file=paste(
    'BRCR-quantiResults-cut',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

## Binomial Y

```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('CP', 'DISCL')
BLbinomCut <- bayesList(X, x.names, y.names, cut.name, 'model2-cut.R')
```

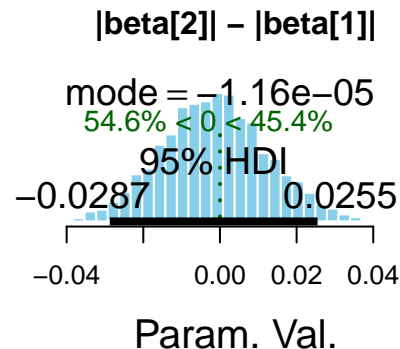
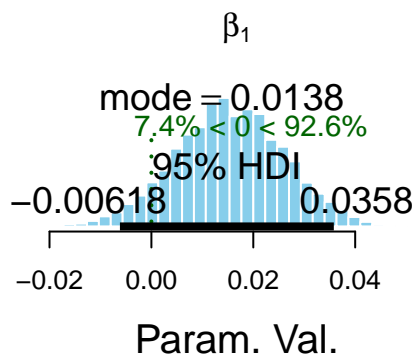
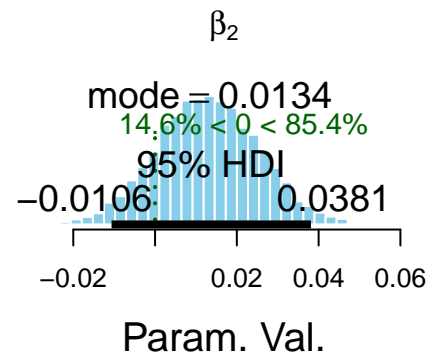
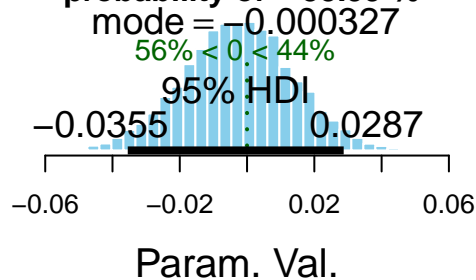
```
## [1] "
## [1] " Analysis of Y= CP explained by x= PRI cutted by BRCRdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
```

```

## Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5451.658 5634.012 5372.786 4999.407 5451.658 5634.012 5405.905 4441.493
## betaSIZE
## 4497.956
## [1] "The difference of PRI impact \n between BRCRdich cut samples in CP has a\n probability of -5

```

**The difference of PRI impact  
between BRCRdich cut samples in CP has a  
probability of -55.99 %**



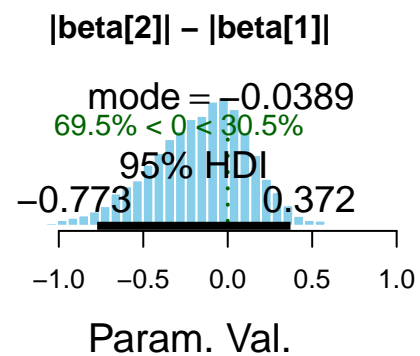
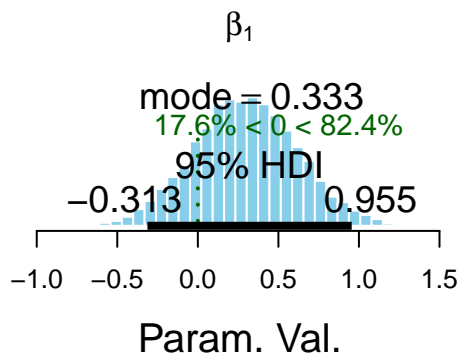
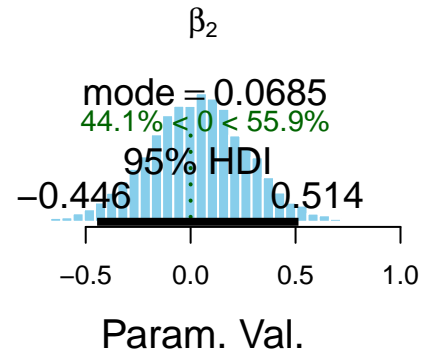
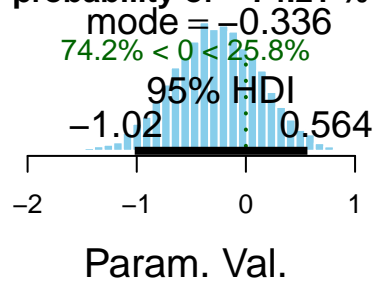
```

## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= INIT cutted by BRCRdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2039
##
## Initializing model

```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4617.164 5374.142 4991.659 4653.395 4617.164 5374.142 5190.389 4457.642
## betaSIZE
## 4148.469
## [1] "The difference of INIT impact \n between BRCRdich cut samples in CP has a\n probability of -"
```

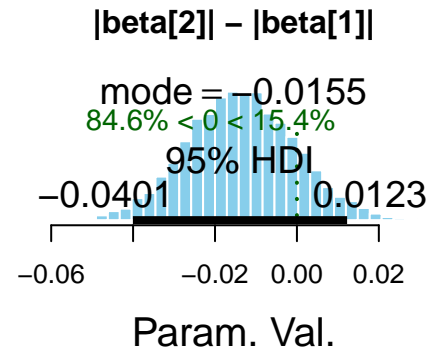
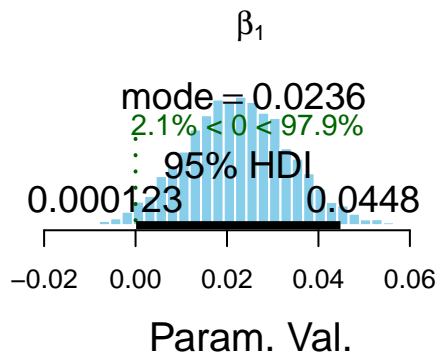
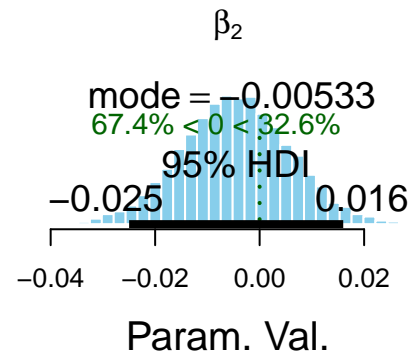
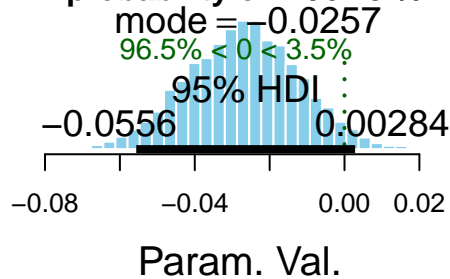
**The difference of INIT impact  
between BRCRdich cut samples in CP has a  
probability of -74.21 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= EPI cutted by BRCRdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2032
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5006.324 3652.842 6004.377 5323.608 5006.324 3652.842 4026.320 4308.226
```

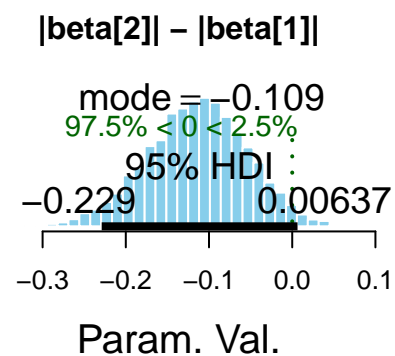
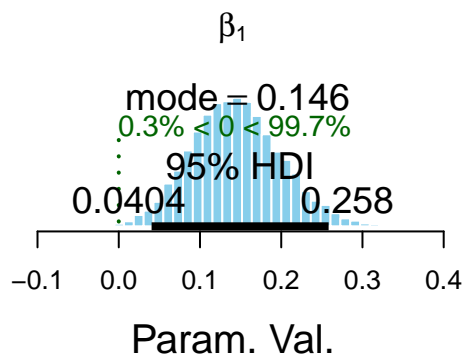
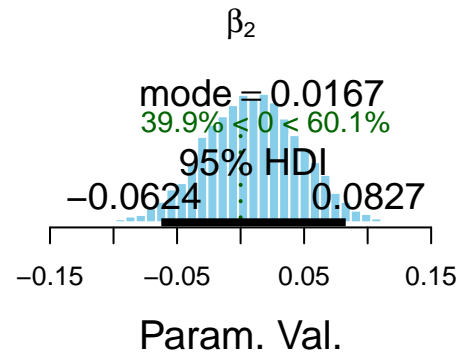
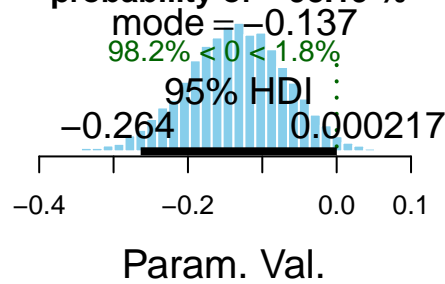
```
## betaSIZE
## 4422.105
## [1] "The difference of EPI impact \n between BRCRdich cut samples in CP has a\n probability of -9
```

**The difference of EPI impact  
between BRCRdich cut samples in CP has a  
probability of -96.49 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= STEW cutted by BRCRdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2032
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5169.784 5315.409 5582.587 5433.710 5169.784 5315.409 5170.072 4736.469
## betaSIZE
## 4702.960
## [1] "The difference of STEW impact \n between BRCRdich cut samples in CP has a\n probability of -"
```

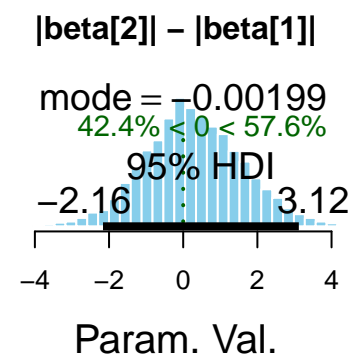
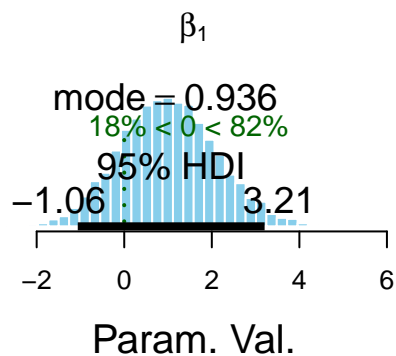
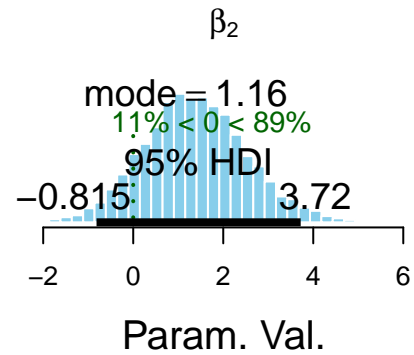
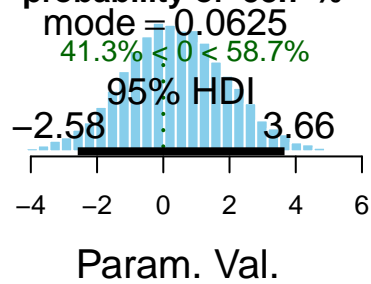
**The difference of STEW impact  
between BCRdich cut samples in CP has a  
probability of -98.19 %**



```
## [1] "-----"
## [1] " Analysis of Y= CP explained by x= II_10 cutted by BCRdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5215.346 5296.977 5844.750 5057.332 5215.346 5296.977 5401.002 4416.721
## betaSIZE
## 4273.927
## [1] "The difference of II_10 impact \n between BCRdich cut samples in CP has a\n probability of 100.00 %"
```

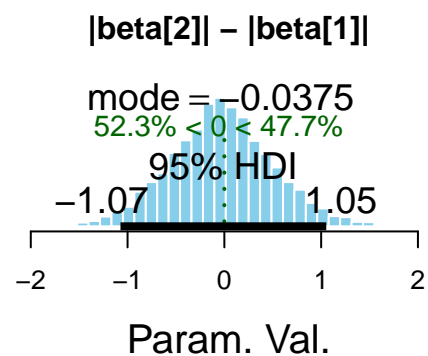
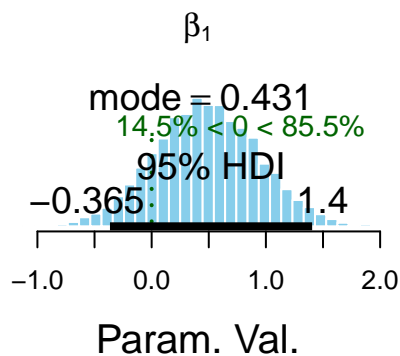
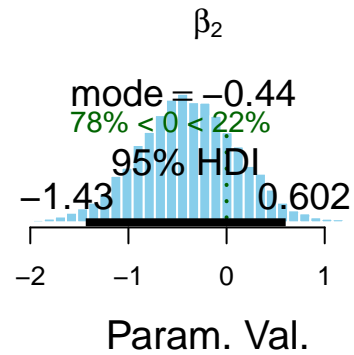
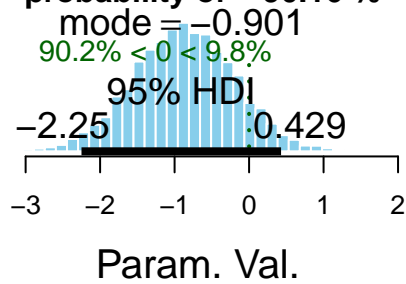


The difference of  $\Pi_{10}$  impact  
between BRCRdich cut samples in CP has a  
probability of 58.7 %



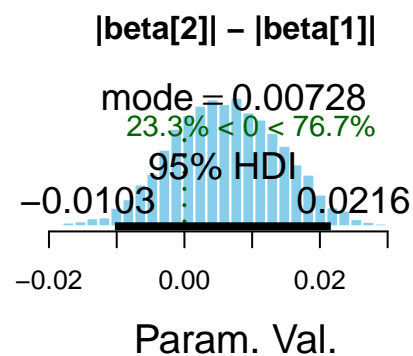
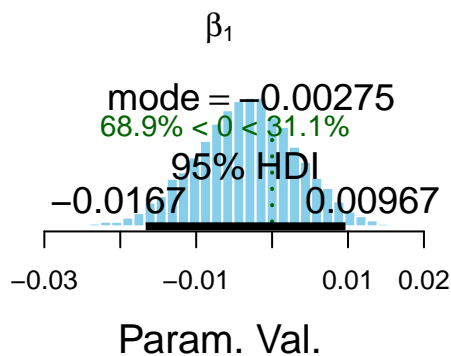
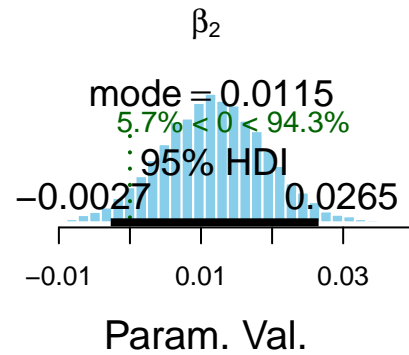
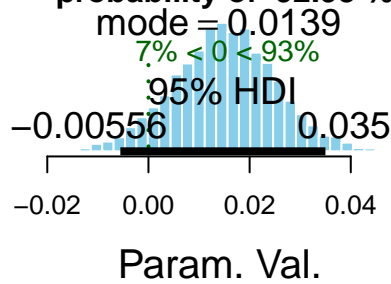
```
## [1] "-----"
## [1] " Analysis of Y= CP explained by x= FOR_10 cutted by BRCRdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2029
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5128.918 4770.411 5463.845 5514.000 5128.918 4770.411 4839.084 4705.479
## betaSIZE
## 4902.379
## [1] "The difference of FOR_10 impact \n between BRCRdich cut samples in CP has a\n probability of
```

The difference of FOR\_10 impact  
between BRCRdich cut samples in CP has a  
probability of -90.16 %



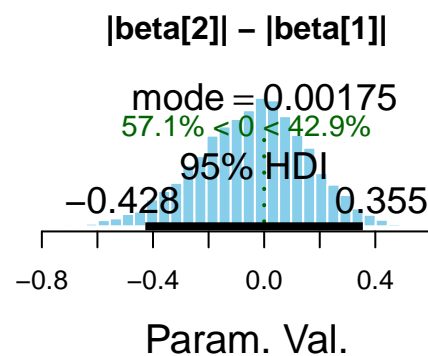
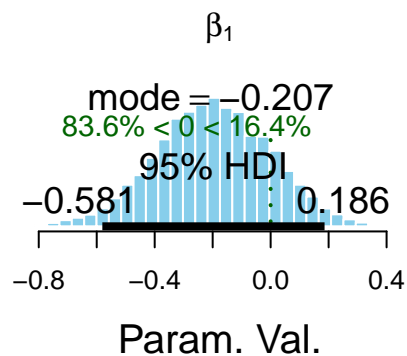
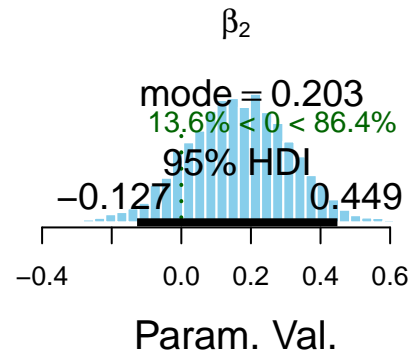
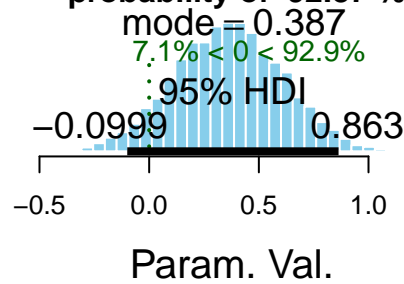
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= PRI cutted by BRCRdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5545.048 5310.853 5536.100 5078.445 5545.048 5310.853 5180.734 4838.121
## betaSIZE
## 4616.849
## [1] "The difference of PRI impact \n between BRCRdich cut samples in DISCL has a\n probability of
```

The difference of PRI impact  
between BRCRdich cut samples in DISCL has a  
probability of 92.98 %



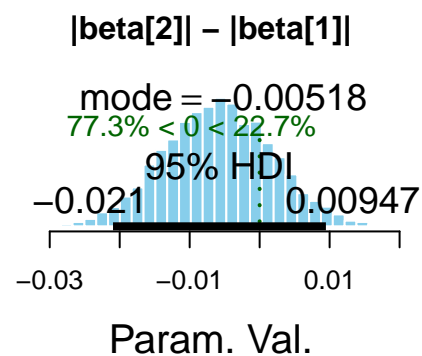
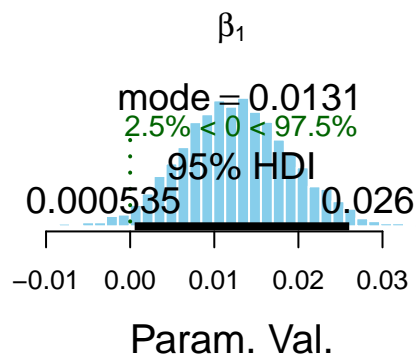
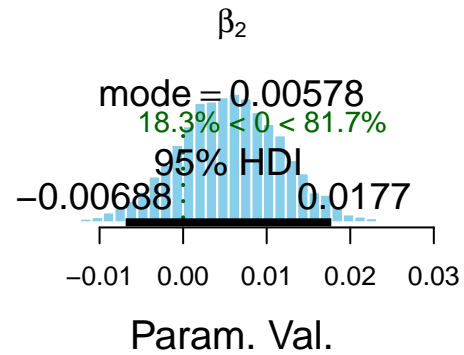
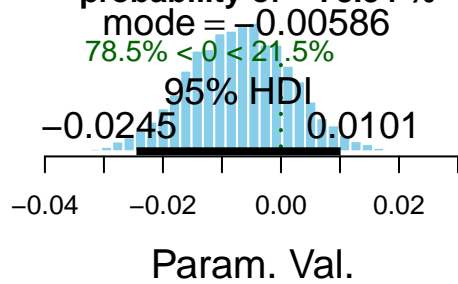
```
## [1] "-----"
## [1] " Analysis of Y= DISCL explained by x= INIT cutted by BRCRdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4873.573 4968.424 4992.764 4781.265 4873.573 4968.424 5033.271 4187.303
## betaSIZE
## 4267.747
## [1] "The difference of INIT impact \n between BRCRdich cut samples in DISCL has a\n probability of
```

The difference of INIT impact  
between BRCRdich cut samples in DISCL has a  
probability of 92.87 %



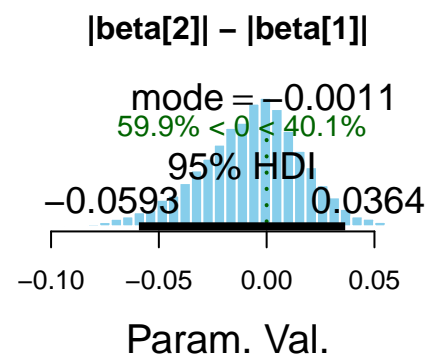
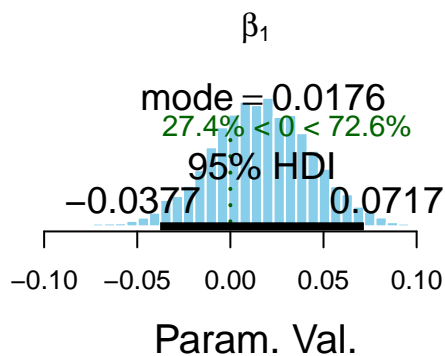
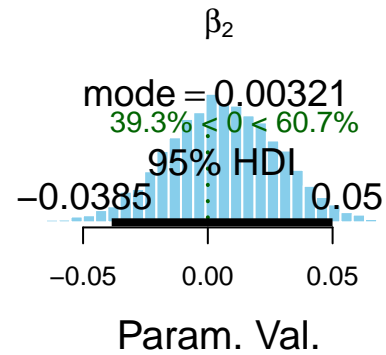
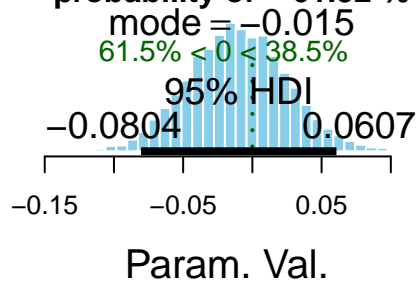
```
## [1] "-----"
## [1] " Analysis of Y= DISCL  explained by x= EPI cutted by BRCRdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2032
##
## Initializing model
##
## alpha1[1] alpha1[2]  beta0[1]  beta0[2]  beta1[1]  beta1[2]  betaGFI  betaGPS
## 5139.033 3650.814 5537.766 5075.287 5139.033 3650.814 4379.945 4765.589
## betaSIZE
## 4286.978
## [1] "The difference of EPI  impact \n between BRCRdich cut samples in  DISCL has a\n probability of
```

The difference of EPI impact  
between BRCRdich cut samples in DISCL has a  
probability of -78.54 %



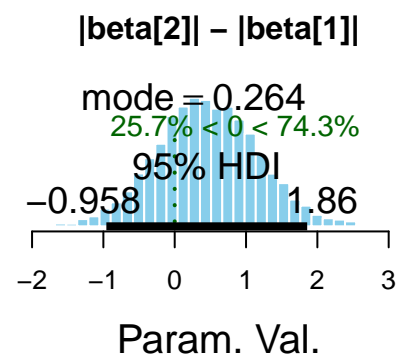
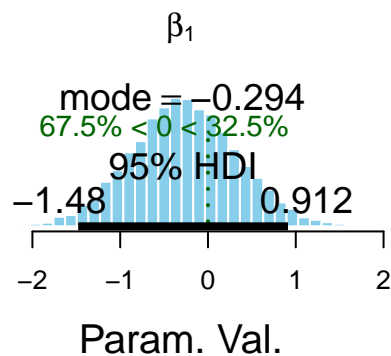
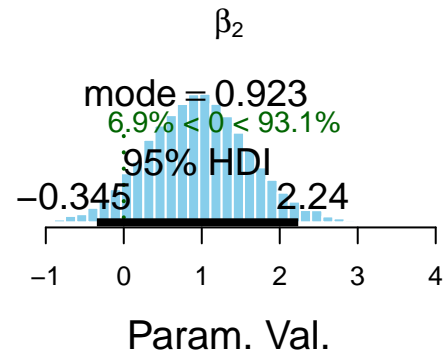
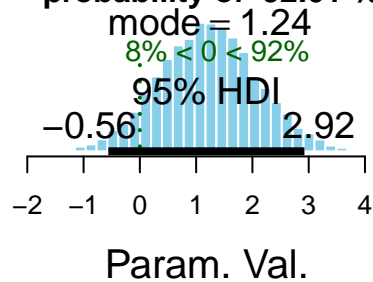
```
## [1] "-----"
## [1] " Analysis of Y= DISCL  explained by x= STEW cutted by BRCRdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2032
##
## Initializing model
##
## alpha1[1] alpha1[2]  beta0[1]  beta0[2]  beta1[1]  beta1[2]  betaGFI  betaGPS
## 5069.484 5757.677 5386.802 5198.283 5069.484 5757.677 5121.275 4263.122
## betaSIZE
## 4607.242
## [1] "The difference of STEW  impact \n between BRCRdich cut samples in DISCL has a\n probability of
```

**The difference of STEW impact  
between BRCRdich cut samples in DISCL has a  
probability of -61.52 %**



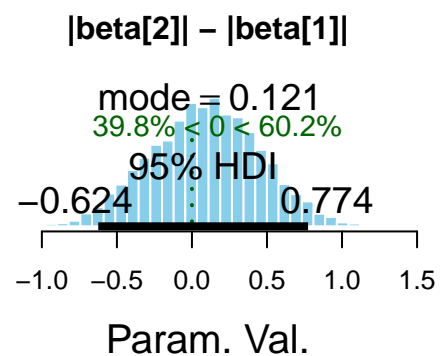
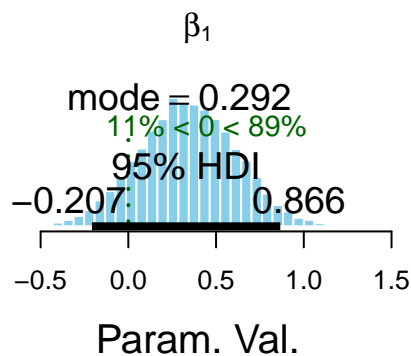
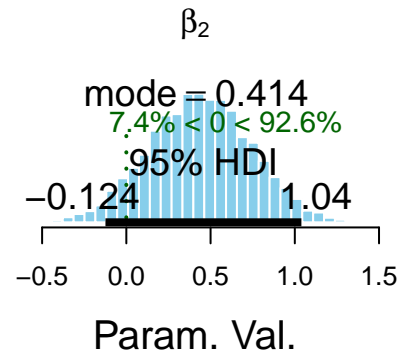
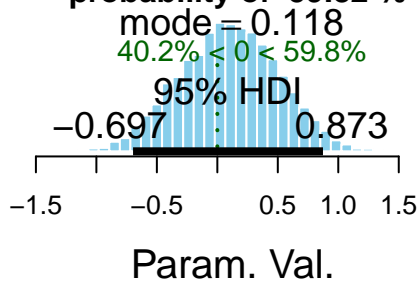
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= II_10 cutted by BRCRdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5412.532 5282.592 6086.672 5147.671 5412.532 5282.592 5437.310 4501.889
## betaSIZE
## 4374.008
## [1] "The difference of II_10 impact \n between BRCRdich cut samples in DISCL has a\n probability o
```

The difference of  $\text{II}_{10}$  impact  
between BRCRdich cut samples in DISCL has a  
probability of 92.01 %



```
## [1] "-----"
## [1] " Analysis of Y= DISCL explained by x= FOR_10 cutted by BRCRdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2029
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4933.921 4839.868 5019.398 5234.828 4933.921 4839.868 4552.333 4824.603
## betaSIZE
## 4521.920
## [1] "The difference of FOR_10 impact \n between BRCRdich cut samples in DISCL has a\n probability of 92.01 %"
```

The difference of FOR<sub>10</sub> impact  
between BRCRdich cut samples in DISCL has a  
probability of 59.82 %



```
write.csv(BLbinomCut,
  file=paste(
    'BRCR-binomCutResults',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

## STAB-Separated Bayesian models

### Quantitative Y

```
X$STABdich <- factor(X$STAB>median(X$STAB))
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('EPS', 'ET3', 'ER3', 'ER1', 'ER')
cut.name <- 'STABdich'
BLquantiCut <- bayesList(X, x.names, y.names, cut.name, 'model1-cut.R')

## [1] "
## [1] " Analysis of Y= EPS explained by x= PRI cutted by STABdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
```

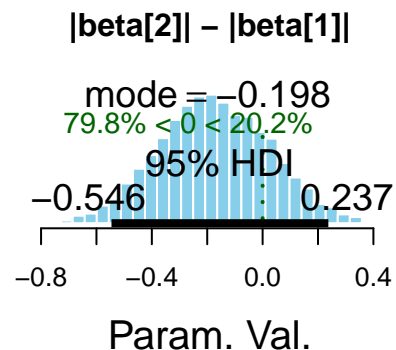
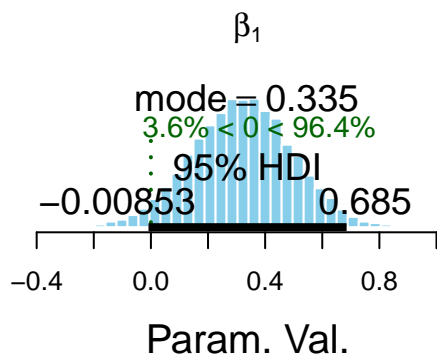
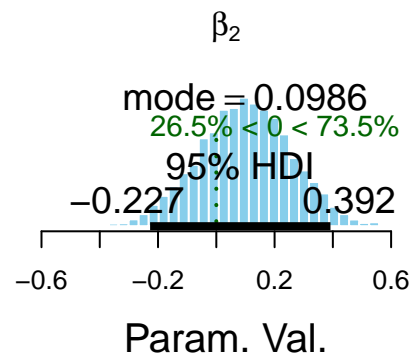
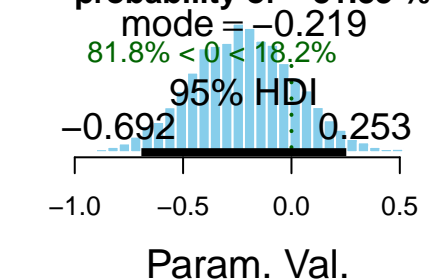


```

##      Initializing
##      Reading data back into data table
## Compiling model graph
##      Resolving undeclared variables
##      Allocating nodes
## Graph information:
##      Observed stochastic nodes: 131
##      Unobserved stochastic nodes: 7
##      Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8594.271 8286.893 9000.000 9000.000 8594.271 8286.893 8653.473 7209.963
## betaSIZE
## 6961.004
## [1] "The difference of PRI impact \n between STABdich cut samples in EPS has a\n probability of -81.83 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= INIT cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of PRI impact  
between STABdich cut samples in EPS has a  
probability of -81.83 %**



```

## Compiling data graph
##      Resolving undeclared variables
##      Allocating nodes
##      Initializing

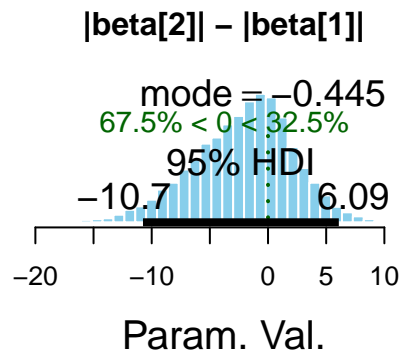
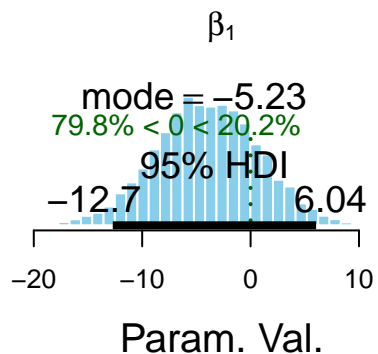
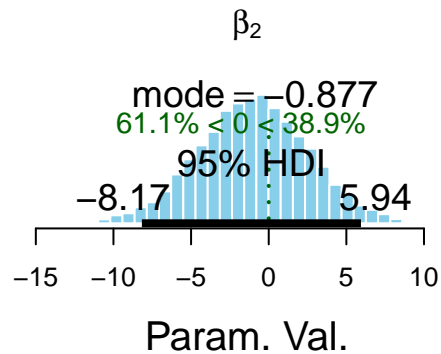
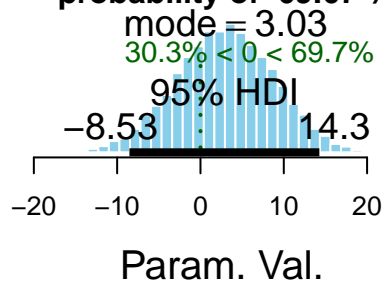
```

```

## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2052
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8542.191 8335.752 8473.384 8373.230 8542.191 8335.752 8617.331 7048.182
## betaSIZE
## 6619.714
## [1] "The difference of INIT impact \n between STABdich cut samples in EPS has a\n probability of 69.67 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of INIT impact  
between STABdich cut samples in EPS has a  
probability of 69.67 %**



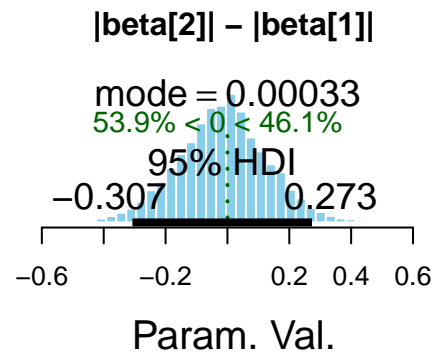
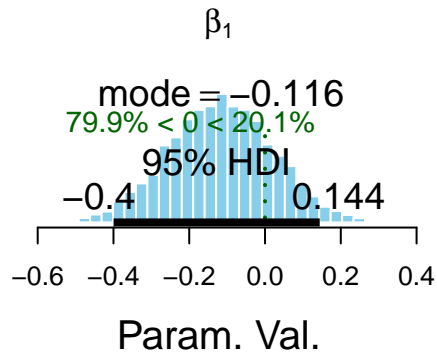
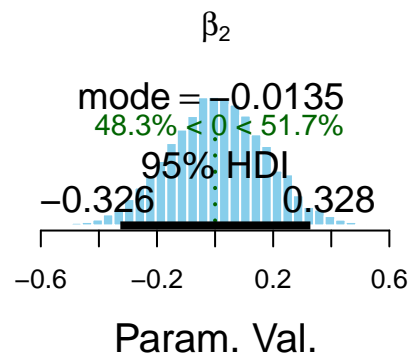
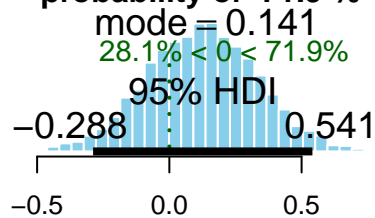
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table

```

```
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7058.272 6695.926 8424.883 8054.034 7058.272 6695.926 6519.400 6731.811
## betaSIZE
## 6465.893
## [1] "The difference of EPI impact \n between STABdich cut samples in EPS has a\n probability of 7
## [1] "
## [1] " Analysis of Y= EPS explained by x= STEW cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

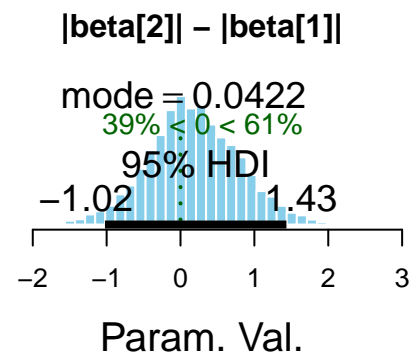
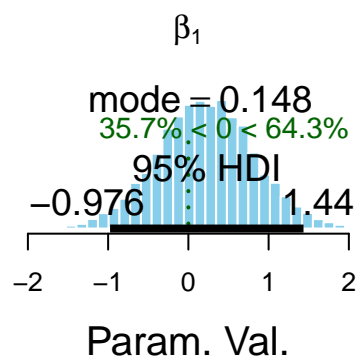
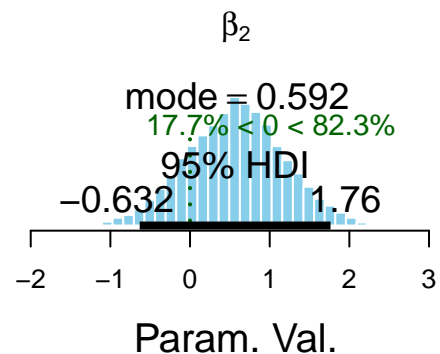
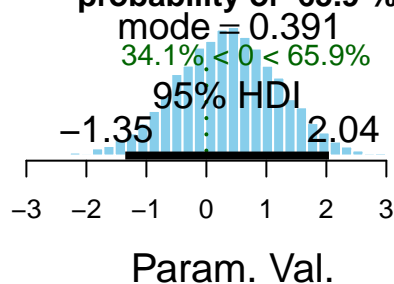
**The difference of EPI impact  
between STABdich cut samples in EPS has a  
probability of 71.9 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
```

```
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8813.108 9280.312 9000.000 9000.000 8813.108 9280.312 8636.195 7397.209
## betaSIZE
## 6807.505
## [1] "The difference of STEW impact \n between STABdich cut samples in EPS has a\n probability of 0.659"
## [1] "
## [1] " Analysis of Y= EPS explained by x= II_10 cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

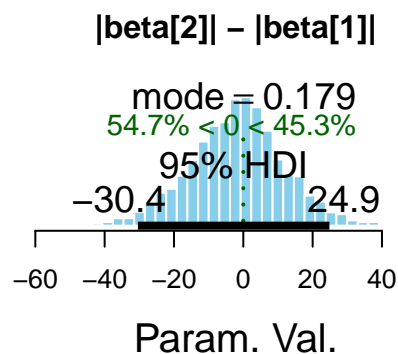
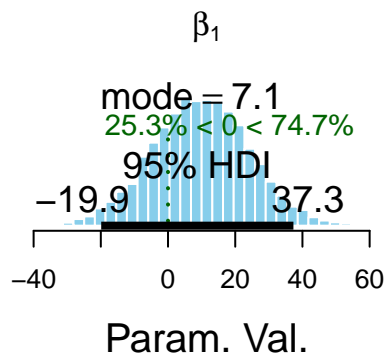
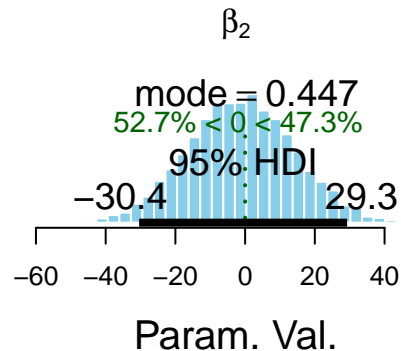
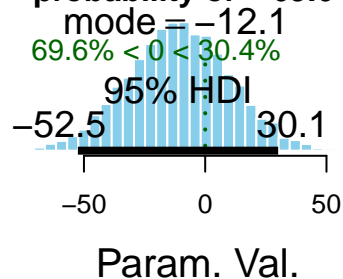
**The difference of STEW impact  
between STABdich cut samples in EPS has a  
probability of 65.9 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
```

```
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 7834.529 9160.810 9090.630 9000.000 7834.529 7585.018 6890.124
## betaSIZE
## 6887.460
## [1] "The difference of II_10 impact \n between STABdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= FOR_10 cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

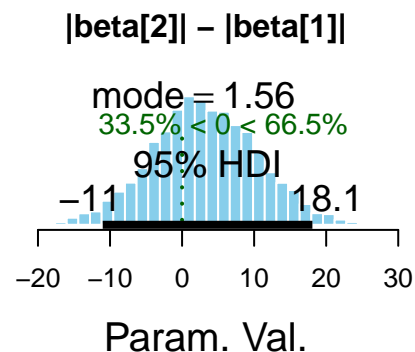
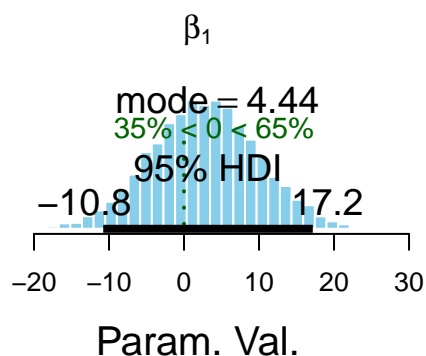
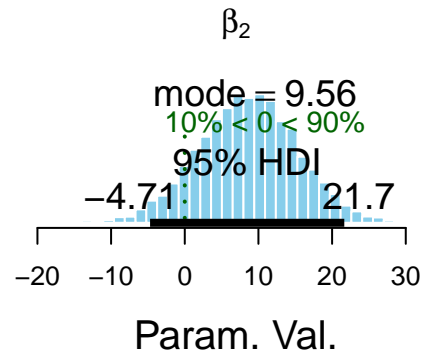
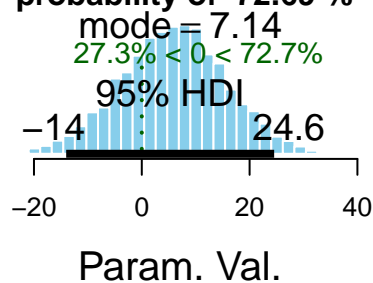
**The difference of II\_10 impact  
between STABdich cut samples in EPS has a  
probability of -69.6 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
```

```
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2044
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8117.376 8294.770 8546.906 8818.226 8117.376 8294.770 7507.545 6919.110
## betaSIZE
## 7349.222
## [1] "The difference of FOR_10 impact \n between STABdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

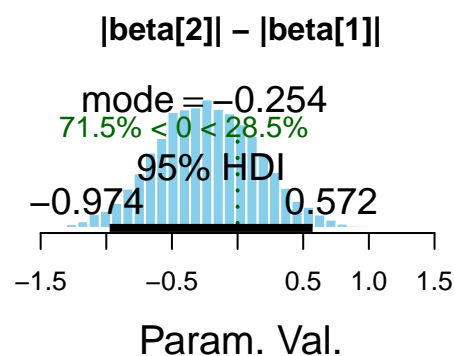
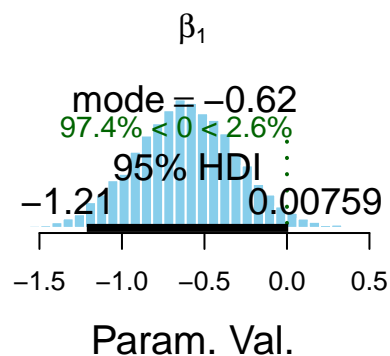
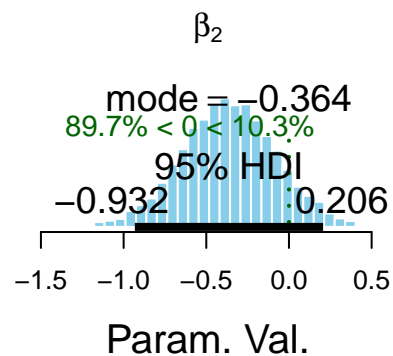
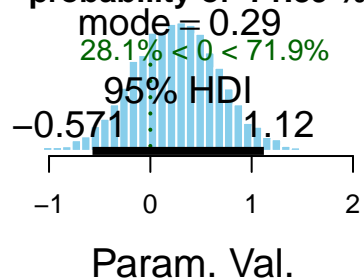
**The difference of FOR\_10 impact  
between STABdich cut samples in EPS has a  
probability of 72.69 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
```

```
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9160.285 7817.448 9000.000 9000.000 9160.285 7817.448 8619.228 7457.191
## betaSIZE
## 6579.758
## [1] "The difference of PRI impact \n between STABdich cut samples in ET3 has a\n probability of 71.89 %
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

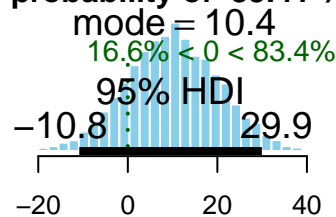
**The difference of PRI impact  
between STABdich cut samples in ET3 has a  
probability of 71.89 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
```

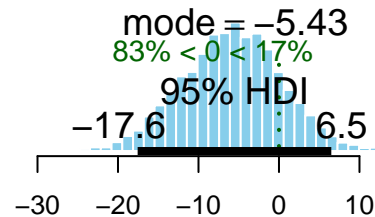
```
## Unobserved stochastic nodes: 7
## Total graph size: 2052
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8437.819 8065.079 8702.309 8421.778 8437.819 8065.079 8703.170 6942.232
## betaSIZE
## 6455.653
## [1] "The difference of INIT impact \n between STABdich cut samples in ET3 has a\n probability of 83.41 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of INIT impact  
between STABdich cut samples in ET3 has a  
probability of 83.41 %**



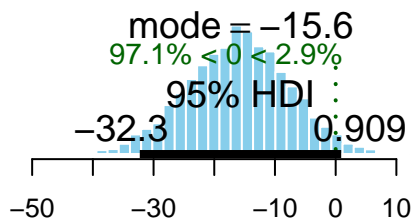
Param. Val.

$\beta_2$



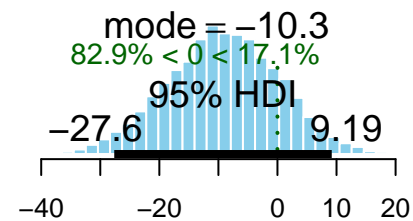
Param. Val.

$\beta_1$



Param. Val.

**|beta[2]| - |beta[1]|**



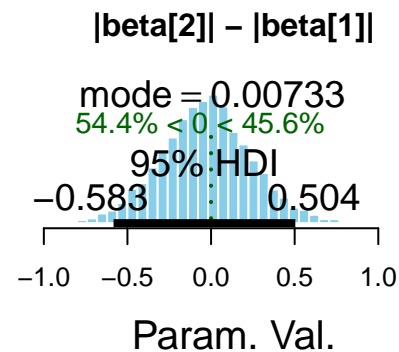
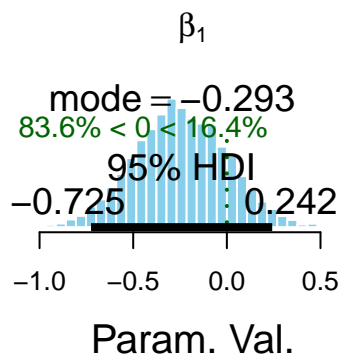
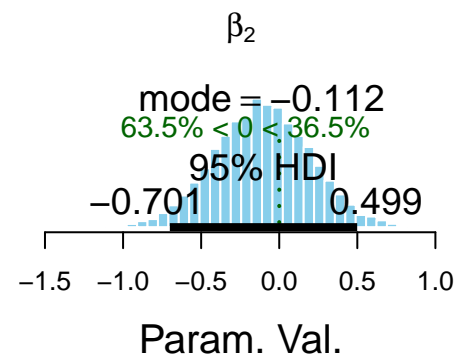
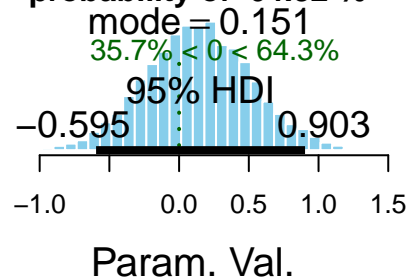
Param. Val.

```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
```



```
## Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7272.160 6718.120 8661.887 8184.123 7272.160 6718.120 6452.241 6922.907
## betaSIZE
## 6505.635
## [1] "The difference of EPI impact \n between STABdich cut samples in ET3 has a\n probability of 64.32 %
## [1] "
## [1] " Analysis of Y= ET3 explained by x= STEW cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

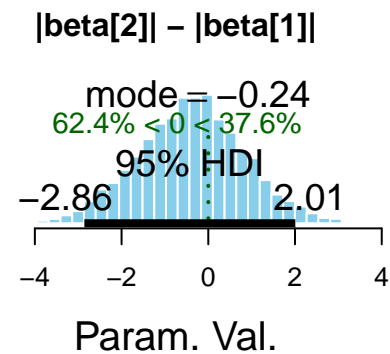
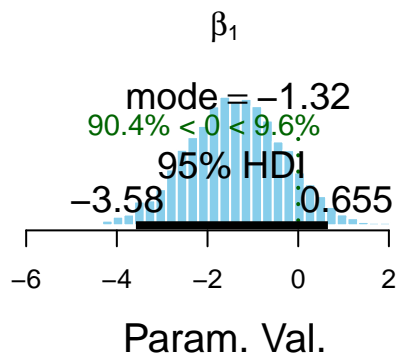
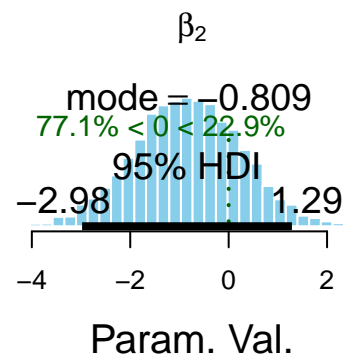
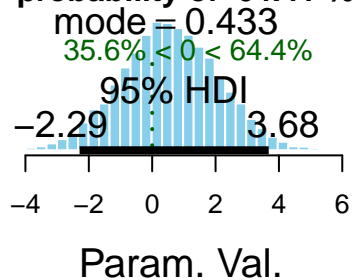
**The difference of EPI impact  
between STABdich cut samples in ET3 has a  
probability of 64.32 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2046
```

```
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9188.565 7996.364 8803.148 9141.301 9188.565 7996.364 8208.826 6320.846
## betaSIZE
## 7077.707
## [1] "The difference of STEW impact \n between STABdich cut samples in ET3 has a\n probability of 0.6441"
## [1] "
## [1] " Analysis of Y= ET3 explained by x= II_10 cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

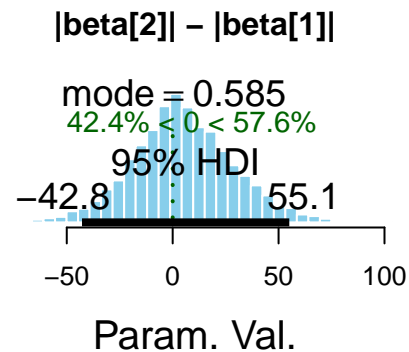
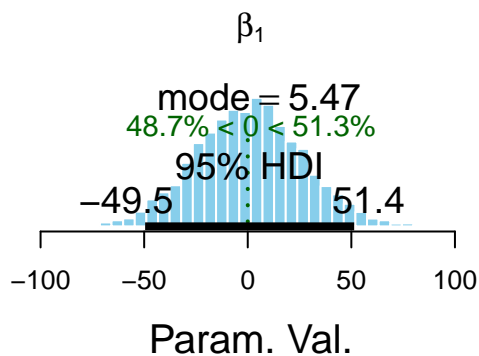
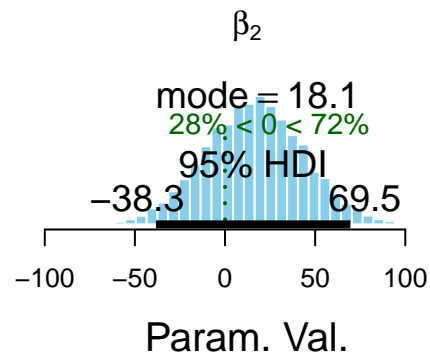
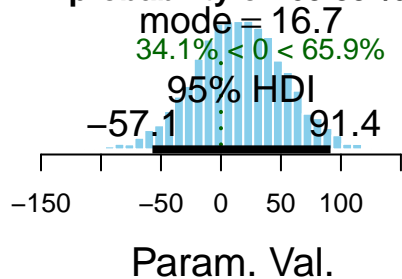
**The difference of STEW impact  
between STABdich cut samples in ET3 has a  
probability of 64.41 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 1963
##
```

```
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 7990.674 9004.672 8910.344 9000.000 7990.674 7556.258 7065.178
## betaSIZE
## 5917.469
## [1] "The difference of II_10 impact \n between STABdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= FOR_10 cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

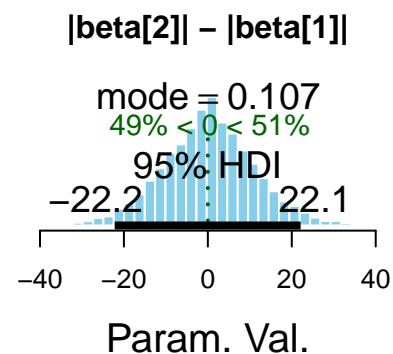
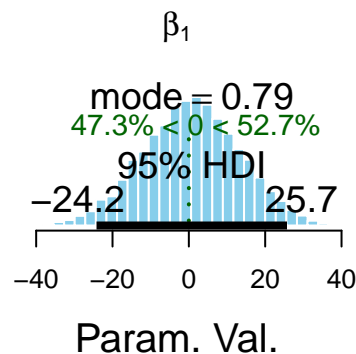
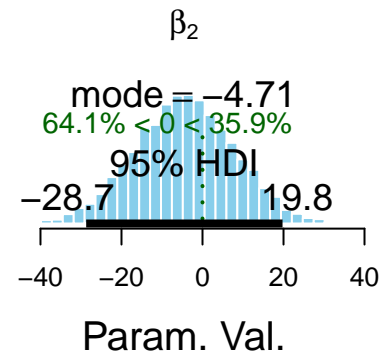
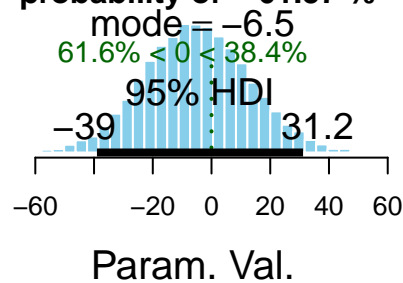
**The difference of II\_10 impact  
between STABdich cut samples in ET3 has a  
probability of 65.89 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2044
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8055.145 9000.000 8652.061 8773.225 8055.145 9000.000 7523.734 6849.089
## betaSIZE
## 7054.181
## [1] "The difference of FOR_10 impact \n between STABdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= PRI cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

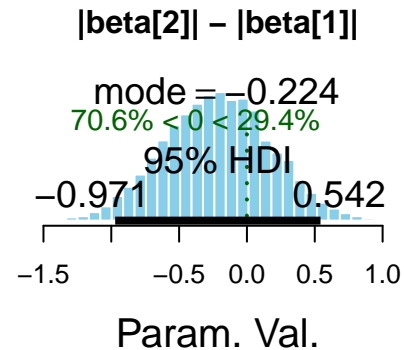
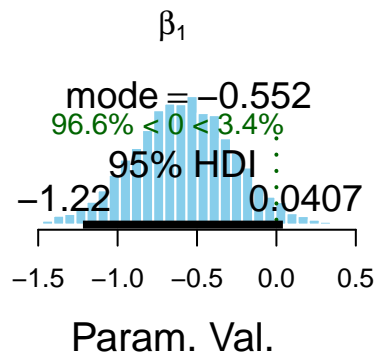
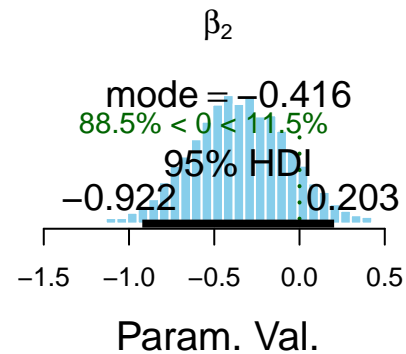
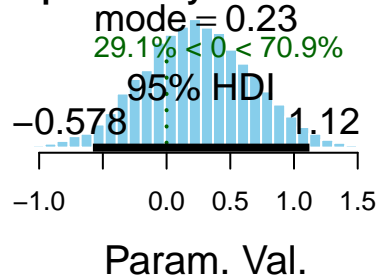
**The difference of FOR\_10 impact  
between STABdich cut samples in ET3 has a  
probability of -61.57 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2053
##
## Initializing model
##
```

```
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8889.747 8263.417 9000.000 8832.854 8889.747 8263.417 8614.345 7317.936
## betaSIZE
## 6858.613
## [1] "The difference of PRI impact \n between STABdich cut samples in ER3 has a\n probability of 70.89 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= INIT cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

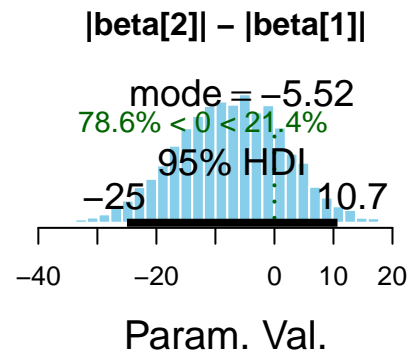
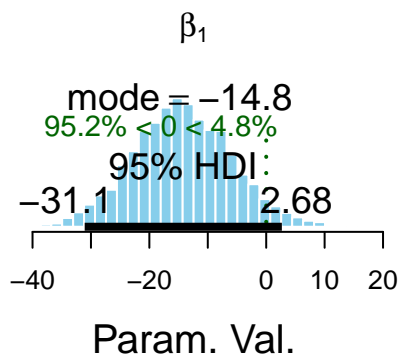
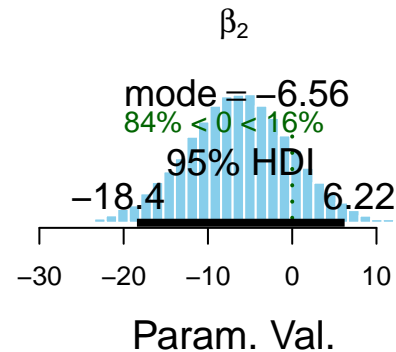
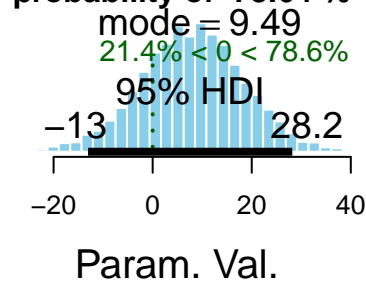
**The difference of PRI impact  
between STABdich cut samples in ER3 has a  
probability of 70.89 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2052
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
```

```
## 8735.675 8795.959 8637.203 8424.458 8735.675 8795.959 9347.398 6864.961
## betaSIZE
## 6395.525
## [1] "The difference of INIT impact \n between STABdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= EPI cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

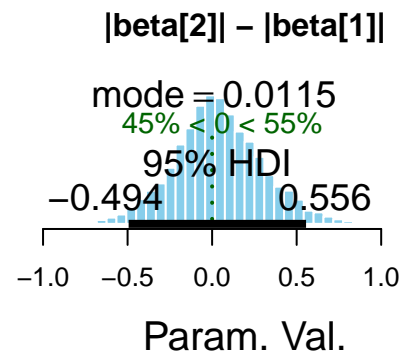
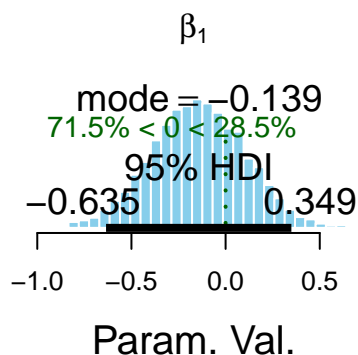
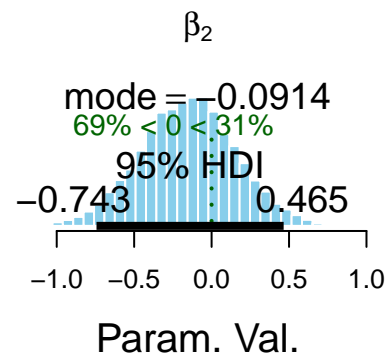
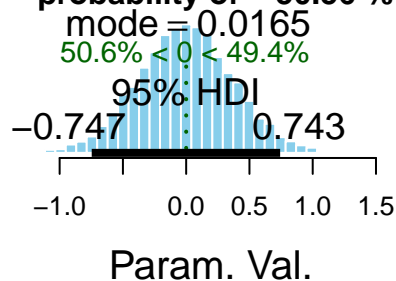
**The difference of INIT impact  
between STABdich cut samples in ER3 has a  
probability of 78.64 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7951.543 6758.996 9000.000 8559.131 7951.543 6758.996 6372.872 7111.807
```

```
## betaSIZE
## 6183.943
## [1] "The difference of EPI impact \n between STABdich cut samples in ER3 has a\n probability of -1
## [1] "
## [1] " Analysis of Y= ER3 explained by x= STEW cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

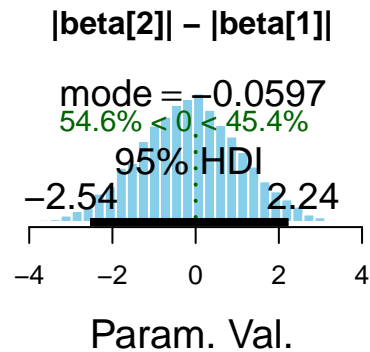
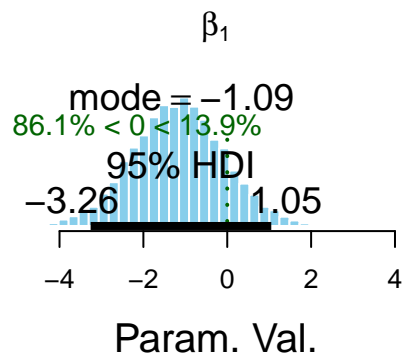
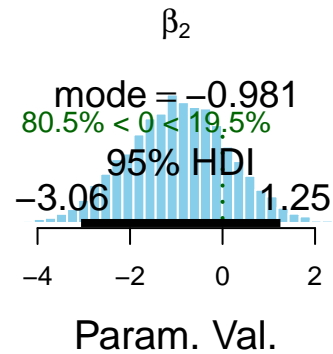
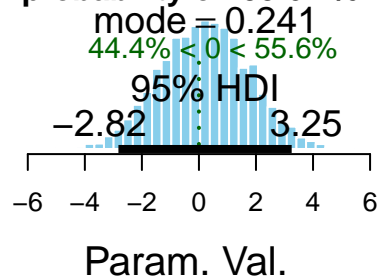
**The difference of EPI impact  
between STABdich cut samples in ER3 has a  
probability of -50.56 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 7
## Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8694.286 8062.994 9000.000 9000.000 8694.286 8062.994 8613.542 6699.790
## betaSIZE
```

```
## 6793.747
## [1] "The difference of STEW impact \n between STABdich cut samples in ER3 has a\n probability of 1"
## [1] "
## [1] " Analysis of Y= ER3 explained by x= II_10 cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between STABdich cut samples in ER3 has a  
probability of 55.62 %**

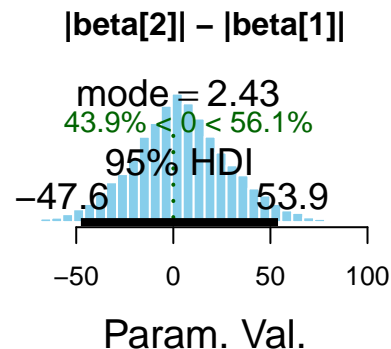
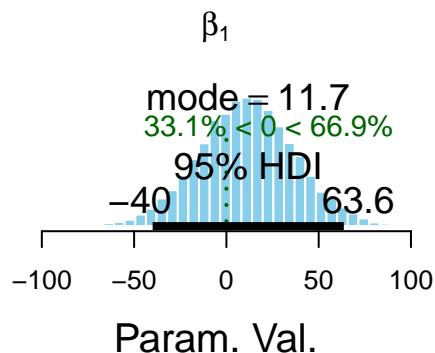
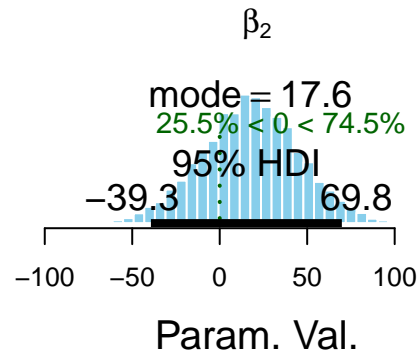
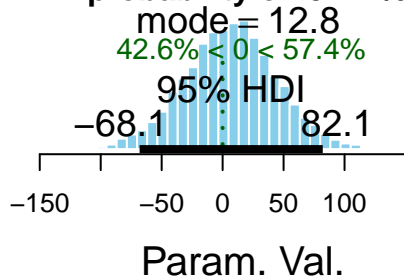


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8868.466 8735.791 9746.063 9293.989 8868.466 8735.791 8122.162 7217.322
## betaSIZE
## 6794.828
```



```
## [1] "The difference of II_10 impact \n between STABdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= FOR_10 cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of II\_10 impact  
between STABdich cut samples in ER3 has a  
probability of 57.4 %**

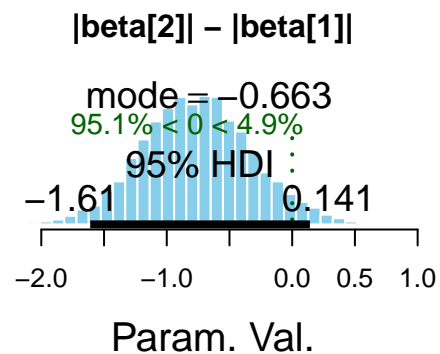
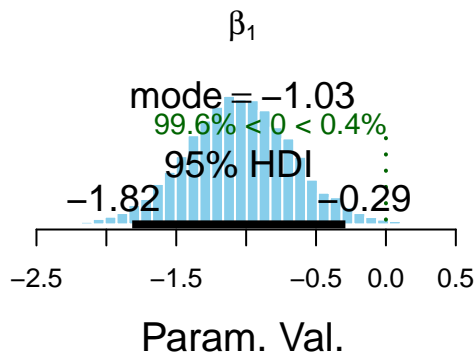
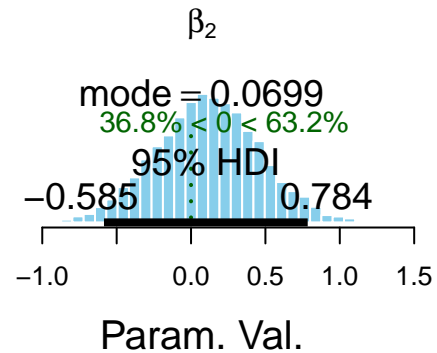
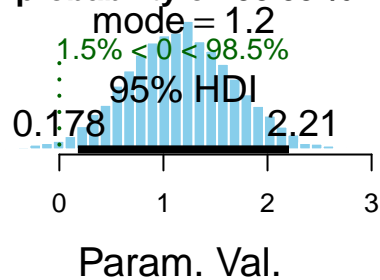


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2044
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8058.163 8672.680 8892.710 9140.274 8058.163 8672.680 7428.948 6981.827
## betaSIZE
## 7285.618
## [1] "The difference of FOR_10 impact \n between STABdich cut samples in ER3 has a\n probability of
```



```
## [1] " Analysis of Y= ER1  explained by x= INIT cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

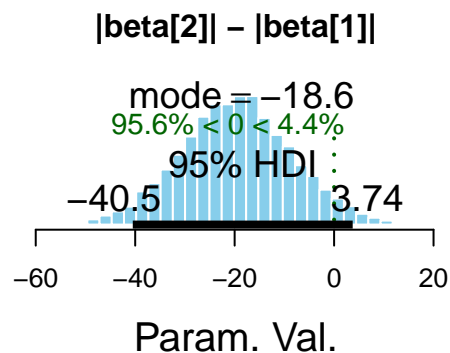
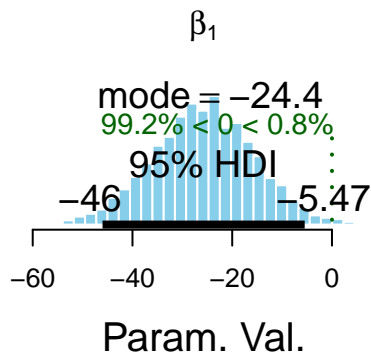
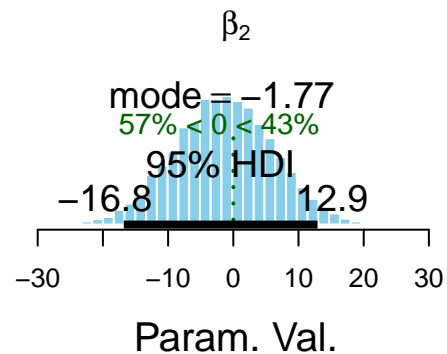
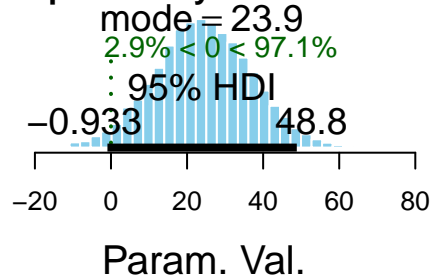
**The difference of PRI impact  
between STABdich cut samples in ER1 has a  
probability of 98.53 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2052
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8449.877 8601.591 9059.011 8814.757 8449.877 8601.591 8149.335 7025.877
## betaSIZE
## 7055.264
## [1] "The difference of INIT impact \n between STABdich cut samples in ER1 has a\n probability of 98.53 %
## [1] "
## [1] " Analysis of Y= ER1  explained by x= EPI cutted by STABdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

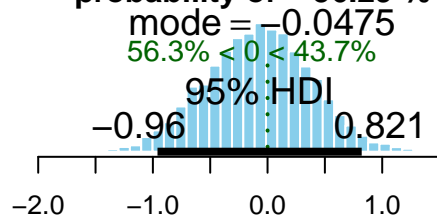
**The difference of INIT impact  
between STABdich cut samples in ER1 has a  
probability of 97.1 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7564.625 7025.257 8842.546 8487.428 7564.625 7025.257 6791.137 7375.529
## betaSIZE
## 6698.646
## [1] "The difference of EPI impact \n between STABdich cut samples in ER1 has a\n probability of -
## [1] "
## [1] " Analysis of Y= ER1 explained by x= STEW cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
```

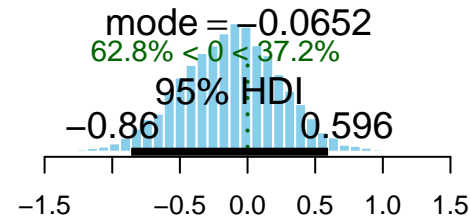
```
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between STABdich cut samples in ER1 has a  
probability of -56.29 %**



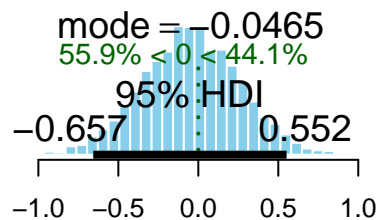
Param. Val.

$\beta_2$



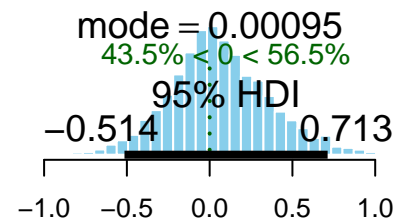
Param. Val.

$\beta_1$



Param. Val.

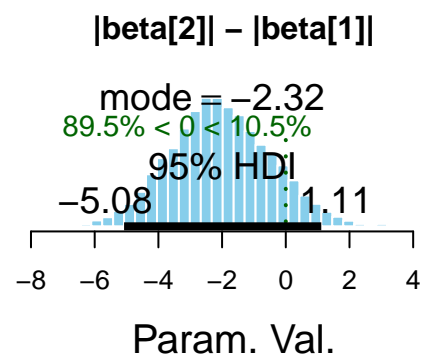
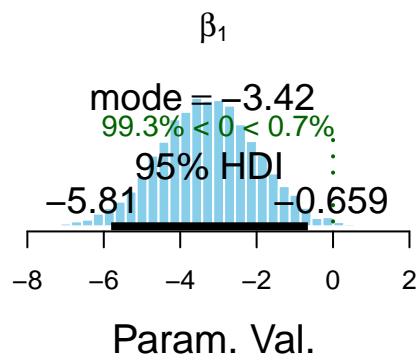
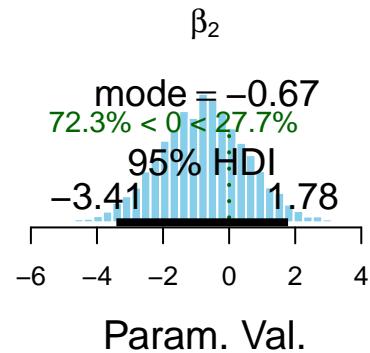
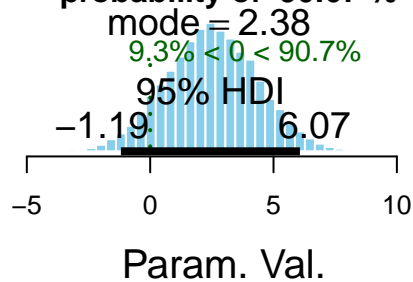
$|\beta_2| - |\beta_1|$



Param. Val.

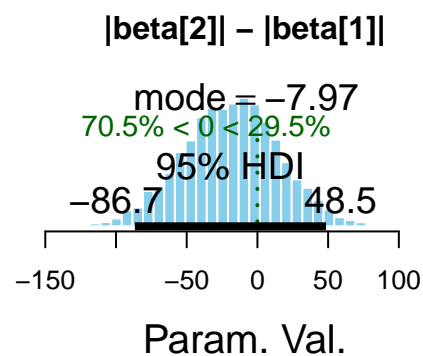
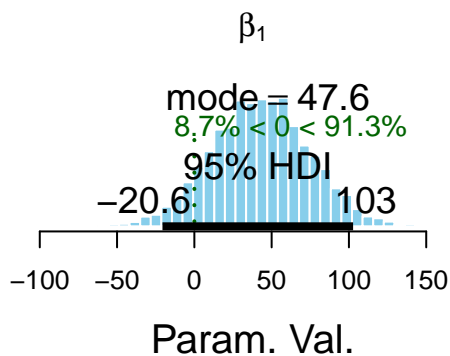
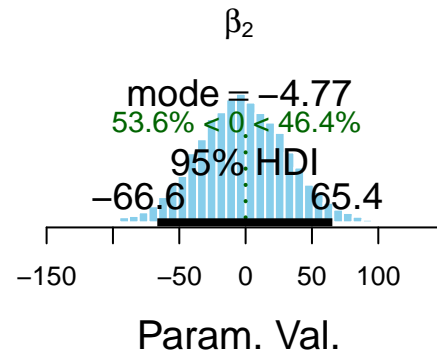
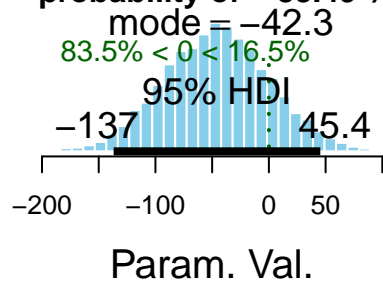
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 8212.412 8073.997 8125.890 9000.000 8212.412 8334.053 7897.928
## betaSIZE
## 6975.592
## [1] "The difference of STEW impact \n between STABdich cut samples in ER1 has a\n probability of 9
## [1] "
## [1] " Analysis of Y= ER1 explained by x= II_10 cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of STEW impact  
between STABdich cut samples in ER1 has a  
probability of 90.67 %



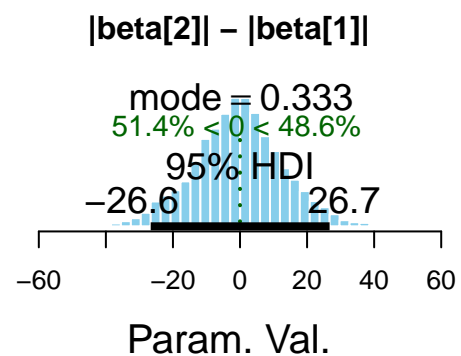
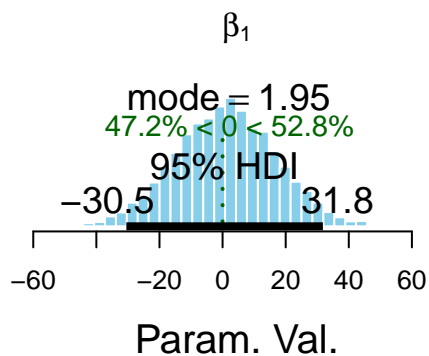
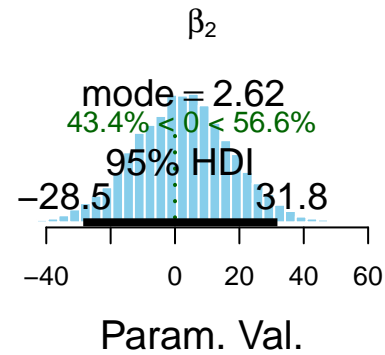
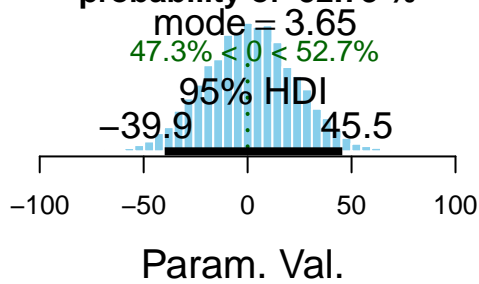
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 7932.751 9033.085 8763.192 9000.000 7932.751 7834.793 7356.916
## betaSIZE
## 6364.655
## [1] "The difference of II_10 impact \n between STABdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER1 explained by x= FOR_10 cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\text{II}_{10}$  impact  
between STABdich cut samples in ER1 has a  
probability of  $-83.49\%$



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2044
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7801.737 8257.649 8837.088 9000.000 7801.737 8257.649 7567.684 7134.016
## betaSIZE
## 7627.073
## [1] "The difference of FOR_10 impact \n between STABdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= PRI cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

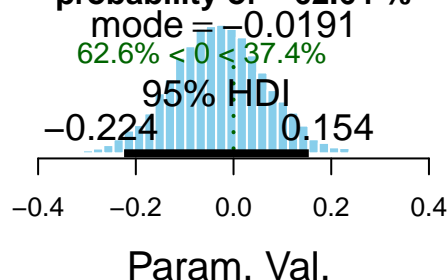
The difference of FOR\_10 impact  
between STABdich cut samples in ER1 has a  
probability of 52.73 %



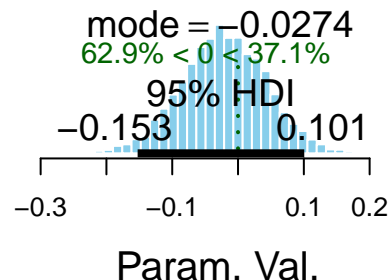
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2053
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 10018.465 9000.000 8584.431 8712.571 10018.465 9000.000 8498.839 7097.301
## betaSIZE
## 6840.982
## [1] "The difference of PRI impact \n between STABdich cut samples in ER has a\n probability of -6
## [1] "
## [1] " Analysis of Y= ER explained by x= INIT cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```



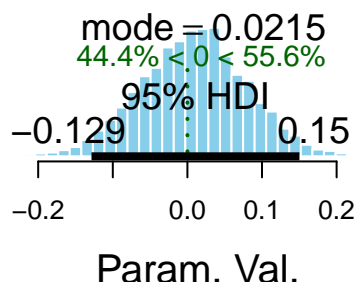
The difference of PRI impact  
between STABdich cut samples in ER has a  
probability of -62.64 %



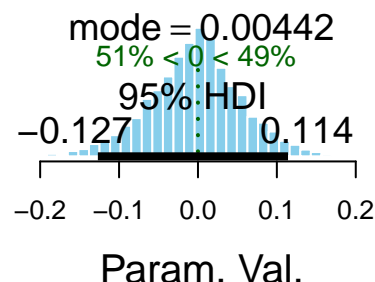
$\beta_2$



$\beta_1$

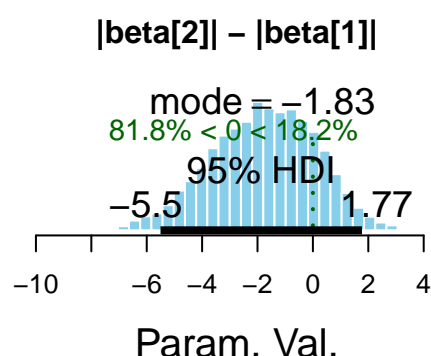
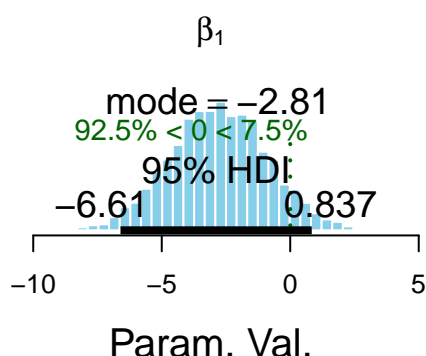
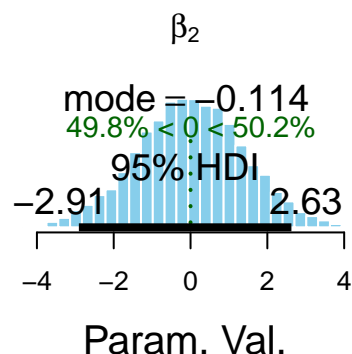
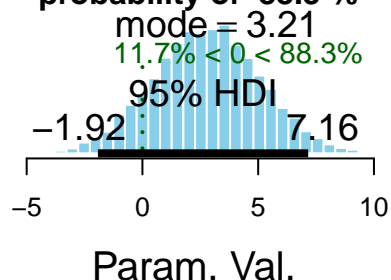


$|\text{beta}[2]| - |\text{beta}[1]|$



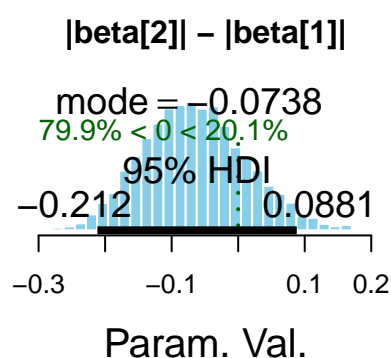
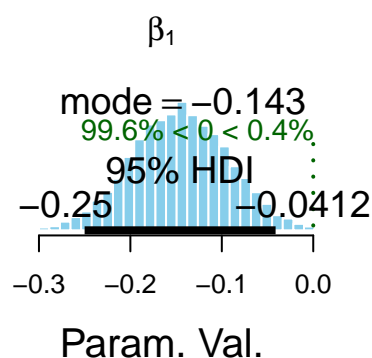
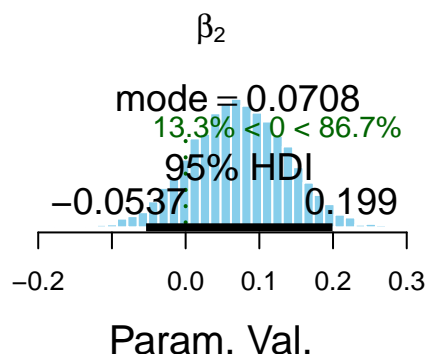
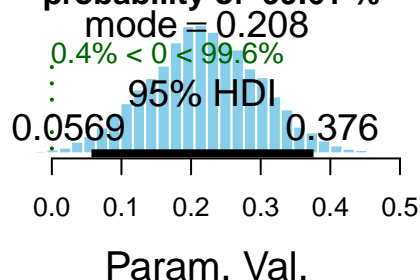
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2052
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8651.064 8680.408 8579.847 8468.468 8651.064 8680.408 8544.142 7037.376
## betaSIZE
## 6755.538
## [1] "The difference of INIT impact \n between STABdich cut samples in ER has a\n probability of 8
## [1] "
## [1] " Analysis of Y= ER explained by x= EPI cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of INIT impact  
between STABdich cut samples in ER has a  
probability of 88.3 %



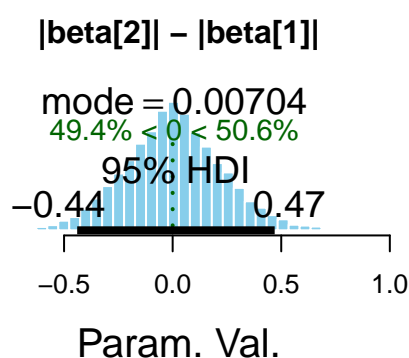
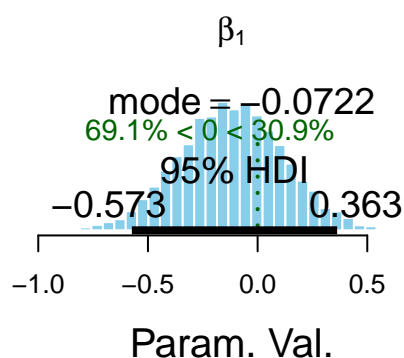
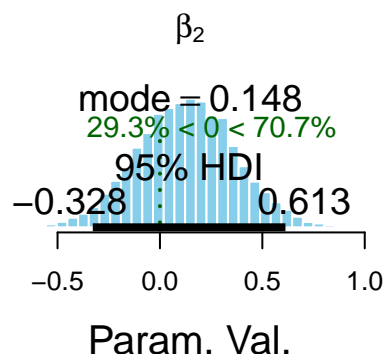
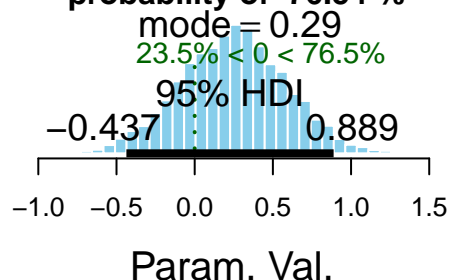
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7423.610 6641.975 8223.178 8350.689 7423.610 6641.975 6571.133 7308.739
## betaSIZE
## 6745.063
## [1] "The difference of EPI impact \n between STABdich cut samples in ER has a\n probability of 99
## [1] "
## [1] " Analysis of Y= ER explained by x= STEW cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of EPI impact  
between STABdich cut samples in ER has a  
probability of 99.61 %



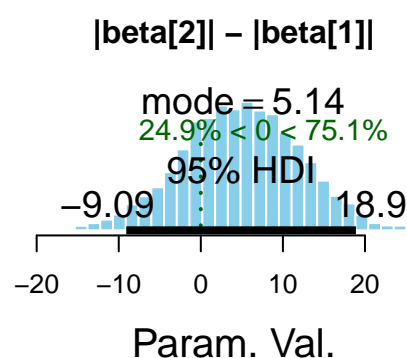
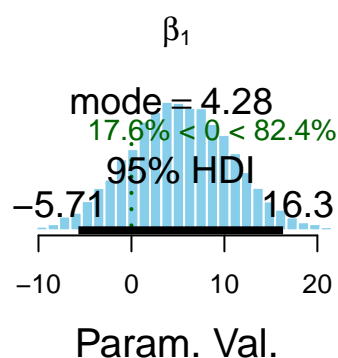
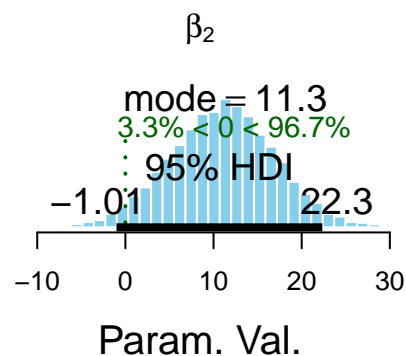
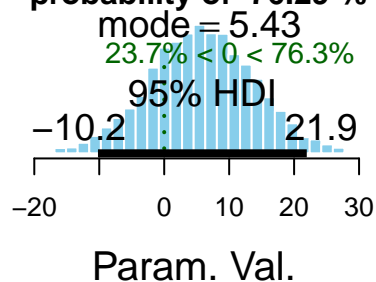
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2046
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8779.718 8836.841 8790.730 9306.206 8779.718 8836.841 8312.044 7107.862
## betaSIZE
## 7060.055
## [1] "The difference of STEW impact \n between STABdich cut samples in ER has a\n probability of 7
## [1] "
## [1] " Analysis of Y= ER explained by x= II_10 cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between STABdich cut samples in ER has a  
probability of 76.54 %**



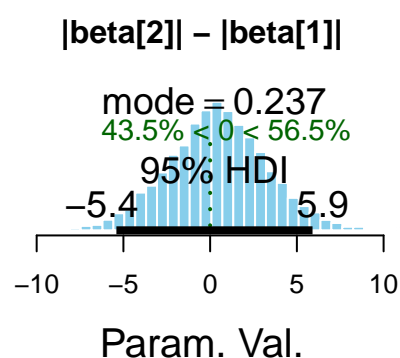
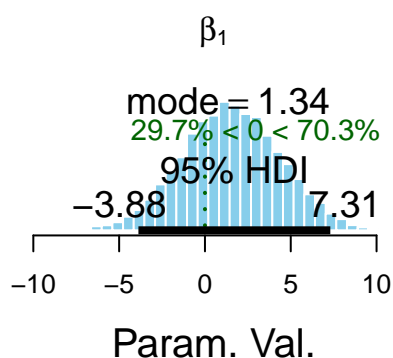
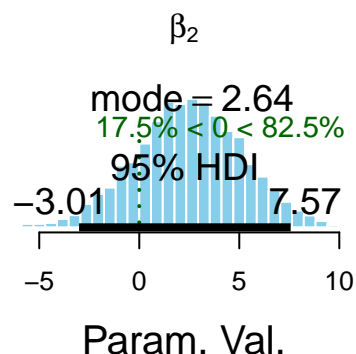
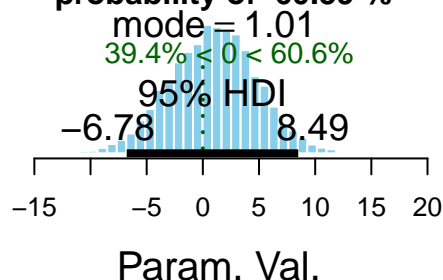
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 1963
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8556.554 7989.005 9513.826 9920.628 8556.554 7989.005 8047.645 7231.670
## betaSIZE
## 7358.935
## [1] "The difference of II_10 impact \n between STABdich cut samples in ER has a\n probability of "
## [1] "
## [1] " Analysis of Y= ER explained by x= FOR_10 cutted by STABdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\Pi_{10}$  impact  
between STABdich cut samples in ER has a  
probability of 76.29 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 7
##   Total graph size: 2044
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7717.659 9293.905 9000.000 9000.000 7717.659 9293.905 7700.087 6811.638
## betaSIZE
## 6825.327
## [1] "The difference of FOR_10 impact \n between STABdich cut samples in ER has a\n probability of
```

The difference of FOR<sub>10</sub> impact  
between STABdich cut samples in ER has a  
probability of 60.59 %



```
write.csv(BLquantiCut,
  file=paste(
    'STAB-quantiResults-cut',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

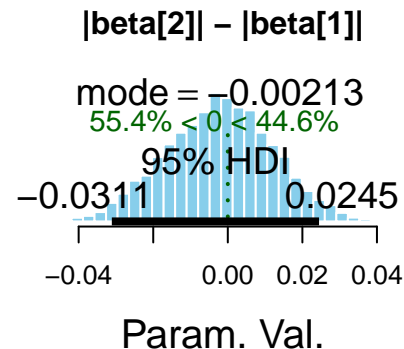
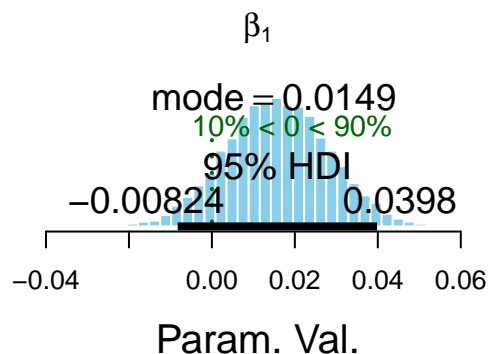
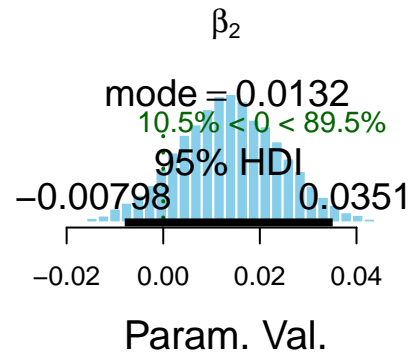
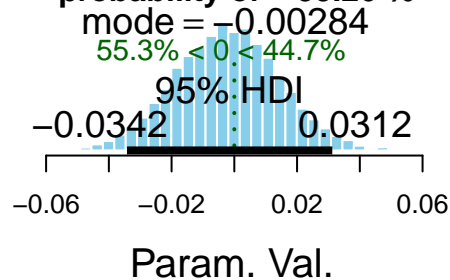
## Binomial Y

```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('CP', 'DISCL')
BLbinomCut <- bayesList(X, x.names, y.names, cut.name, 'model2-cut.R')
```

```
## [1] "
## [1] " Analysis of Y= CP explained by x= PRI cutted by STABdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
```

```
## Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5712.915 4933.452 5093.430 5291.033 5712.915 4933.452 5690.852 4414.723
## betaSIZE
## 4422.750
## [1] "The difference of PRI impact \n between STABdich cut samples in CP has a\n probability of -5
```

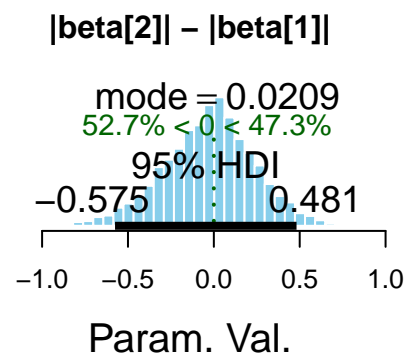
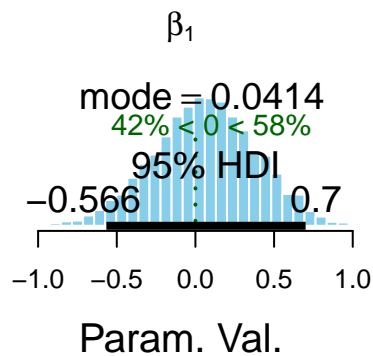
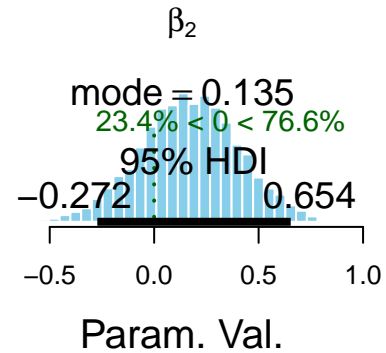
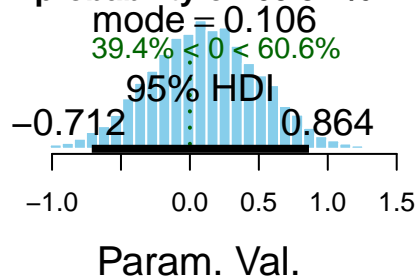
**The difference of PRI impact  
between STABdich cut samples in CP has a  
probability of -55.26 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= INIT cutted by STABdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2038
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5056.662 5411.661 5118.506 4965.388 5056.662 5411.661 5404.716 4891.819
## betaSIZE
## 4338.016
## [1] "The difference of INIT impact \n between STABdich cut samples in CP has a\n probability of 60.57 %"
```

**The difference of INIT impact  
between STABdich cut samples in CP has a  
probability of 60.57 %**

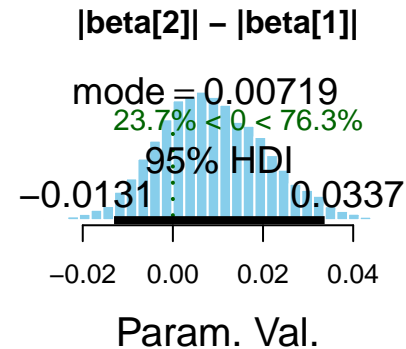
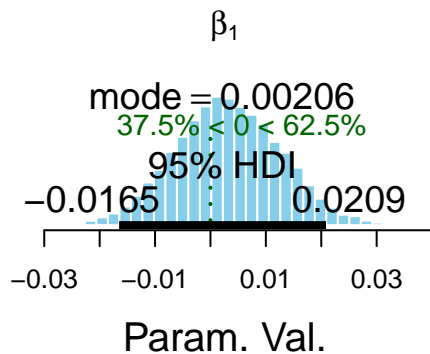
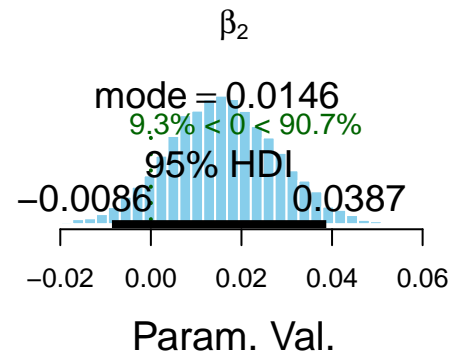
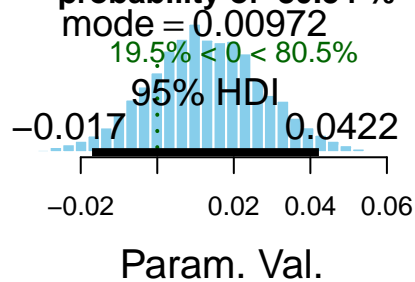


```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= EPI cutted by STABdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2032
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4676.729 4400.514 5644.888 5199.491 4676.729 4400.514 4504.208 4330.917
```



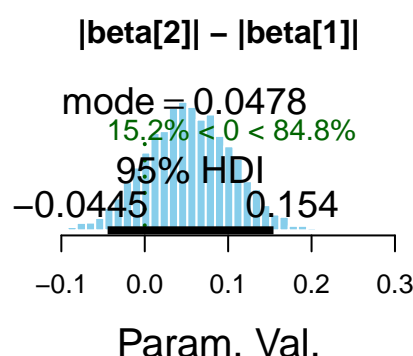
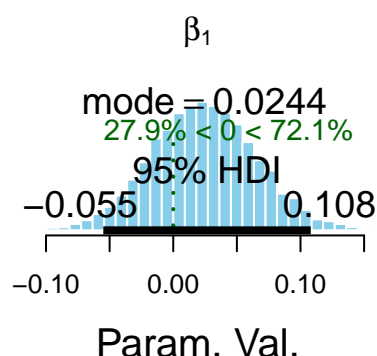
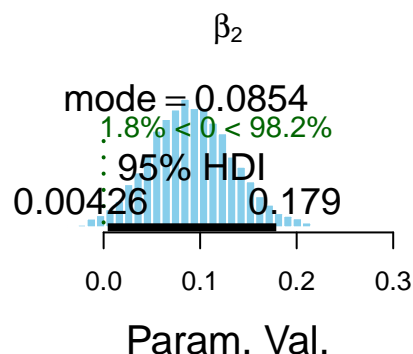
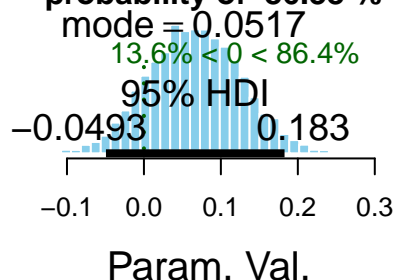
```
## betaSIZE
## 4411.766
## [1] "The difference of EPI impact \n between STABdich cut samples in CP has a\n probability of 80
```

**The difference of EPI impact  
between STABdich cut samples in CP has a  
probability of 80.54 %**



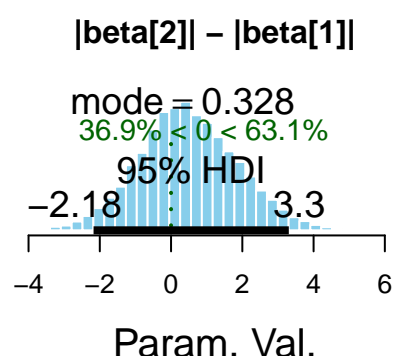
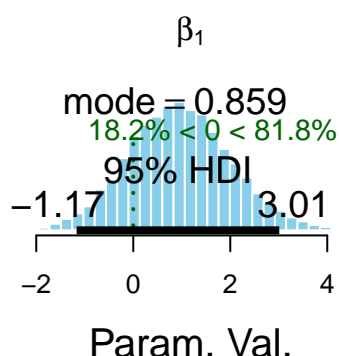
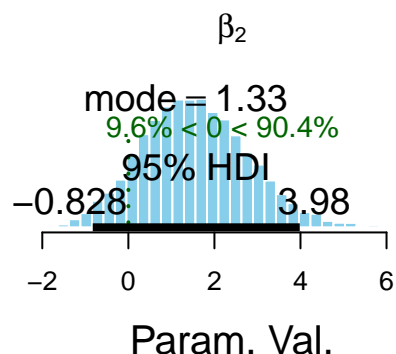
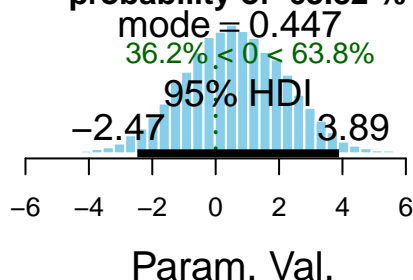
```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= STEW cutted by STABdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 131
## Unobserved stochastic nodes: 6
## Total graph size: 2032
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5602.726 5376.295 4944.187 5058.191 5602.726 5376.295 5657.129 4417.892
## betaSIZE
## 4229.812
## [1] "The difference of STEW impact \n between STABdich cut samples in CP has a\n probability of 80
```

The difference of STEW impact  
between STABdich cut samples in CP has a  
probability of 86.38 %



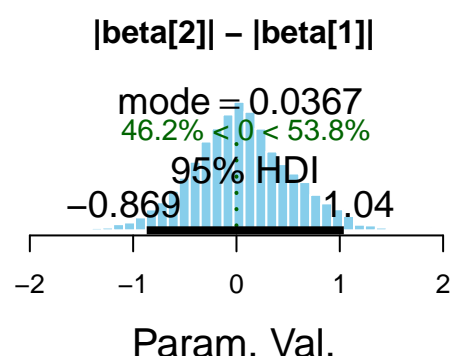
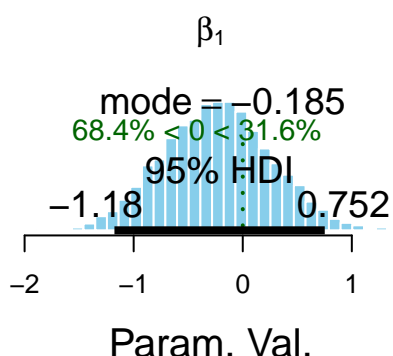
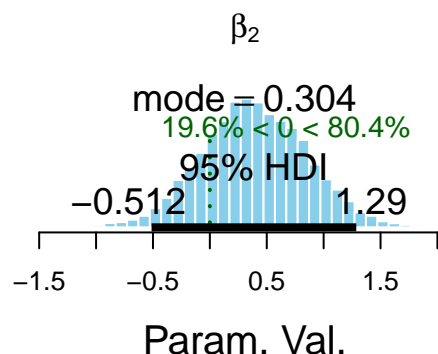
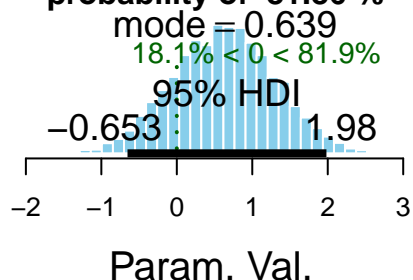
```
## [1] "-----"
## [1] " Analysis of Y= CP explained by x= II_10 cutted by STABdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5294.720 5706.434 5899.731 5770.344 5294.720 5706.434 5194.019 4691.535
## betaSIZE
## 4505.830
## [1] "The difference of II_10 impact \n between STABdich cut samples in CP has a\n probability of 0"
```

The difference of  $\Pi_{10}$  impact  
between STABdich cut samples in CP has a  
probability of 63.82 %



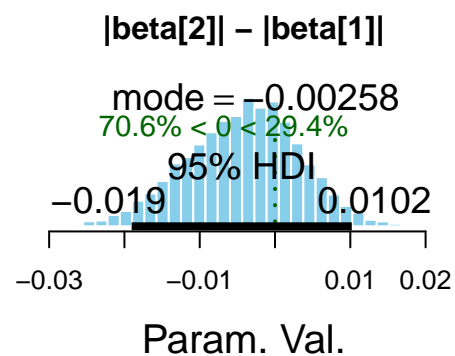
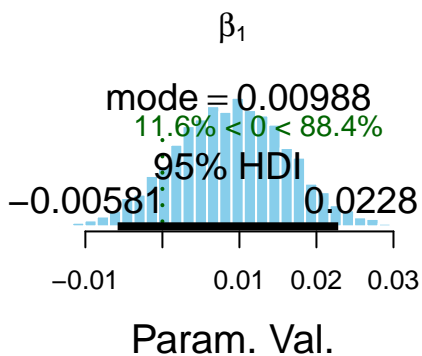
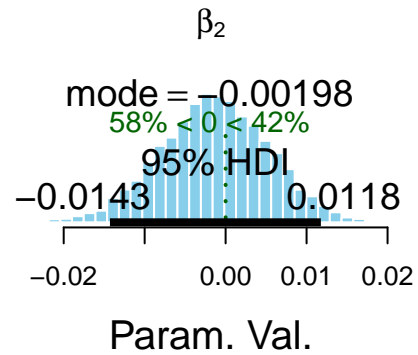
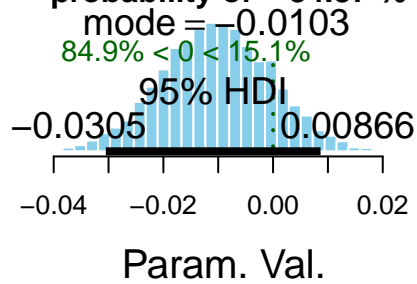
```
## [1] "
## [1] " Analysis of Y= CP explained by x= FOR_10 cutted by STABdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2030
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4686.478 5354.560 5329.540 5282.856 4686.478 5354.560 5114.147 4338.576
## betaSIZE
## 4662.935
## [1] "The difference of FOR_10 impact \n between STABdich cut samples in CP has a\n probability of
```

The difference of FOR\_10 impact  
between STABdich cut samples in CP has a  
probability of 81.86 %



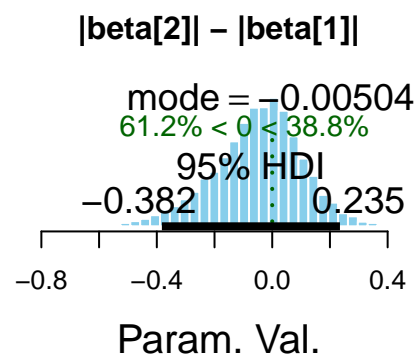
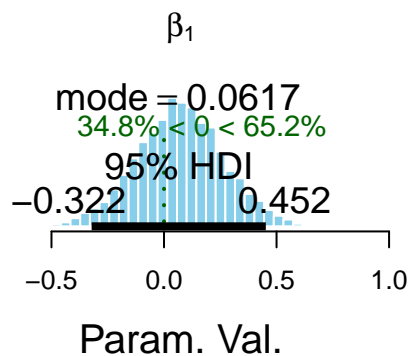
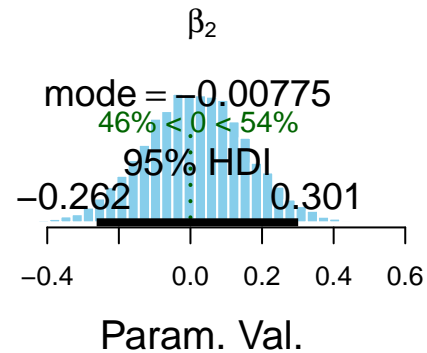
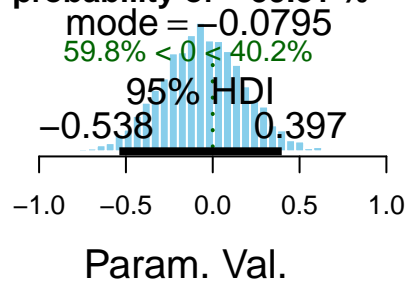
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= PRI cutted by STABdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2039
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5222.248 4982.718 4555.783 4811.329 5222.248 4982.718 5337.191 4735.074
## betaSIZE
## 4369.903
## [1] "The difference of PRI impact \n between STABdich cut samples in DISCL has a\n probability of
```

The difference of PRI impact  
between STABdich cut samples in DISCL has a  
probability of -84.87 %



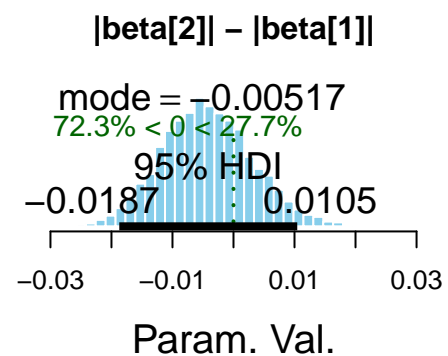
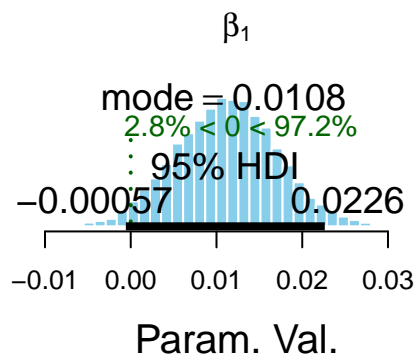
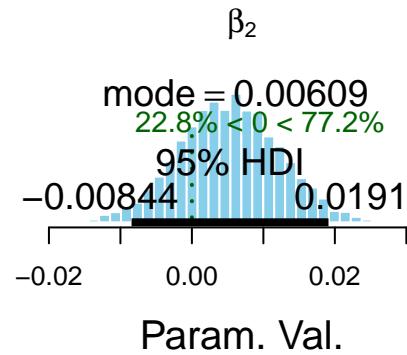
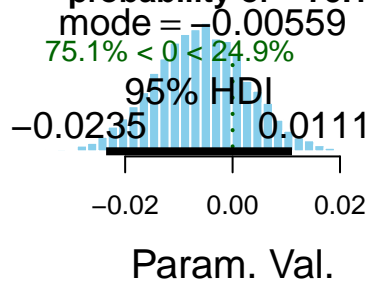
```
## [1] "-----"
## [1] " Analysis of Y= DISCL  explained by x= INIT cutted by STABdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2038
##
## Initializing model
##
## alpha1[1] alpha1[2]  beta0[1]  beta0[2]  beta1[1]  beta1[2]  betaGFI  betaGPS
## 5472.364 5437.572 5759.582 5608.900 5472.364 5437.572 5005.620 5495.399
## betaSIZE
## 4668.731
## [1] "The difference of INIT  impact \n between STABdich cut samples in DISCL has a\n probability of
```

The difference of INIT impact  
between STABdich cut samples in DISCL has a  
probability of -59.81 %



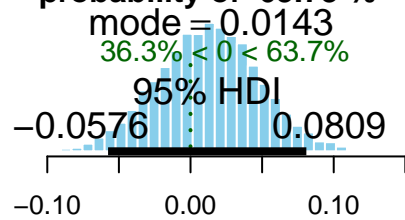
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= EPI cutted by STABdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2032
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4625.889 3945.714 4771.659 4800.224 4625.889 3945.714 4443.787 4554.394
## betaSIZE
## 3806.028
## [1] "The difference of EPI impact \n between STABdich cut samples in DISCL has a\n probability of
```

The difference of EPI impact  
between STABdich cut samples in DISCL has a  
probability of -75.1 %

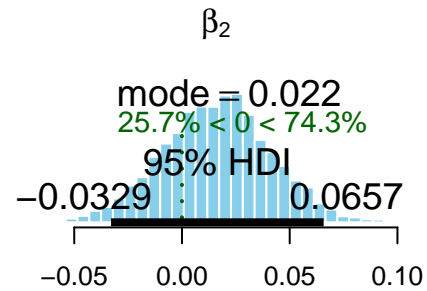


```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= STEW cutted by STABdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2032
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5175.955 4773.160 5078.024 5296.381 5175.955 4773.160 5040.370 4734.415
## betaSIZE
## 4396.719
## [1] "The difference of STEW impact \n between STABdich cut samples in DISCL has a\n probability of
```

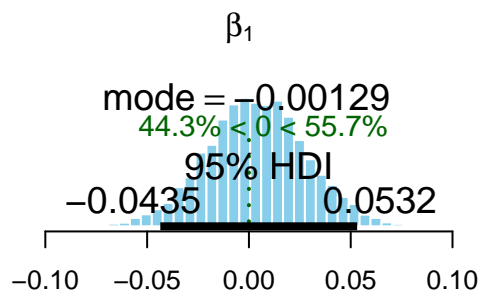
The difference of STEW impact  
between STABdich cut samples in DISCL has a  
probability of 63.73 %



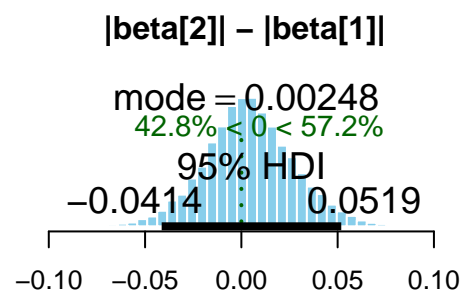
Param. Val.



Param. Val.



Param. Val.

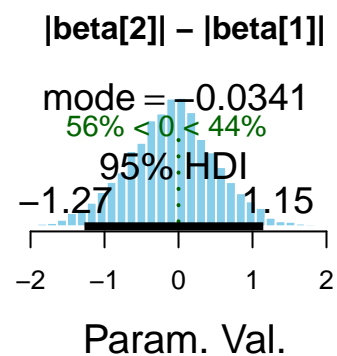
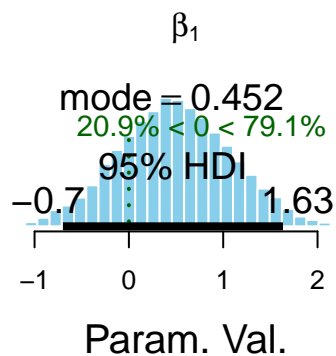
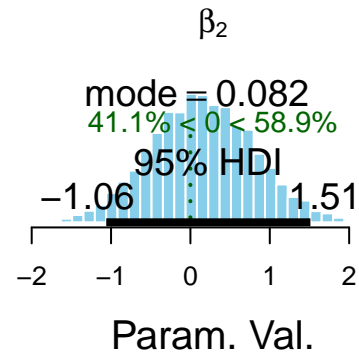
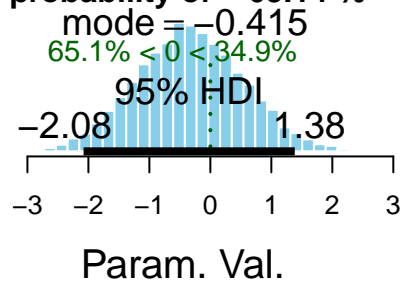


Param. Val.

```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= II_10 cutted by STABdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 1949
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5334.367 5413.790 5814.338 5610.278 5334.367 5413.790 5206.237 4649.323
## betaSIZE
## 4090.461
## [1] "The difference of II_10 impact \n between STABdich cut samples in DISCL has a\n probability o
```

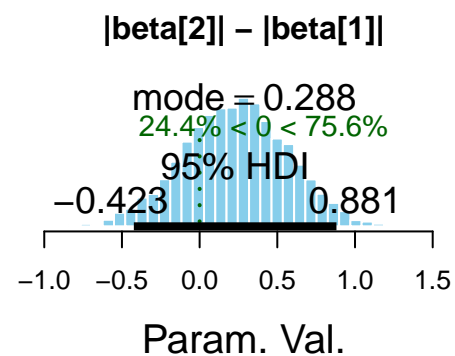
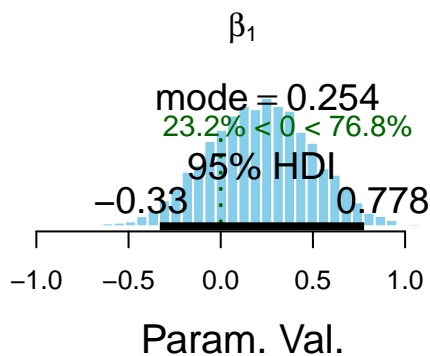
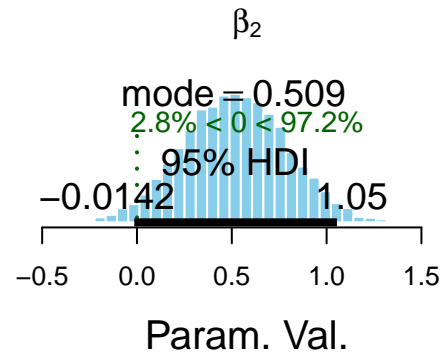
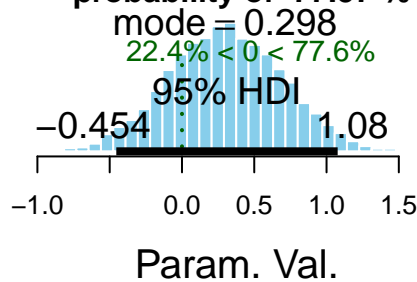


The difference of  $\beta_{10}$  impact  
between STABdich cut samples in DISCL has a  
probability of -65.14 %



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= FOR_10 cutted by STABdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 131
##   Unobserved stochastic nodes: 6
##   Total graph size: 2030
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5200.127 5379.724 5281.755 5107.724 5200.127 5379.724 4951.795 4765.317
## betaSIZE
## 4589.724
## [1] "The difference of FOR_10 impact \n between STABdich cut samples in DISCL has a\n probability of"
```

The difference of FOR\_10 impact  
between STABdich cut samples in DISCL has a  
probability of 77.57 %



```
write.csv(BLbinomCut,
  file=paste(
    'STAB-binomCutResults',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

## BASEL-Separated Bayesian models

### Quantitative Y

```
XX <- X[!is.na(X$BASEL), ]
XX$BASELdich <- factor(XX$BASEL>median(XX$BASEL))
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('EPS', 'ET3', 'ER3', 'ER1', 'ER')
cut.name <- 'BASELdich'
BLquantiCut <- bayesList(XX, x.names, y.names, cut.name, 'model1-cut.R')

## [1] "
## [1] " Analysis of Y= EPS explained by x= PRI cutted by BASELdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

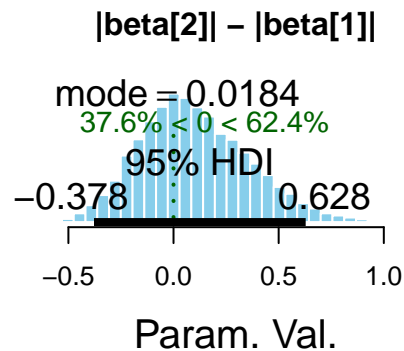
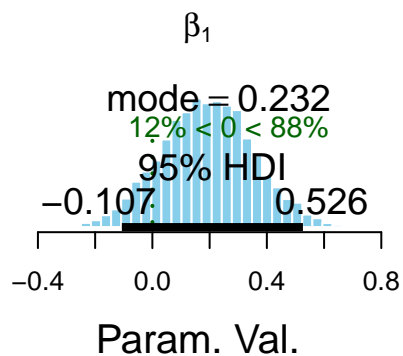
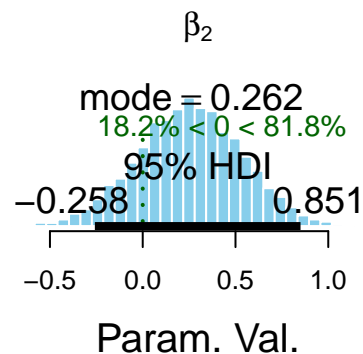
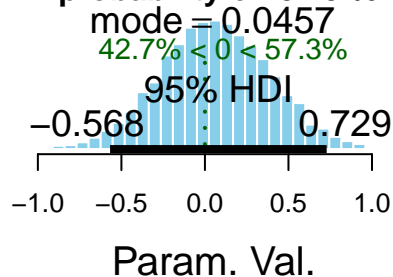
## Compiling data graph
## Resolving undeclared variables
```

```

## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
## Total graph size: 1469
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9181.701 8097.989 9000.000 9000.000 9181.701 8097.989 7009.243 6940.298
## betaSIZE
## 7484.705
## [1] "The difference of PRI impact \n between BASELdich cut samples in EPS has a\n probability of 57.3%"
## [1] "
## [1] " Analysis of Y= EPS explained by x= INIT cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of PRI impact  
between BASELdich cut samples in EPS has a  
probability of 57.3 %**



```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes

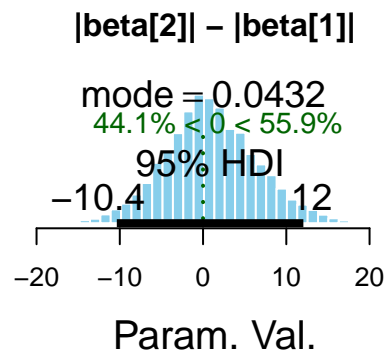
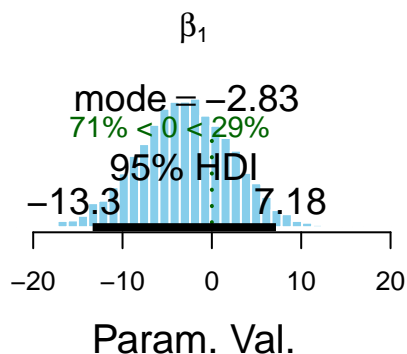
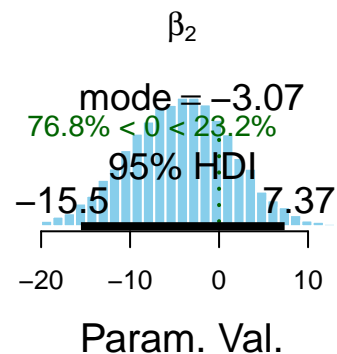
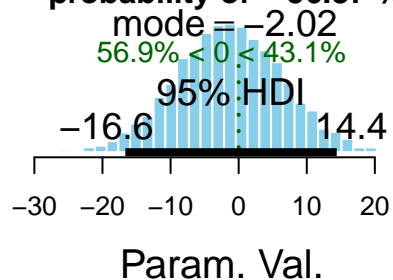
```

```

##      Initializing
##      Reading data back into data table
## Compiling model graph
##      Resolving undeclared variables
##      Allocating nodes
## Graph information:
##      Observed stochastic nodes: 93
##      Unobserved stochastic nodes: 7
##      Total graph size: 1469
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8439.049 8279.444 9000.000 9000.000 8439.049 8279.444 6855.500 7107.440
## betaSIZE
## 7146.593
## [1] "The difference of INIT impact \n between BASELdich cut samples in EPS has a\n probability of
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of INIT impact  
between BASELdich cut samples in EPS has a  
probability of -56.87 %**



```

## Compiling data graph
##      Resolving undeclared variables
##      Allocating nodes
##      Initializing

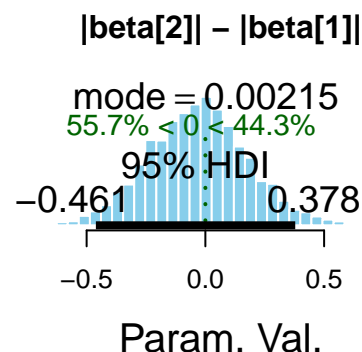
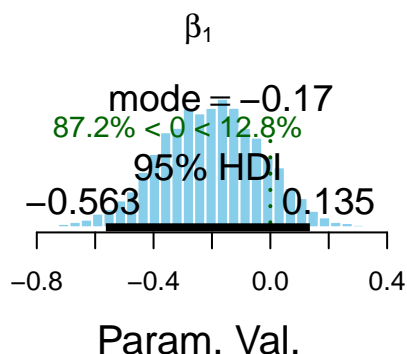
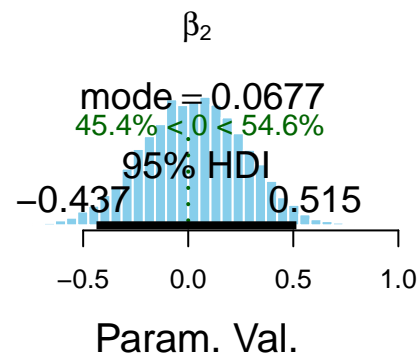
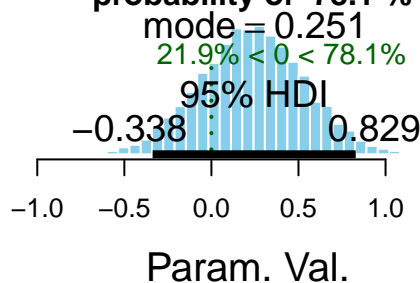
```

```

## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
## Total graph size: 1462
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7285.385 6910.220 8184.343 6814.266 7285.385 6910.220 7359.548 6776.012
## betaSIZE
## 7292.945
## [1] "The difference of EPI impact \n between BASELdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= STEW cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of EPI impact  
between BASELdich cut samples in EPS has a  
probability of 78.1 %**



```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table

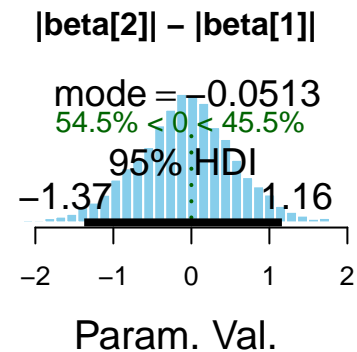
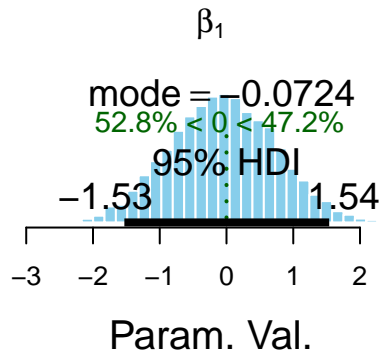
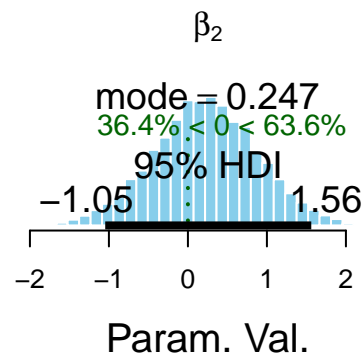
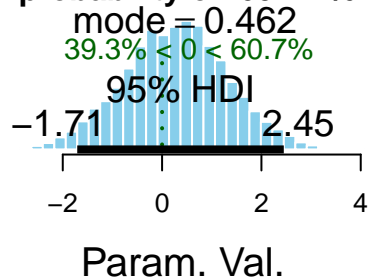
```

```

## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1462
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7045.732 9151.914 9205.981 9181.256 7045.732 9151.914 6504.653 6930.671
## betaSIZE
## 7625.755
## [1] "The difference of STEW impact \n between BASELdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= II_10 cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of STEW impact  
between BASELdich cut samples in EPS has a  
probability of 60.72 %**



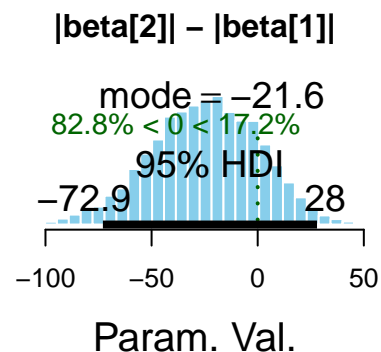
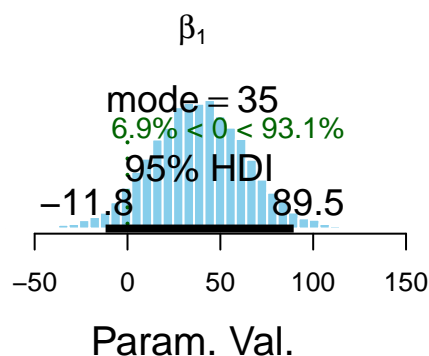
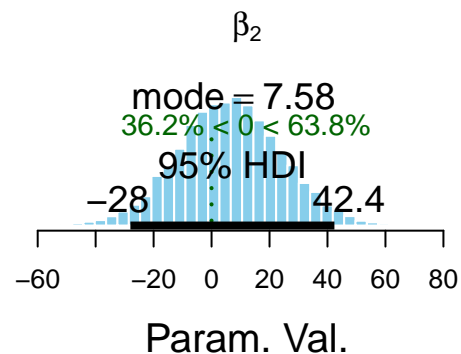
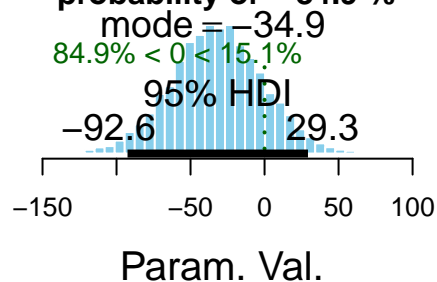
```

## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph

```

```
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
## Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8210.188 8812.743 7569.934 9232.591 8210.188 8812.743 7224.318 6800.796
## betaSIZE
## 7147.136
## [1] "The difference of II_10 impact \n between BASELdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= FOR_10 cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of II\_10 impact  
between BASELdich cut samples in EPS has a  
probability of -84.9 %**



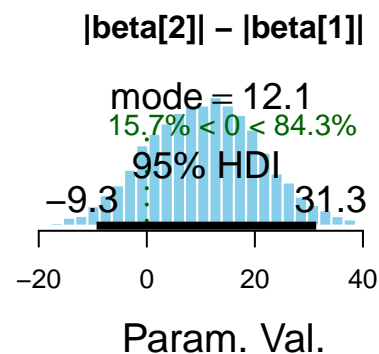
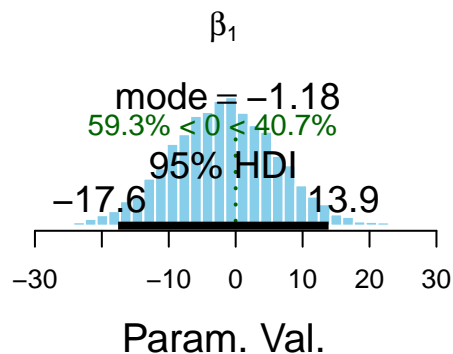
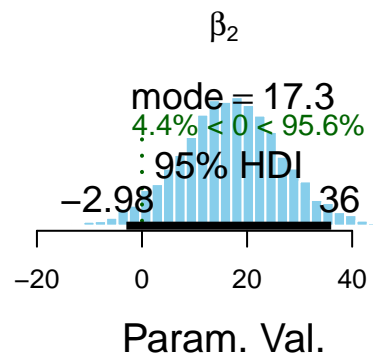
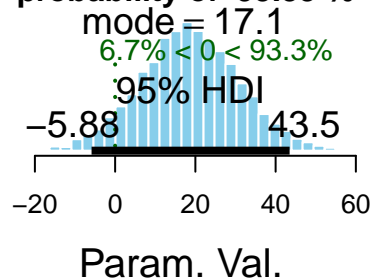
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
```

```

##      Allocating nodes
## Graph information:
##      Observed stochastic nodes: 93
##      Unobserved stochastic nodes: 7
##      Total graph size: 1459
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7591.408 7196.589 9044.426 8802.759 7591.408 7196.589 6489.496 6564.029
## betaSIZE
## 7554.721
## [1] "The difference of FOR_10 impact \n between BASELdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of FOR\_10 impact  
between BASELdich cut samples in EPS has a  
probability of 93.33 %**



```

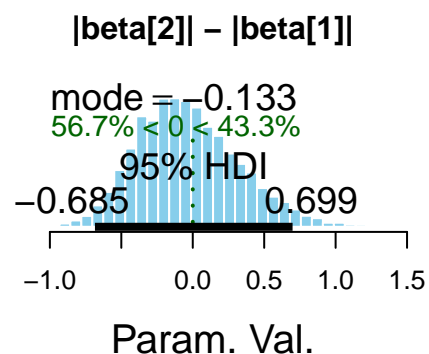
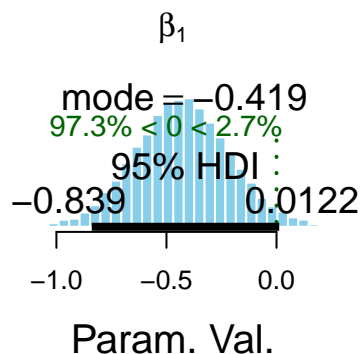
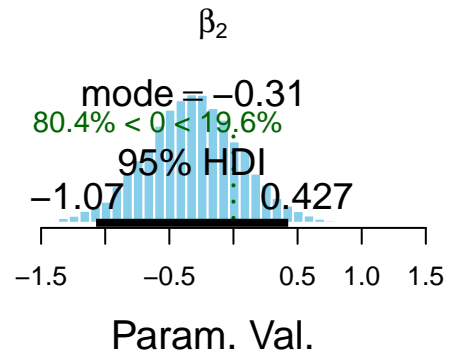
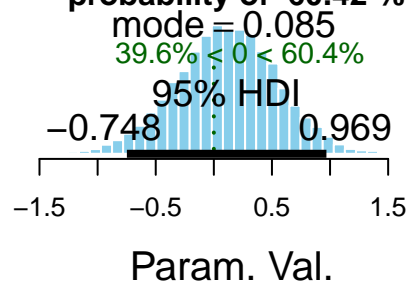
## Compiling data graph
##      Resolving undeclared variables
##      Allocating nodes
##      Initializing
##      Reading data back into data table
## Compiling model graph
##      Resolving undeclared variables
##      Allocating nodes

```



```
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1469
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 8160.484 9000.000 9000.000 9000.000 8160.484 6601.138 6650.894
## betaSIZE
## 7357.827
## [1] "The difference of PRI impact \n between BASELdich cut samples in ET3 has a\n probability of (
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

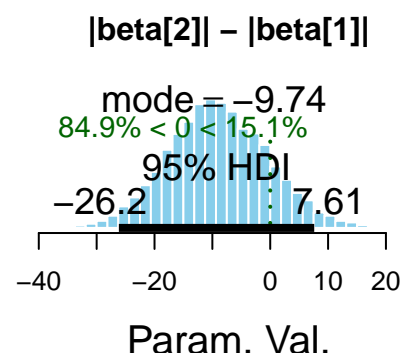
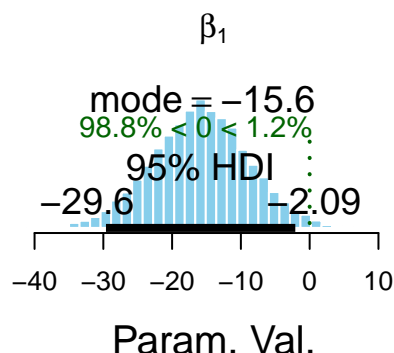
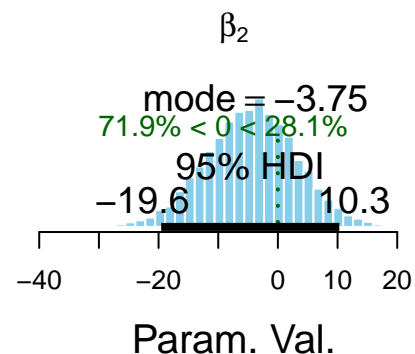
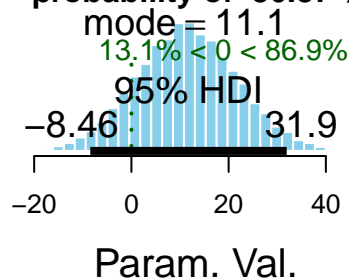
**The difference of PRI impact  
between BASELdich cut samples in ET3 has a  
probability of 60.42 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
```

```
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
## Total graph size: 1469
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7601.118 8645.933 9039.442 9017.844 7601.118 8645.933 6834.847 6989.374
## betaSIZE
## 7396.983
## [1] "The difference of INIT impact \n between BASELdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

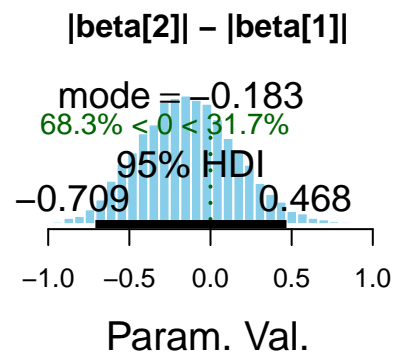
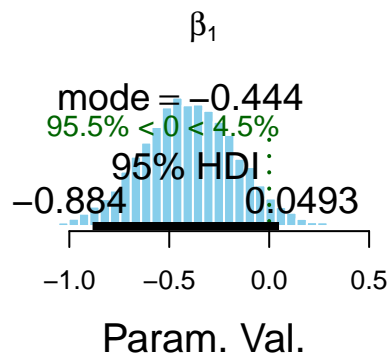
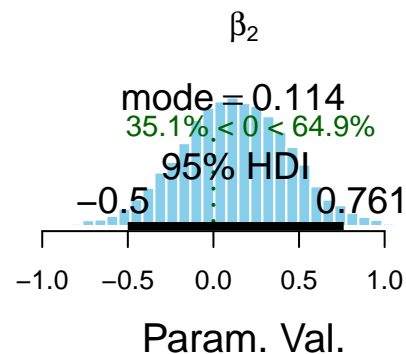
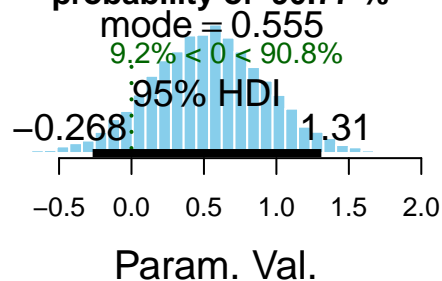
**The difference of INIT impact  
between BASELdich cut samples in ET3 has a  
probability of 86.87 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
```

```
## Unobserved stochastic nodes: 7
## Total graph size: 1462
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7433.422 7014.328 8017.436 6902.980 7433.422 7014.328 8012.582 7050.547
## betaSIZE
## 7287.561
## [1] "The difference of EPI impact \n between BASELdich cut samples in ET3 has a\n probability of 90.77 %
## [1] "
## [1] " Analysis of Y= ET3 explained by x= STEW cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

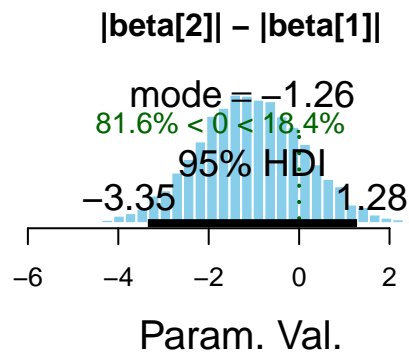
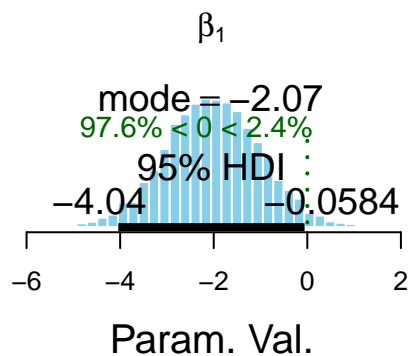
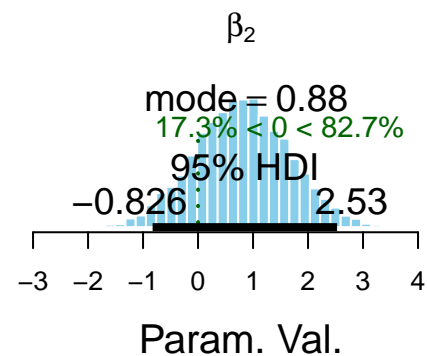
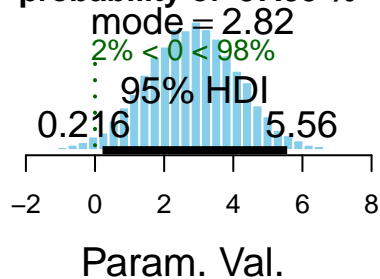
**The difference of EPI impact  
between BASELdich cut samples in ET3 has a  
probability of 90.77 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
```

```
## Total graph size: 1462
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7754.250 8458.510 8710.260 8491.880 7754.250 8458.510 6926.599 6879.942
## betaSIZE
## 6878.777
## [1] "The difference of STEW impact \n between BASELdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= II_10 cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

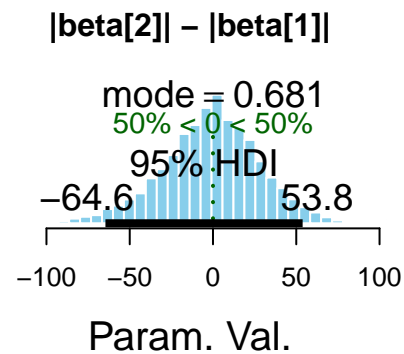
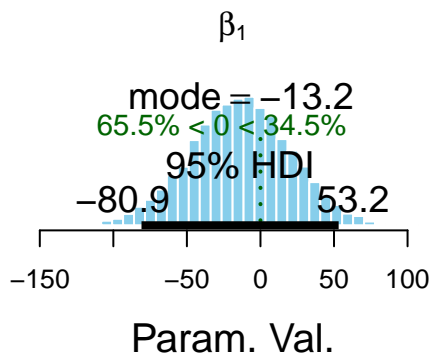
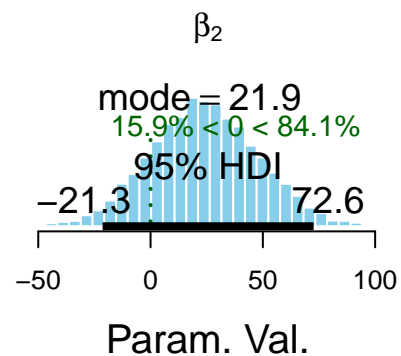
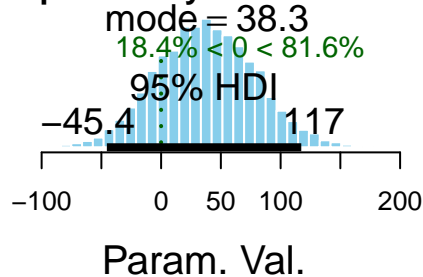
**The difference of STEW impact  
between BASELdich cut samples in ET3 has a  
probability of 97.99 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
## Total graph size: 1399
```

```
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8186.190 8471.507 7894.053 9196.933 8186.190 8471.507 7236.592 6900.926
## betaSIZE
## 7519.812
## [1] "The difference of II_10 impact \n between BASELdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= FOR_10 cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

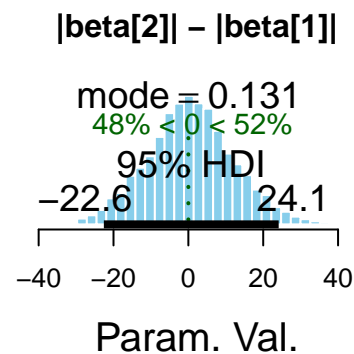
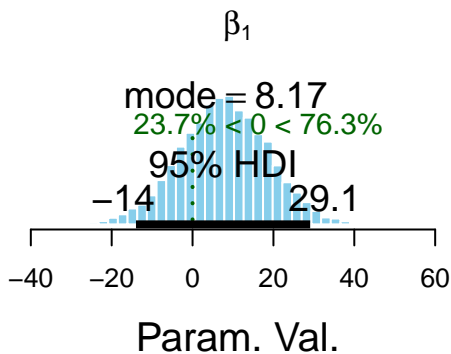
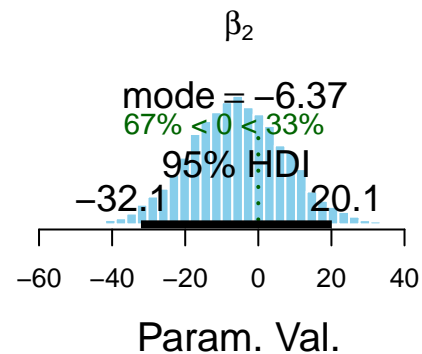
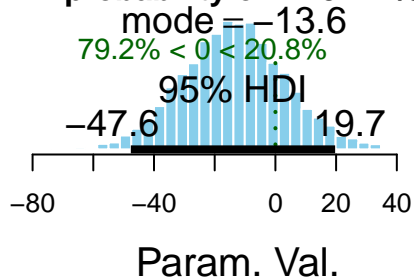
**The difference of II\_10 impact  
between BASELdich cut samples in ET3 has a  
probability of 81.57 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
## Total graph size: 1459
##
```

```
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7600.584 7935.481 9702.434 8758.788 7600.584 7935.481 6753.690 6657.556
## betaSIZE
## 8539.769
## [1] "The difference of FOR_10 impact \n between BASELdich cut samples in ET3 has a\n probability o
## [1] "
## [1] " Analysis of Y= ER3 explained by x= PRI cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

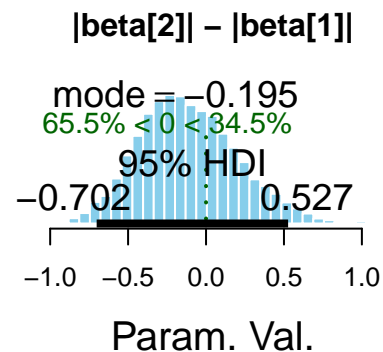
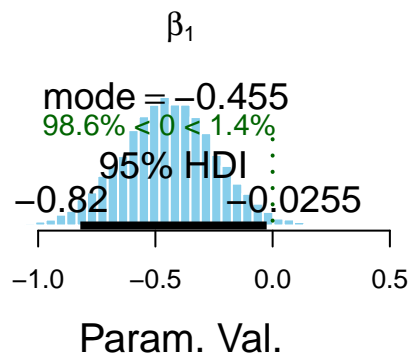
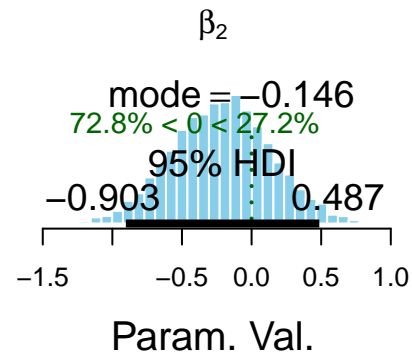
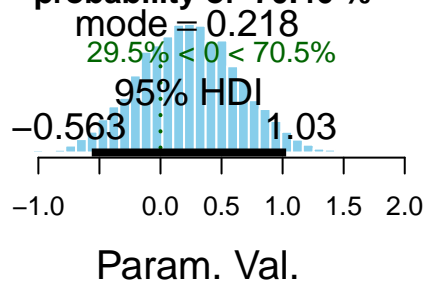
**The difference of FOR\_10 impact  
between BASELdich cut samples in ET3 has a  
probability of -79.21 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
## Total graph size: 1469
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8614.332 7936.899 9676.328 9289.480 8614.332 7936.899 7224.974 6913.332
## betaSIZE
## 7544.946
## [1] "The difference of PRI impact \n between BASELdich cut samples in ER3 has a\n probability of 70.46 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ER3 explained by x= INIT cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

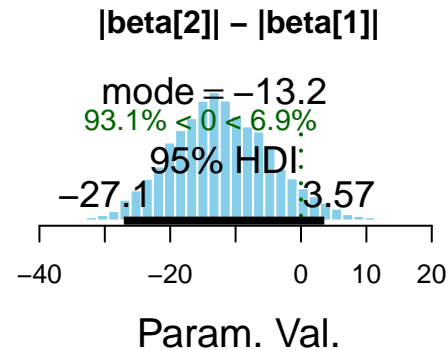
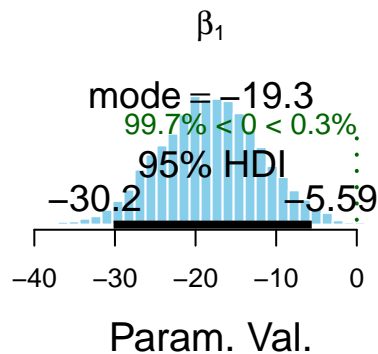
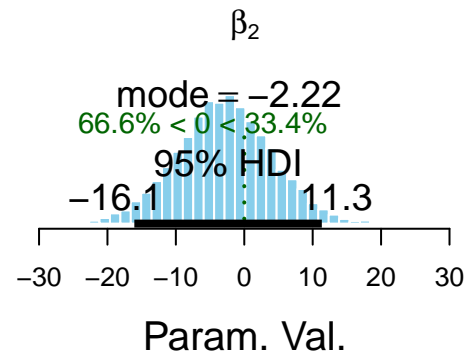
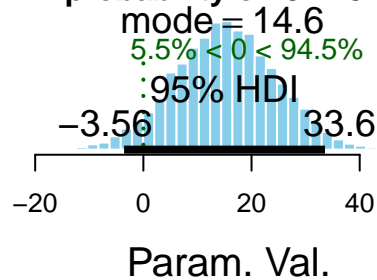
**The difference of PRI impact  
between BASELdich cut samples in ER3 has a  
probability of 70.46 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
## Total graph size: 1469
##
## Initializing model
##
```

```
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8415.245 7994.724 9247.456 9208.316 8415.245 7994.724 7136.120 6836.963
## betaSIZE
## 7245.112
## [1] "The difference of INIT impact \n between BASELdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= EPI cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of INIT impact  
between BASELdich cut samples in ER3 has a  
probability of 94.48 %**

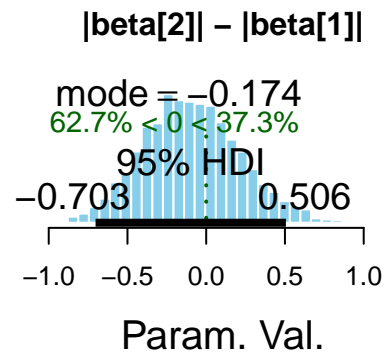
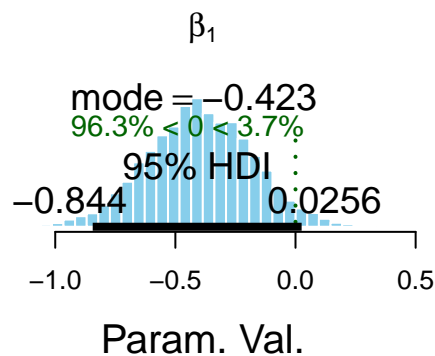
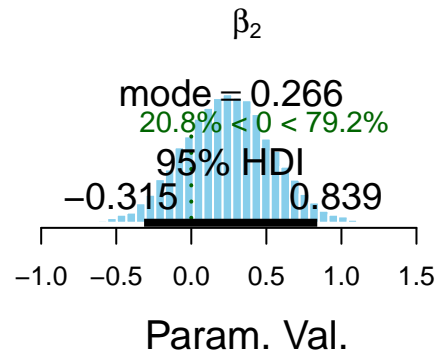
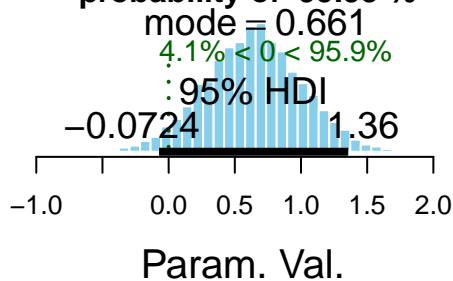


```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
## Total graph size: 1462
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
```



```
## 7318.889 6922.174 8158.188 7080.329 7318.889 6922.174 6870.411 6772.400
## betaSIZE
## 7168.506
## [1] "The difference of EPI impact \n between BASELdich cut samples in ER3 has a\n probability of 95.93 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= STEW cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

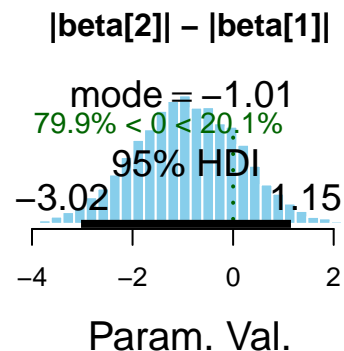
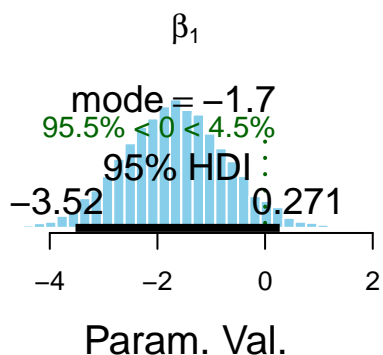
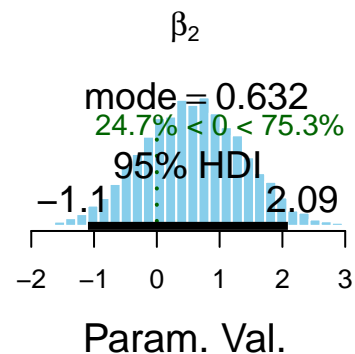
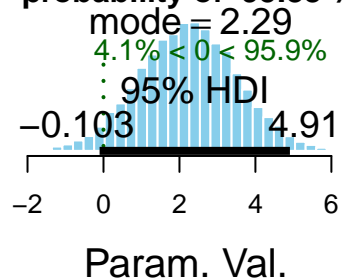
**The difference of EPI impact  
between BASELdich cut samples in ER3 has a  
probability of 95.93 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 7
## Total graph size: 1462
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7428.147 8616.539 8976.222 8790.212 7428.147 8616.539 6545.298 6831.823
```

```
## betaSIZE
## 7297.792
## [1] "The difference of STEW impact \n between BASELdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= II_10 cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

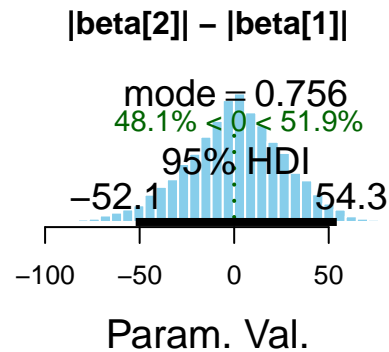
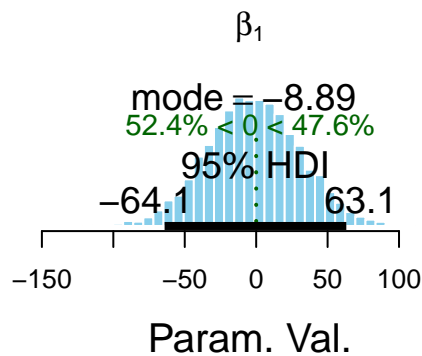
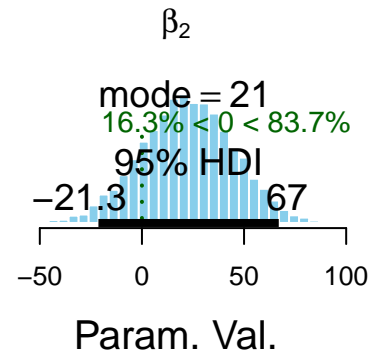
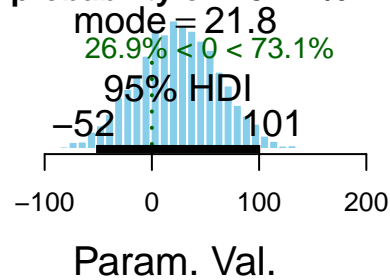
**The difference of STEW impact  
between BASELdich cut samples in ER3 has a  
probability of 95.88 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8250.394 8740.437 8162.273 9000.000 8250.394 8740.437 7000.999 6754.411
## betaSIZE
```

```
## 7033.273
## [1] "The difference of II_10 impact \n between BASELdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= FOR_10 cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

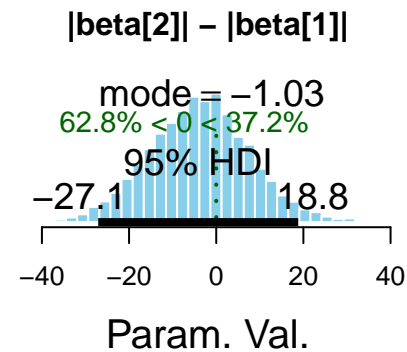
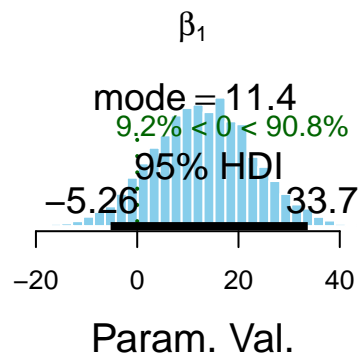
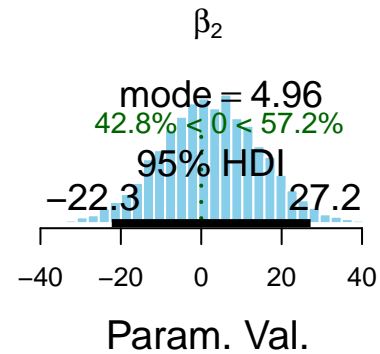
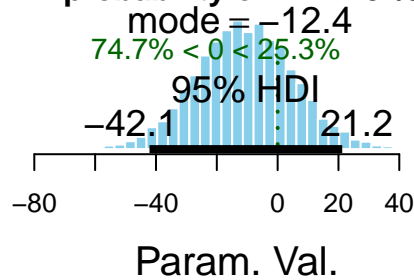
**The difference of II\_10 impact  
between BASELdich cut samples in ER3 has a  
probability of 73.14 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1459
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8327.472 7464.814 8092.484 8032.220 8327.472 7464.814 6898.050 6425.993
## betaSIZE
## 7231.486
```

```
## [1] "The difference of FOR_10 impact \n between BASELdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ER1 explained by x= PRI cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of FOR\_10 impact  
between BASELdich cut samples in ER3 has a  
probability of -74.73 %**

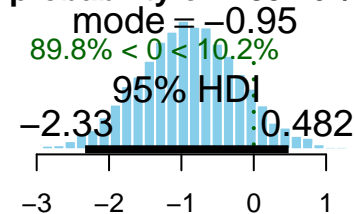


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1469
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8808.575 7860.783 9000.000 9000.000 8808.575 7860.783 6748.627 6770.451
## betaSIZE
## 7285.996
## [1] "The difference of PRI impact \n between BASELdich cut samples in ER1 has a\n probability of "
```

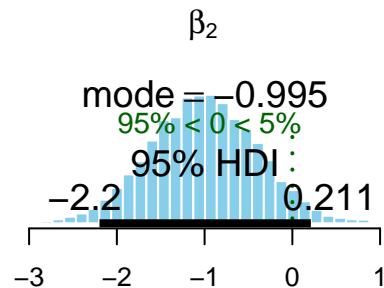
```
## [1] "      -----"
## [1] " Analysis of Y= ER1  explained by x= INIT cutted by BASELdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

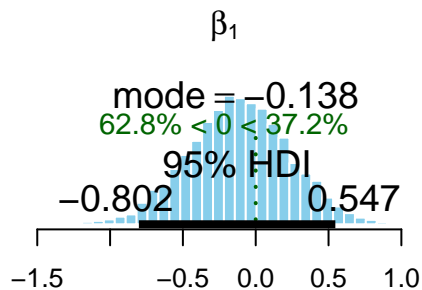
**The difference of PRI impact  
between BASELdich cut samples in ER1 has a  
probability of -89.76 %**



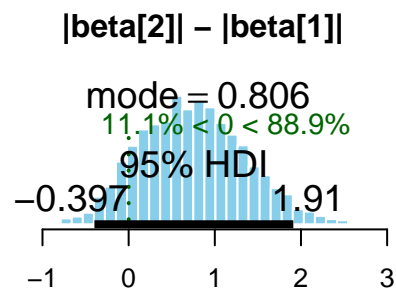
Param. Val.



Param. Val.



Param. Val.

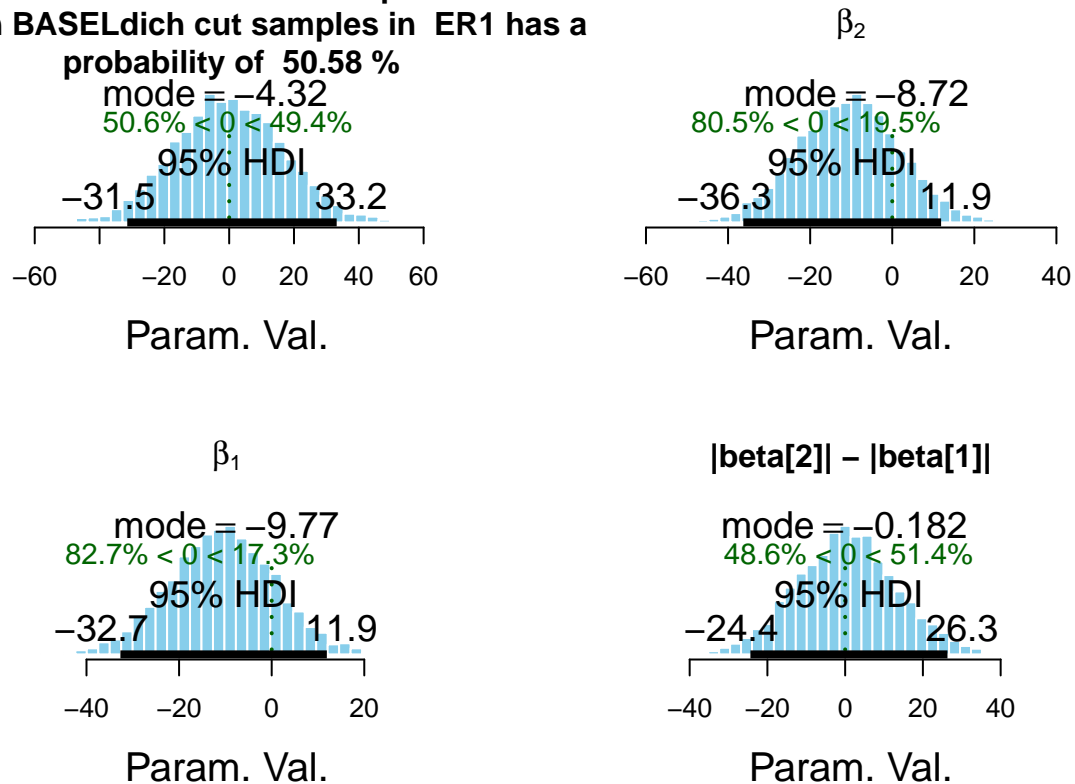


Param. Val.

```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1469
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9209.201 8098.906 9060.471 9060.219 9209.201 8098.906 6757.849 6615.757
## betaSIZE
## 8158.427
## [1] "The difference of INIT impact \n between BASELdich cut samples in ER1 has a\n probability of
## [1] "      -----"
```

```
## [1] " Analysis of Y= ER1  explained by x= EPI cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

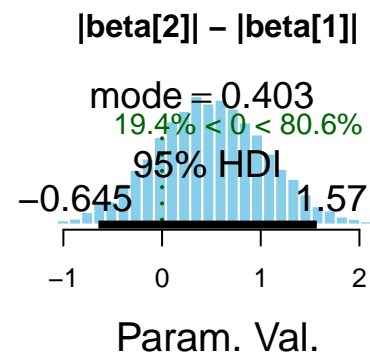
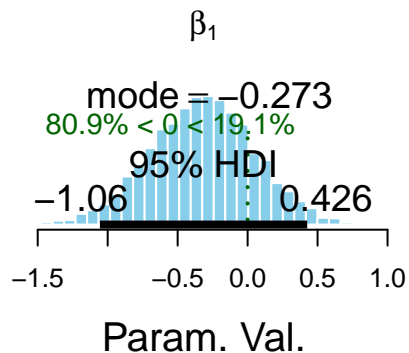
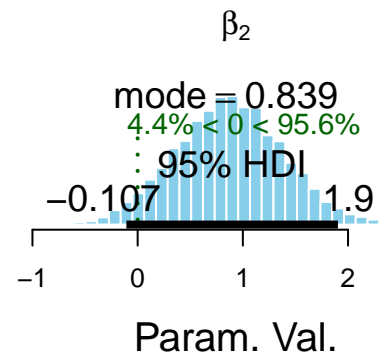
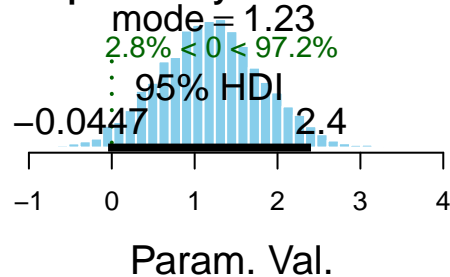
**The difference of INIT impact  
between BASELdich cut samples in ER1 has a**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1462
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7158.551 6775.714 7289.044 6531.188 7158.551 6775.714 7208.959 6656.805
## betaSIZE
## 6793.689
## [1] "The difference of EPI impact \n between BASELdich cut samples in ER1 has a\n probability of 9
## [1] "
## [1] " Analysis of Y= ER1  explained by x= STEW cutted by BASELdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between BASELdich cut samples in ER1 has a  
probability of 97.18 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1462
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7587.049 9182.228 9396.107 9368.951 7587.049 9182.228 6635.000 7311.470
## betaSIZE
## 7218.440
## [1] "The difference of STEW impact \n between BASELdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER1 explained by x= II_10 cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
```

```
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between BASELdich cut samples in ER1 has a**

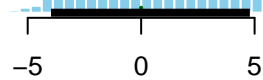
**probability of 61.47 %**

mode = 0.977

38.5% < 0 < 61.5%

95% HDI

-3.97 : 4.79



Param. Val.

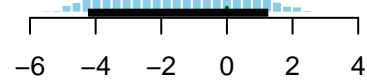
$\beta_2$

mode = -1.22

86.3% < 0 < 13.7%

95% HDI

-4.23 : 1.26



Param. Val.

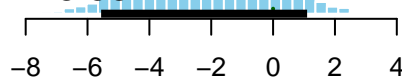
$\beta_1$

mode = -1.95

89.8% < 0 < 10.2%

95% HDI

-5.56 : 1.1



Param. Val.

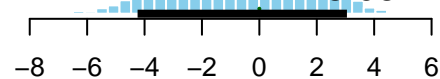
**|beta[2]| - |beta[1]|**

mode = -0.559

61.6% < 0 < 38.4%

95% HDI

-4.24 : 3.05



Param. Val.

```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1399
##
```

```
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7778.201 8623.394 8064.211 8843.430 7778.201 8623.394 7044.798 6798.227
## betaSIZE
## 6865.491
```

```
## [1] "The difference of II_10 impact \n between BASELdich cut samples in ER1 has a\n probability of
```

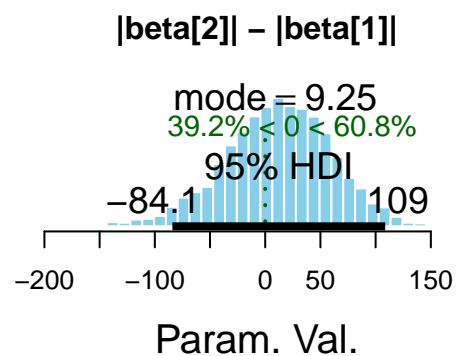
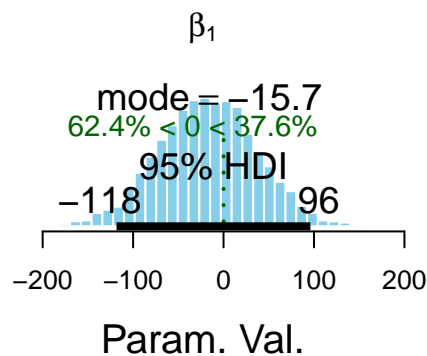
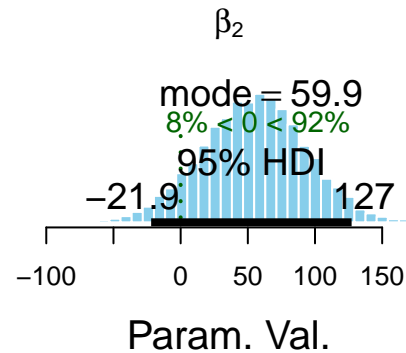
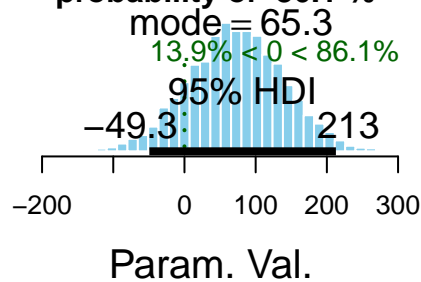
```
## [1] " ----- "
```

```
## [1] " Analysis of Y= ER1 explained by x= FOR_10 cutted by BASELdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

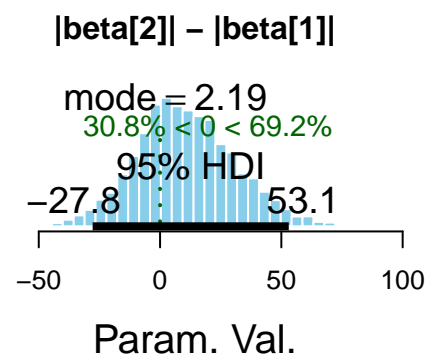
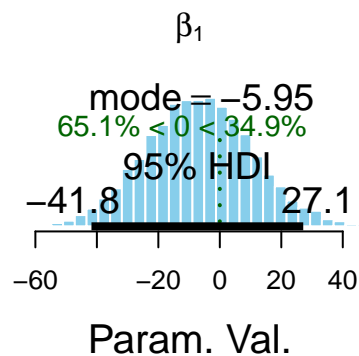
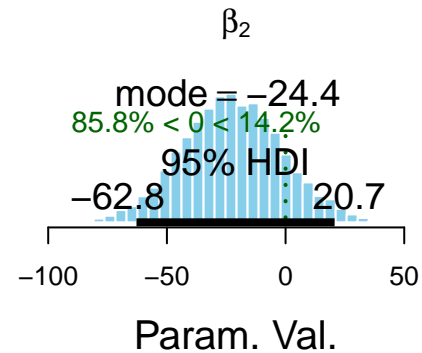
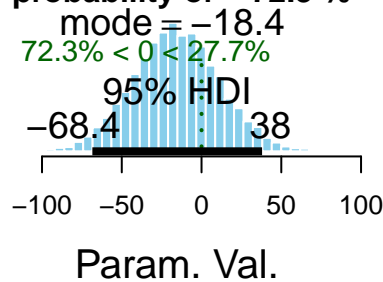


The difference of  $\beta_{10}$  impact  
between BASELdich cut samples in ER1 has a  
probability of 86.1 %



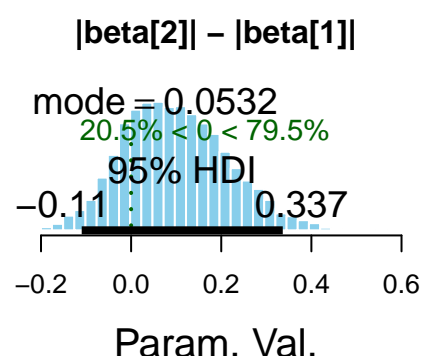
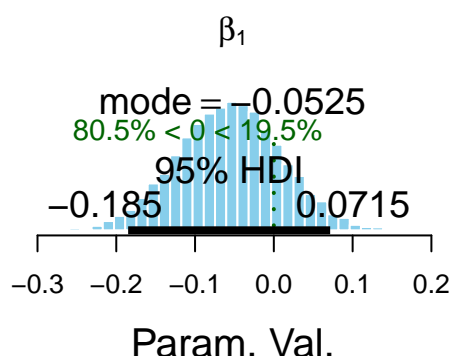
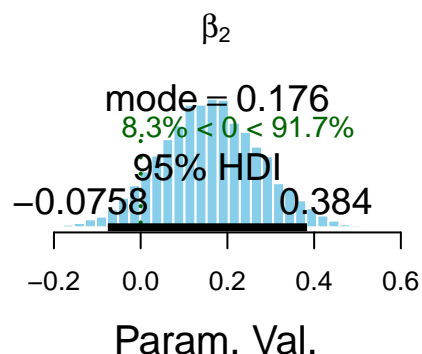
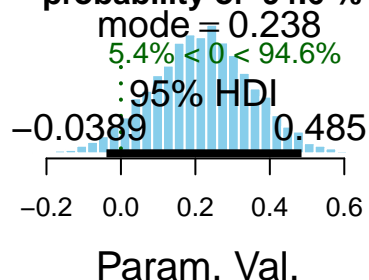
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1459
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8264.845 7663.607 8789.229 8423.864 8264.845 7663.607 6191.745 6233.230
## betaSIZE
## 7898.027
## [1] "The difference of FOR_10 impact \n between BASELdich cut samples in ER1 has a\n probability of 86.1 %
## [1] "
## [1] " Analysis of Y= ER explained by x= PRI cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of FOR\_10 impact  
between BASELdich cut samples in ER1 has a  
probability of -72.3 %



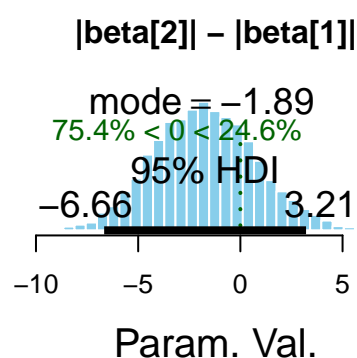
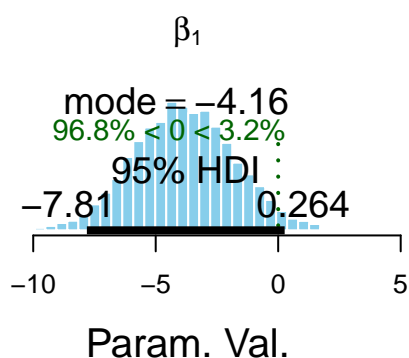
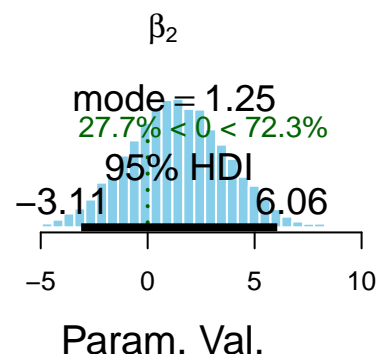
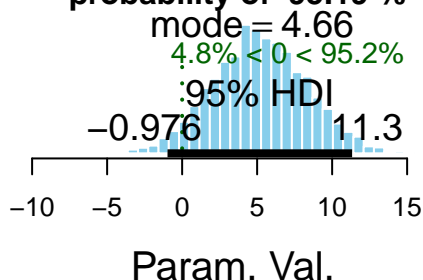
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1469
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8683.411 8727.450 9000.000 8411.054 8683.411 8727.450 7077.179 6461.068
## betaSIZE
## 7628.213
## [1] "The difference of PRI impact \n between BASELdich cut samples in ER has a\n probability of 9
## [1] "
## [1] " Analysis of Y= ER explained by x= INIT cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of PRI impact  
between BASELdich cut samples in ER has a  
probability of 94.6 %



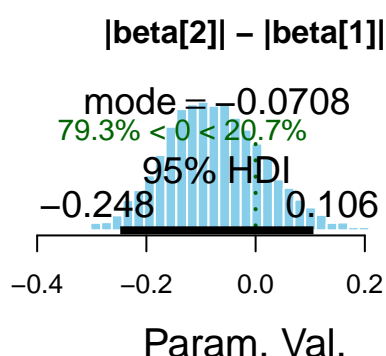
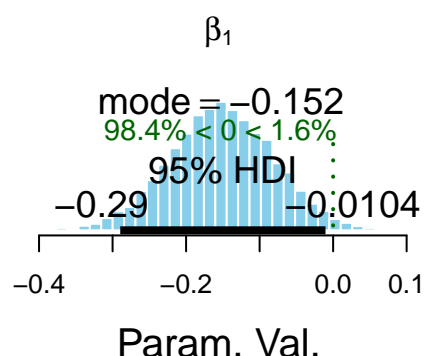
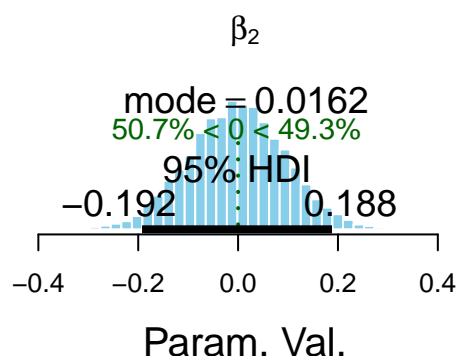
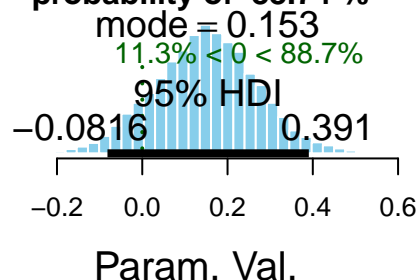
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1469
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 8334.669 8822.040 8400.765 9000.000 8334.669 6814.814 6824.014
## betaSIZE
## 7052.080
## [1] "The difference of INIT impact \n between BASELdich cut samples in ER has a\n probability of 94.6 %
## [1] "
## [1] " Analysis of Y= ER explained by x= EPI cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of INIT impact  
between BASELdich cut samples in ER has a  
probability of 95.19 %



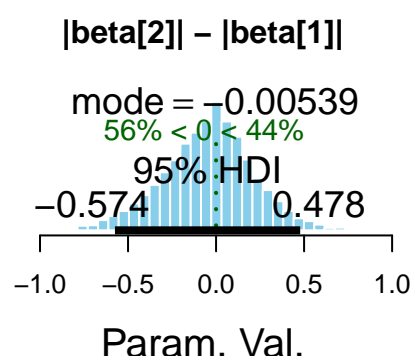
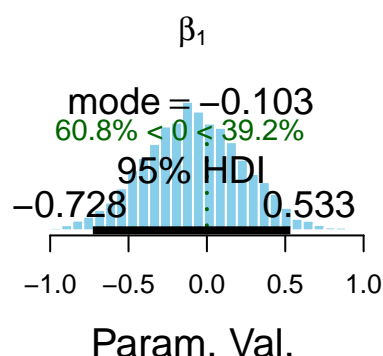
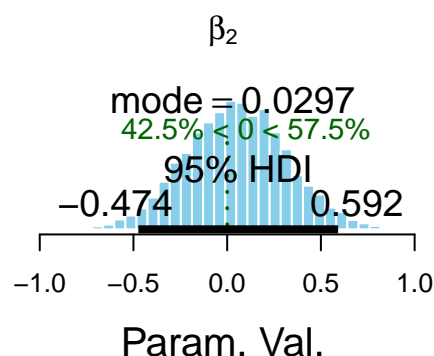
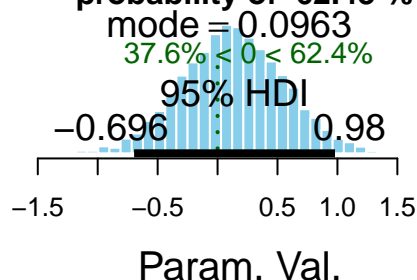
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1462
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6991.401 6503.343 9694.322 8014.072 6991.401 6503.343 7456.090 6746.505
## betaSIZE
## 7075.916
## [1] "The difference of EPI impact \n between BASELdich cut samples in ER has a\n probability of 8
## [1] "
## [1] " Analysis of Y= ER explained by x= STEW cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of EPI impact  
between BASELdich cut samples in ER has a  
probability of 88.74 %



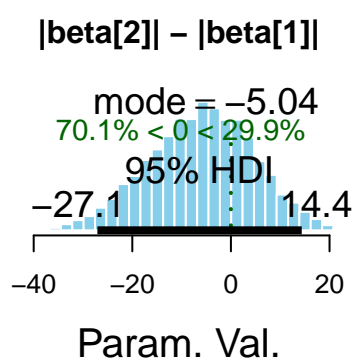
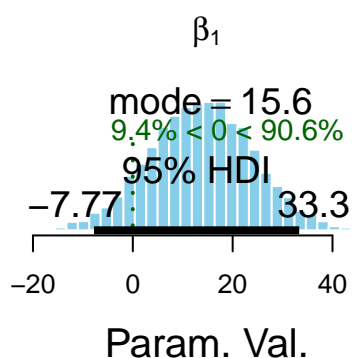
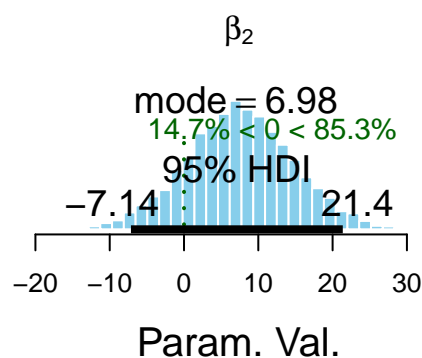
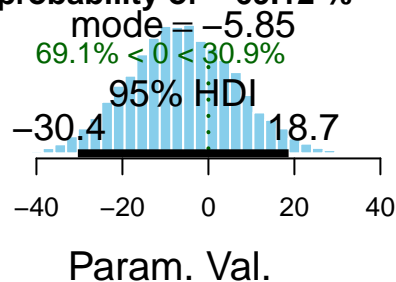
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1462
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7430.712 9154.599 9000.000 9000.000 7430.712 9154.599 6334.077 6740.067
## betaSIZE
## 6839.577
## [1] "The difference of STEW impact \n between BASELdich cut samples in ER has a\n probability of 0
## [1] "
## [1] " Analysis of Y= ER explained by x= II_10 cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between BASELdich cut samples in ER has a  
probability of 62.43 %**



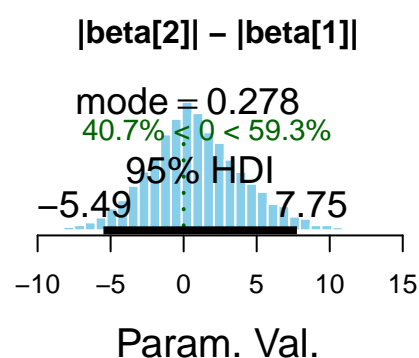
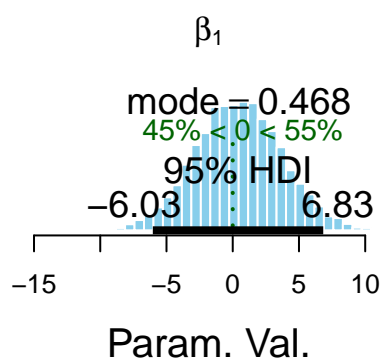
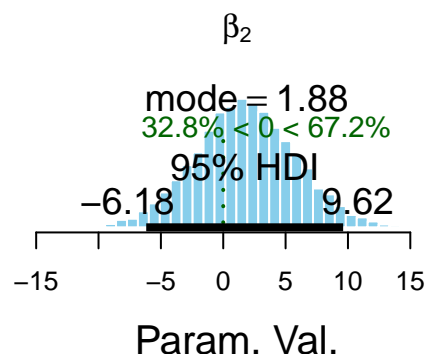
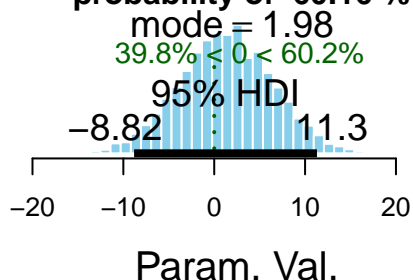
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8454.399 8443.142 9252.576 9332.670 8454.399 8443.142 7207.055 7144.174
## betaSIZE
## 7311.019
## [1] "The difference of II_10 impact \n between BASELdich cut samples in ER has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= FOR_10 cutted by BASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\Pi_{10}$  impact  
between BASELdich cut samples in ER has a  
probability of -69.12 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 7
##   Total graph size: 1459
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8178.448 7551.709 10715.694 10220.624 8178.448 7551.709 6874.677 6413.188
## betaSIZE
## 7510.652
## [1] "The difference of FOR_10 impact \n between BASELdich cut samples in ER has a\n probability of
```

The difference of FOR<sub>10</sub> impact  
between BASELdich cut samples in ER has a  
probability of 60.16 %



```
write.csv(BLquantiCut,
  file=paste(
    'BASEL-quantiResults-cut',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

## Binomial Y

```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('CP', 'DISCL')
BLbinomCut <- bayesList(XX, x.names, y.names, cut.name, 'model2-cut.R')
```

```
## [1] "
## [1] " Analysis of Y= CP explained by x= PRI cutted by BASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 6
```

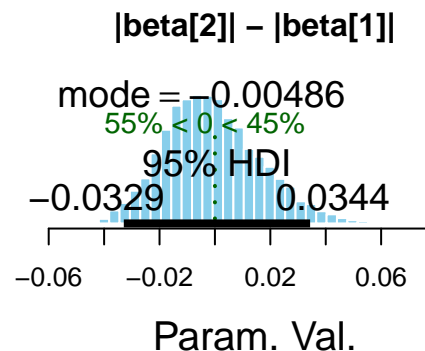
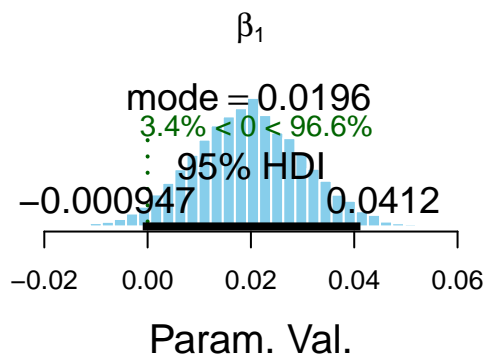
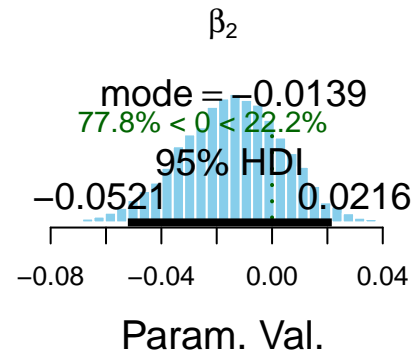
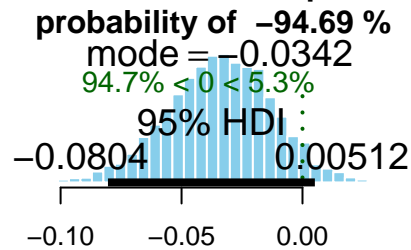


```

## Total graph size: 1455
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5393.044 4922.602 5392.859 5440.659 5393.044 4922.602 4731.029 4119.298
## betaSIZE
## 4592.491
## [1] "The difference of PRI impact \n between BASELdich cut samples in CP has a\n probability of -94.69 %

```

**The difference of PRI impact  
between BASELdich cut samples in CP has a**



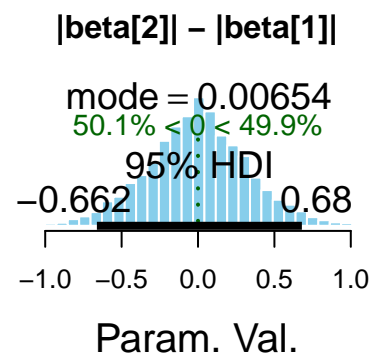
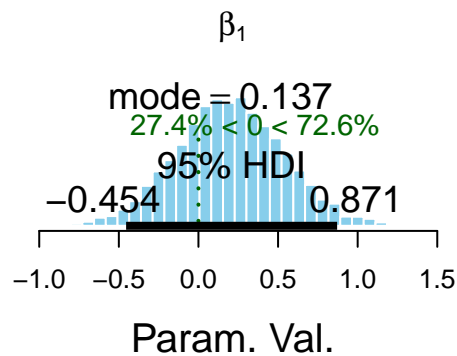
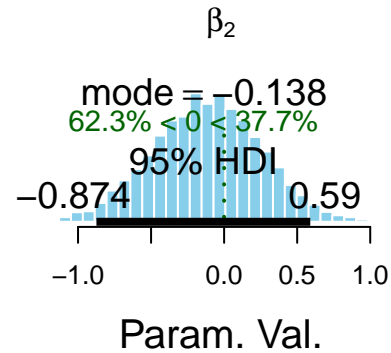
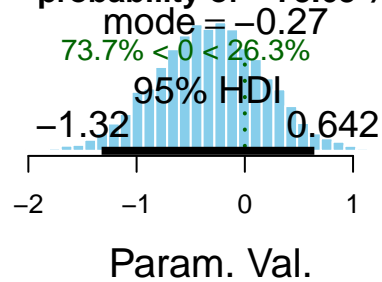
```

## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= INIT cutted by BASELdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 6
## Total graph size: 1455
##
## Initializing model

```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5585.800 4956.826 4801.356 4758.073 5585.800 4956.826 4874.045 4599.261
## betaSIZE
## 4198.010
## [1] "The difference of INIT impact \n between BASELdich cut samples in CP has a\n probability of "
```

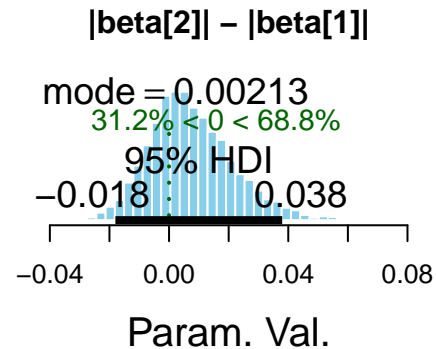
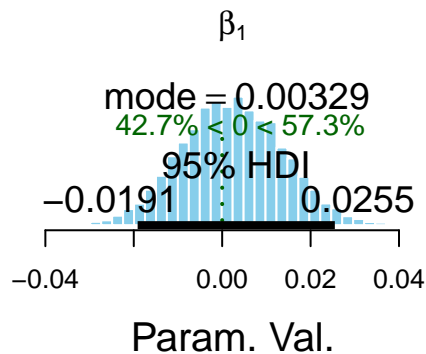
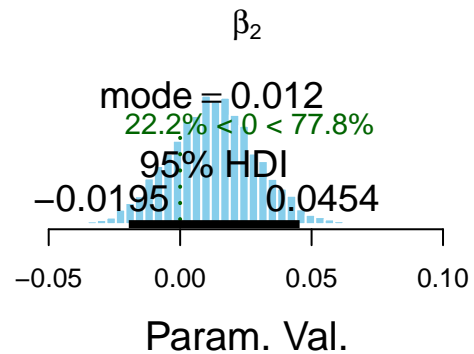
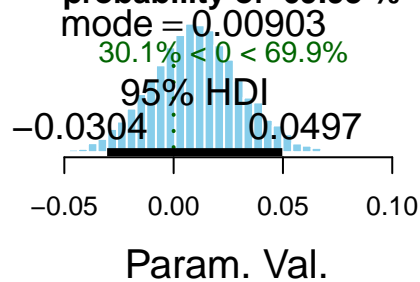
**The difference of INIT impact  
between BASELdich cut samples in CP has a  
probability of -73.68 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= EPI cutted by BASELdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 6
## Total graph size: 1448
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4457.123 4169.323 6424.863 4897.689 4457.123 4169.323 4862.071 4319.756
```

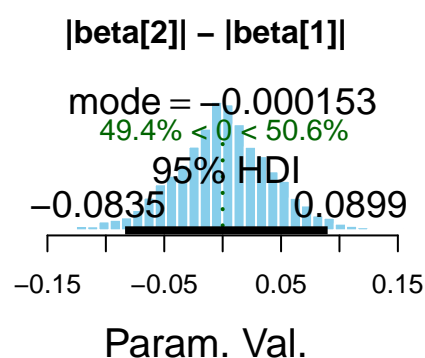
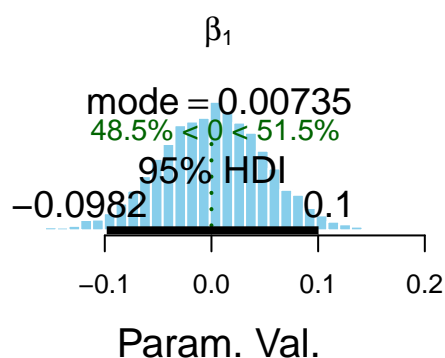
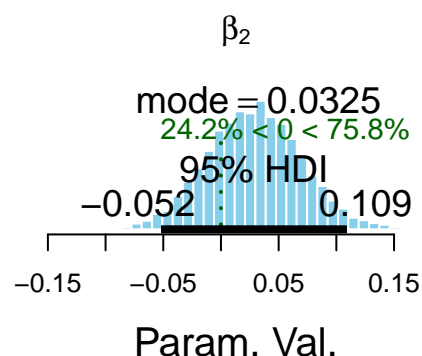
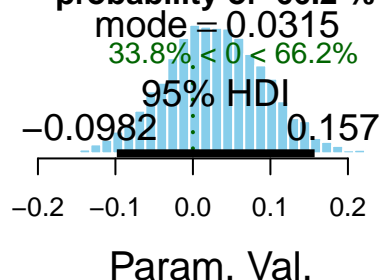
```
## betaSIZE
## 4574.465
## [1] "The difference of EPI impact \n between BASELdich cut samples in CP has a\n probability of 69.93 %"
```

**The difference of EPI impact  
between BASELdich cut samples in CP has a  
probability of 69.93 %**



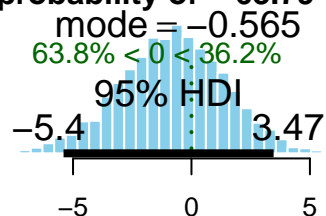
```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= STEW cutted by BASELdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 93
## Unobserved stochastic nodes: 6
## Total graph size: 1448
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4709.726 5543.816 5011.257 5234.850 4709.726 5543.816 4411.948 4502.093
## betaSIZE
## 4602.826
## [1] "The difference of STEW impact \n between BASELdich cut samples in CP has a\n probability of 69.93 %"
```

**The difference of STEW impact  
between BASELdich cut samples in CP has a  
probability of 66.2 %**



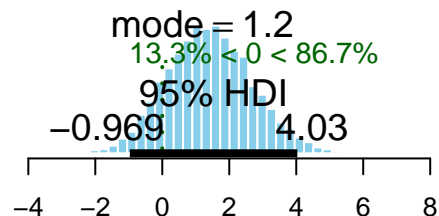
```
## [1] "-----"
## [1] " Analysis of Y= CP explained by x= II_10 cutted by BASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 6
##   Total graph size: 1385
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4771.171 5469.261 5515.302 5813.898 4771.171 5469.261 4636.078 4800.466
## betaSIZE
## 4550.452
## [1] "The difference of II_10 impact \n between BASELdich cut samples in CP has a\n probability of
```

The difference of  $\Pi_{10}$  impact  
between BASELdich cut samples in CP has a  
probability of **-63.79 %**



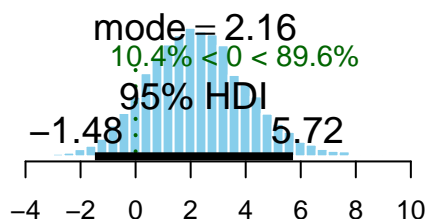
Param. Val.

$\beta_2$



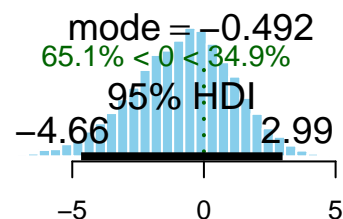
Param. Val.

$\beta_1$



Param. Val.

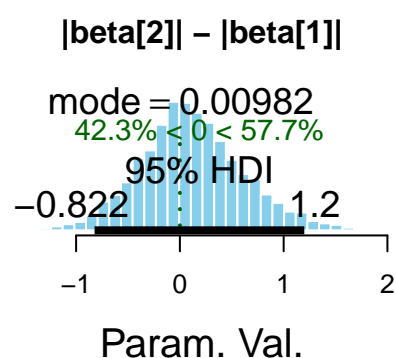
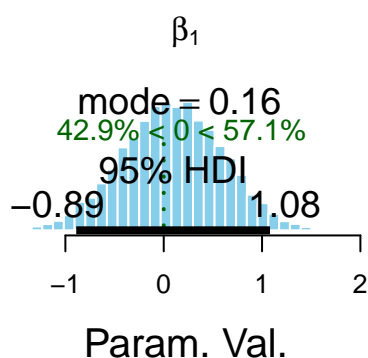
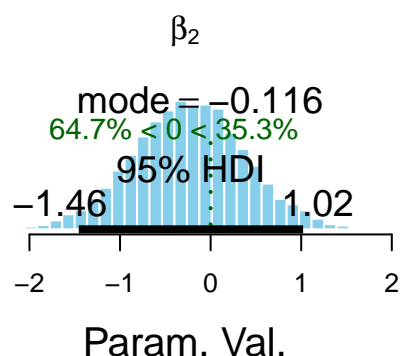
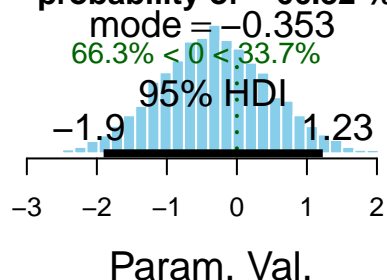
$|\text{beta}[2]| - |\text{beta}[1]|$



Param. Val.

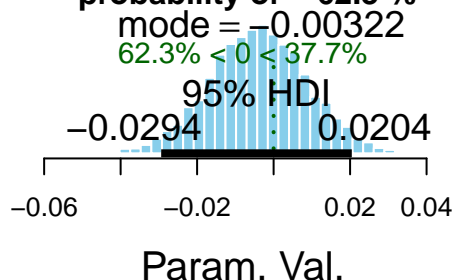
```
## [1] "-----"
## [1] " Analysis of Y= CP  explained by x= FOR_10 cutted by BASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 6
##   Total graph size: 1445
##
## Initializing model
##
## alpha1[1] alpha1[2]  beta0[1]  beta0[2]  beta1[1]  beta1[2]  betaGFI  betaGPS
## 4754.889  5094.108  5557.955  5670.850  4754.889  5094.108  4086.121  4738.762
## betaSIZE
## 4793.523
## [1] "The difference of FOR_10  impact \n between BASELdich cut samples in  CP has a\n probability of
```

The difference of FOR\_10 impact  
between BASELdich cut samples in CP has a  
probability of -66.32 %

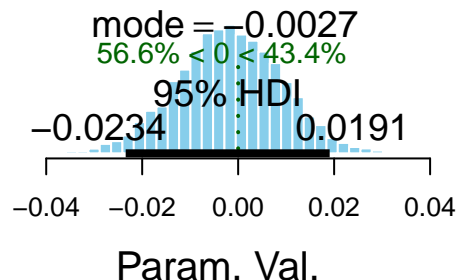


```
## [1] "-----"
## [1] " Analysis of Y= DISCL explained by x= PRI cutted by BASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 6
##   Total graph size: 1455
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5175.209 5031.127 5958.031 5926.673 5175.209 5031.127 4588.140 4288.387
## betaSIZE
## 5287.779
## [1] "The difference of PRI impact \n between BASELdich cut samples in DISCL has a\n probability of
```

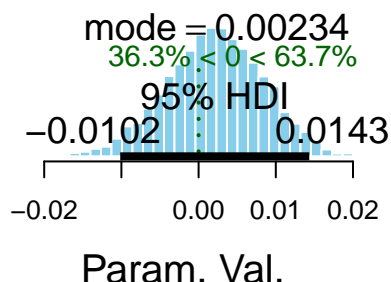
The difference of PRI impact  
between BASELdich cut samples in DISCL has a  
probability of -62.3 %



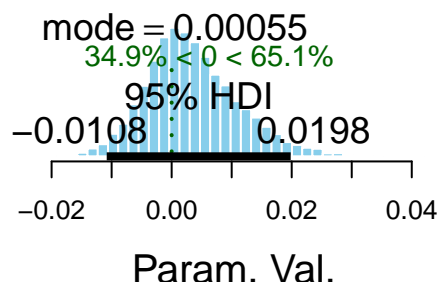
$\beta_2$



$\beta_1$

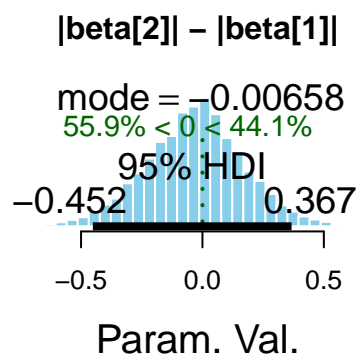
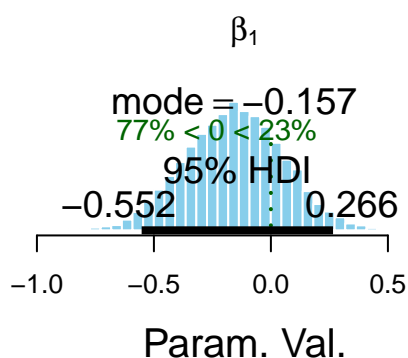
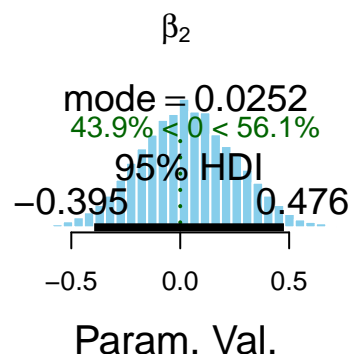
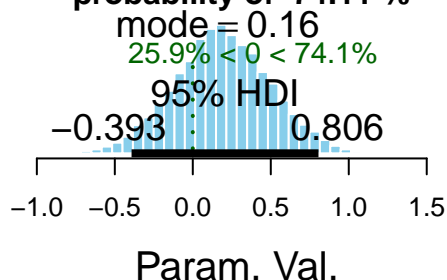


$|\text{beta}[2]| - |\text{beta}[1]|$



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= INIT cutted by BASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 6
##   Total graph size: 1455
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5338.575 4859.500 5202.723 5310.850 5338.575 4859.500 4292.751 3890.124
## betaSIZE
## 4634.014
## [1] "The difference of INIT impact \n between BASELdich cut samples in DISCL has a\n probability o
```

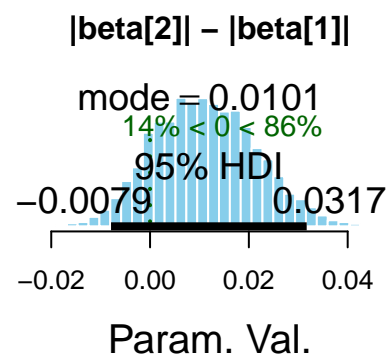
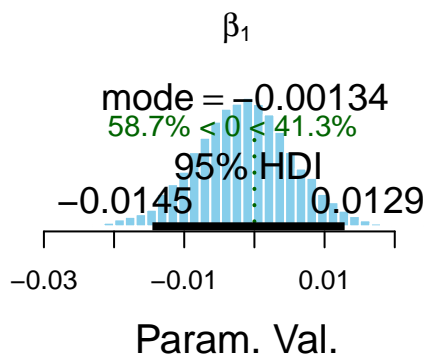
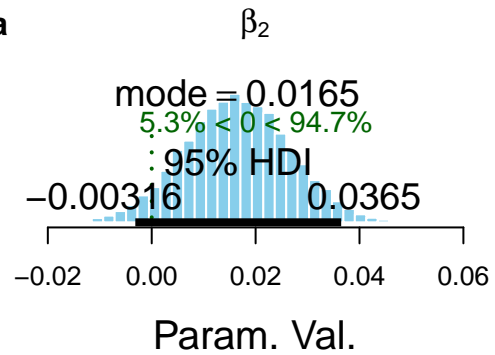
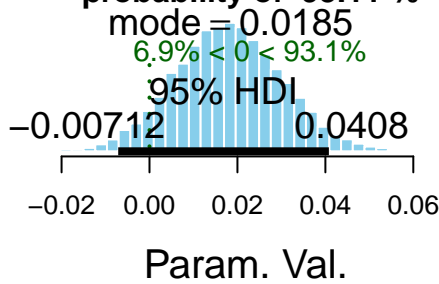
The difference of INIT impact  
between BASELdich cut samples in DISCL has a  
probability of 74.11 %



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= EPI cutted by BASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 6
##   Total graph size: 1448
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4307.621 4243.916 5550.338 4603.001 4307.621 4243.916 4969.710 4541.219
## betaSIZE
## 4368.958
## [1] "The difference of EPI impact \n between BASELdich cut samples in DISCL has a\n probability of
```

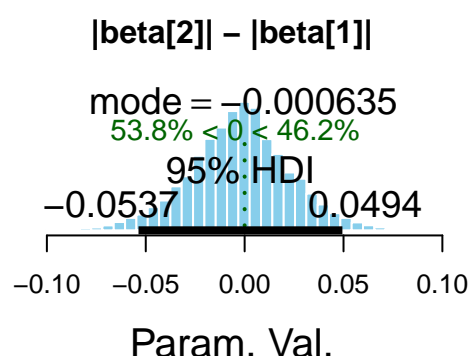
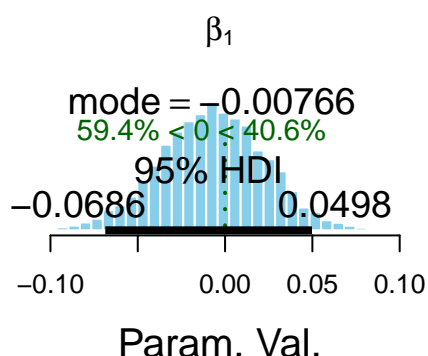
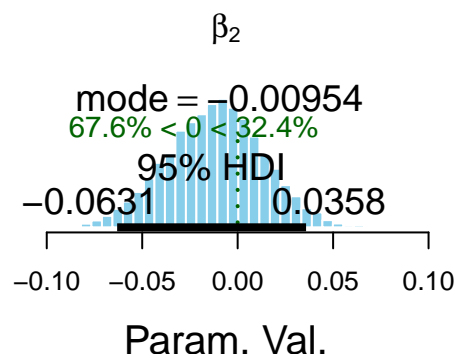
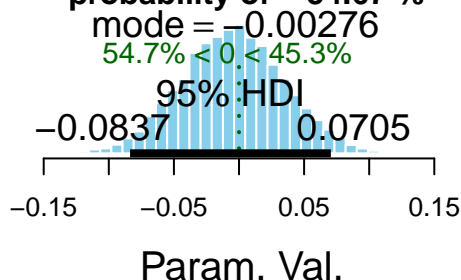


The difference of EPI impact  
between BASELdich cut samples in DISCL has a  
probability of 93.11 %



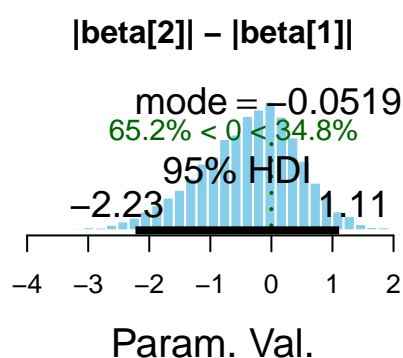
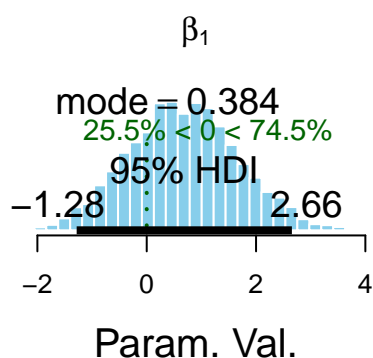
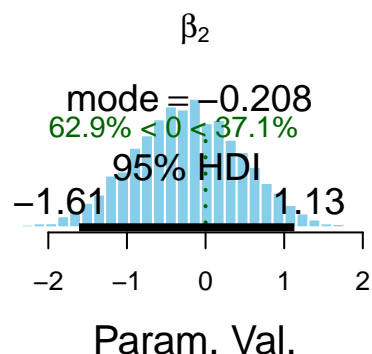
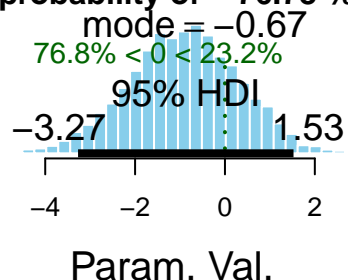
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= STEW cutted by BASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 6
##   Total graph size: 1448
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4810.949 6363.084 5675.397 5728.619 4810.949 6363.084 4387.603 4808.614
## betaSIZE
## 4930.960
## [1] "The difference of STEW impact \n between BASELdich cut samples in DISCL has a\n probability of"
```

The difference of STEW impact  
between BASELdich cut samples in DISCL has a  
probability of -54.67 %



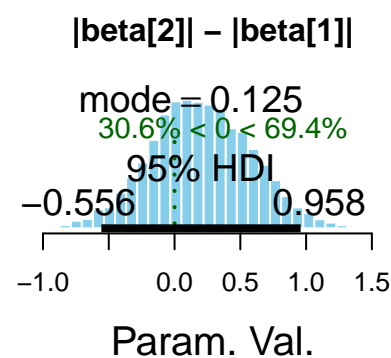
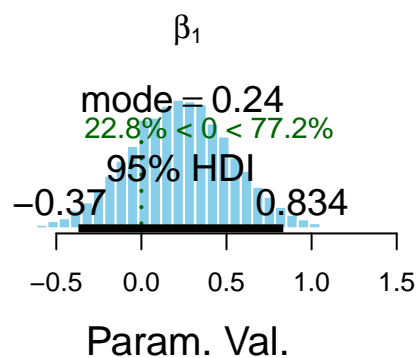
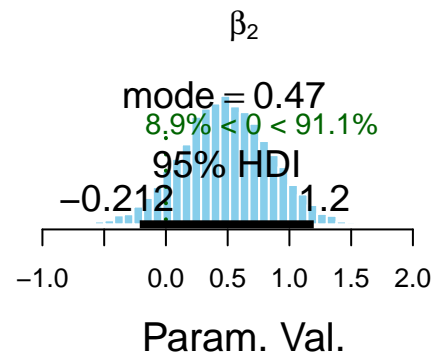
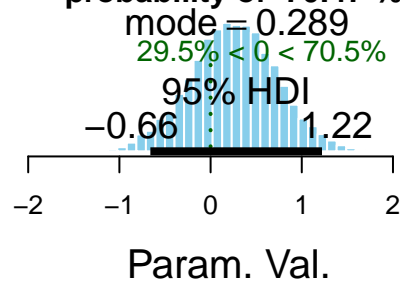
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= II_10 cutted by BASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 6
##   Total graph size: 1385
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5115.150 5424.333 5758.800 6090.336 5115.150 5424.333 4754.908 4377.655
## betaSIZE
## 4681.077
## [1] "The difference of II_10 impact \n between BASELdich cut samples in DISCL has a\n probability of"
```

The difference of  $\Pi_{10}$  impact  
between BASELdich cut samples in DISCL has a  
probability of -76.78 %



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= FOR_10 cutted by BASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 93
##   Unobserved stochastic nodes: 6
##   Total graph size: 1445
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4816.670 4755.865 5501.688 5573.063 4816.670 4755.865 4338.885 4074.416
## betaSIZE
## 4972.034
## [1] "The difference of FOR_10 impact \n between BASELdich cut samples in DISCL has a\n probability
```

The difference of FOR\_10 impact  
between BASELdich cut samples in DISCL has a  
probability of 70.47 %



```
write.csv(BLbinomCut,
          file=paste(
            'BASEL-binomCutResults',
            format(Sys.time(), "%d-%b-%H-%M-%S"),
            '.csv')
)
```

## EPSI-Separated Bayesian models

### Quantitative Y

```
X$EPSIdich <- factor(X$EPSI>median(X$EPSI, na.rm=TRUE))
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('EPS', 'ET3', 'ER3', 'ER1', 'ER')
cut.name <- 'EPSIdich'
BLquantiCut <- bayesList(X[!is.na(X$EPSIdich)], [], x.names, y.names, cut.name, 'model1-cut.R')

## [1] "
## [1] " Analysis of Y= EPS explained by x= PRI cutted by EPSIdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

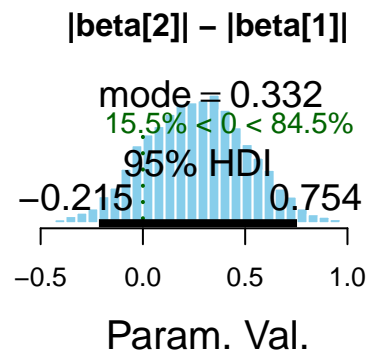
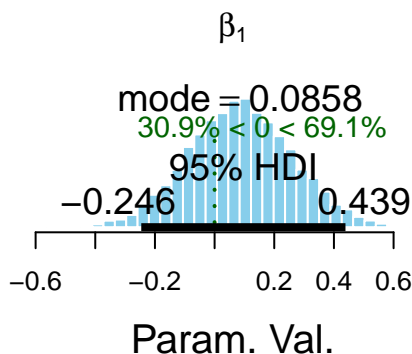
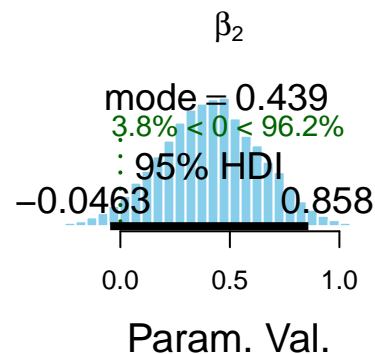
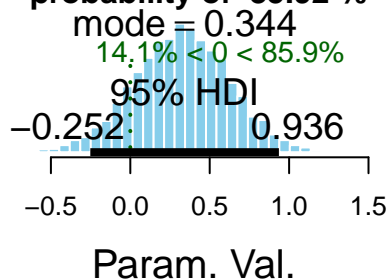
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
```

```

##      Initializing
##      Reading data back into data table
## Compiling model graph
##      Resolving undeclared variables
##      Allocating nodes
## Graph information:
##      Observed stochastic nodes: 102
##      Unobserved stochastic nodes: 7
##      Total graph size: 1608
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7141.776 7000.053 8563.979 7781.057 7141.776 7000.053 8832.214 5573.085
## betaSIZE
## 5706.427
## [1] "The difference of PRI impact \n between EPSIdich cut samples in EPS has a\n probability of 85.92 %
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= INIT cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of PRI impact  
between EPSIdich cut samples in EPS has a  
probability of 85.92 %**



```

## Compiling data graph
##      Resolving undeclared variables
##      Allocating nodes
##      Initializing

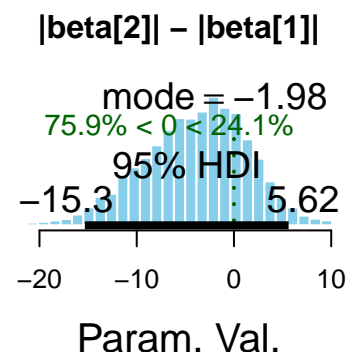
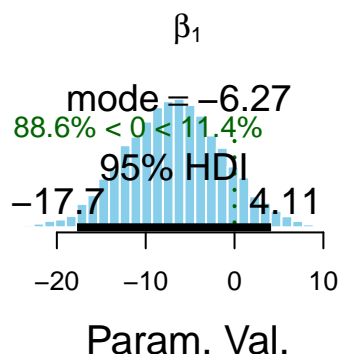
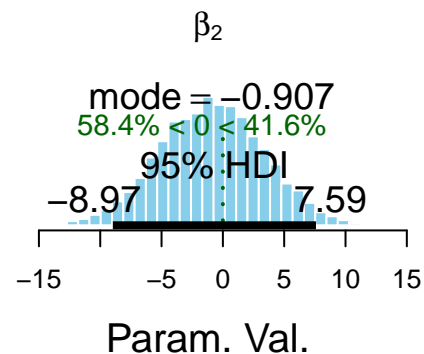
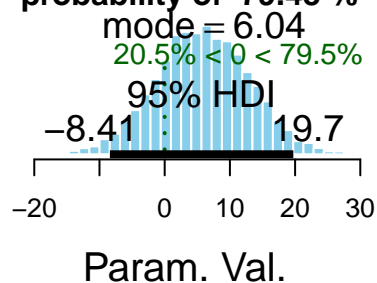
```

```

## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
## Total graph size: 1608
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6937.009 7513.961 7519.245 6881.341 6937.009 7513.961 9003.438 6990.656
## betaSIZE
## 6015.768
## [1] "The difference of INIT impact \n between EPSIdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of INIT impact  
between EPSIdich cut samples in EPS has a  
probability of 79.48 %**



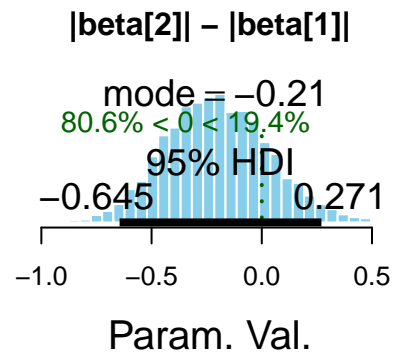
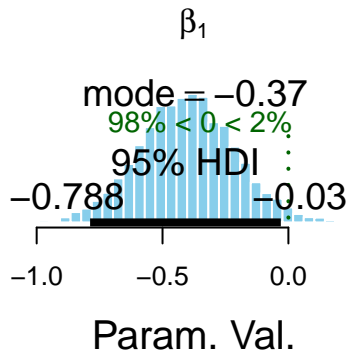
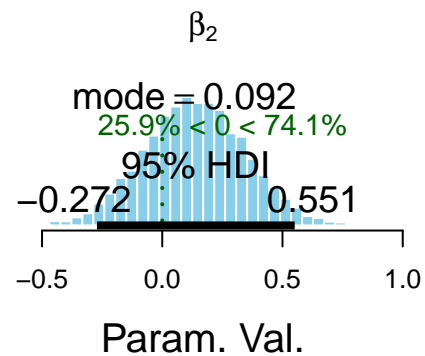
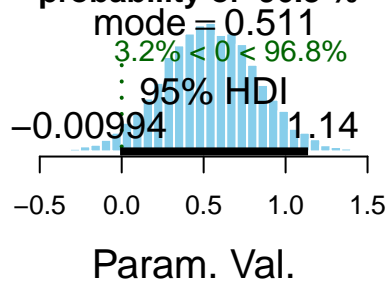
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table

```

```
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1601
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6455.198 7123.358 7998.263 6387.904 6455.198 7123.358 8239.655 6573.249
## betaSIZE
## 5764.958
## [1] "The difference of EPI impact \n between EPSIdich cut samples in EPS has a\n probability of 96.8%"
## [1] "-----"
## [1] " Analysis of Y= EPS explained by x= STEW cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between EPSIdich cut samples in EPS has a  
probability of 96.8 %**



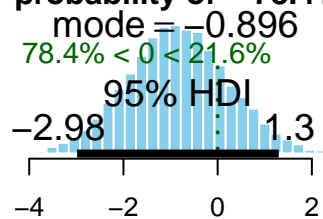
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
```

```

## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
## Total graph size: 1600
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6593.826 7213.473 8667.442 8013.738 6593.826 7213.473 7451.151 5667.484
## betaSIZE
## 6215.029
## [1] "The difference of STEW impact \n between EPSIdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= II_10 cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

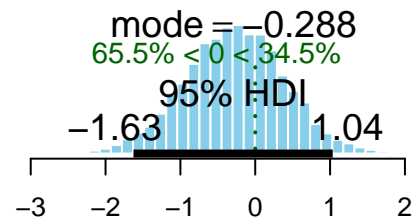
```

**The difference of STEW impact  
between EPSIdich cut samples in EPS has a  
probability of -78.41 %**



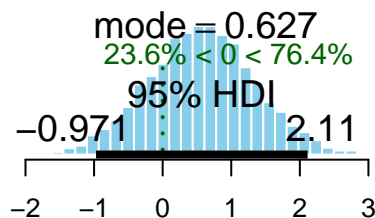
Param. Val.

$\beta_2$



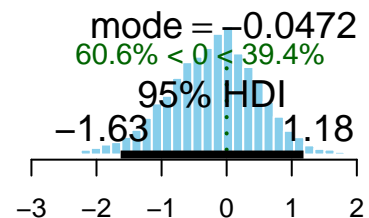
Param. Val.

$\beta_1$



Param. Val.

**|beta[2]| - |beta[1]|**



Param. Val.

```

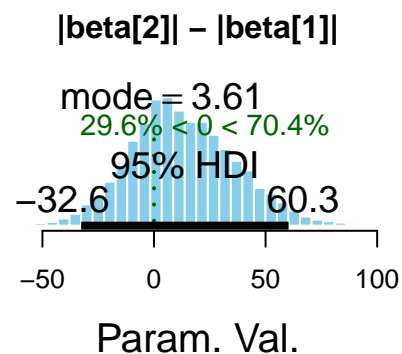
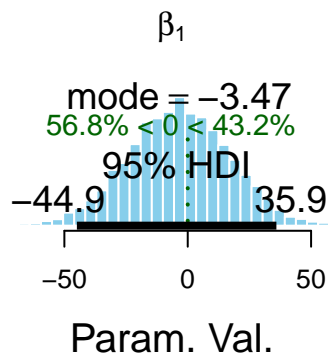
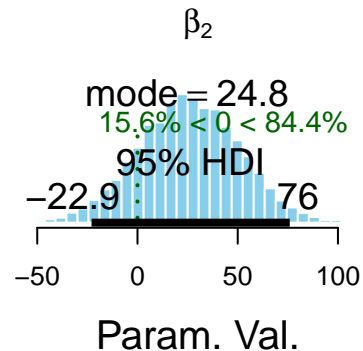
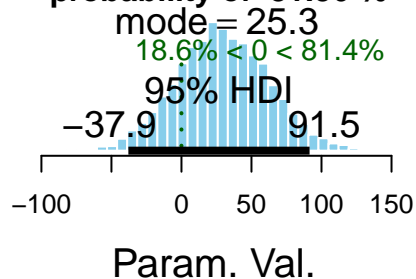
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables

```



```
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
## Total graph size: 1529
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8017.678 8630.978 8596.904 8685.160 8017.678 8630.978 9406.259 7110.586
## betaSIZE
## 6852.212
## [1] "The difference of II_10 impact \n between EPSIdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= FOR_10 cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

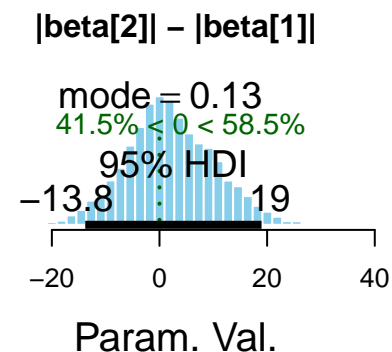
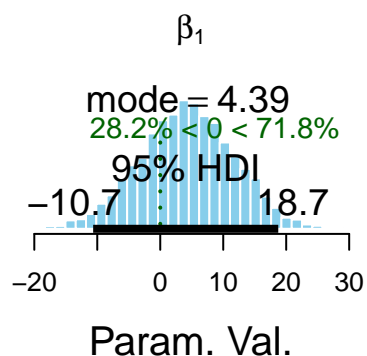
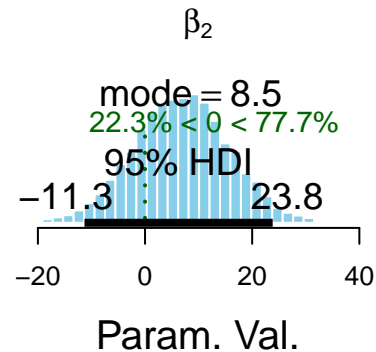
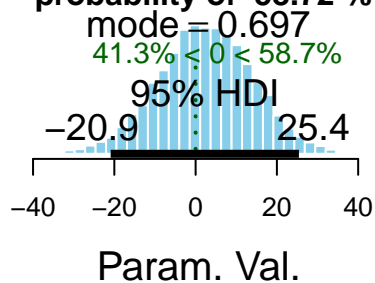
**The difference of II\_10 impact  
between EPSIdich cut samples in EPS has a  
probability of 81.36 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
```

```
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1599
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7820.701 8023.359 9000.000 9000.000 7820.701 8023.359 8021.536 7379.589
## betaSIZE
## 7457.903
## [1] "The difference of FOR_10 impact \n between EPSIdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

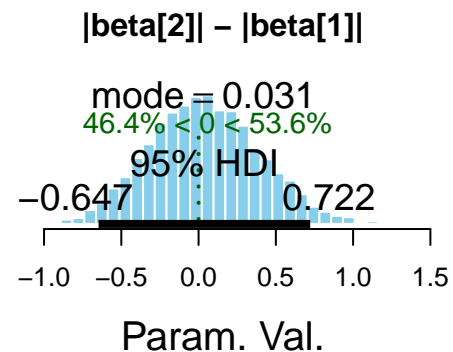
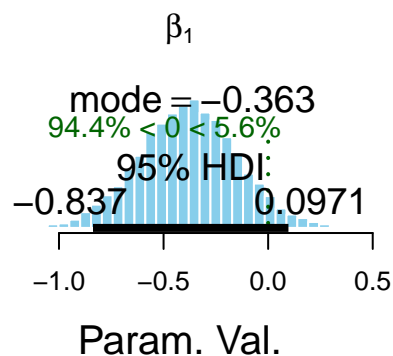
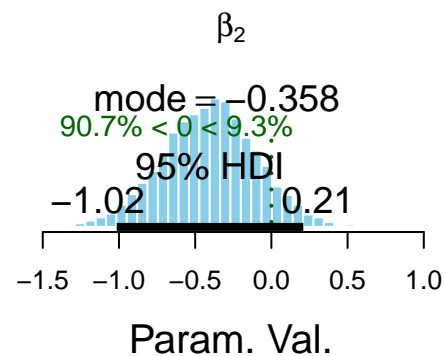
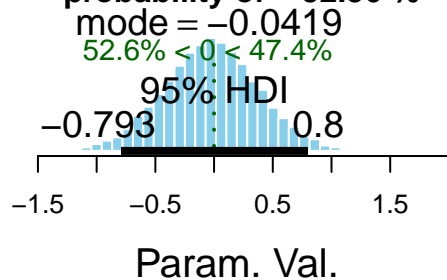
**The difference of FOR\_10 impact  
between EPSIdich cut samples in EPS has a  
probability of 58.72 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
```

```
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
## Total graph size: 1608
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7102.716 7498.202 8839.866 8527.343 7102.716 7498.202 8723.653 6081.928
## betaSIZE
## 5735.188
## [1] "The difference of PRI impact \n between EPSIdich cut samples in ET3 has a\n probability of -0.5256"
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

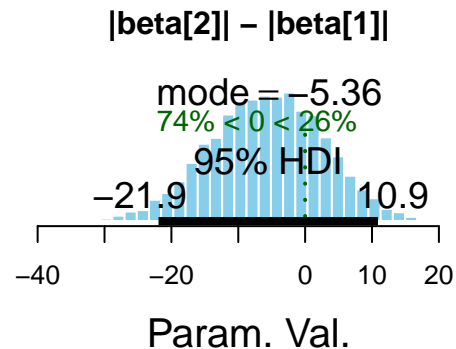
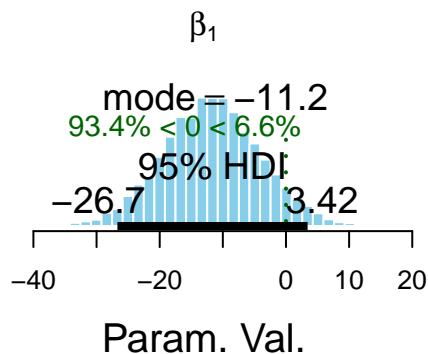
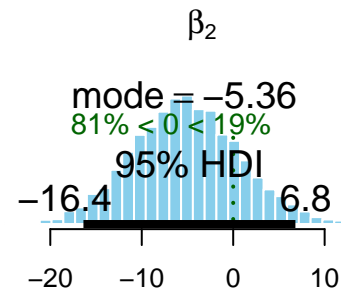
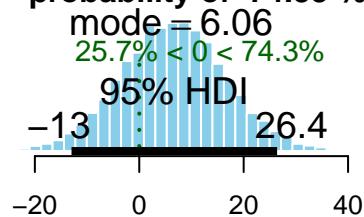
**The difference of PRI impact  
between EPSIdich cut samples in ET3 has a  
probability of -52.56 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
```

```
## Unobserved stochastic nodes: 7
## Total graph size: 1608
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6818.981 9000.000 8885.113 8307.787 6818.981 9000.000 9000.000 7078.757
## betaSIZE
## 6566.510
## [1] "The difference of INIT impact \n between EPSIdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

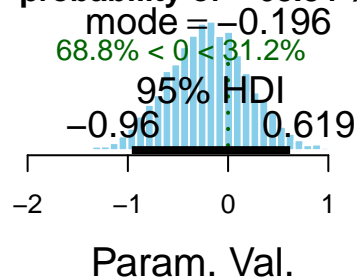
**The difference of INIT impact  
between EPSIdich cut samples in ET3 has a  
probability of 74.33 %**



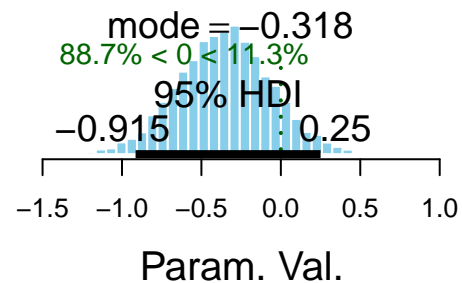
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
```

```
## Total graph size: 1601
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6421.554 6678.276 7670.002 5807.913 6421.554 6678.276 8547.757 6937.414
## betaSIZE
## 5919.746
## [1] "The difference of EPI impact \n between EPSIdich cut samples in ET3 has a\n probability of -"
## [1] "
## [1] " Analysis of Y= ET3 explained by x= STEW cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

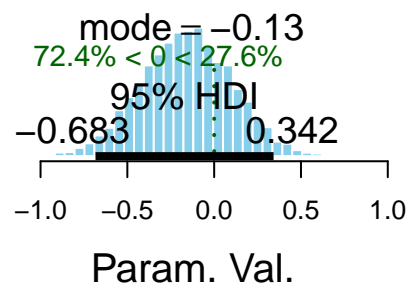
**The difference of EPI impact  
between EPSIdich cut samples in ET3 has a  
probability of -68.84 %**



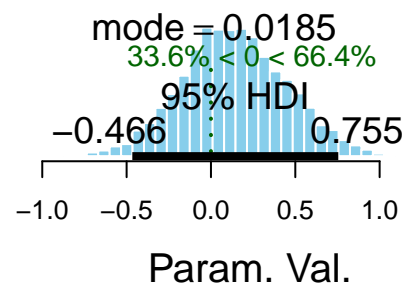
$\beta_2$



$\beta_1$



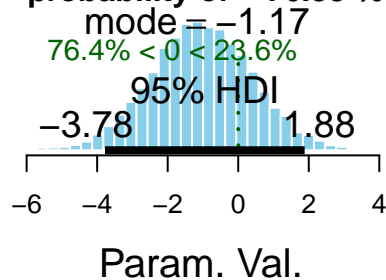
**|beta[2]| - |beta[1]|**



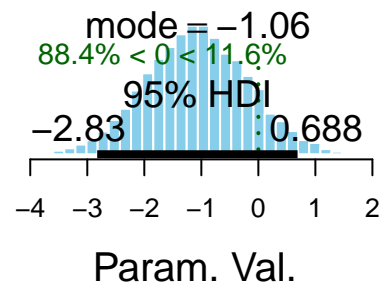
```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
## Total graph size: 1600
```

```
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6957.443 7194.275 9003.114 8688.736 6957.443 7194.275 7711.685 5400.846
## betaSIZE
## 5589.359
## [1] "The difference of STEW impact \n between EPSIdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= II_10 cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

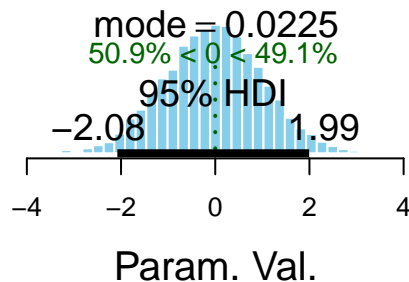
**The difference of STEW impact  
between EPSIdich cut samples in ET3 has a  
probability of -76.38 %**



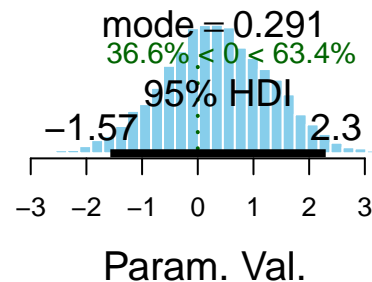
$\beta_2$



$\beta_1$



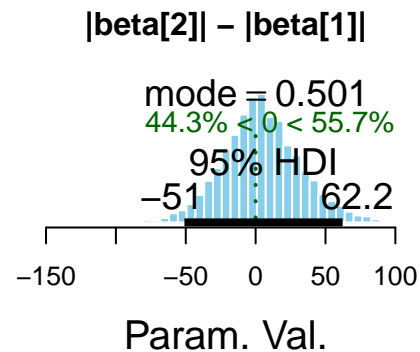
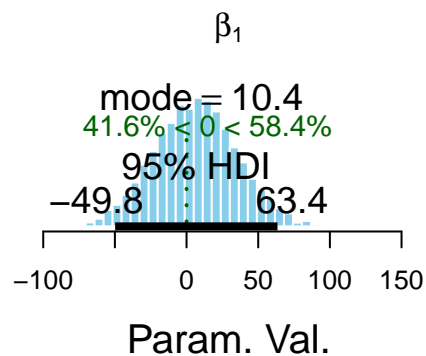
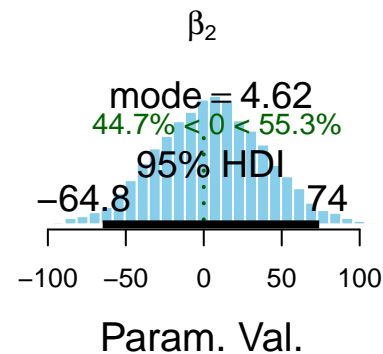
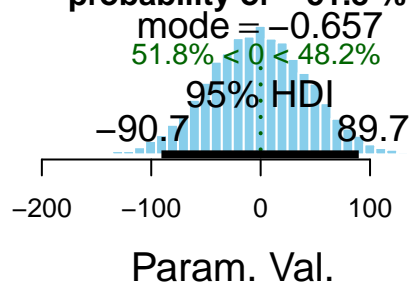
**|beta[2]| - |beta[1]|**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
## Total graph size: 1529
##
```

```
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7855.710 8718.529 8866.514 9240.266 7855.710 8718.529 8836.990 7422.050
## betaSIZE
## 7063.527
## [1] "The difference of II_10 impact \n between EPSIdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= FOR_10 cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

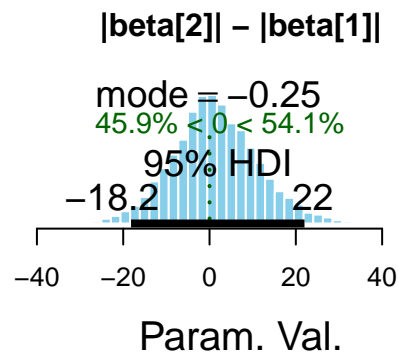
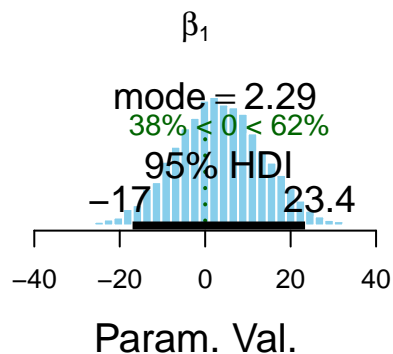
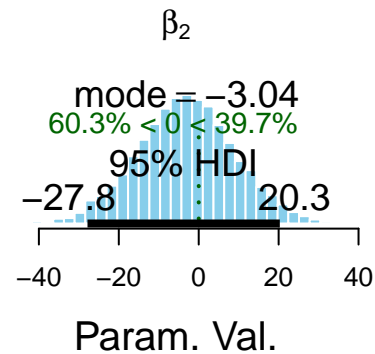
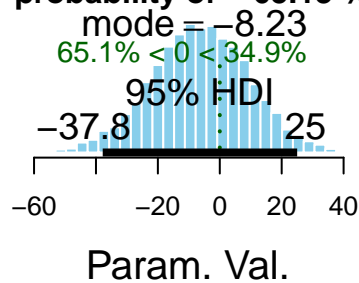
**The difference of II\_10 impact  
between EPSIdich cut samples in ET3 has a  
probability of -51.8 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
## Total graph size: 1599
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7787.781 8261.174 8934.807 8537.424 7787.781 8261.174 7394.266 6942.787
## betaSIZE
## 7438.489
## [1] "The difference of FOR_10 impact \n between EPSIdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= PRI cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of FOR\_10 impact  
between EPSIdich cut samples in ET3 has a  
probability of -65.13 %**

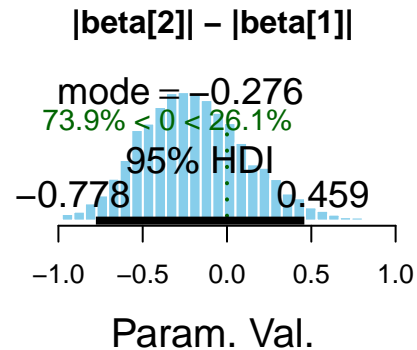
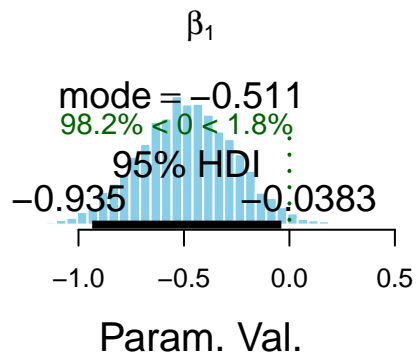
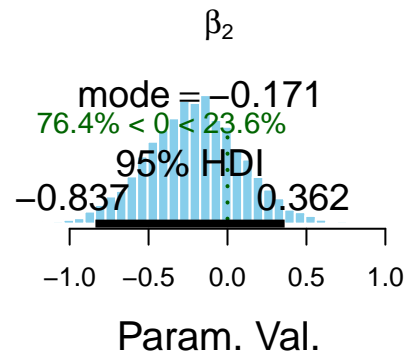
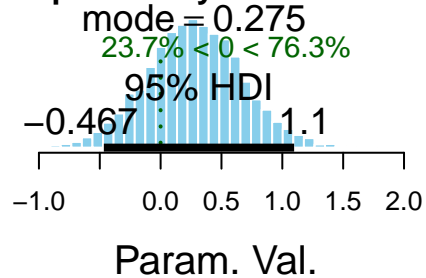


```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
## Total graph size: 1608
##
## Initializing model
##
```



```
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7280.845 7141.585 9336.100 9039.887 7280.845 7141.585 9000.000 6167.492
## betaSIZE
## 5590.985
## [1] "The difference of PRI impact \n between EPSIdich cut samples in ER3 has a\n probability of 76.28 %"
## [1] "
## [1] " Analysis of Y= ER3 explained by x= INIT cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

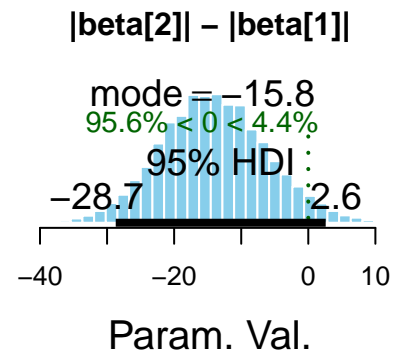
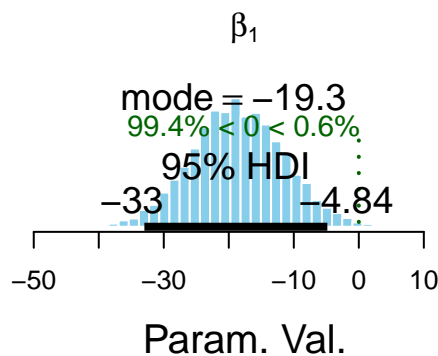
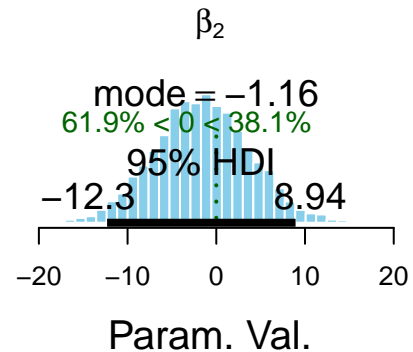
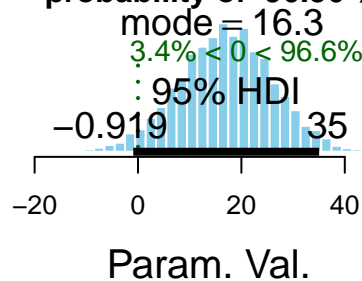
**The difference of PRI impact  
between EPSIdich cut samples in ER3 has a  
probability of 76.28 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1608
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
```

```
## 7044.738 8684.977 8018.152 7541.318 7044.738 8684.977 8721.798 6992.500
## betaSIZE
## 6143.225
## [1] "The difference of INIT impact \n between EPSIdich cut samples in ER3 has a\n probability of 96.56 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= EPI cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

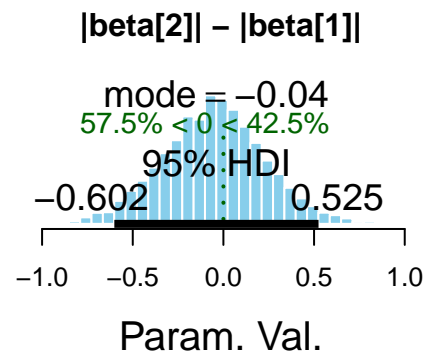
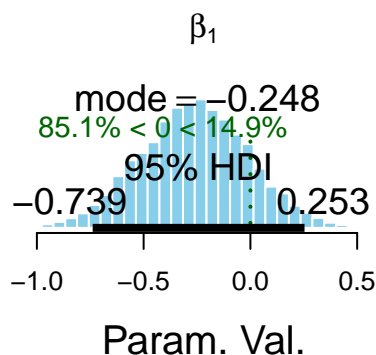
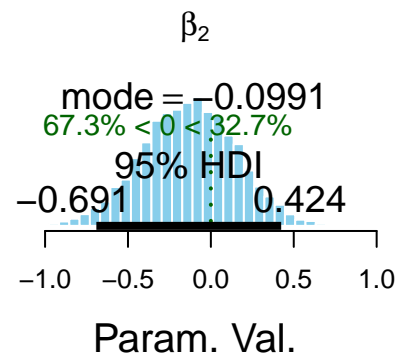
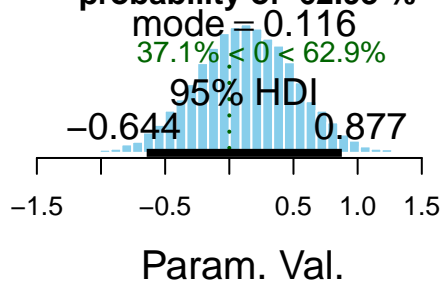
**The difference of INIT impact  
between EPSIdich cut samples in ER3 has a  
probability of 96.56 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
## Total graph size: 1601
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6568.740 6979.857 7784.255 6269.228 6568.740 6979.857 7570.843 7105.842
```

```
## betaSIZE
## 5654.016
## [1] "The difference of EPI impact \n between EPSIdich cut samples in ER3 has a\n probability of 62.93 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= STEW cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

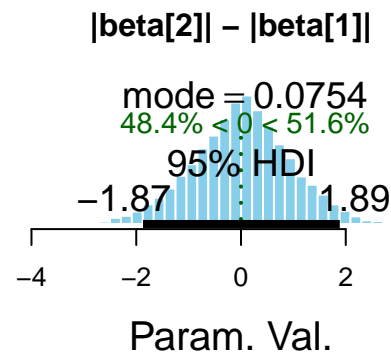
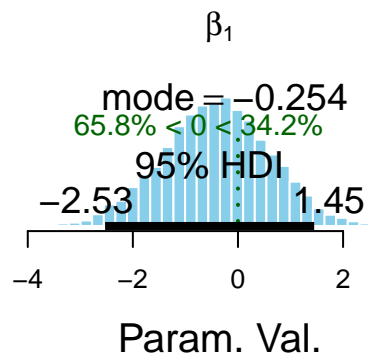
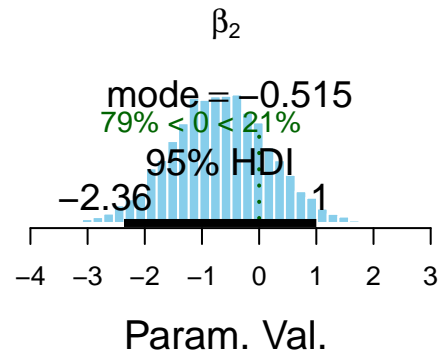
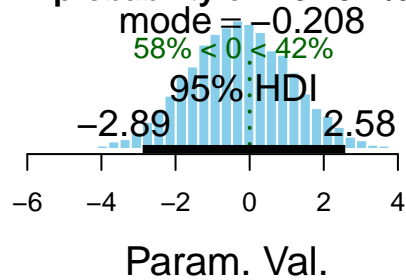
**The difference of EPI impact  
between EPSIdich cut samples in ER3 has a  
probability of 62.93 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 7
## Total graph size: 1600
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6402.770 7486.905 8444.868 8155.455 6402.770 7486.905 7141.759 5875.087
## betaSIZE
```

```
## 5590.707
## [1] "The difference of STEW impact \n between EPSIdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= II_10 cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

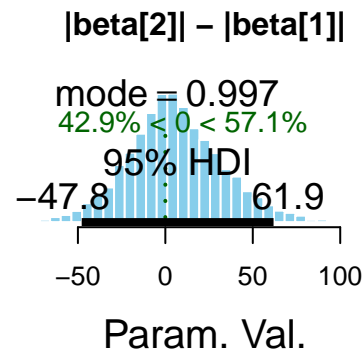
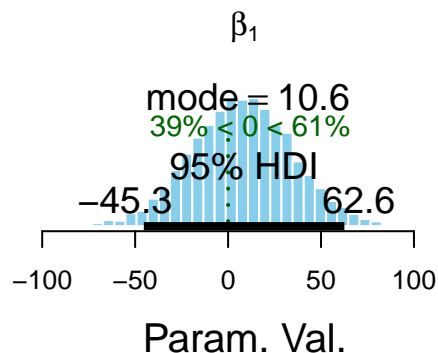
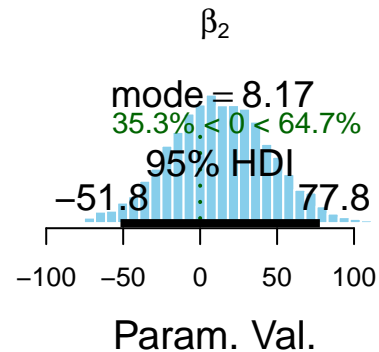
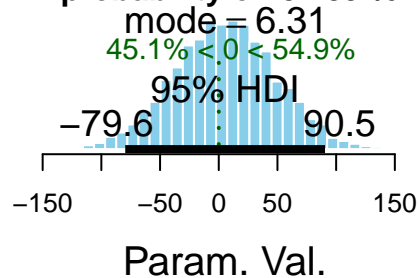
**The difference of STEW impact  
between EPSIdich cut samples in ER3 has a  
probability of -57.97 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1529
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7987.629 8495.372 9000.000 8581.653 7987.629 8495.372 8309.401 6882.164
## betaSIZE
## 7116.857
```

```
## [1] "The difference of II_10 impact \n between EPSIdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER3 explained by x= FOR_10 cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

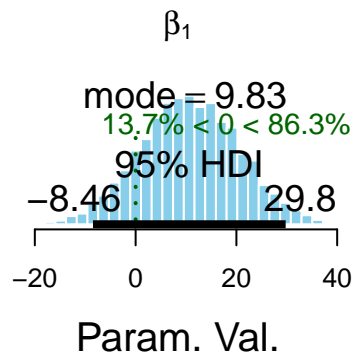
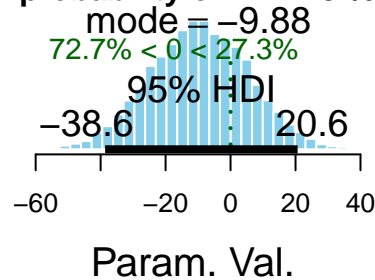
**The difference of II\_10 impact  
between EPSIdich cut samples in ER3 has a  
probability of 54.89 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1599
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8528.531 8168.451 9000.000 8831.218 8528.531 8168.451 7627.363 7064.956
## betaSIZE
## 7383.541
## [1] "The difference of FOR_10 impact \n between EPSIdich cut samples in ER3 has a\n probability of
```

```
## [1] "          "
## [1] " Analysis of Y= ER1  explained by x= PRI  cutted by EPSIdich"

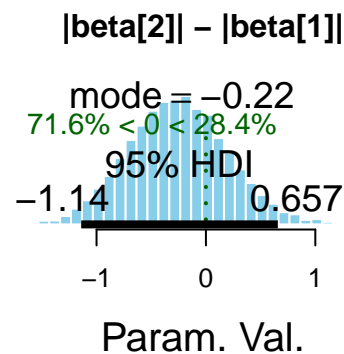
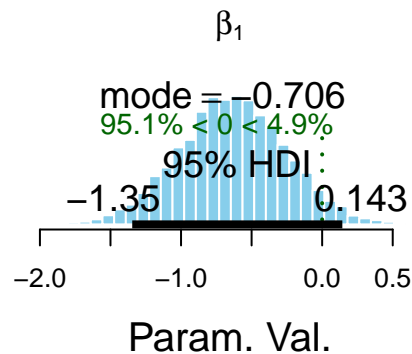
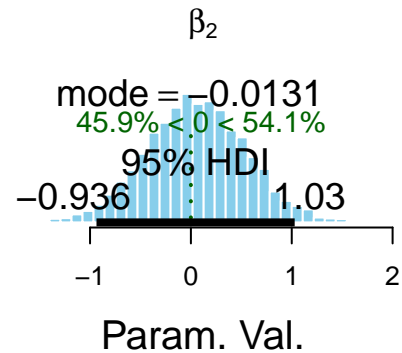
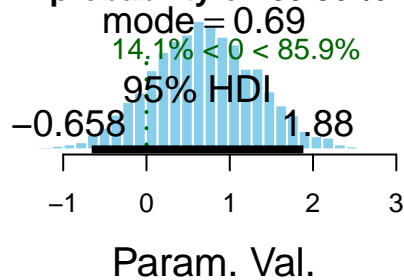
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1608
##
## Initializing model
##
## alpha1[1] alpha1[2]  beta0[1]  beta0[2]  beta1[1]  beta1[2]  betaGFI  betaGPS
## 7757.241  6764.606  8519.835  8521.573  7757.241  6764.606  8546.745  6396.996
## betaSIZE
## 6173.189
## [1] "The difference of PRI   impact \n between EPSIdich cut samples in   ER1 has a\n probability of 8
## [1] "
```

```
## [1] " Analysis of Y= ER1  explained by x= INIT cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

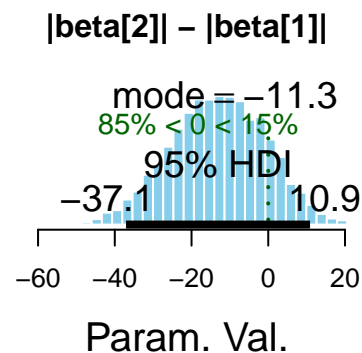
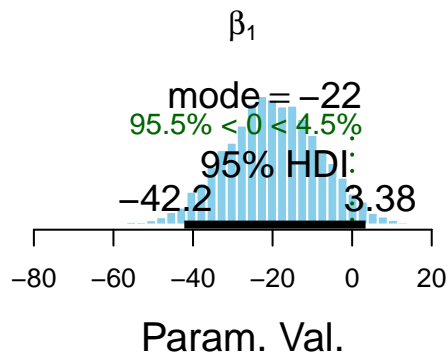
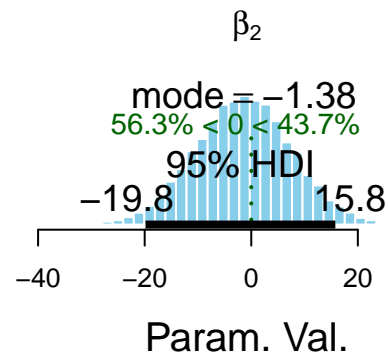
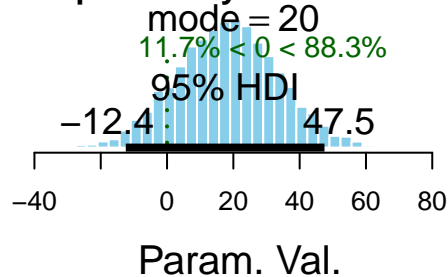
**The difference of PRI impact  
between EPSIdich cut samples in ER1 has a  
probability of 85.86 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1608
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7179.219 8647.009 8069.920 7786.650 7179.219 8647.009 8260.102 6497.105
## betaSIZE
## 5902.592
## [1] "The difference of INIT impact \n between EPSIdich cut samples in ER1 has a\n probability of 8
## [1] "
## [1] " Analysis of Y= ER1  explained by x= EPI cutted by EPSIdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of INIT impact  
between EPSIdich cut samples in ER1 has a  
probability of 88.31 %**

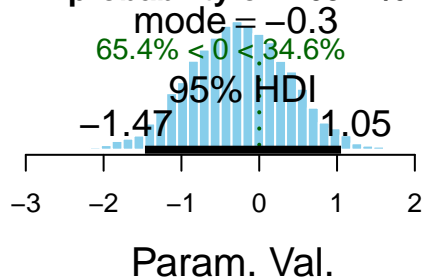


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1601
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6326.518 6696.753 7837.134 6797.557 6326.518 6696.753 7829.110 7034.288
## betaSIZE
## 5449.193
## [1] "The difference of EPI impact \n between EPSIdich cut samples in ER1 has a\n probability of -
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ER1 explained by x= STEW cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
```

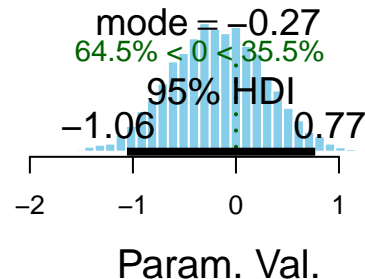


```
## 500): Unused variable "n" in data
```

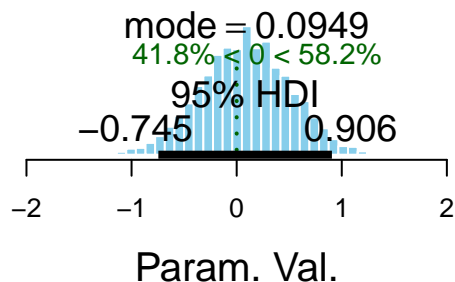
**The difference of EPI impact  
between EPSIdich cut samples in ER1 has a  
probability of -65.4 %**



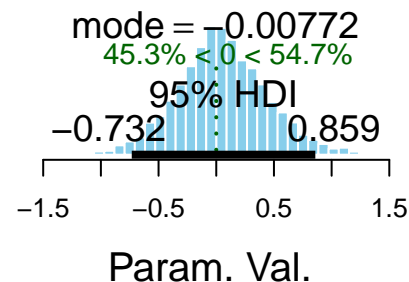
$\beta_2$



$\beta_1$

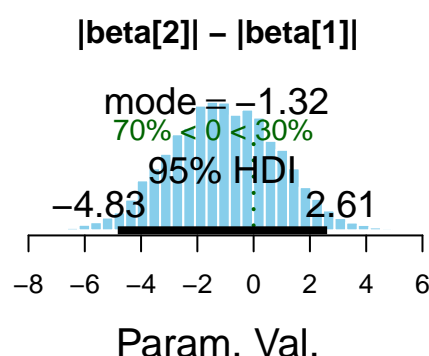
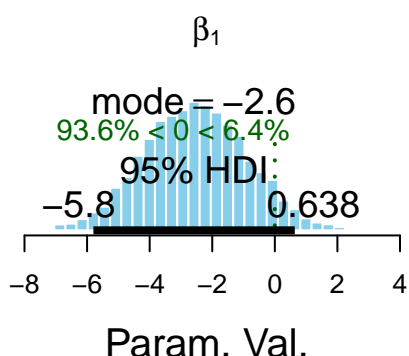
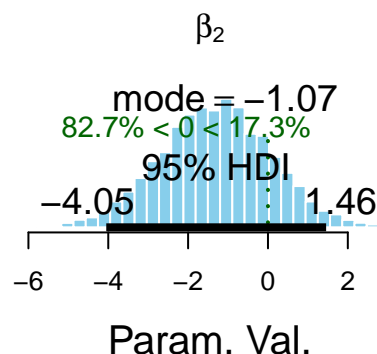
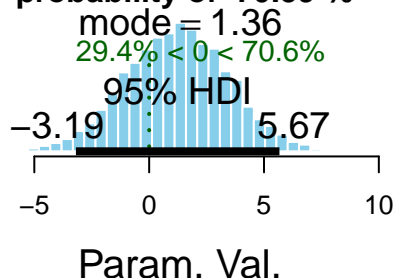


$|\text{beta}[2]| - |\text{beta}[1]|$



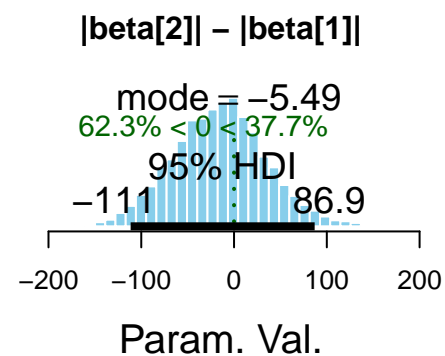
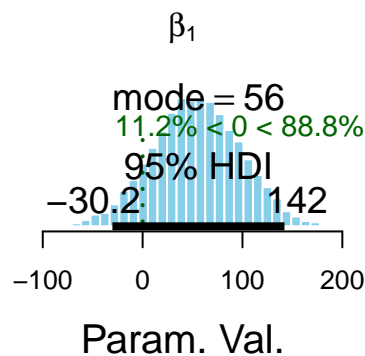
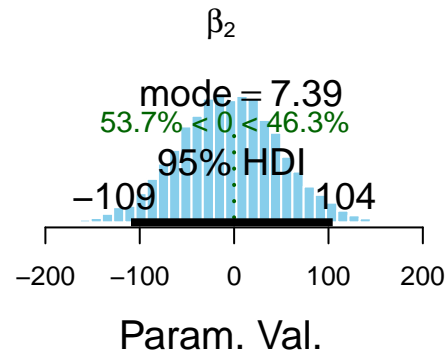
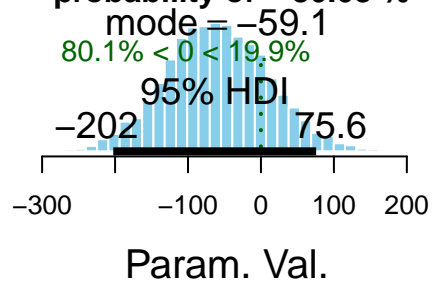
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1600
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6606.035 7646.924 9000.000 8826.960 6606.035 7646.924 7368.659 5476.603
## betaSIZE
## 6099.329
## [1] "The difference of STEW impact \n between EPSIdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ER1 explained by x= II_10 cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of STEW impact  
between EPSIdich cut samples in ER1 has a  
probability of 70.59 %



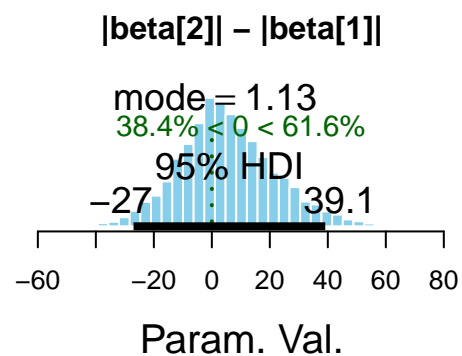
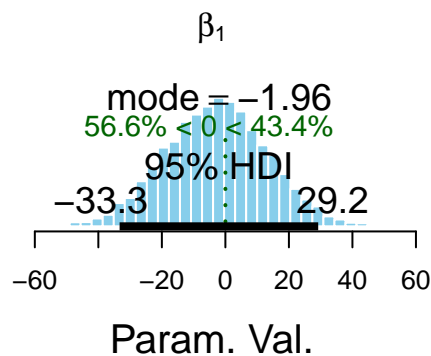
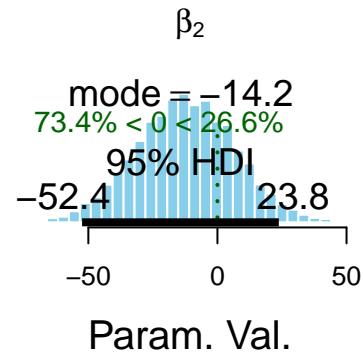
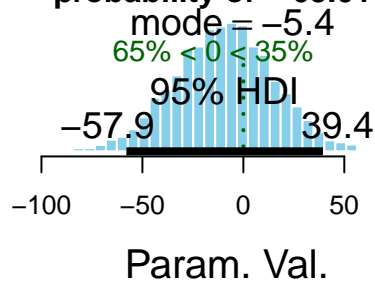
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1529
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8524.176 9000.000 9000.000 9423.809 8524.176 9000.000 8386.245 7319.910
## betaSIZE
## 6819.390
## [1] "The difference of II_10 impact \n between EPSIdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER1 explained by x= FOR_10 cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\Pi_{10}$  impact  
between EPSIdich cut samples in ER1 has a  
probability of **-80.08 %**



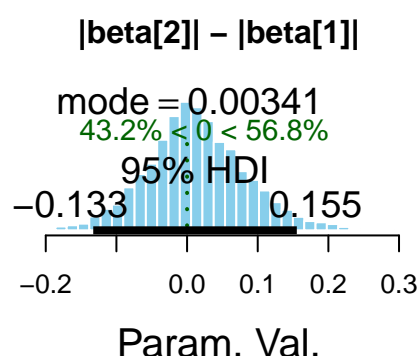
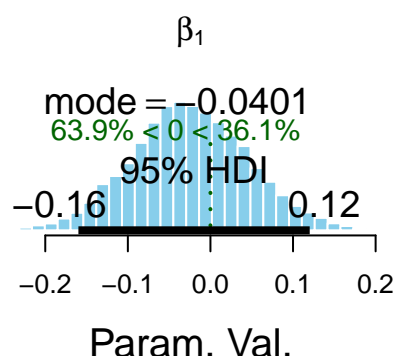
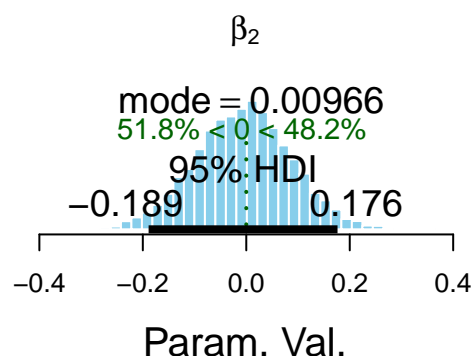
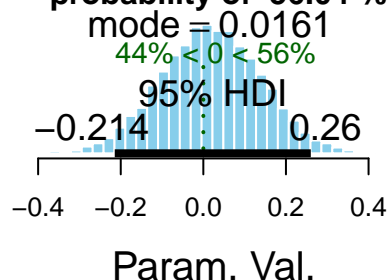
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1599
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7874.867 7955.174 8683.169 8631.837 7874.867 7955.174 7422.184 7102.467
## betaSIZE
## 7364.342
## [1] "The difference of FOR_10 impact \n between EPSIdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= PRI cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of FOR\_10 impact  
between EPSIdich cut samples in ER1 has a  
probability of -65.01 %



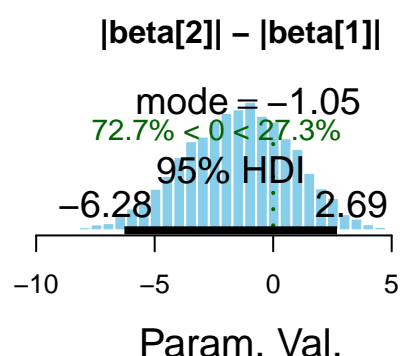
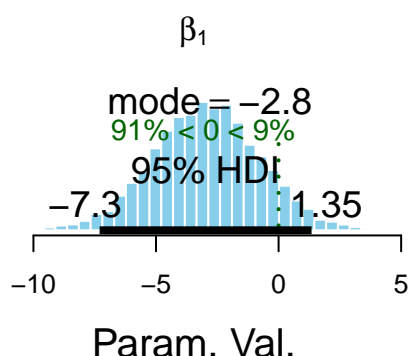
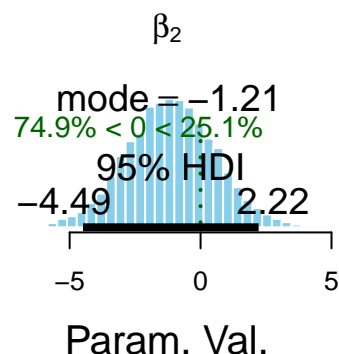
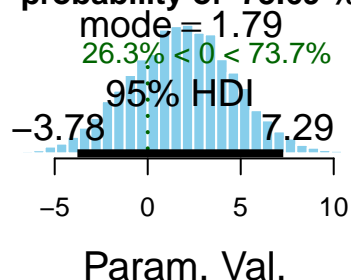
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1608
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7293.821 7089.835 8522.867 7716.792 7293.821 7089.835 8576.832 5624.104
## betaSIZE
## 5902.054
## [1] "The difference of PRI impact \n between EPSIdich cut samples in ER has a\n probability of 56
## [1] "
## [1] " Analysis of Y= ER explained by x= INIT cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of PRI impact  
between EPSIdich cut samples in ER has a  
probability of 56.04 %



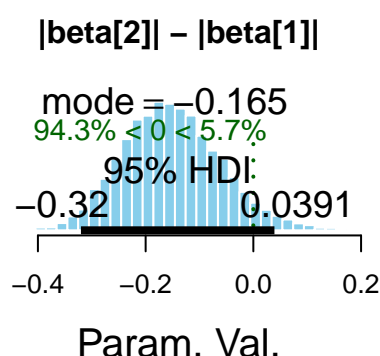
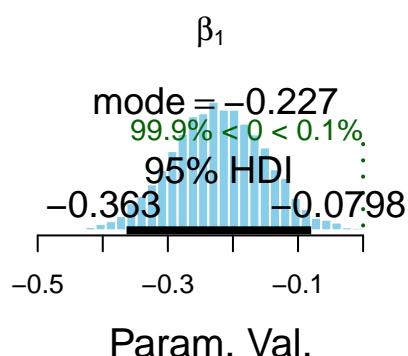
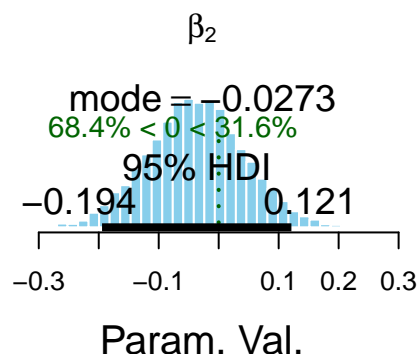
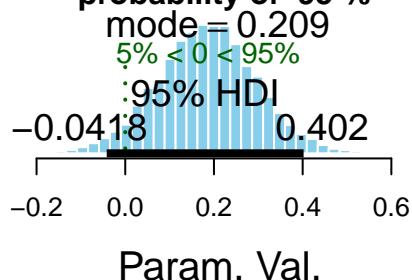
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1608
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7173.774 8481.599 7826.087 6868.405 7173.774 8481.599 8860.367 7878.863
## betaSIZE
## 6261.507
## [1] "The difference of INIT impact \n between EPSIdich cut samples in ER has a\n probability of 7
## [1] "
## [1] " Analysis of Y= ER explained by x= EPI cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of INIT impact  
between EPSIdich cut samples in ER has a  
probability of 73.69 %



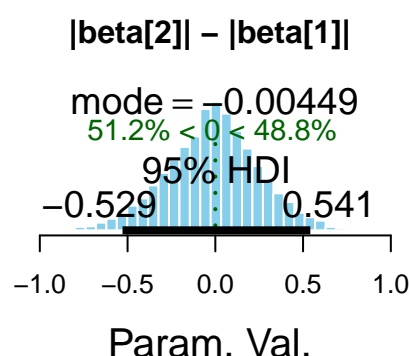
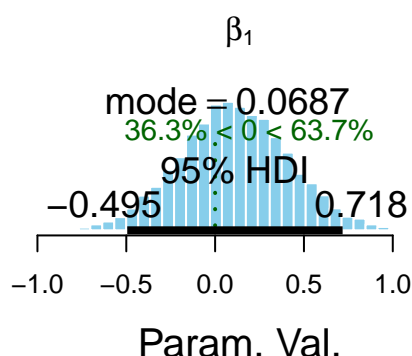
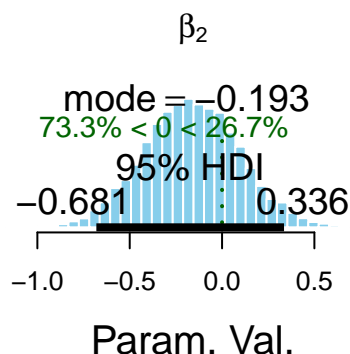
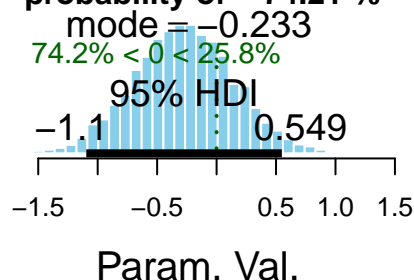
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1601
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6672.965 7508.898 8235.773 5755.459 6672.965 7508.898 7656.964 6843.197
## betaSIZE
## 6114.666
## [1] "The difference of EPI impact \n between EPSIdich cut samples in ER has a\n probability of 95
## [1] "
## [1] " Analysis of Y= ER explained by x= STEW cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of EPI impact  
between EPSIdich cut samples in ER has a  
probability of 95 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1600
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6500.321 7359.175 7880.683 7031.958 6500.321 7359.175 7160.000 5699.767
## betaSIZE
## 6197.188
## [1] "The difference of STEW impact \n between EPSIdich cut samples in ER has a\n probability of -"
## [1] "
## [1] " Analysis of Y= ER explained by x= II_10 cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

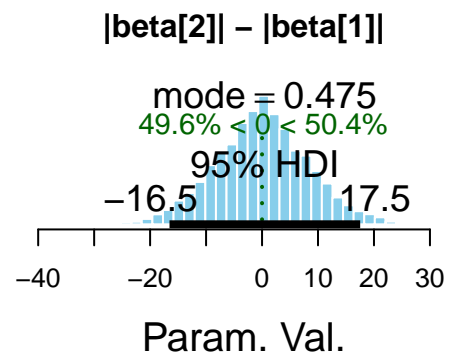
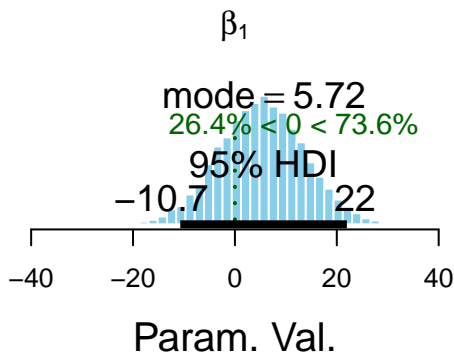
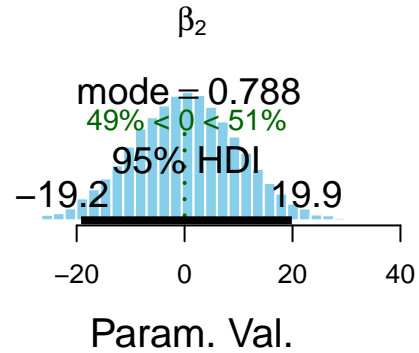
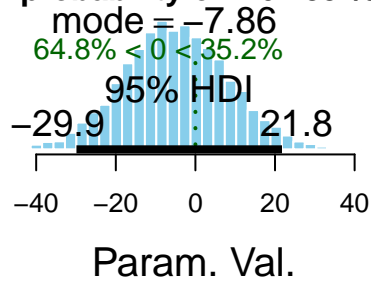
**The difference of STEW impact  
between EPSIdich cut samples in ER has a  
probability of -74.21 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1529
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7982.266 8666.834 9696.952 7946.593 7982.266 8666.834 8554.430 6947.714
## betaSIZE
## 6705.218
## [1] "The difference of II_10 impact \n between EPSIdich cut samples in ER has a\n probability of
## [1] "
## [1] " Analysis of Y= ER explained by x= FOR_10 cutted by EPSIdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

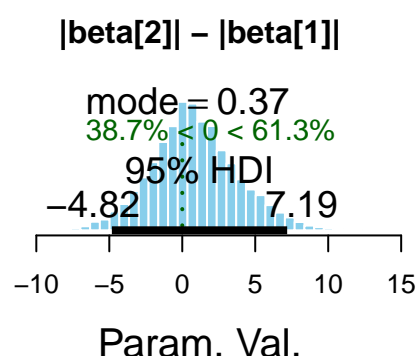
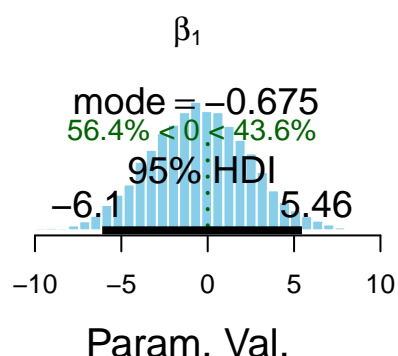
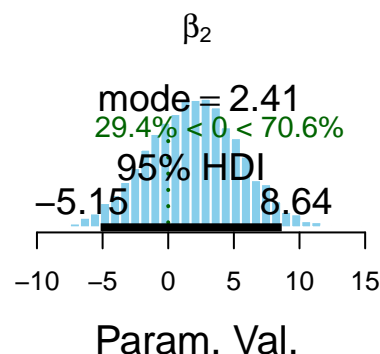
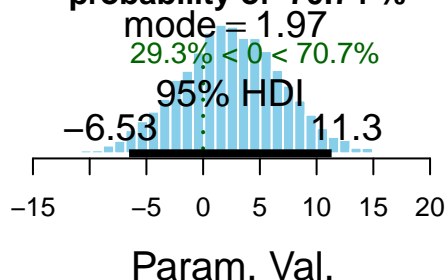


The difference of  $\Pi_{10}$  impact  
between EPSIdich cut samples in ER has a  
probability of -64.83 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 7
##   Total graph size: 1599
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8190.886 7689.460 9000.000 9000.000 8190.886 7689.460 7414.206 6902.449
## betaSIZE
## 7856.223
## [1] "The difference of FOR_10 impact \n between EPSIdich cut samples in ER has a\n probability of
```

The difference of FOR\_10 impact  
between EPSIdich cut samples in ER has a  
probability of 70.74 %



```
write.csv(BLquantiCut,
  file=paste(
    'EPSI-quantiResults-cut',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

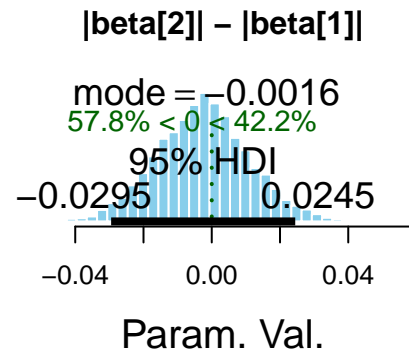
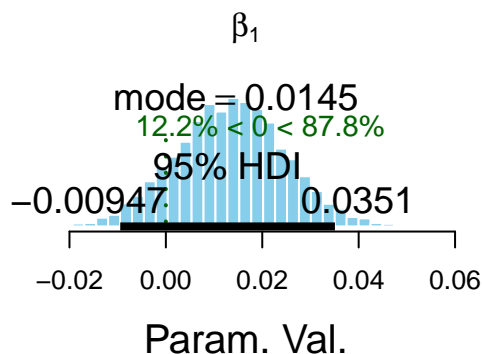
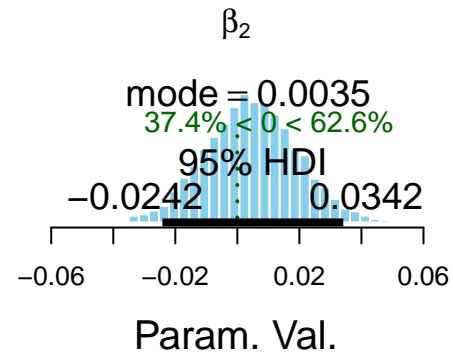
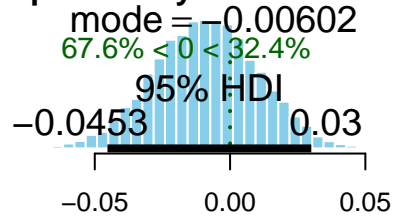
## Binomial Y

```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('CP', 'DISCL')
BLbinomCut <- bayesList(X[!is.na(X$EPSIdich)], x.names, y.names, cut.name, 'model2-cut.R')

## [1] "
## [1] " Analysis of Y= CP explained by x= PRI cutted by EPSIdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 6
```

```
## Total graph size: 1594
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4439.217 4499.891 4865.918 4213.936 4439.217 4499.891 4842.690 4175.587
## betaSIZE
## 3873.205
## [1] "The difference of PRI impact \n between EPSIdich cut samples in CP has a\n probability of -6"
```

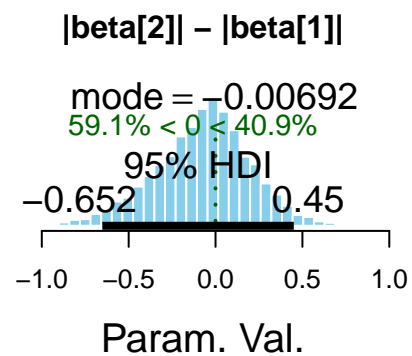
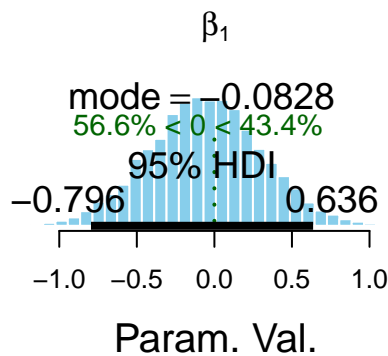
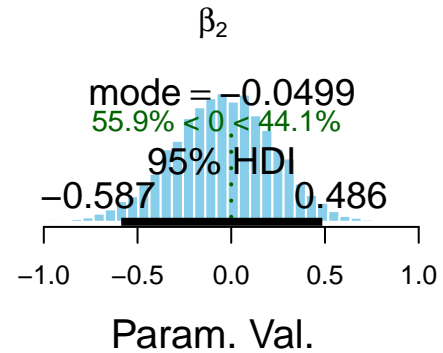
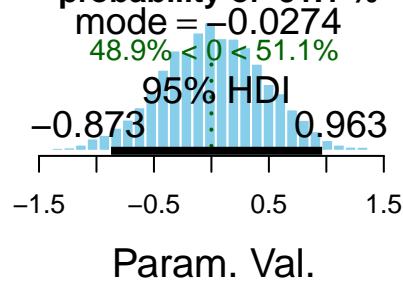
**The difference of PRI impact  
between EPSIdich cut samples in CP has a  
probability of -67.62 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= INIT cutted by EPSIdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 6
## Total graph size: 1594
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4273.360 5518.913 5245.162 4287.429 4273.360 5518.913 5451.008 4381.742
## betaSIZE
## 3810.094
## [1] "The difference of INIT impact \n between EPSIdich cut samples in CP has a\n probability of 5
```

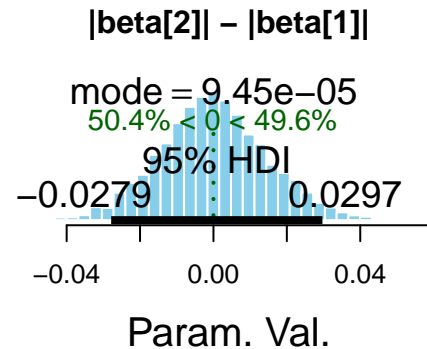
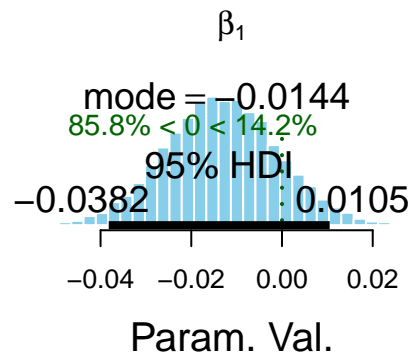
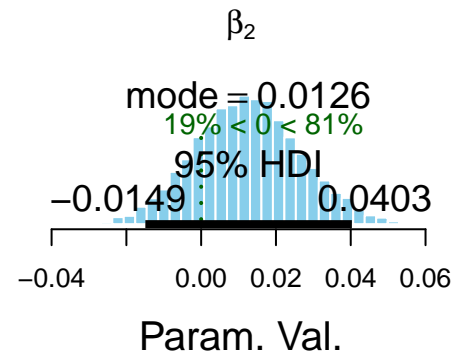
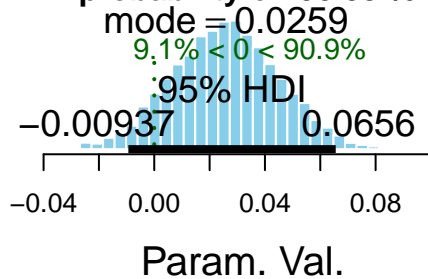
**The difference of INIT impact  
between EPSIdich cut samples in CP has a  
probability of 51.1 %**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= EPI cutted by EPSIdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 6
## Total graph size: 1587
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4194.312 4288.597 5669.923 3623.189 4194.312 4288.597 4499.293 4527.764
```

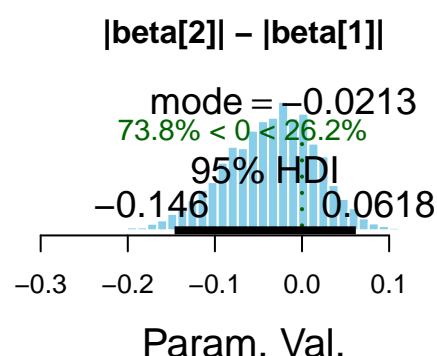
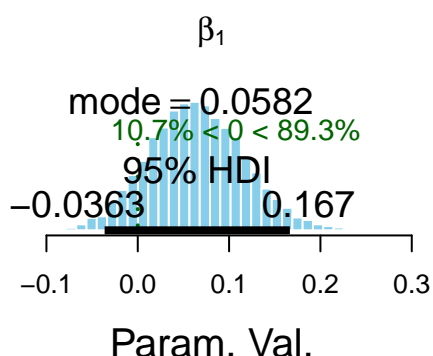
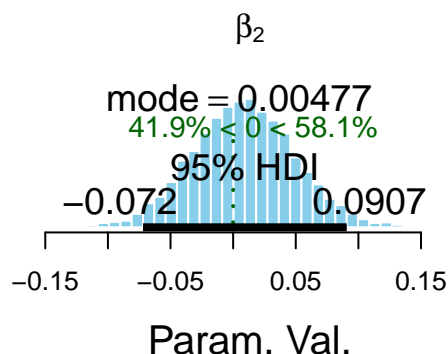
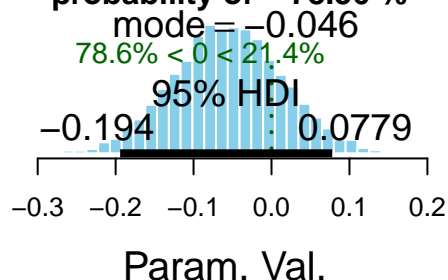
```
## betaSIZE
## 3628.330
## [1] "The difference of EPI impact \n between EPSIdich cut samples in CP has a\n probability of 90
```

**The difference of EPI impact  
between EPSIdich cut samples in CP has a  
probability of 90.88 %**



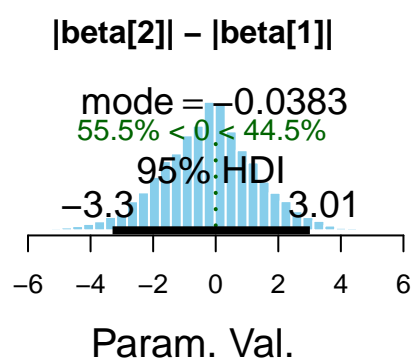
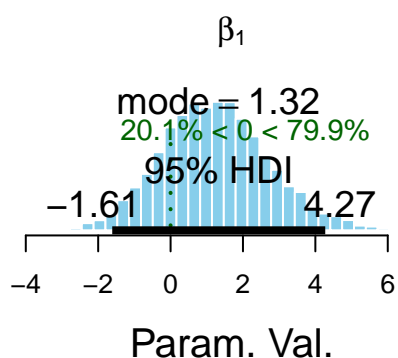
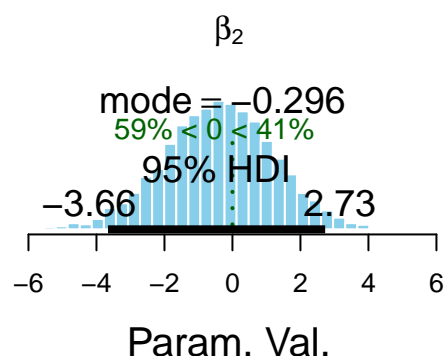
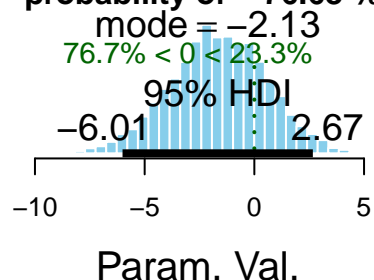
```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= STEW cutted by EPSIdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 102
## Unobserved stochastic nodes: 6
## Total graph size: 1586
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 3743.461 4932.825 5129.363 4746.944 3743.461 4932.825 4633.990 3784.590
## betaSIZE
## 4116.099
## [1] "The difference of STEW impact \n between EPSIdich cut samples in CP has a\n probability of -"
```

**The difference of STEW impact  
between EPSIdich cut samples in CP has a  
probability of -78.56 %**



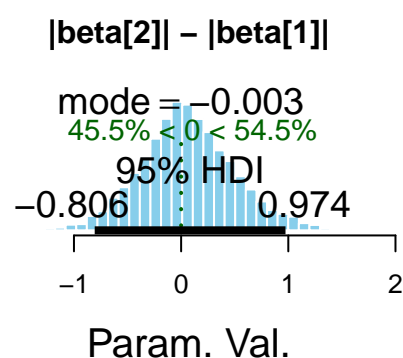
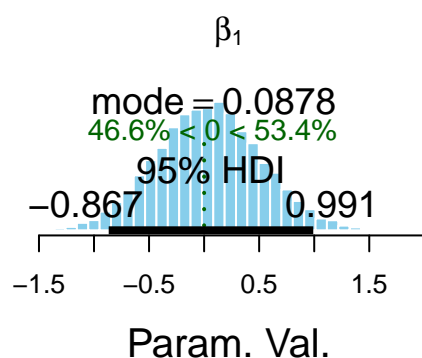
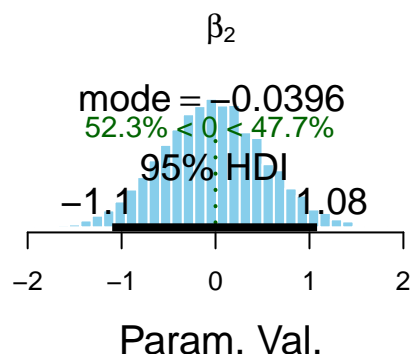
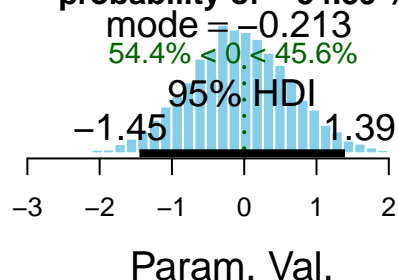
```
## [1] "-----"
## [1] " Analysis of Y= CP explained by x= II_10 cutted by EPSIdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 6
##   Total graph size: 1515
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5183.601 5419.382 6517.989 5206.379 5183.601 5419.382 6028.846 4759.883
## betaSIZE
## 4342.927
## [1] "The difference of II_10 impact \n between EPSIdich cut samples in CP has a\n probability of "
```

The difference of  $\Pi_{10}$  impact  
between EPSIdich cut samples in CP has a  
probability of -76.68 %



```
## [1] "
## [1] " Analysis of Y= CP explained by x= FOR_10 cutted by EPSIdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 6
##   Total graph size: 1585
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5144.706 4628.289 5064.358 5127.875 5144.706 4628.289 4947.591 4768.016
## betaSIZE
## 4541.073
## [1] "The difference of FOR_10 impact \n between EPSIdich cut samples in CP has a\n probability of
```

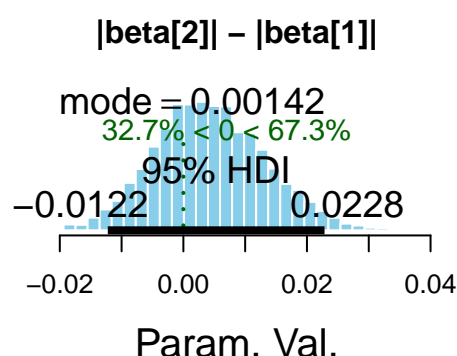
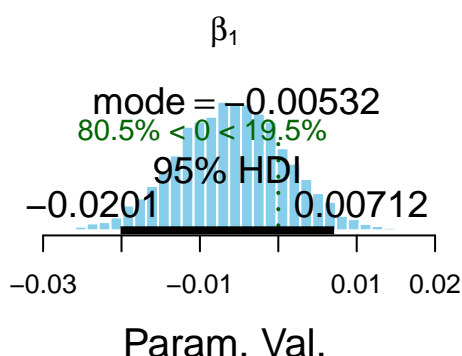
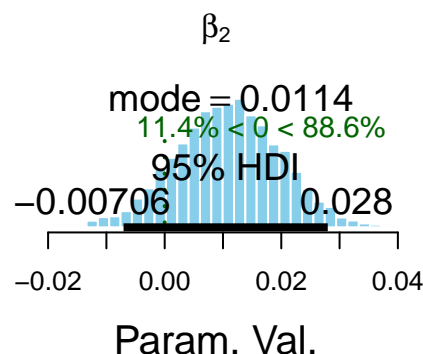
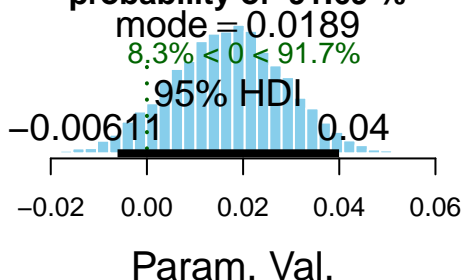
The difference of FOR\_10 impact  
between EPSIdich cut samples in CP has a  
probability of -54.39 %



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= PRI cutted by EPSIdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 6
##   Total graph size: 1594
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4626.662 4842.533 5087.449 4361.588 4626.662 4842.533 5224.738 4351.970
## betaSIZE
## 3740.325
## [1] "The difference of PRI impact \n between EPSIdich cut samples in DISCL has a\n probability of
```

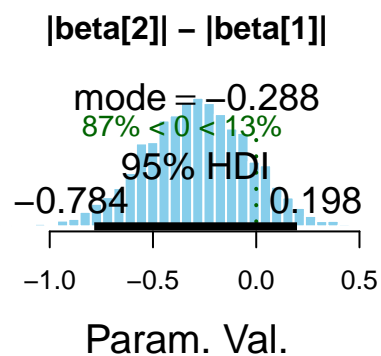
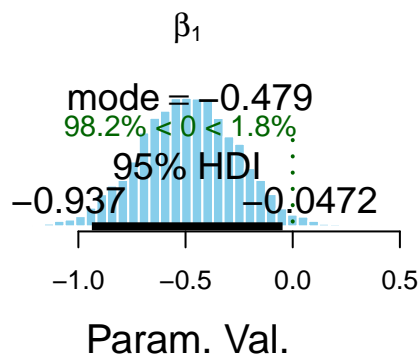
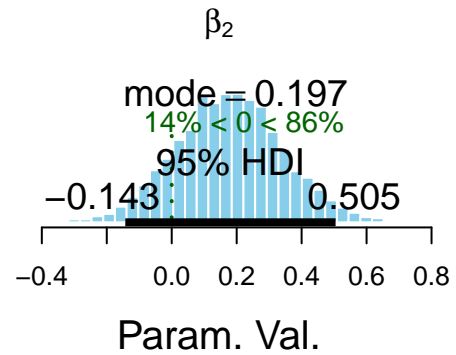
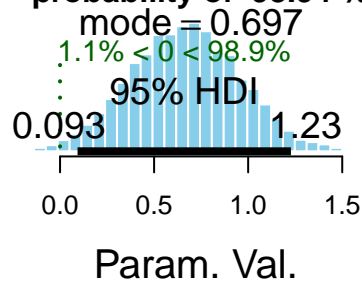


The difference of PRI impact  
between EPSIdich cut samples in DISCL has a  
probability of 91.69 %



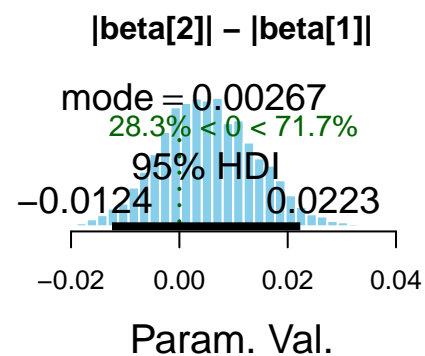
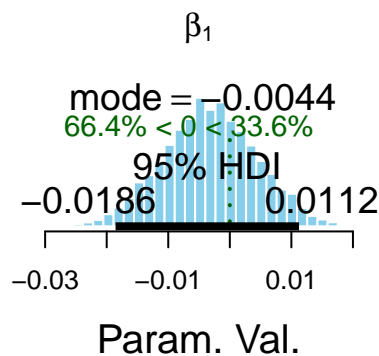
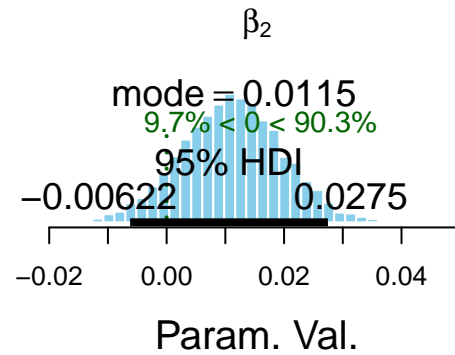
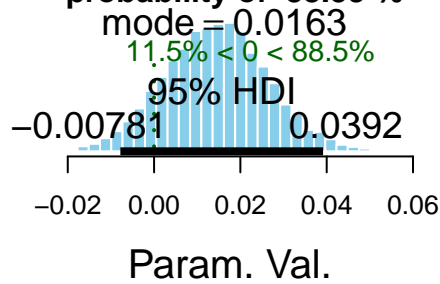
```
## [1] "-----"
## [1] " Analysis of Y= DISCL explained by x= INIT cutted by EPSIdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 6
##   Total graph size: 1594
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4406.634 5071.241 5231.651 4053.490 4406.634 5071.241 5483.578 4564.214
## betaSIZE
## 3668.547
## [1] "The difference of INIT impact \n between EPSIdich cut samples in DISCL has a\n probability of
```

The difference of INIT impact  
between EPSIdich cut samples in DISCL has a  
probability of 98.94 %



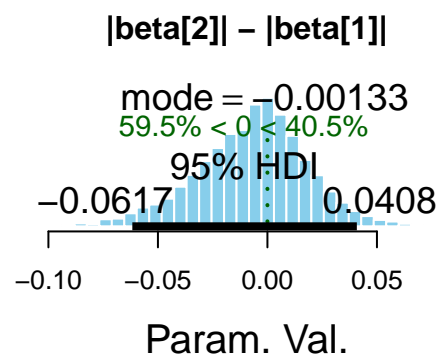
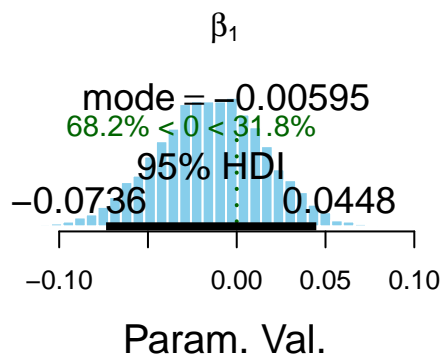
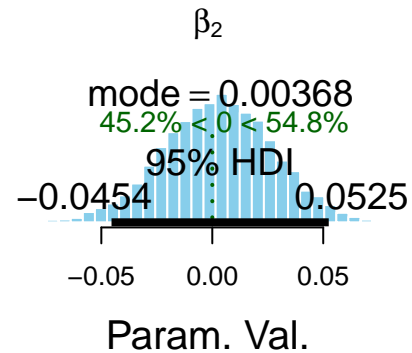
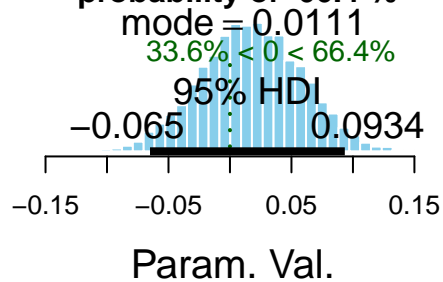
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= EPI cutted by EPSIdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 6
##   Total graph size: 1587
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 3816.267 4224.839 5998.427 3838.327 3816.267 4224.839 4777.369 4866.821
## betaSIZE
## 3698.065
## [1] "The difference of EPI impact \n between EPSIdich cut samples in DISCL has a\n probability of
```

The difference of EPI impact  
between EPSIdich cut samples in DISCL has a  
probability of 88.53 %



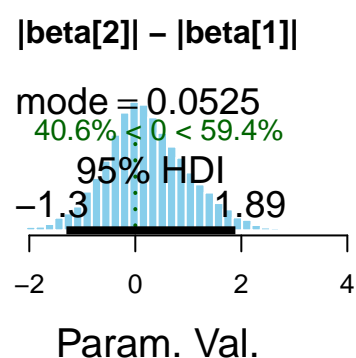
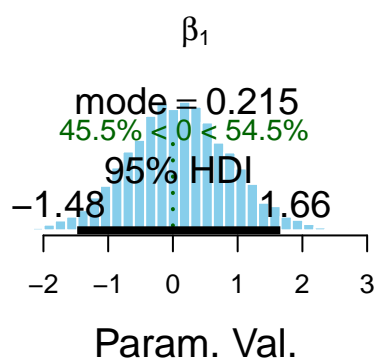
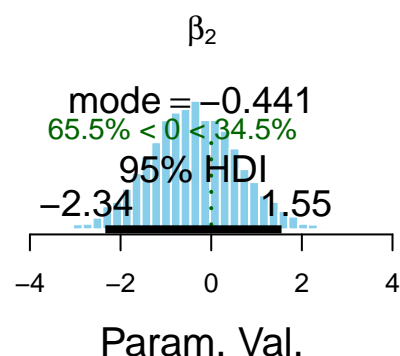
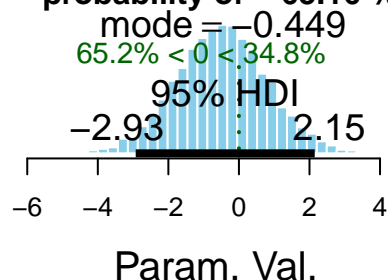
```
## [1] "-----"
## [1] " Analysis of Y= DISCL explained by x= STEW cutted by EPSIdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 6
##   Total graph size: 1586
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4170.442 4627.398 5692.047 5228.587 4170.442 4627.398 4758.252 3489.022
## betaSIZE
## 4397.604
## [1] "The difference of STEW impact \n between EPSIdich cut samples in DISCL has a\n probability of
```

The difference of STEW impact  
between EPSIdich cut samples in DISCL has a  
probability of 66.4 %



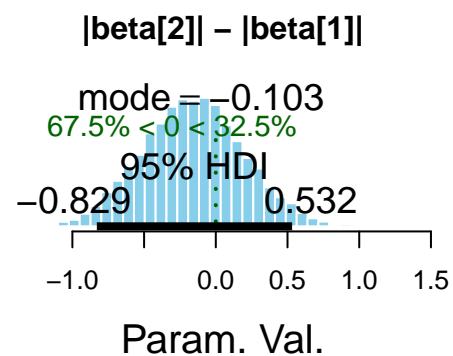
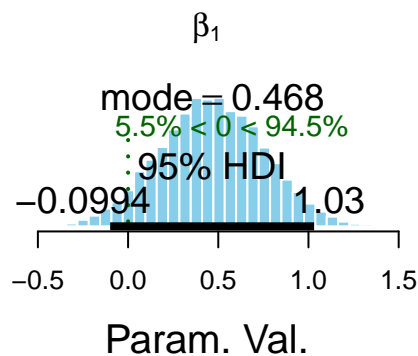
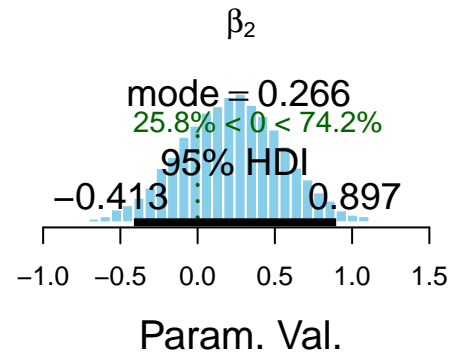
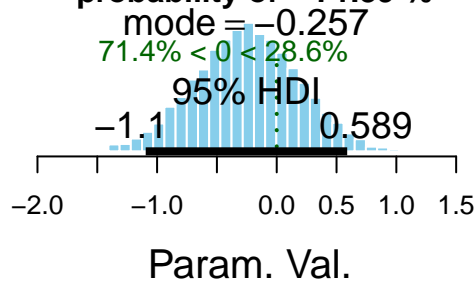
```
## [1] "-----"
## [1] " Analysis of Y= DISCL explained by x= II_10 cutted by EPSIdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 6
##   Total graph size: 1515
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5006.964 4929.348 6512.027 4742.458 5006.964 4929.348 5034.666 3778.984
## betaSIZE
## 4404.262
## [1] "The difference of II_10 impact \n between EPSIdich cut samples in DISCL has a\n probability o
```

The difference of  $\beta_{10}$  impact  
between EPSIdich cut samples in DISCL has a  
probability of -65.16 %



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= FOR_10 cutted by EPSIdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 102
##   Unobserved stochastic nodes: 6
##   Total graph size: 1585
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5195.766 5139.026 5627.687 5773.194 5195.766 5139.026 4652.330 4949.965
## betaSIZE
## 5056.693
## [1] "The difference of FOR_10 impact \n between EPSIdich cut samples in DISCL has a\n probability of -65.16 %"
```

The difference of FOR\_10 impact  
between EPSIdich cut samples in DISCL has a  
probability of -71.39 %



```
write.csv(BLbinomCut,
  file=paste(
    'EPSI-binomCutResults',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

## BASEL\*EPSI-Separated Bayesian models

### Quantitative Y

```
X$EPSIBASELdich <- factor( (X$BASEL*X$EPSI )>median(X$BASEL*X$EPSI, na.rm=TRUE))
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('EPS', 'ET3', 'ER3', 'ER1', 'ER')
cut.name <- 'EPSIBASELdich'
BLquantiCut <- bayesList(X[!is.na(X$EPSIBASELdich), ], x.names, y.names, cut.name, 'model1-cut.R')

## [1] "
## [1] " Analysis of Y= EPS explained by x= PRI cutted by EPSIBASELdich"

## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

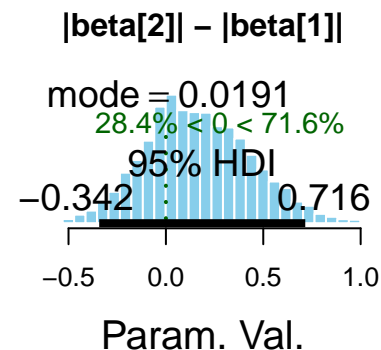
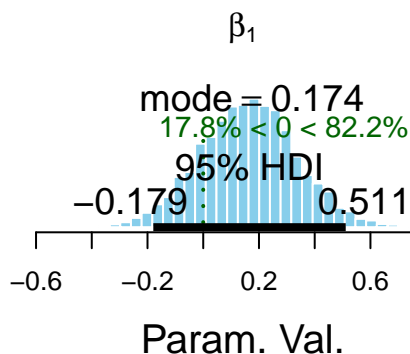
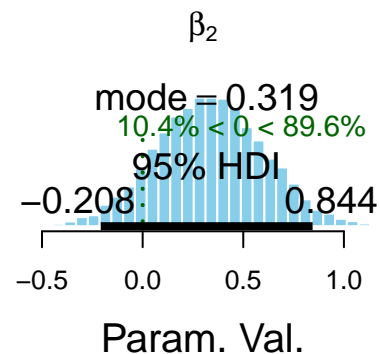
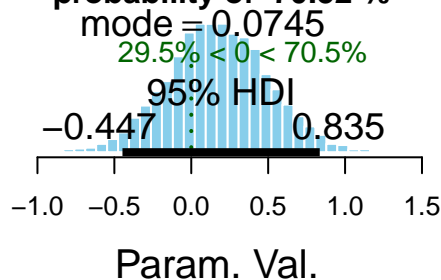
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
```

```

##      Initializing
##      Reading data back into data table
## Compiling model graph
##      Resolving undeclared variables
##      Allocating nodes
## Graph information:
##      Observed stochastic nodes: 89
##      Unobserved stochastic nodes: 7
##      Total graph size: 1406
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8569.784 7875.244 9454.193 8896.843 8569.784 7875.244 7165.540 6135.215
## betaSIZE
## 7361.929
## [1] "The difference of PRI impact \n between EPSIBASELdich cut samples in EPS has a\n probability of
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= INIT cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of PRI impact  
between EPSIBASELdich cut samples in EPS has a  
probability of 70.52 %**



```

## Compiling data graph
##      Resolving undeclared variables
##      Allocating nodes
##      Initializing

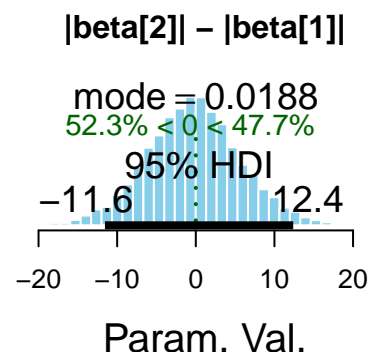
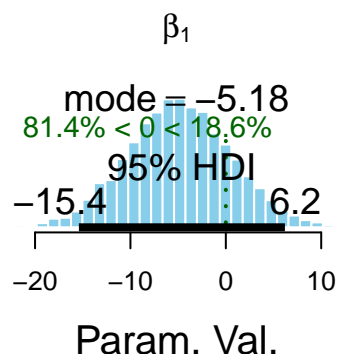
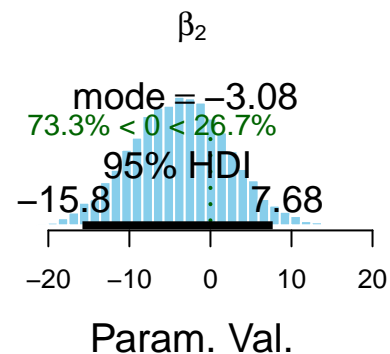
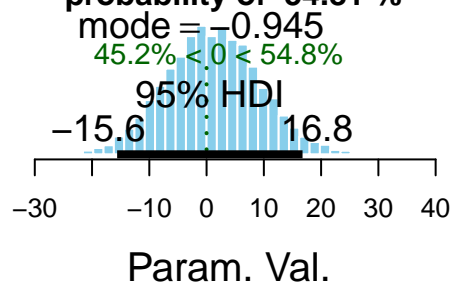
```

```

## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 7
## Total graph size: 1406
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8633.901 7973.971 8673.669 8103.277 8633.901 7973.971 6856.142 6509.256
## betaSIZE
## 8504.995
## [1] "The difference of INIT impact \n between EPSIBASELdich cut samples in EPS has a\n probability
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= EPI cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of INIT impact  
between EPSIBASELdich cut samples in EPS has a  
probability of 54.81 %**



```

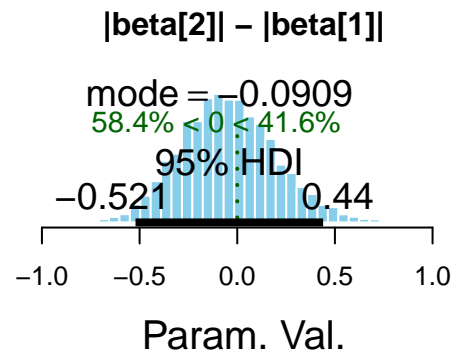
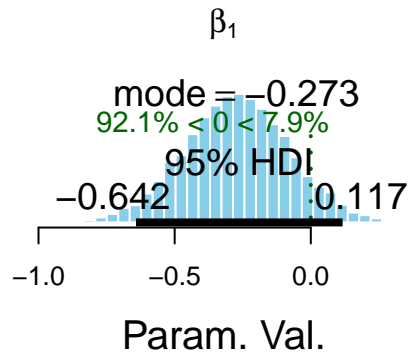
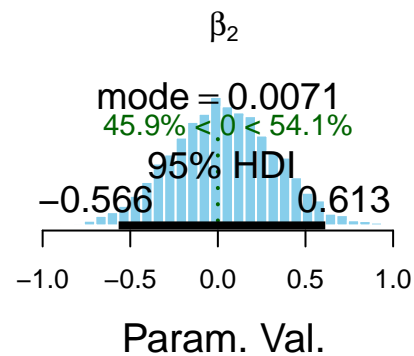
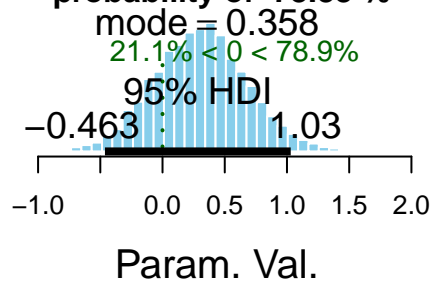
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table

```



```
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6667.141 5363.176 6461.860 5085.851 6667.141 5363.176 7700.004 6769.925
## betaSIZE
## 6918.091
## [1] "The difference of EPI impact \n between EPSIBASELdich cut samples in EPS has a\n probability of
## [1] "
## [1] " Analysis of Y= EPS explained by x= STEW cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between EPSIBASELdich cut samples in EPS has a  
probability of 78.88 %**



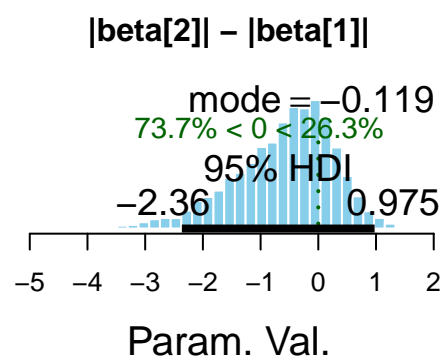
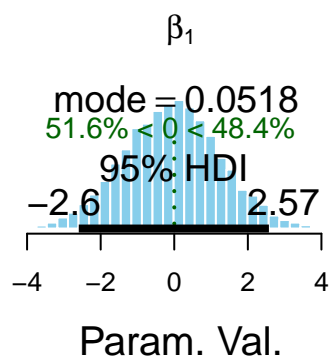
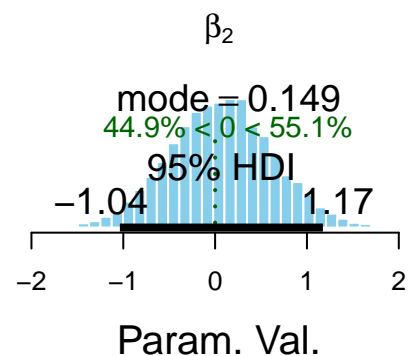
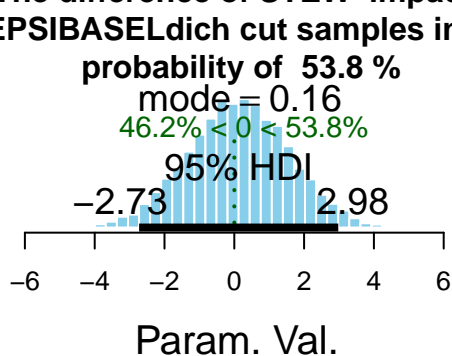
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
```

```

## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 7
## Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6337.502 8806.959 7294.389 6695.996 6337.502 8806.959 5984.322 6703.253
## betaSIZE
## 7561.040
## [1] "The difference of STEW impact \n between EPSIBASELdich cut samples in EPS has a\n probability
## [1] "
## [1] " Analysis of Y= EPS explained by x= II_10 cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of STEW impact  
between EPSIBASELdich cut samples in EPS has a  
probability of 53.8 %**



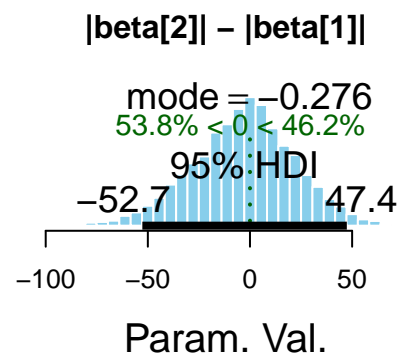
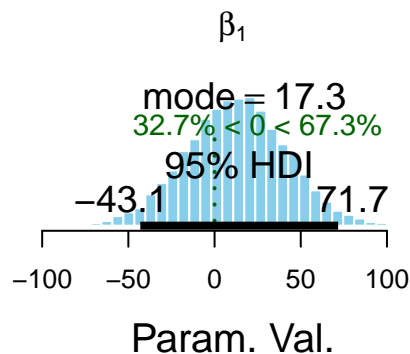
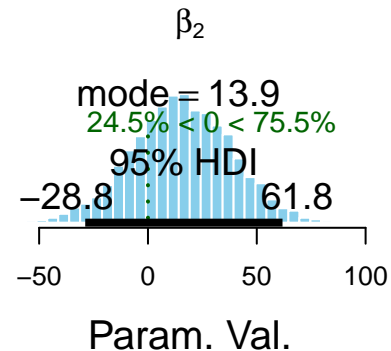
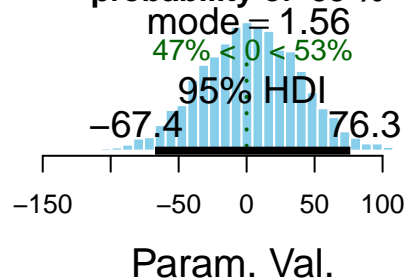
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables

```

```
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 7
## Total graph size: 1336
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7785.589 8705.300 8024.418 9000.000 7785.589 8705.300 7437.393 6707.829
## betaSIZE
## 7181.300
## [1] "The difference of II_10 impact \n between EPSIBASELdich cut samples in EPS has a\n probability
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= EPS explained by x= FOR_10 cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

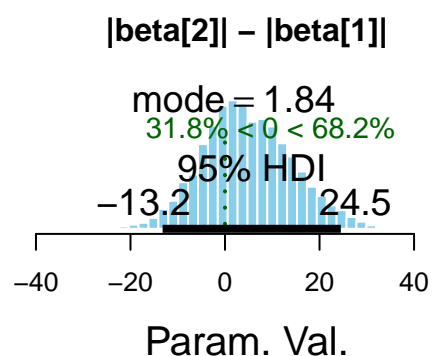
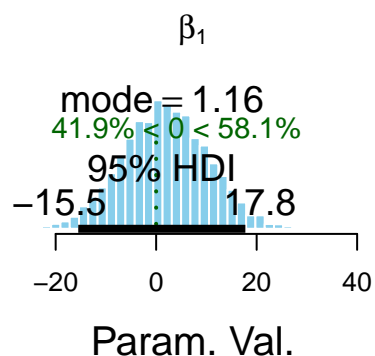
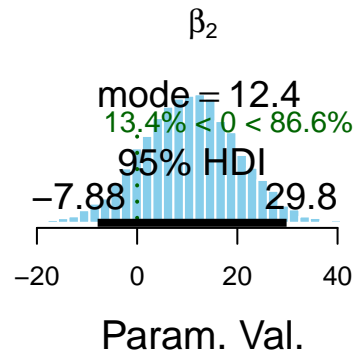
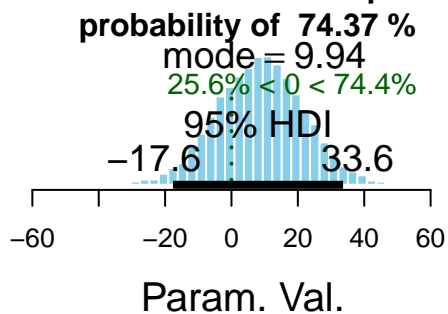
**The difference of II\_10 impact  
between EPSIBASELdich cut samples in EPS has a  
probability of 53 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
```

```
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1396
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7181.213 6892.004 9000.000 8846.882 7181.213 6892.004 6621.269 6438.836
## betaSIZE
## 7369.200
## [1] "The difference of FOR_10 impact \n between EPSIBASELdich cut samples in EPS has a\n probabili
## [1] "
## [1] " Analysis of Y= ET3 explained by x= PRI cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of FOR\_10 impact  
between EPSIBASELdich cut samples in EPS has a**



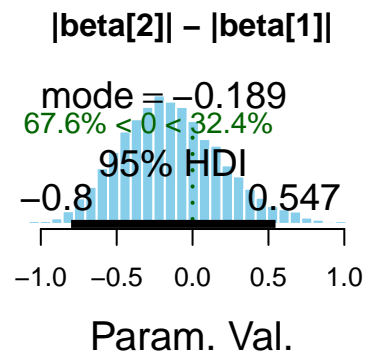
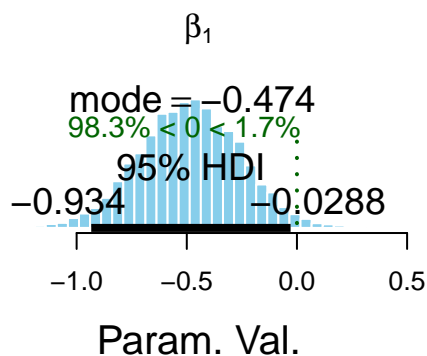
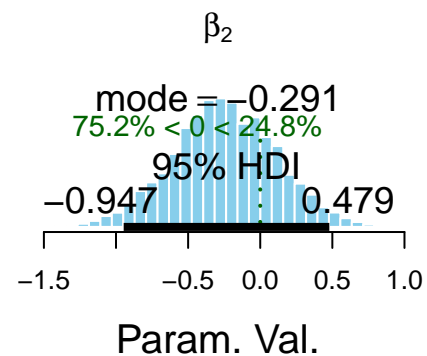
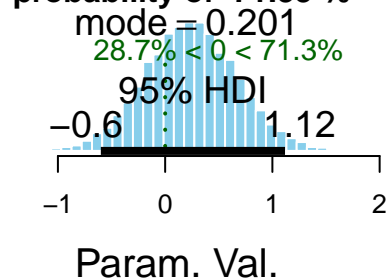
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
```

```

## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 7
## Total graph size: 1406
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8013.087 7621.104 9190.992 8622.371 8013.087 7621.104 7300.232 7061.119
## betaSIZE
## 7179.746
## [1] "The difference of PRI impact \n between EPSIBASELdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= INIT cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data

```

**The difference of PRI impact  
between EPSIBASELdich cut samples in ET3 has a  
probability of 71.33 %**



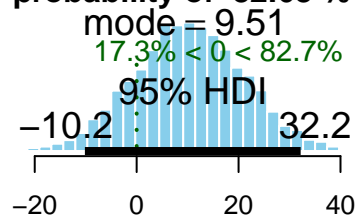
```

## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89

```

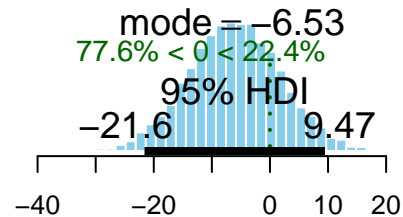
```
## Unobserved stochastic nodes: 7
## Total graph size: 1406
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8442.963 7946.481 8519.786 8031.234 8442.963 7946.481 7002.595 6592.969
## betaSIZE
## 7675.904
## [1] "The difference of INIT impact \n between EPSIBASELdich cut samples in ET3 has a\n probability
## [1] "
## [1] " Analysis of Y= ET3 explained by x= EPI cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of INIT impact  
between EPSIBASELdich cut samples in ET3 has a  
probability of 82.68 %**



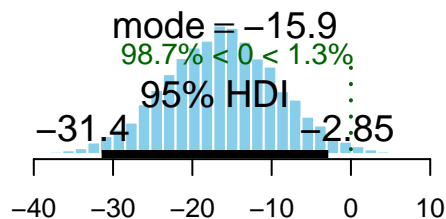
Param. Val.

$\beta_2$



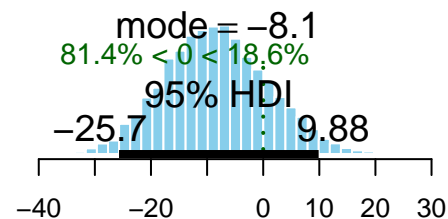
Param. Val.

$\beta_1$



Param. Val.

**|beta[2]| - |beta[1]|**

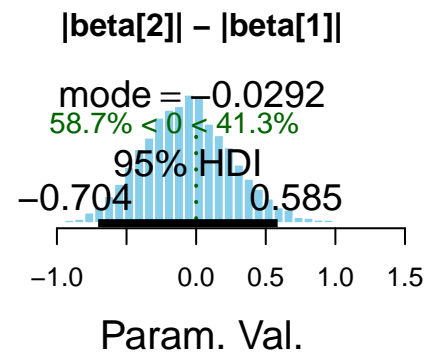
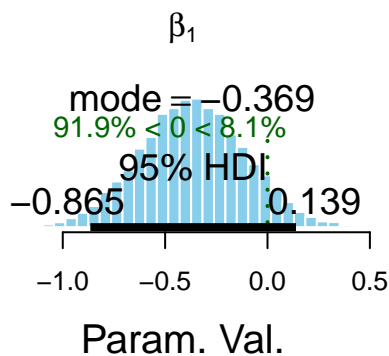
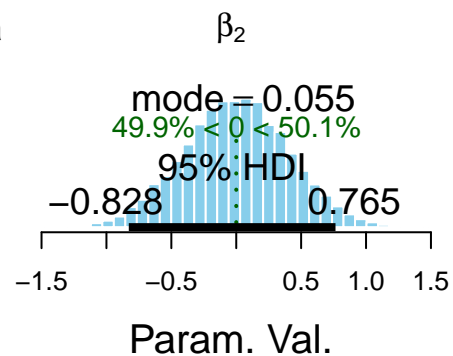
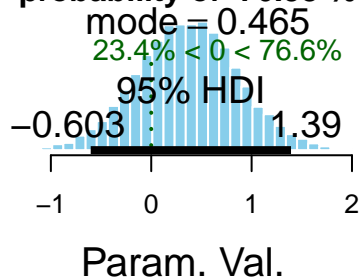


Param. Val.

```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 7
```

```
## Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6058.806 5558.043 5629.924 4714.753 6058.806 5558.043 7014.088 6772.666
## betaSIZE
## 6963.919
## [1] "The difference of EPI impact \n between EPSIBASELdich cut samples in ET3 has a\n probability of
## [1] "
## [1] " Analysis of Y= ET3 explained by x= STEW cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

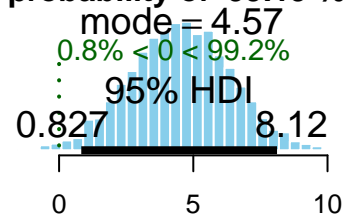
**The difference of EPI impact  
between EPSIBASELdich cut samples in ET3 has a  
probability of 76.58 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 7
## Total graph size: 1399
```

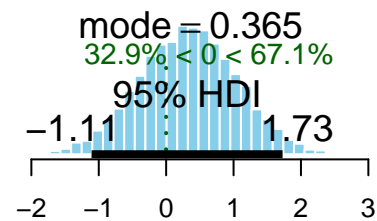
```
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6146.115 8330.302 7221.719 6665.174 6146.115 8330.302 6433.961 7109.463
## betaSIZE
## 7626.572
## [1] "The difference of STEW impact \n between EPSIBASELdich cut samples in ET3 has a\n probability
## [1] "
## [1] " Analysis of Y= ET3 explained by x= II_10 cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of STEW impact  
between EPSIBASELdich cut samples in ET3 has a  
probability of 99.19 %**



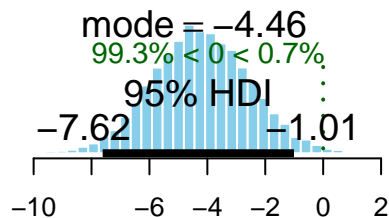
Param. Val.

$\beta_2$



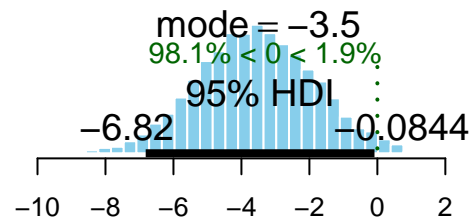
Param. Val.

$\beta_1$



Param. Val.

**|beta[2]| - |beta[1]|**



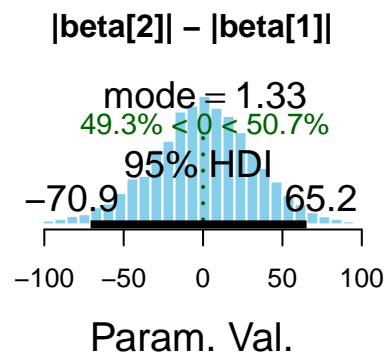
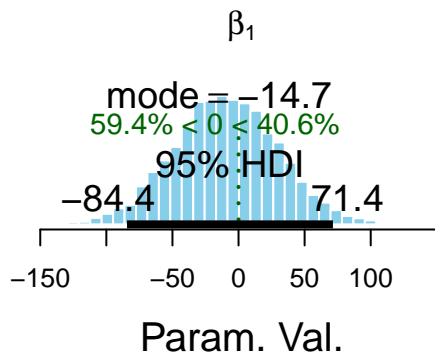
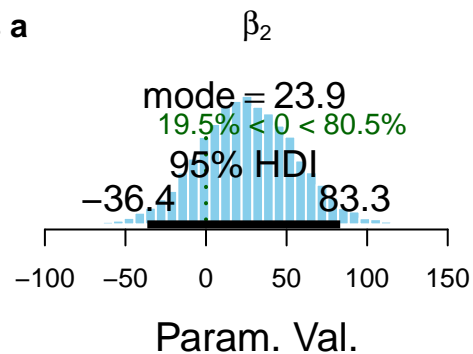
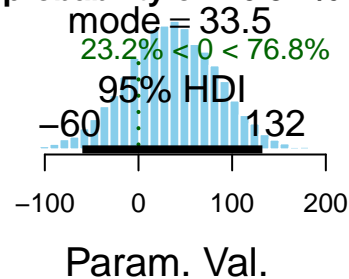
Param. Val.

```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 7
## Total graph size: 1336
##
```



```
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8840.689 7674.967 8329.093 9000.000 8840.689 7674.967 7425.221 6819.680
## betaSIZE
## 7605.327
## [1] "The difference of II_10 impact \n between EPSIBASELdich cut samples in ET3 has a\n probability"
## [1] "
## [1] " Analysis of Y= ET3 explained by x= FOR_10 cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

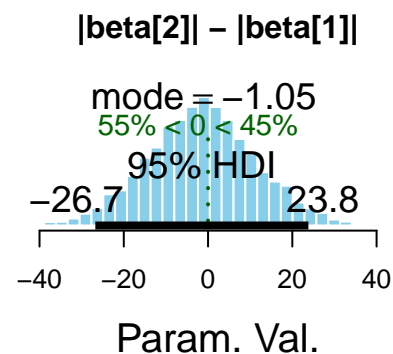
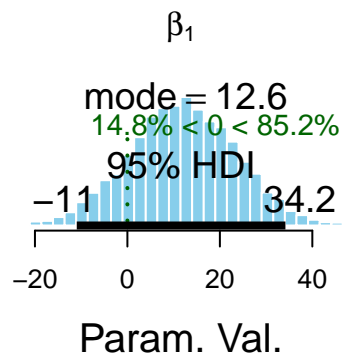
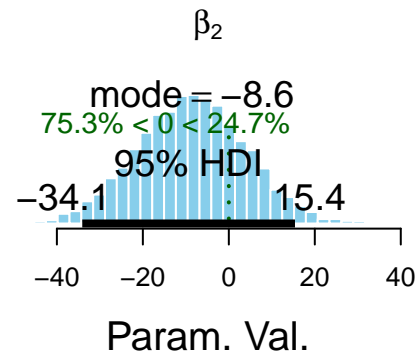
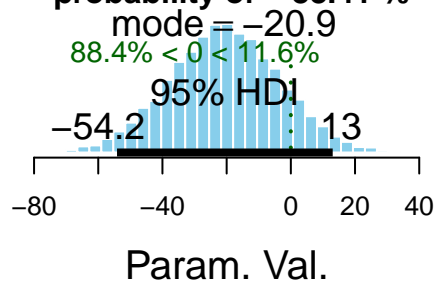
**The difference of II\_10 impact  
between EPSIBASELdich cut samples in ET3 has a  
probability of 76.84 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 7
## Total graph size: 1396
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7332.388 7925.721 8805.694 8416.121 7332.388 7925.721 6958.141 6404.106
## betaSIZE
## 7507.740
## [1] "The difference of FOR_10 impact \n between EPSIBASELdich cut samples in ET3 has a\n probabili
## [1] "
## [1] " Analysis of Y= ER3 explained by x= PRI cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

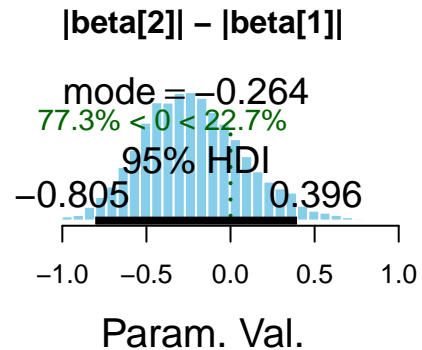
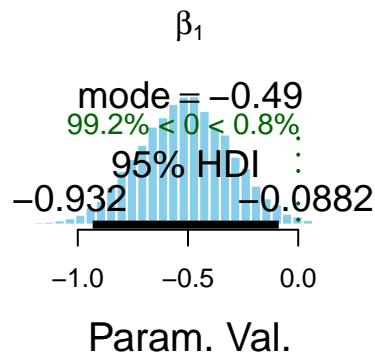
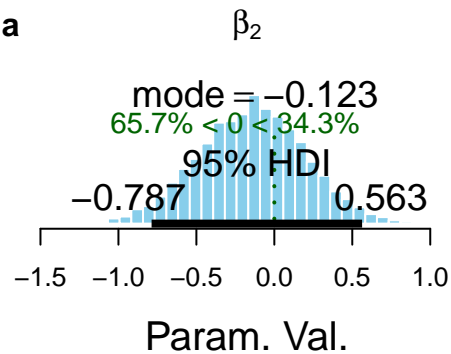
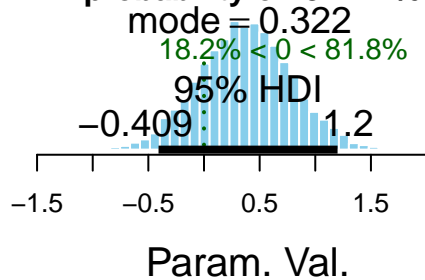
**The difference of FOR\_10 impact  
between EPSIBASELdich cut samples in ET3 has a  
probability of -88.41 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1406
##
## Initializing model
##
```

```
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8407.207 7375.723 9564.825 9469.190 8407.207 7375.723 6855.561 6580.978
## betaSIZE
## 7054.870
## [1] "The difference of PRI impact \n between EPSIBASELdich cut samples in ER3 has a\n probability of
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ER3 explained by x= INIT cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

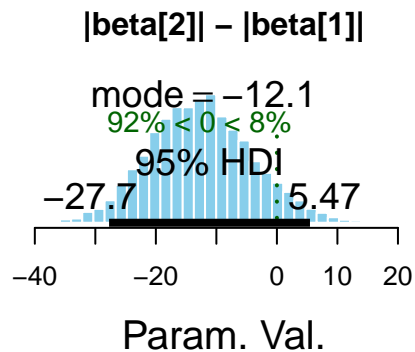
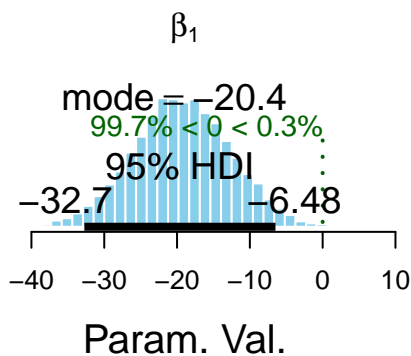
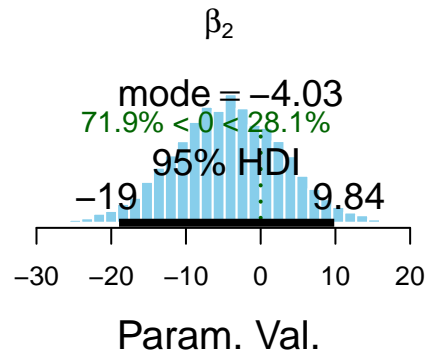
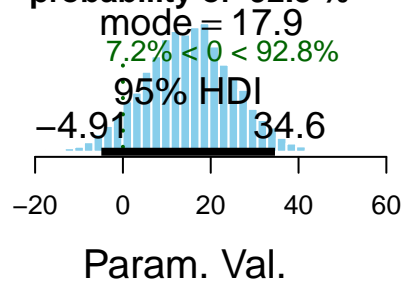
**The difference of PRI impact  
between EPSIBASELdich cut samples in ER3 has a  
probability of 81.77 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1406
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
```

```
## 8280.125 7075.584 8826.281 8434.953 8280.125 7075.584 6610.297 6539.487
## betaSIZE
## 7451.621
## [1] "The difference of INIT impact \n between EPSIBASELdich cut samples in ER3 has a\n probability
## [1] "
## [1] " Analysis of Y= ER3 explained by x= EPI cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

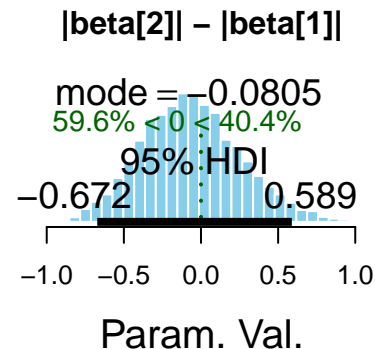
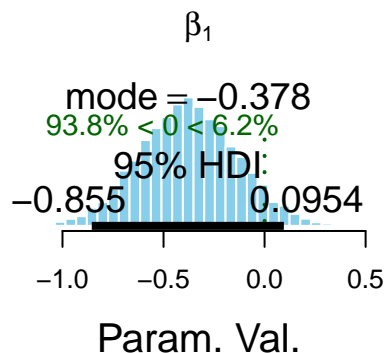
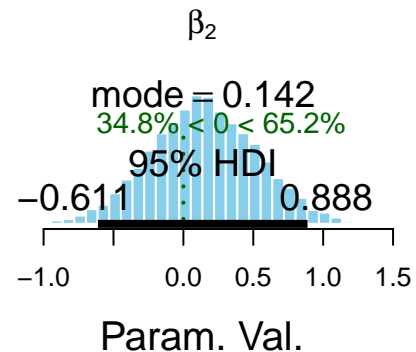
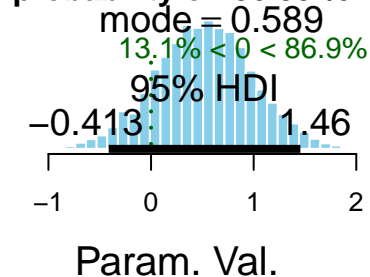
**The difference of INIT impact  
between EPSIBASELdich cut samples in ER3 has a  
probability of 92.8 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 7
## Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6025.799 5353.467 5687.523 4518.245 6025.799 5353.467 7321.129 6794.481
```

```
## betaSIZE
## 8078.565
## [1] "The difference of EPI impact \n between EPSIBASELdich cut samples in ER3 has a\n probability of 86.88 %
## [1] "
## [1] " Analysis of Y= ER3 explained by x= STEW cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

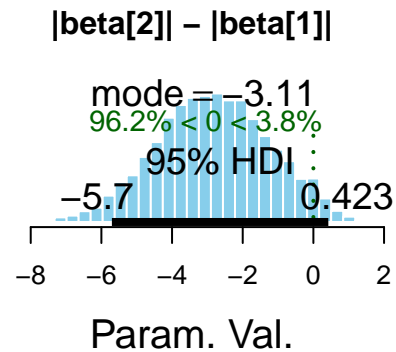
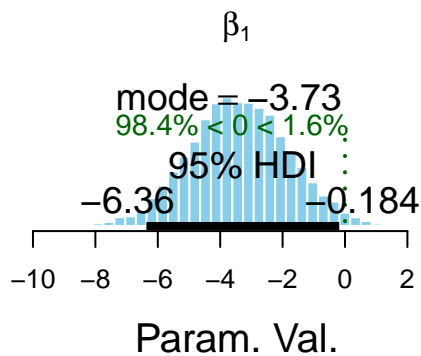
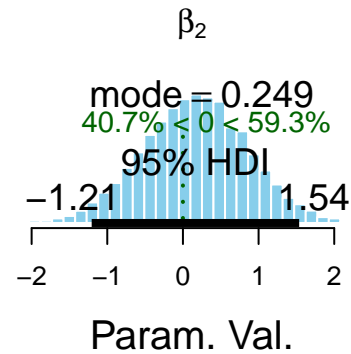
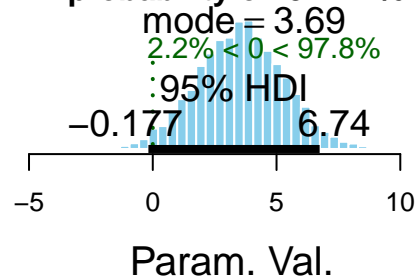
**The difference of EPI impact  
between EPSIBASELdich cut samples in ER3 has a  
probability of 86.88 %**



```
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 7
## Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6338.281 8771.779 7736.414 7106.786 6338.281 8771.779 6577.149 6676.430
## betaSIZE
```

```
## 7478.484
## [1] "The difference of STEW impact \n between EPSIBASELdich cut samples in ER3 has a\n probability
## [1] "
## [1] " Analysis of Y= ER3 explained by x= II_10 cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

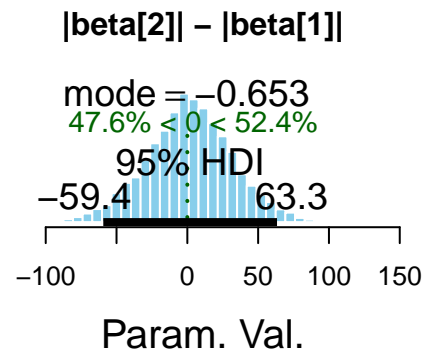
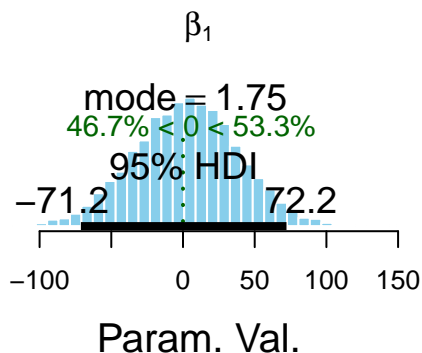
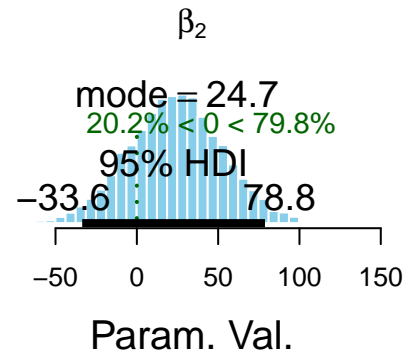
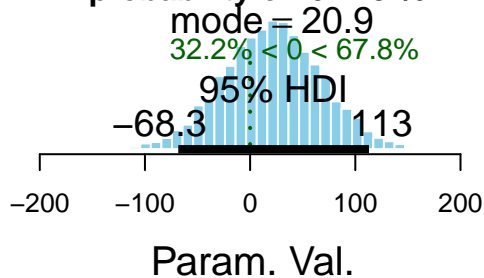
**The difference of STEW impact  
between EPSIBASELdich cut samples in ER3 has a  
probability of 97.77 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1336
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8560.294 9475.801 8514.243 9208.835 8560.294 9475.801 7387.159 6896.332
## betaSIZE
## 7930.812
```

```
## [1] "The difference of II_10 impact \n between EPSIBASELdich cut samples in ER3 has a\n probability"
## [1] "
## [1] " Analysis of Y= ER3 explained by x= FOR_10 cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

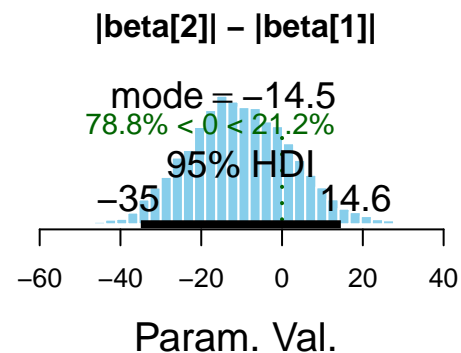
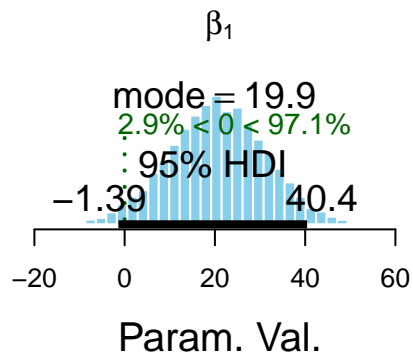
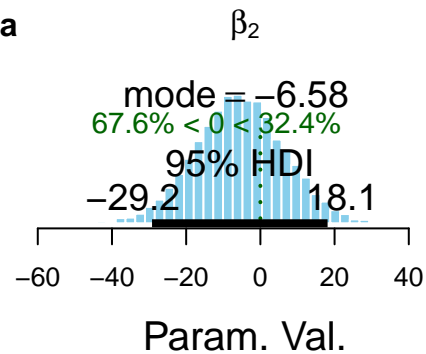
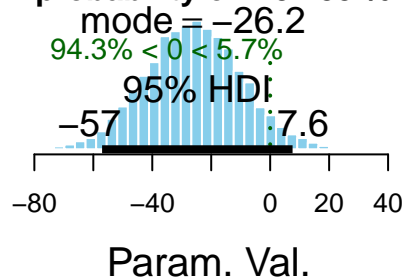
**The difference of II\_10 impact  
between EPSIBASELdich cut samples in ER3 has a  
probability of 67.79 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1396
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7688.499 7136.479 8800.966 8577.108 7688.499 7136.479 6646.530 6461.334
## betaSIZE
## 7987.781
## [1] "The difference of FOR_10 impact \n between EPSIBASELdich cut samples in ER3 has a\n probability"
```

```
## [1] "
## [1] " Analysis of Y= ER1 explained by x= PRI cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

**The difference of FOR<sub>10</sub> impact  
between EPSIBASELdich cut samples in ER3 has a  
probability of -94.33 %**

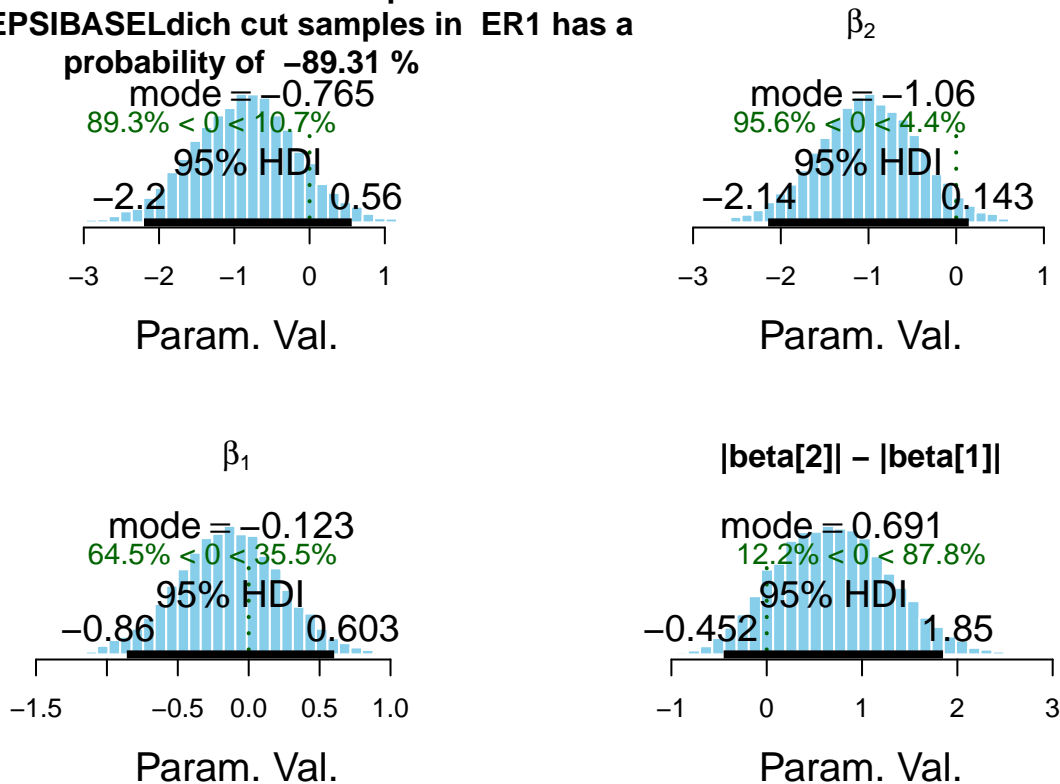


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1406
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 9000.000 7549.849 9000.000 9000.000 9000.000 7549.849 7809.104 6037.830
## betaSIZE
## 7531.113
## [1] "The difference of PRI impact \n between EPSIBASELdich cut samples in ER1 has a\n probability of
## [1] "
## [1] "
## [1] "
```



```
## [1] " Analysis of Y= ER1  explained by x= INIT cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

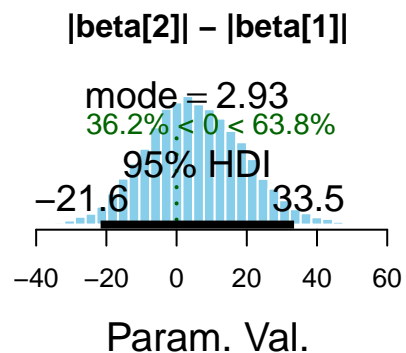
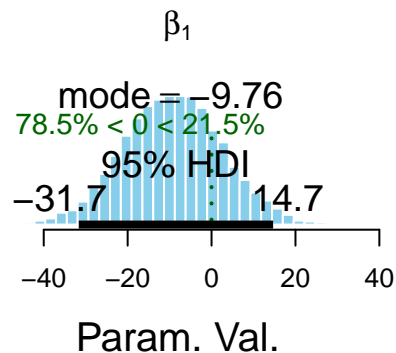
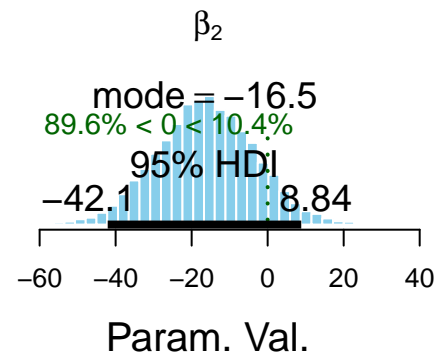
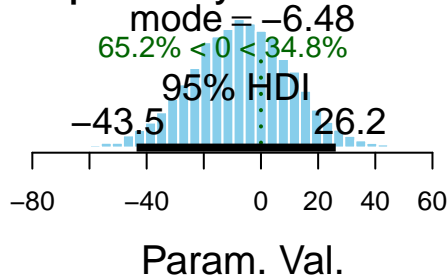
**The difference of PRI impact  
between EPSIBASELdich cut samples in ER1 has a  
probability of -89.31 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1406
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8517.342 6983.397 8232.255 7975.436 8517.342 6983.397 7009.870 6714.758
## betaSIZE
## 7059.085
## [1] "The difference of INIT impact \n between EPSIBASELdich cut samples in ER1 has a\n probability
## [1] "
## [1] " Analysis of Y= ER1  explained by x= EPI cutted by EPSIBASELdich"
```

```
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

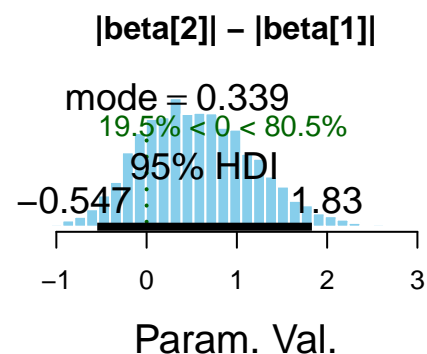
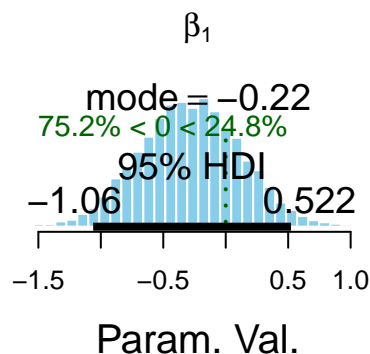
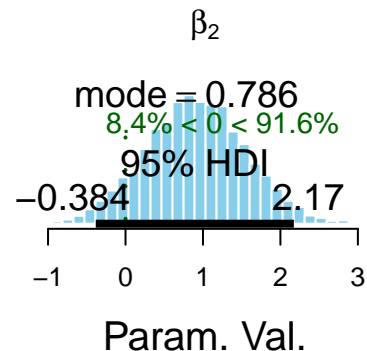
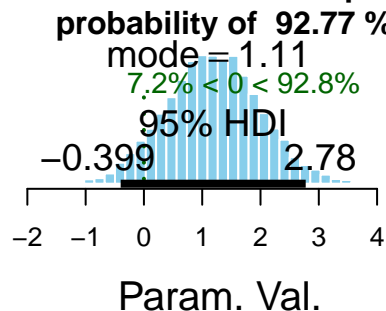
**The difference of INIT impact  
between EPSIBASELdich cut samples in ER1 has a  
probability of -65.21 %**



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6496.027 5257.778 5413.535 5373.709 6496.027 5257.778 7586.399 7278.677
## betaSIZE
## 6505.244
## [1] "The difference of EPI impact \n between EPSIBASELdich cut samples in ER1 has a\n probability of
## [1] "
## [1] " Analysis of Y= ER1 explained by x= STEW cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
```

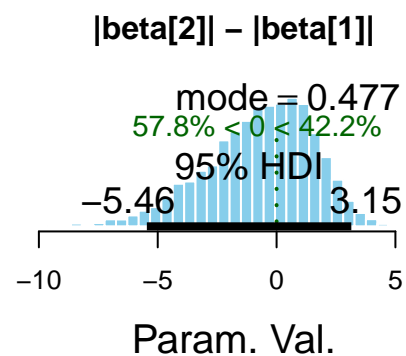
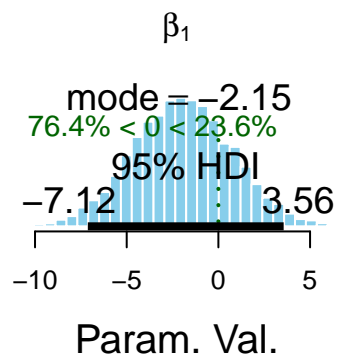
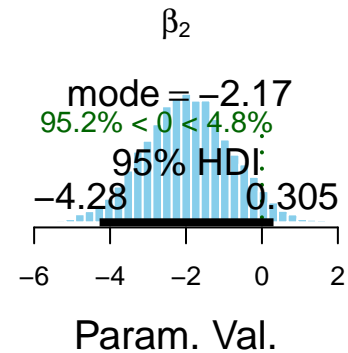
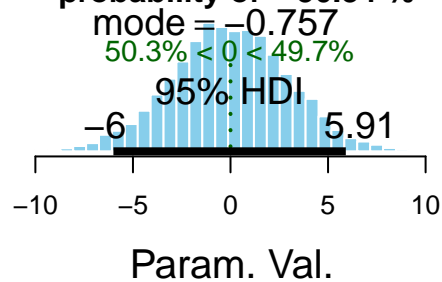
```
## 500): Unused variable "n" in data
```

**The difference of EPI impact  
between EPSIBASELdich cut samples in ER1 has a**



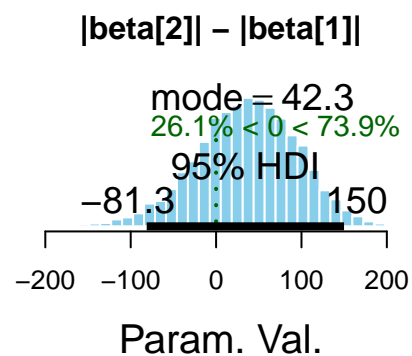
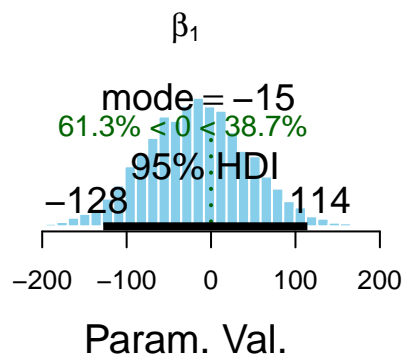
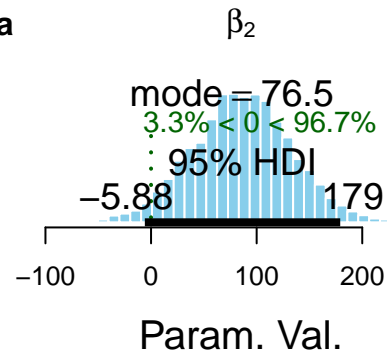
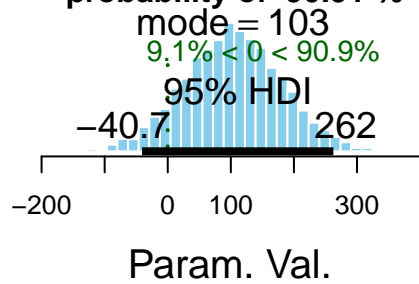
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7375.871 7994.688 7385.888 6994.820 7375.871 7994.688 6385.651 6543.220
## betaSIZE
## 7811.936
## [1] "The difference of STEW impact \n between EPSIBASELdich cut samples in ER1 has a\n probability
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= ER1 explained by x= II_10 cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of STEW impact  
between EPSIBASELdich cut samples in ER1 has a  
probability of -50.34 %



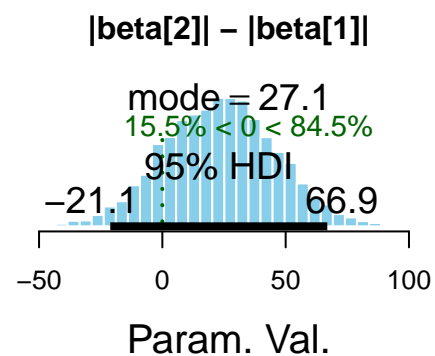
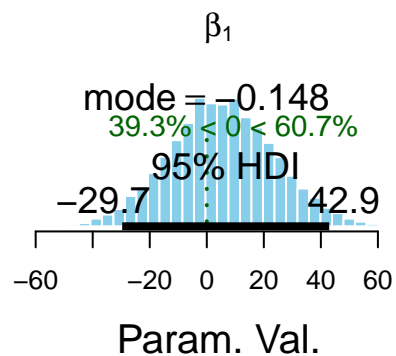
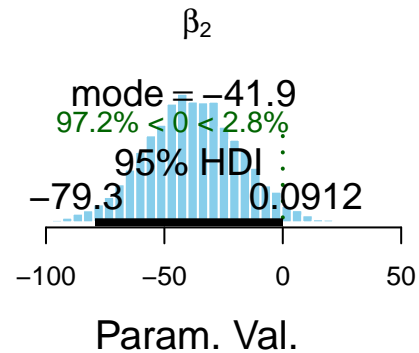
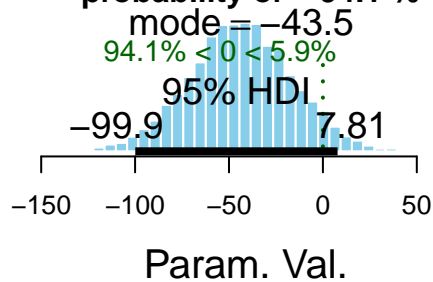
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1336
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8163.283 8415.246 7983.992 8667.435 8163.283 8415.246 7409.165 6594.072
## betaSIZE
## 7520.517
## [1] "The difference of II_10 impact \n between EPSIBASELdich cut samples in ER1 has a\n probability:
## [1] "
## [1] " Analysis of Y= ER1 explained by x= FOR_10 cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\beta_{10}$  impact  
between EPSIBASELdich cut samples in ER1 has a  
probability of 90.91 %



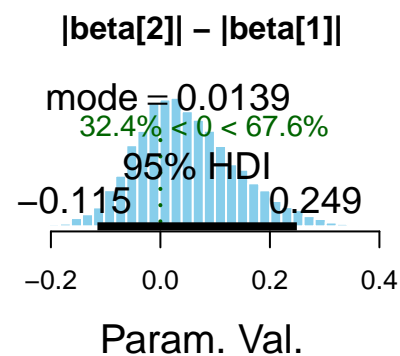
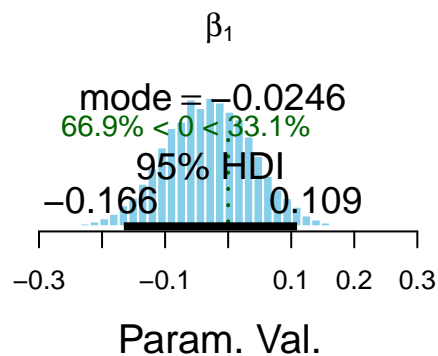
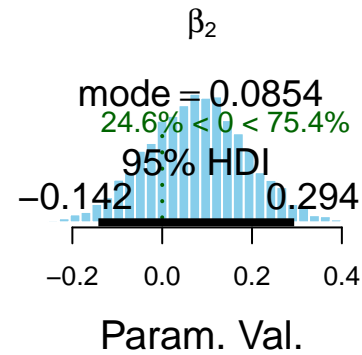
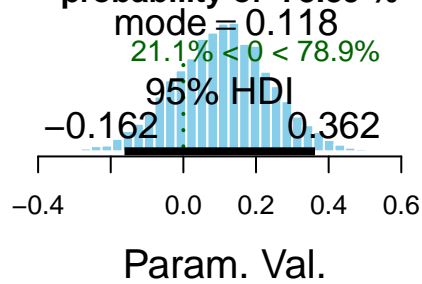
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1396
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7446.993 7087.697 8582.385 8258.182 7446.993 7087.697 6484.312 6292.062
## betaSIZE
## 8383.755
## [1] "The difference of FOR_10 impact \n between EPSIBASELdich cut samples in ER1 has a\n probabili
## [1] "
## [1] " Analysis of Y= ER explained by x= PRI cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of FOR\_10 impact  
between EPSIBASELdich cut samples in ER1 has a  
probability of -94.1 %



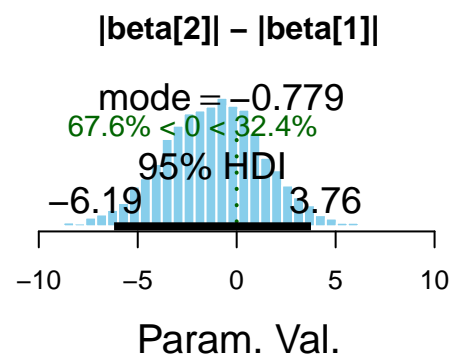
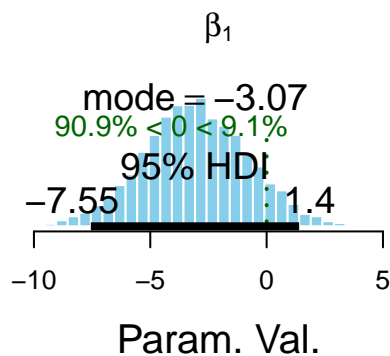
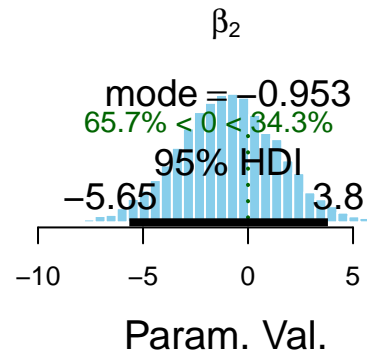
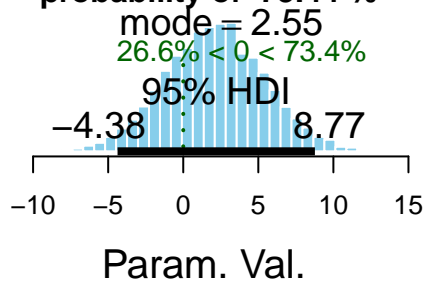
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1406
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8585.069 7788.414 8432.564 8053.113 8585.069 7788.414 7302.378 6384.505
## betaSIZE
## 7241.950
## [1] "The difference of PRI impact \n between EPSIBASELdich cut samples in ER has a\n probability o
## [1] "
## [1] " Analysis of Y= ER explained by x= INIT cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of PRI impact  
between EPSIBASELdich cut samples in ER has a  
probability of 78.89 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1406
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8077.887 8067.987 8303.201 7480.891 8077.887 8067.987 7062.363 6517.717
## betaSIZE
## 7554.861
## [1] "The difference of INIT impact \n between EPSIBASELdich cut samples in ER has a\n probability of 78.89 %
## [1] "
## [1] " Analysis of Y= ER explained by x= EPI cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

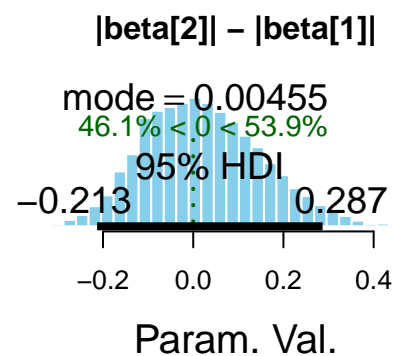
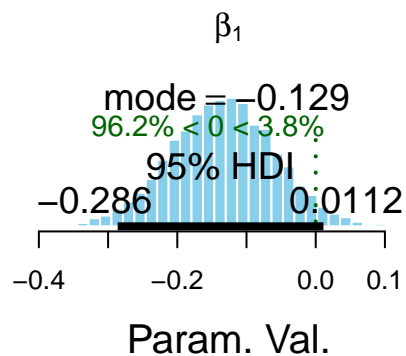
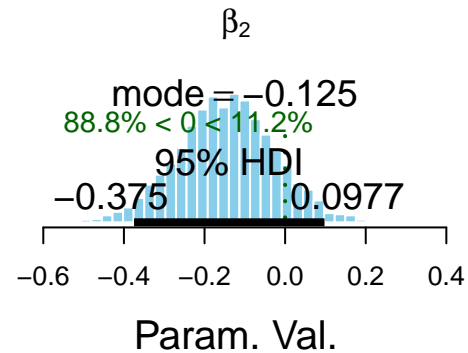
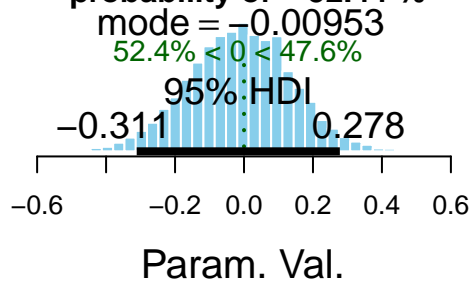
The difference of INIT impact  
between EPSIBASELdich cut samples in ER has a  
probability of 73.44 %



```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5888.193 5778.390 7056.647 5091.760 5888.193 5778.390 7867.561 7001.190
## betaSIZE
## 6971.807
## [1] "The difference of EPI impact \n between EPSIBASELdich cut samples in ER has a\n probability of 73.44 %
## [1] "
## [1] " Analysis of Y= ER explained by x= STEW cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

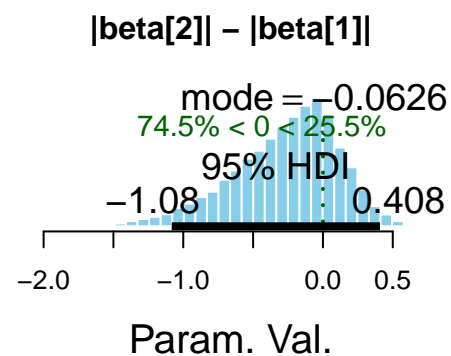
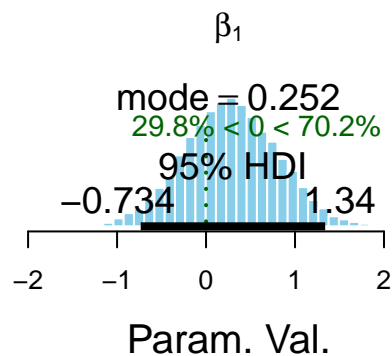
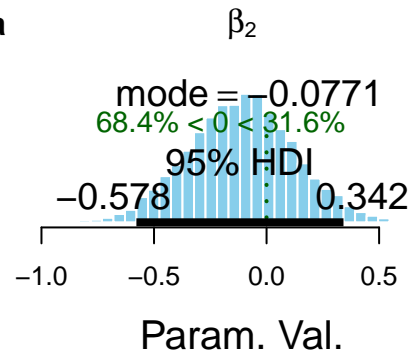
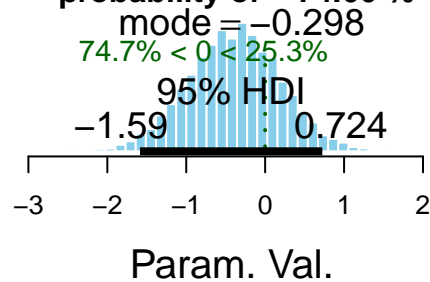


The difference of EPI impact  
between EPSIBASELdich cut samples in ER has a  
probability of -52.44 %



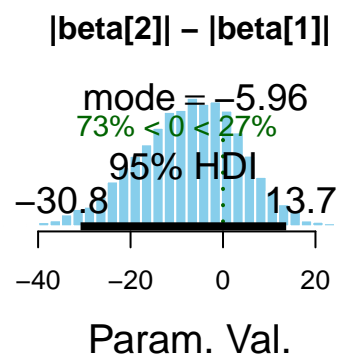
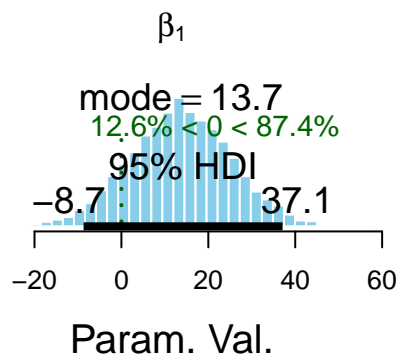
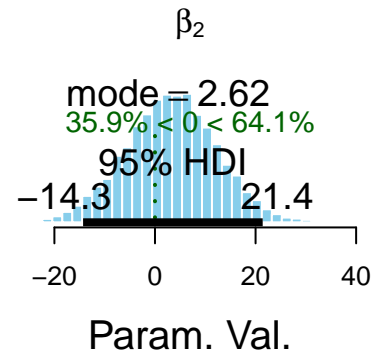
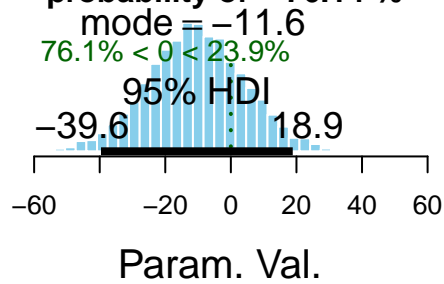
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1399
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 6264.530 8671.803 7938.157 6846.990 6264.530 8671.803 6551.111 6670.644
## betaSIZE
## 7603.644
## [1] "The difference of STEW impact \n between EPSIBASELdich cut samples in ER has a\n probability of -52.44 %
## [1] "
## [1] " Analysis of Y= ER explained by x= II_10 cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of STEW impact  
between EPSIBASELdich cut samples in ER has a  
probability of -74.66 %



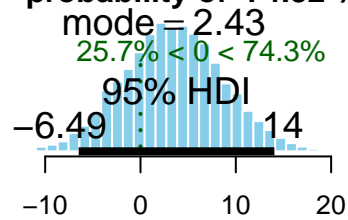
```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1336
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 8408.267 8055.607 8202.182 8869.965 8408.267 8055.607 6832.798 6487.348
## betaSIZE
## 7737.447
## [1] "The difference of II_10 impact \n between EPSIBASELdich cut samples in ER has a\n probability
## [1] "
## [1] " Analysis of Y= ER explained by x= FOR_10 cutted by EPSIBASELdich"
## Warning in jags.model(file = model, data = dataList, n.chains = 3, n.adapt =
## 500): Unused variable "n" in data
```

The difference of  $\beta_{10}$  impact  
between EPSIBASELdich cut samples in ER has a  
probability of -76.14 %

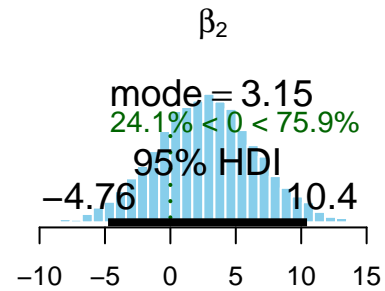


```
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 7
##   Total graph size: 1396
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 7209.408 6641.665 8468.474 8386.389 7209.408 6641.665 7096.529 6617.382
## betaSIZE
## 7492.569
## [1] "The difference of FOR_10 impact \n between EPSIBASELdich cut samples in ER has a\n probability:
```

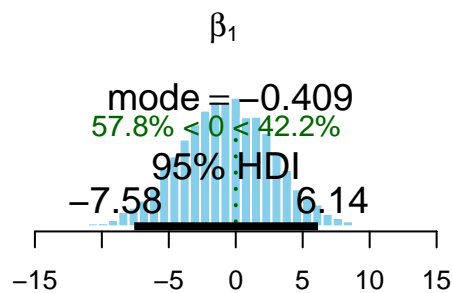
The difference of FOR\_10 impact  
between EPSIBASELdich cut samples in ER has a  
probability of 74.32 %



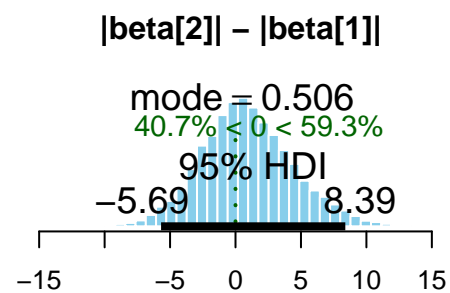
Param. Val.



Param. Val.



Param. Val.



Param. Val.

```
write.csv(BLquantiCut,
  file=paste(
    'EPSIBASEL-quantiResults-cut',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```

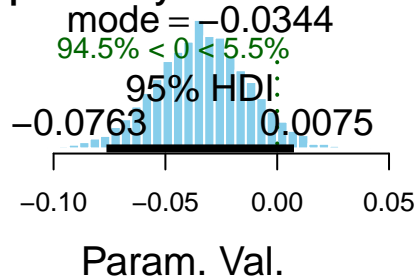
## Binomial Y

```
x.names <- c('PRI', 'INIT', 'EPI', 'STEW', 'II_10', 'FOR_10')
y.names <- c('CP', 'DISCL')
BLbinomCut <- bayesList(X[!is.na(X$EPSIBASELdich)], [], x.names, y.names, cut.name, 'model2-cut.R')

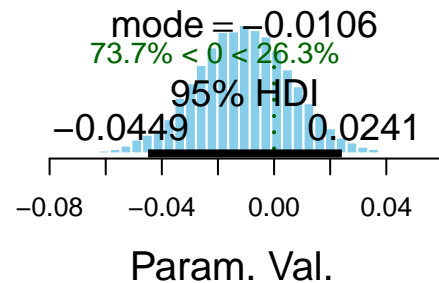
## [1] "
## [1] " Analysis of Y= CP explained by x= PRI cutted by EPSIBASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 6
```

```
## Total graph size: 1392
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5038.805 4851.274 5142.775 4743.051 5038.805 4851.274 4669.457 3950.096
## betaSIZE
## 4284.235
## [1] "The difference of PRI impact \n between EPSIBASELdich cut samples in CP has a\n probability of
```

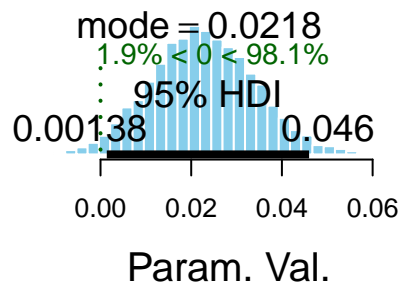
**The difference of PRI impact  
tween EPSIBASELdich cut samples in CP has a  
probability of -94.49 %**



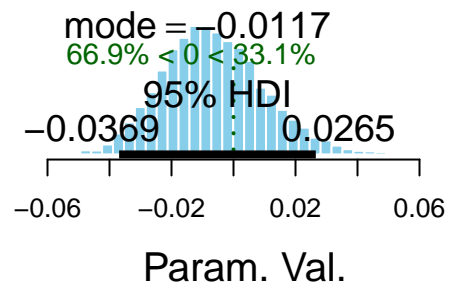
$\beta_2$



$\beta_1$



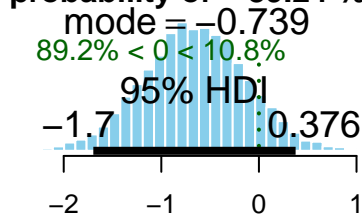
**|beta[2]| - |beta[1]|**



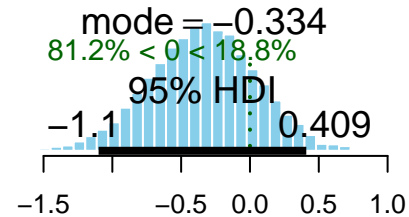
```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= INIT cutted by EPSIBASELdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 6
## Total graph size: 1392
##
## Initializing model
```

```
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5338.973 5208.821 6043.344 5709.561 5338.973 5208.821 4807.890 4300.468
## betaSIZE
## 5142.833
## [1] "The difference of INIT impact \n between EPSIBASELdich cut samples in CP has a\n probability of
```

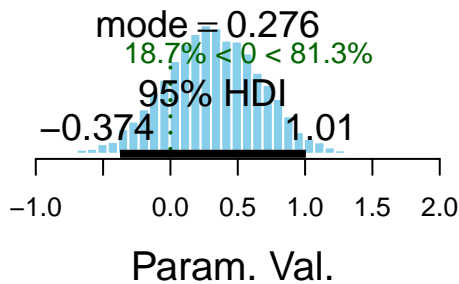
**The difference of INIT impact  
tween EPSIBASELdich cut samples in CP has a  
probability of -89.24 %**



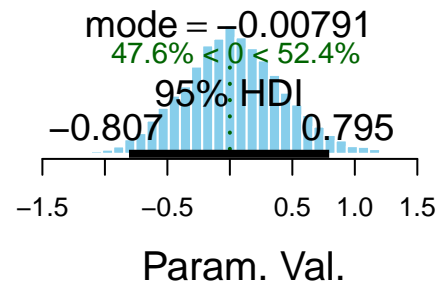
$\beta_2$



$\beta_1$



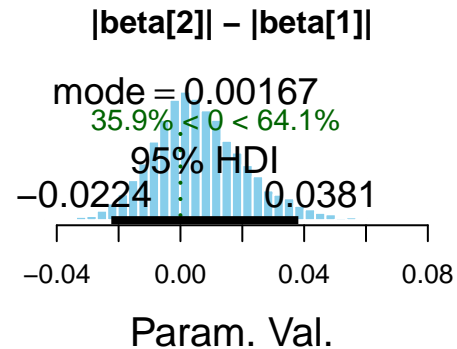
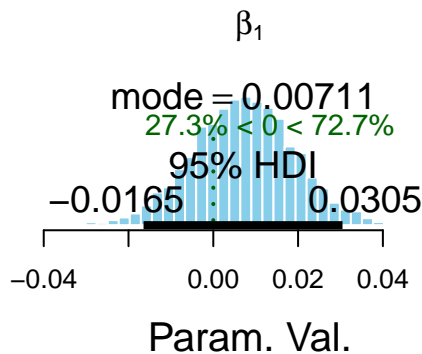
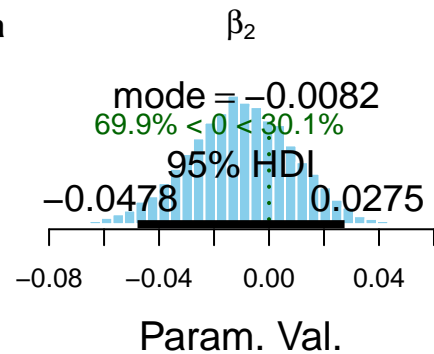
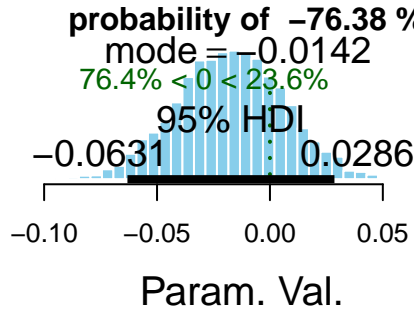
**|beta[2]| - |beta[1]|**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= EPI cutted by EPSIBASELdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 6
## Total graph size: 1385
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4169.024 3677.995 5899.443 4106.439 4169.024 3677.995 4968.803 4451.867
```

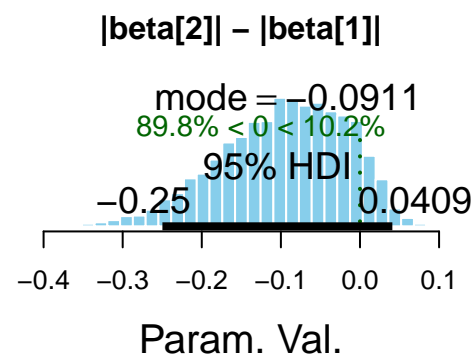
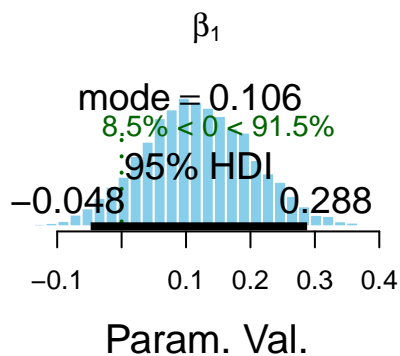
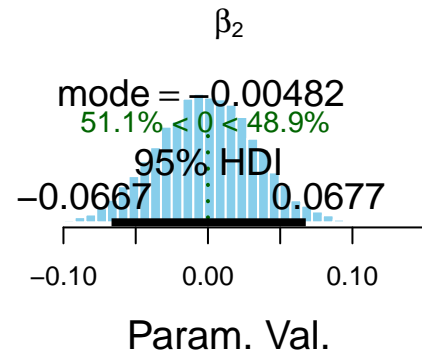
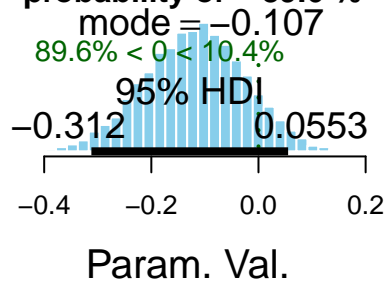
```
## betaSIZE
## 4371.055
## [1] "The difference of EPI impact \n between EPSIBASELdich cut samples in CP has a\n probability of
```

**The difference of EPI impact  
tween EPSIBASELdich cut samples in CP has a**



```
## [1] "
## [1] " ----- "
## [1] " Analysis of Y= CP explained by x= STEW cutted by EPSIBASELdich"
## Compiling data graph
## Resolving undeclared variables
## Allocating nodes
## Initializing
## Reading data back into data table
## Compiling model graph
## Resolving undeclared variables
## Allocating nodes
## Graph information:
## Observed stochastic nodes: 89
## Unobserved stochastic nodes: 6
## Total graph size: 1385
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4639.974 5091.224 5245.930 5238.514 4639.974 5091.224 4808.734 4232.096
## betaSIZE
## 4449.127
## [1] "The difference of STEW impact \n between EPSIBASELdich cut samples in CP has a\n probability of
```

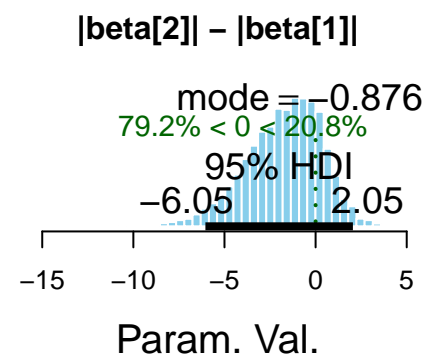
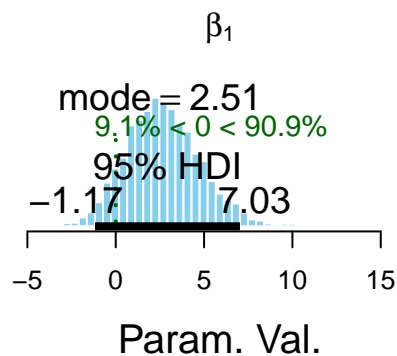
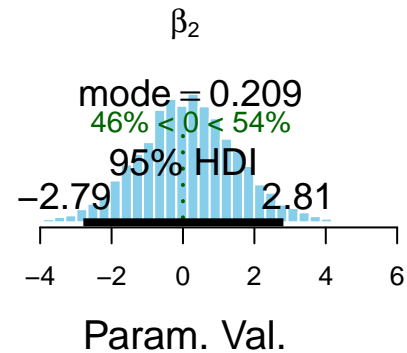
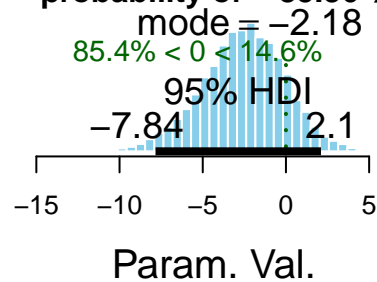
The difference of STEW impact  
between EPSIBASELdich cut samples in CP has a  
probability of **-89.6 %**



```
## [1] "
## [1] " Analysis of Y= CP explained by x= II_10 cutted by EPSIBASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 6
##   Total graph size: 1322
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4666.390 5150.037 5297.568 6215.901 4666.390 5150.037 4895.541 4550.679
## betaSIZE
## 5055.920
## [1] "The difference of II_10 impact \n between EPSIBASELdich cut samples in CP has a\n probability
```

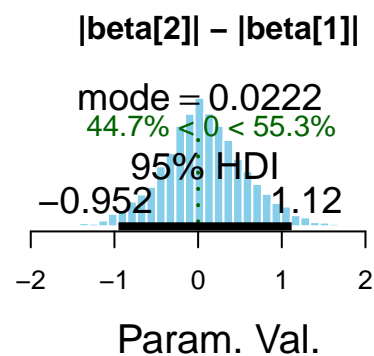
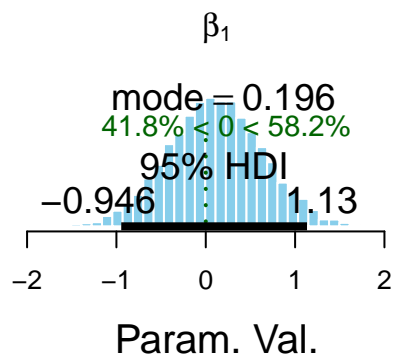
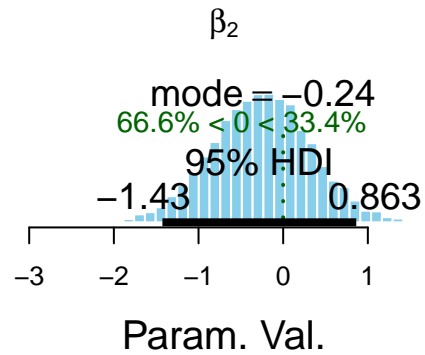
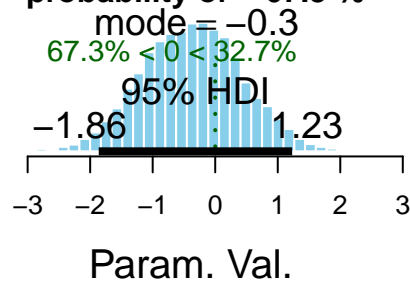


The difference of  $\beta_{10}$  impact  
between EPSIBASELdich cut samples in CP has a  
probability of **-85.36 %**



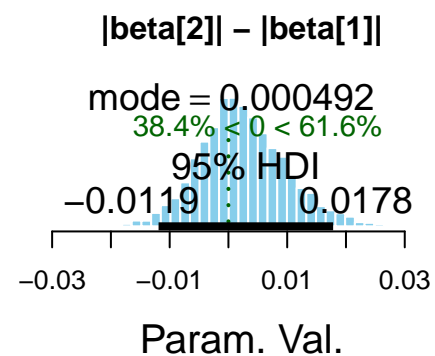
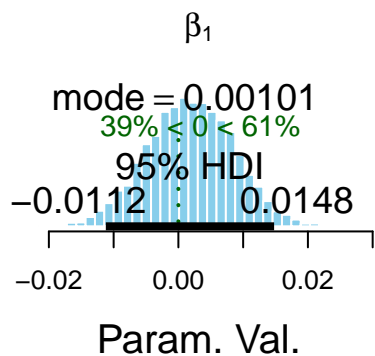
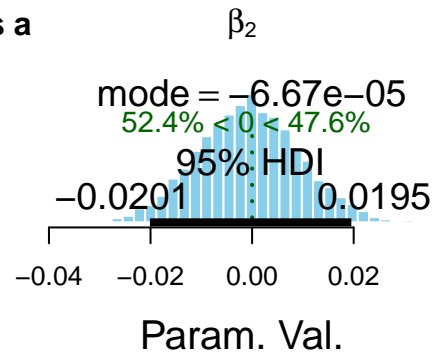
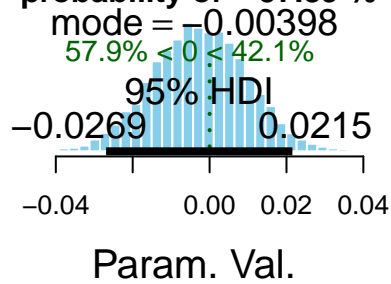
```
## [1] "
## [1] " Analysis of Y= CP explained by x= FOR_10 cutted by EPSIBASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 6
##   Total graph size: 1382
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4791.272 4193.240 4930.084 5142.906 4791.272 4193.240 4780.090 4636.475
## betaSIZE
## 4591.355
## [1] "The difference of FOR_10 impact \n between EPSIBASELdich cut samples in CP has a\n probability"
```

The difference of FOR\_10 impact  
between EPSIBASELdich cut samples in CP has a  
probability of -67.3 %



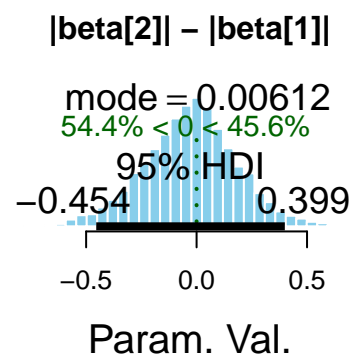
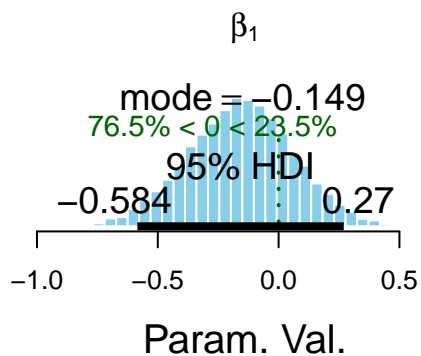
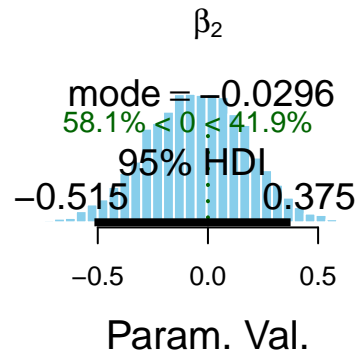
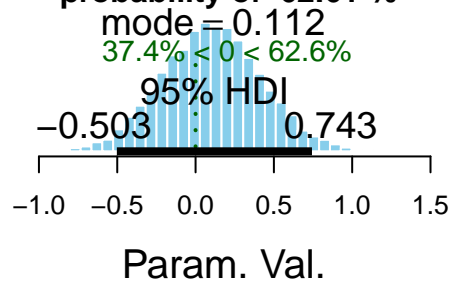
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= PRI cutted by EPSIBASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 6
##   Total graph size: 1392
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5644.874 5077.834 5883.886 5505.062 5644.874 5077.834 4677.113 4180.162
## betaSIZE
## 4871.825
## [1] "The difference of PRI impact \n between EPSIBASELdich cut samples in DISCL has a\n probability"
```

The difference of PRI impact  
 veen EPSIBASELdich cut samples in DISCL has a  
 probability of -57.89 %



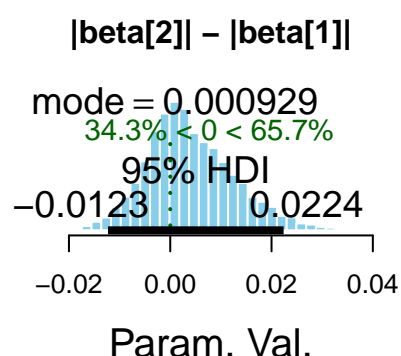
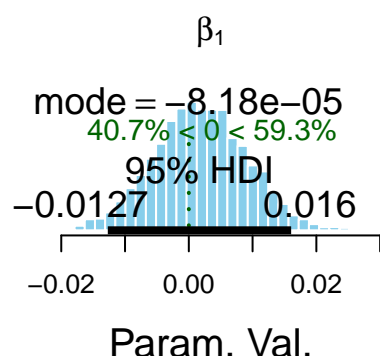
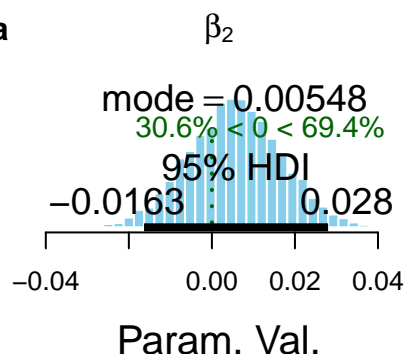
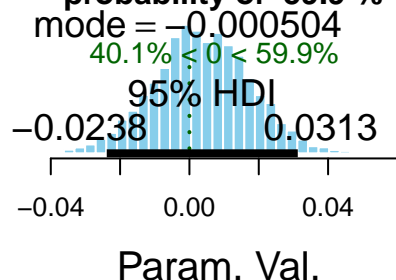
```
## [1] "-----"
## [1] " Analysis of Y= DISCL explained by x= INIT cutted by EPSIBASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 6
##   Total graph size: 1392
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 5353.303 4959.412 5570.784 5409.733 5353.303 4959.412 4426.285 4482.454
## betaSIZE
## 5059.203
## [1] "The difference of INIT impact \n between EPSIBASELdich cut samples in DISCL has a\n probabili
```

The difference of INIT impact  
 veen EPSIBASELdich cut samples in DISCL has a  
 probability of 62.61 %



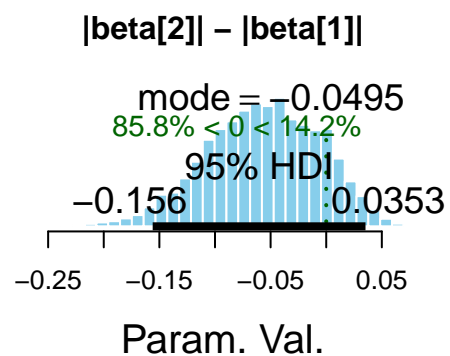
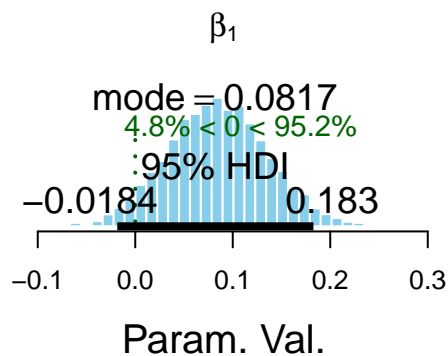
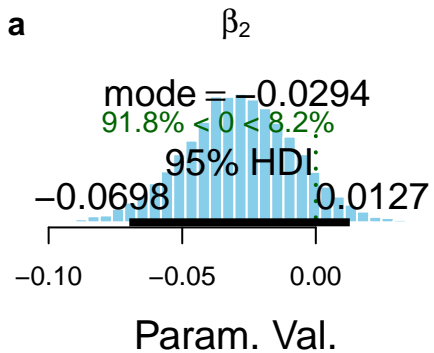
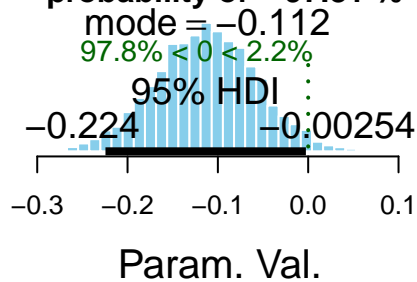
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= EPI cutted by EPSIBASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 6
##   Total graph size: 1385
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 3931.308 3394.691 5781.979 3521.838 3931.308 3394.691 5127.729 4819.043
## betaSIZE
## 4311.338
## [1] "The difference of EPI impact \n between EPSIBASELdich cut samples in DISCL has a\n probability"
```

The difference of EPI impact  
 veen EPSIBASELdich cut samples in DISCL has a  
 probability of 59.9 %



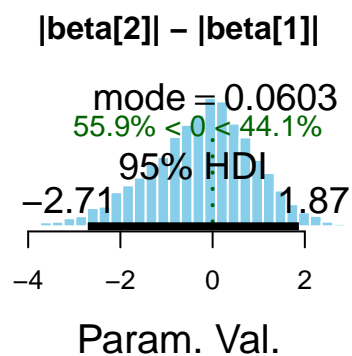
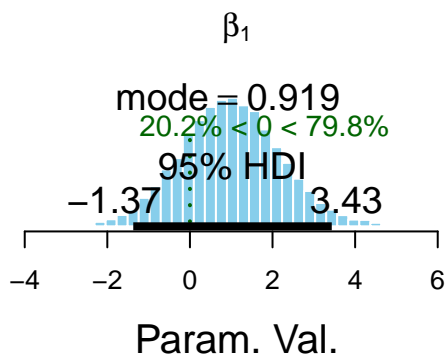
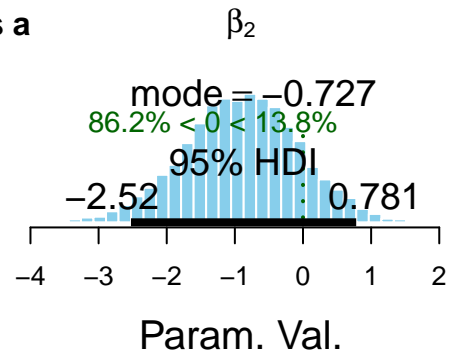
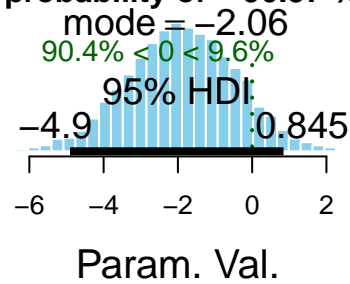
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= STEW cutted by EPSIBASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 6
##   Total graph size: 1385
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4280.048 5378.078 5584.528 5786.807 4280.048 5378.078 4582.153 4419.158
## betaSIZE
## 5128.269
## [1] "The difference of STEW impact \n between EPSIBASELdich cut samples in DISCL has a\n probabili
```

The difference of STEW impact  
 veen EPSIBASELdich cut samples in DISCL has a  
 probability of -97.81 %



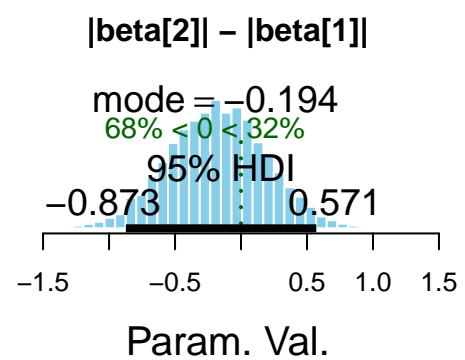
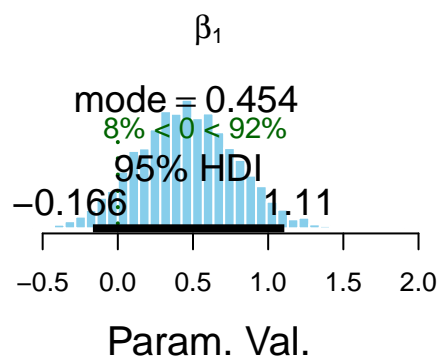
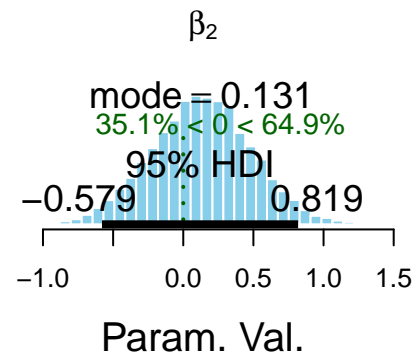
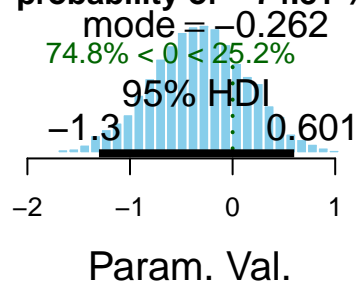
```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= II_10 cutted by EPSIBASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 6
##   Total graph size: 1322
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4534.962 5092.483 5200.001 6121.355 4534.962 5092.483 4832.283 4666.951
## betaSIZE
## 4825.805
## [1] "The difference of II_10 impact \n between EPSIBASELdich cut samples in DISCL has a\n probabil
```

The difference of  $\beta_2$  impact  
 between EPSIBASELdich cut samples in DISCL has a  
 probability of  $-90.37\%$



```
## [1] "
## [1] " Analysis of Y= DISCL explained by x= FOR_10 cutted by EPSIBASELdich"
## Compiling data graph
##   Resolving undeclared variables
##   Allocating nodes
##   Initializing
##   Reading data back into data table
## Compiling model graph
##   Resolving undeclared variables
##   Allocating nodes
## Graph information:
##   Observed stochastic nodes: 89
##   Unobserved stochastic nodes: 6
##   Total graph size: 1382
##
## Initializing model
##
## alpha1[1] alpha1[2] beta0[1] beta0[2] beta1[1] beta1[2] betaGFI betaGPS
## 4687.540 4118.939 5234.524 5502.694 4687.540 4118.939 4351.838 4270.654
## betaSIZE
## 4774.929
## [1] "The difference of FOR_10 impact \n between EPSIBASELdich cut samples in DISCL has a\n probabi
```

The difference of FOR\_10 impact  
 veen EPSIBASELdich cut samples in DISCL has a  
 probability of -74.81 %



```
write.csv(BLbinomCut,
  file=paste(
    'EPSI-binomCutResults',
    format(Sys.time(), "%d-%b-%H-%M-%S"),
    '.csv')
)
```