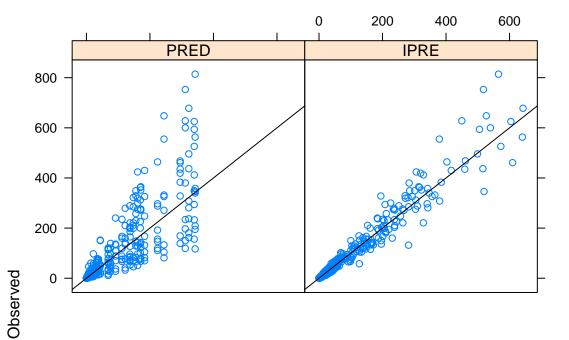
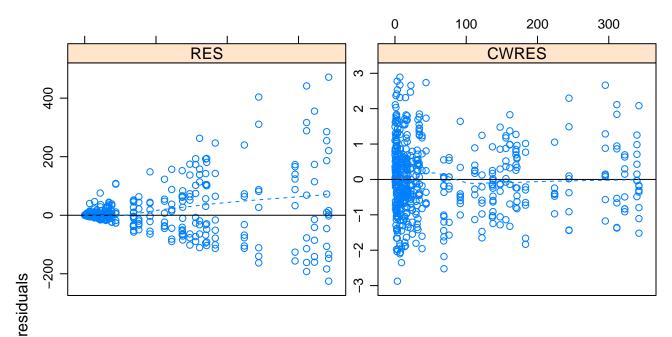
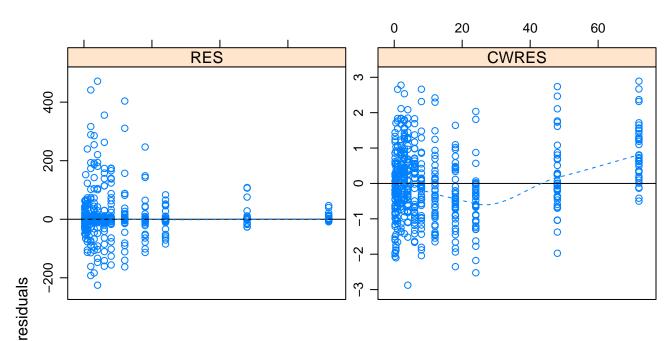
Model 1002 Observed vs. Predicted for all data



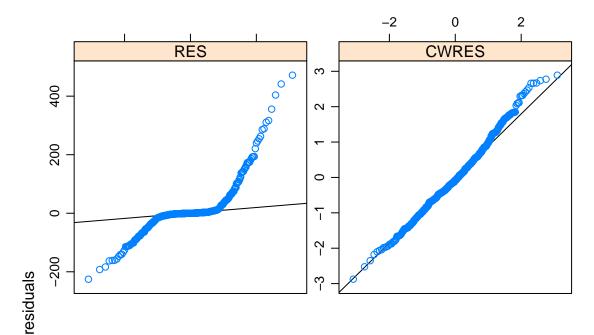
#### Model 1002 Residuals vs. Predicted for all data



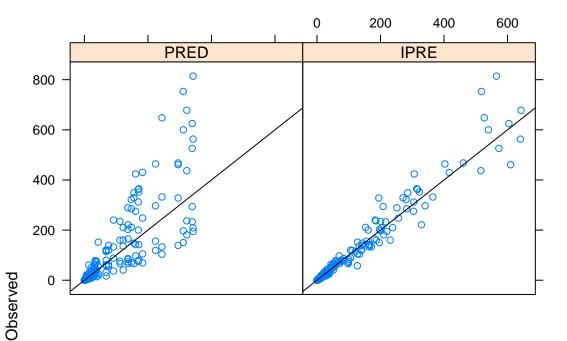
#### Model 1002 Residuals vs. Time for all data



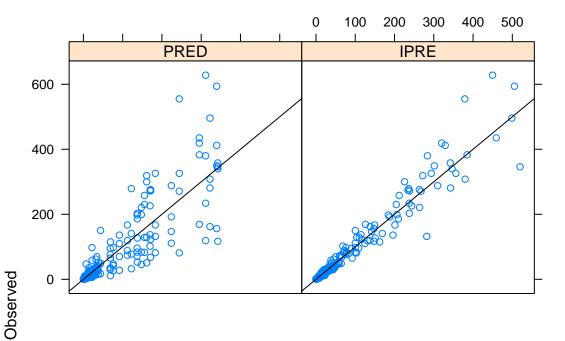
#### Model 1002 Normal Q-Q Plot Residuals for all data



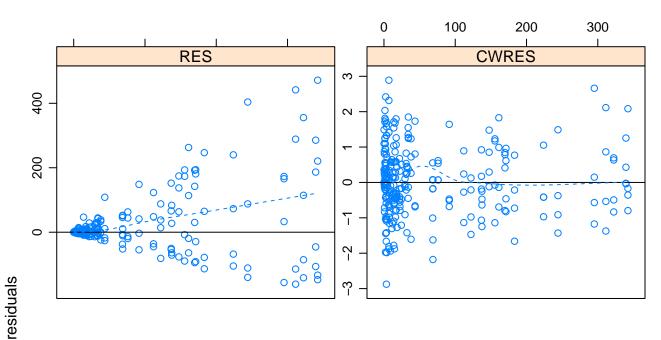
Model 1002
Observed vs. Predicted for female data



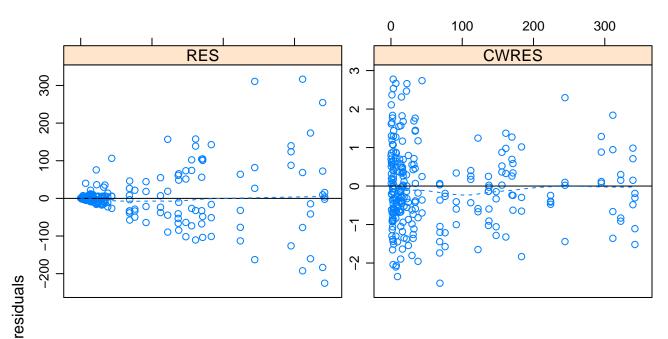
# Model 1002 Observed vs. Predicted for male data



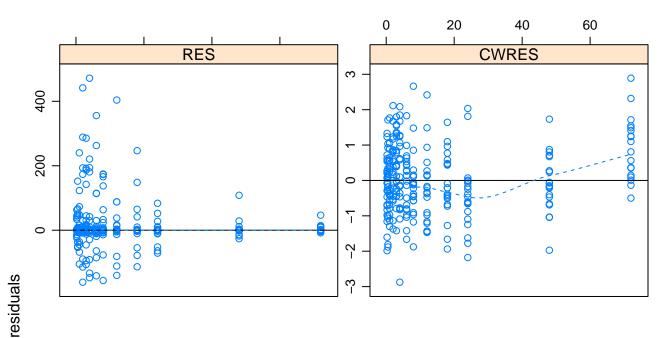
Model 1002 Residuals vs. Predicted for female data



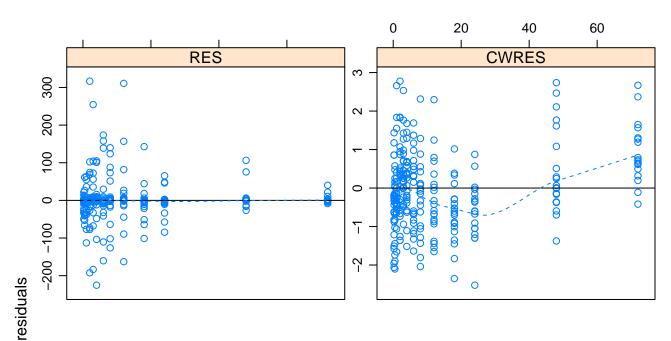
# Model 1002 Residuals vs. Predicted for male data



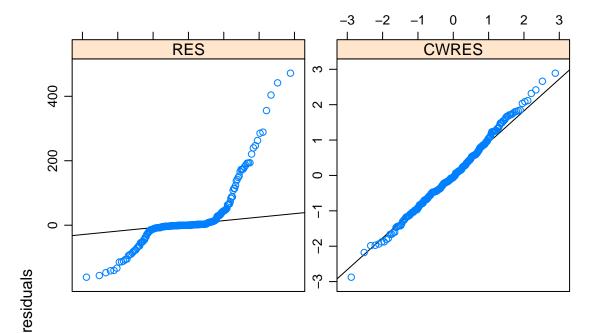
#### Model 1002 Residuals vs. Time for female data



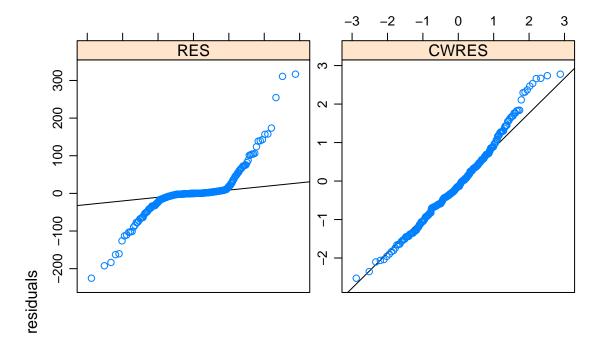
#### Model 1002 Residuals vs. Time for male data



# Model 1002 Normal Q-Q Plot Residuals for female data



# Model 1002 Normal Q-Q Plot Residuals for male data



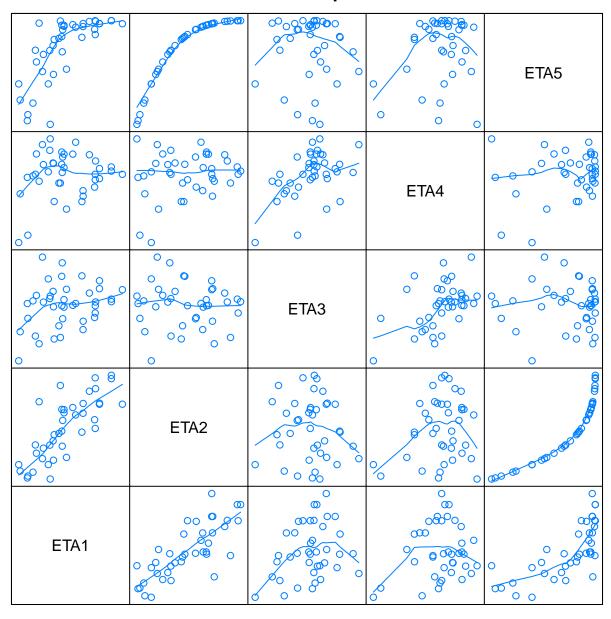
#### **Covariate Scatterplots**



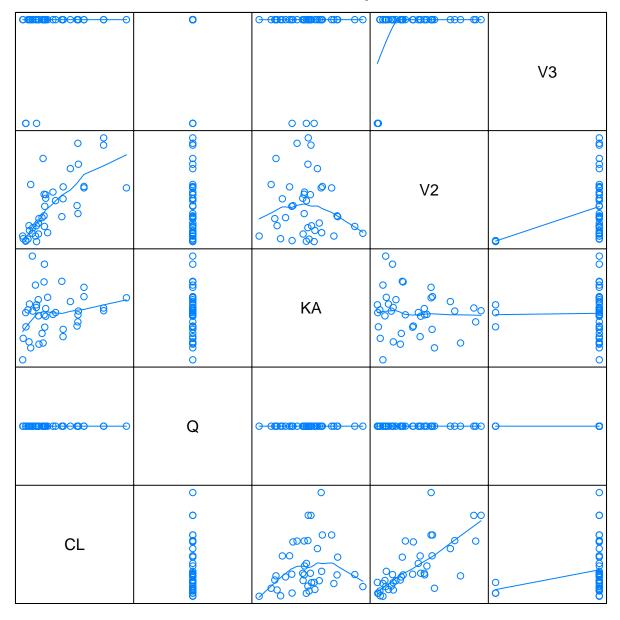
#### **Continuous Covariates vs. Categorical Covariates**



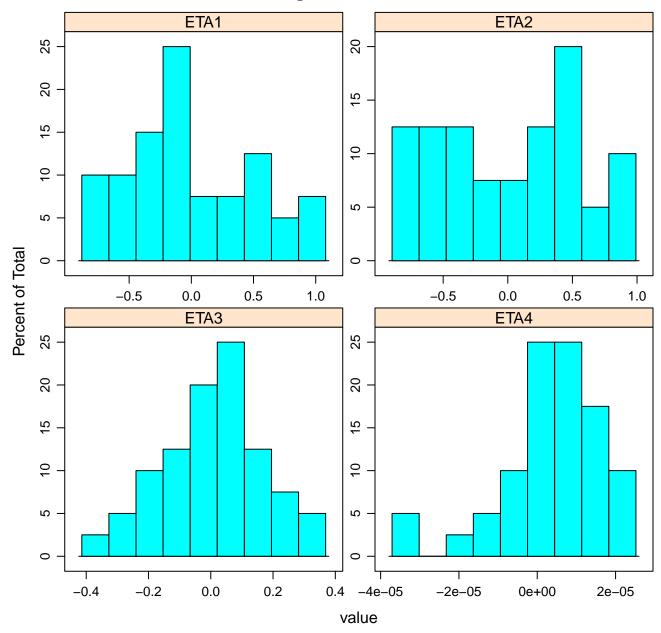
#### **ETA Scatterplots**



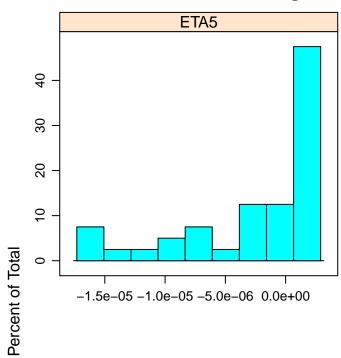
#### **Parameter Scatterplots**



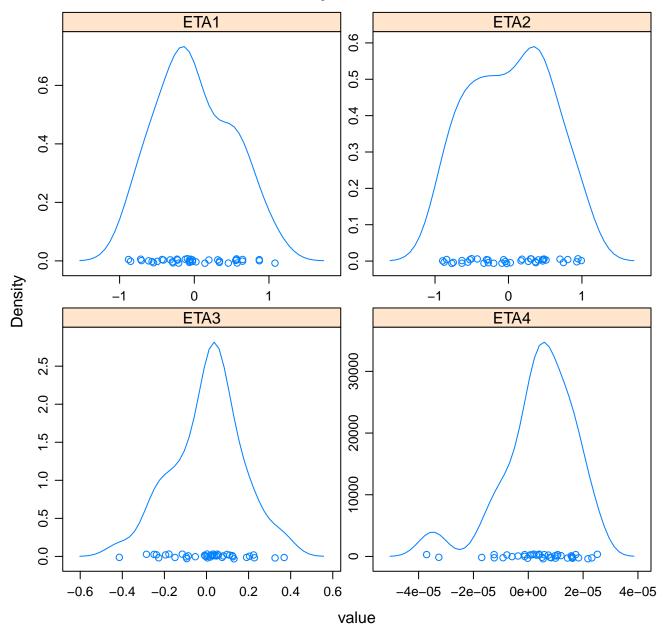
**Histograms of Etas** 



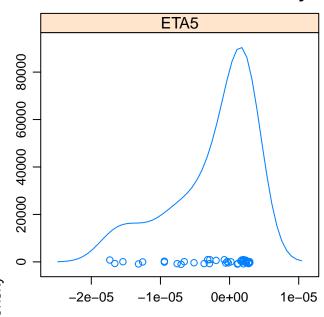
## **Histograms of Etas**



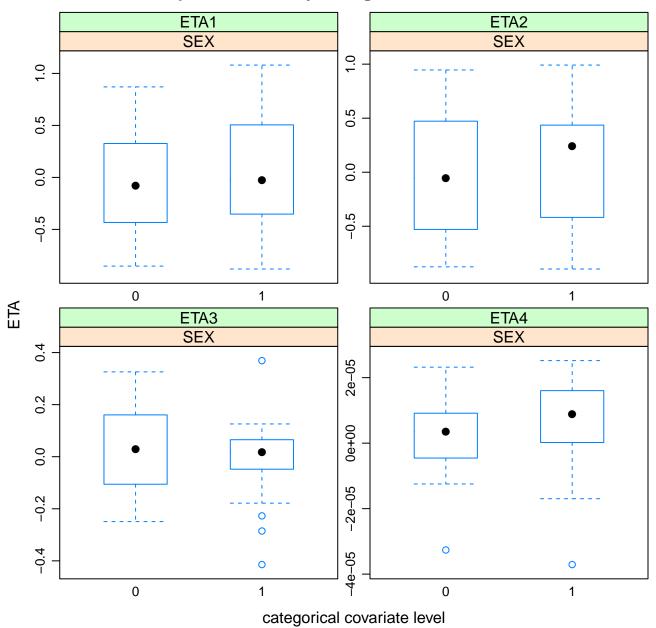
**Density of Etas** 



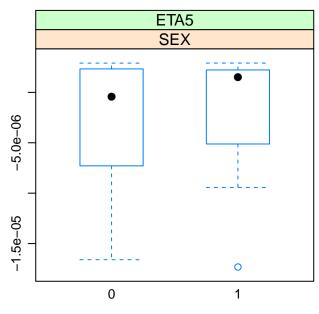
## **Density of Etas**



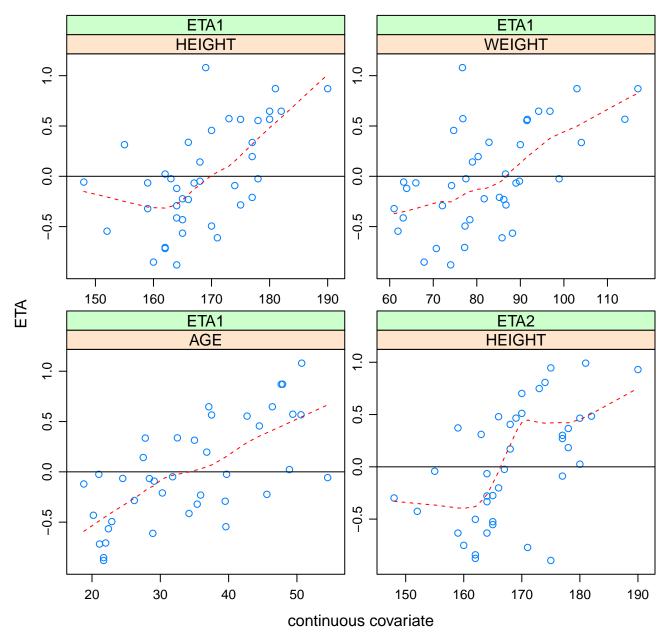
# **Boxplots of Etas by Categorical Covariate**



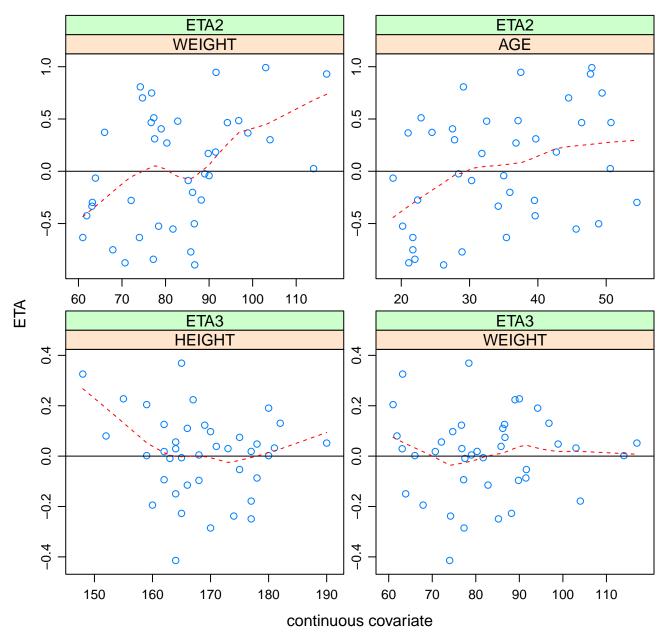
# **Boxplots of Etas by Categorical Covariate**



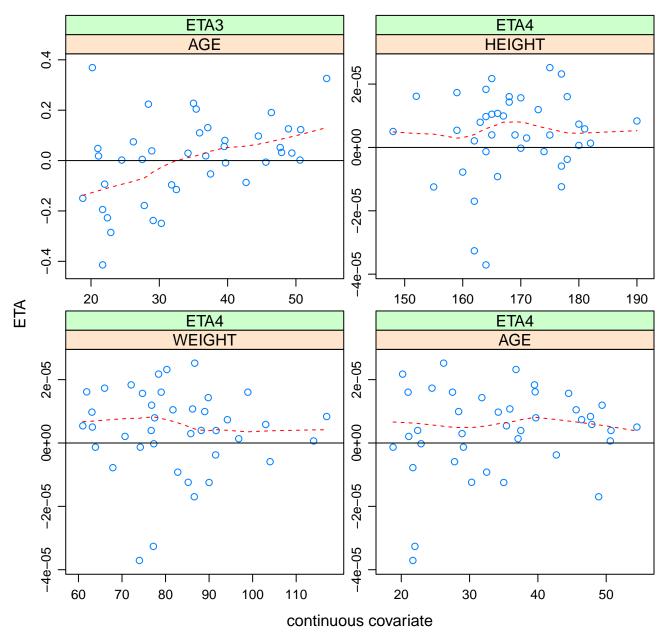
**Etas vs. Continuous Covariates** 



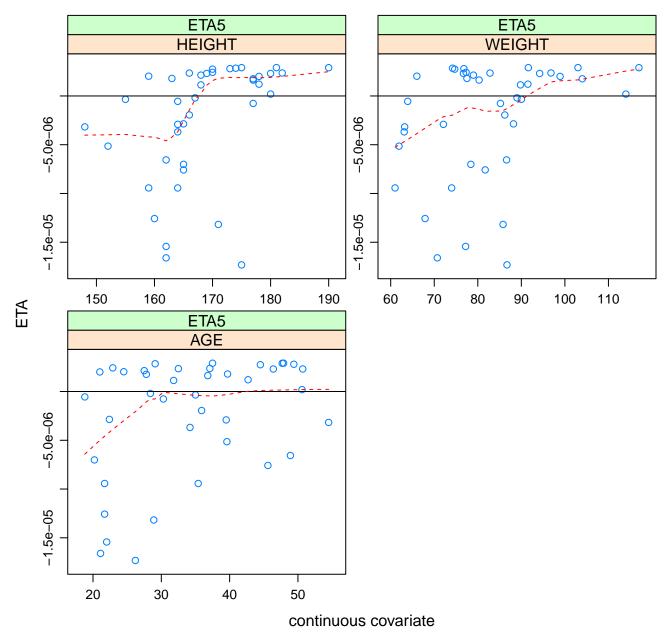
**Etas vs. Continuous Covariates** 



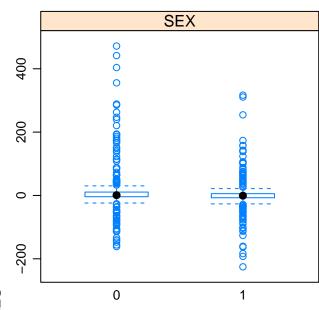
**Etas vs. Continuous Covariates** 



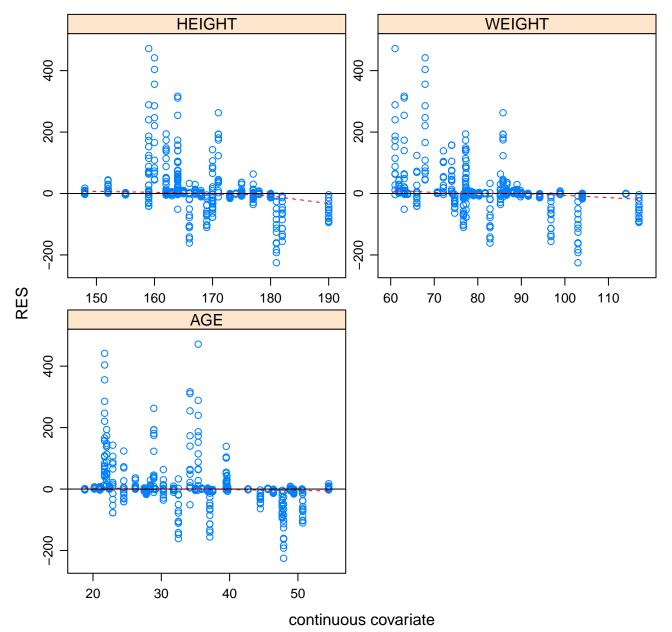
**Etas vs. Continuous Covariates** 



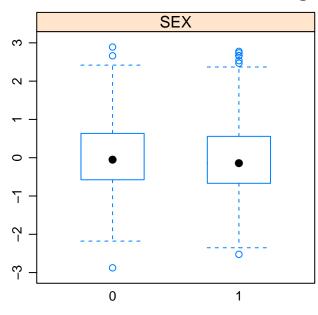
## **RES vs. Categorical Covariates**



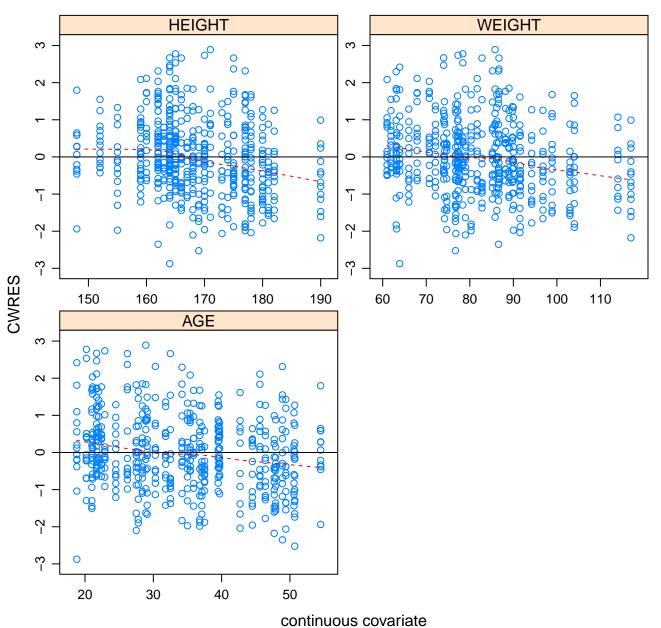
**RES vs. Continuous Covariates** 



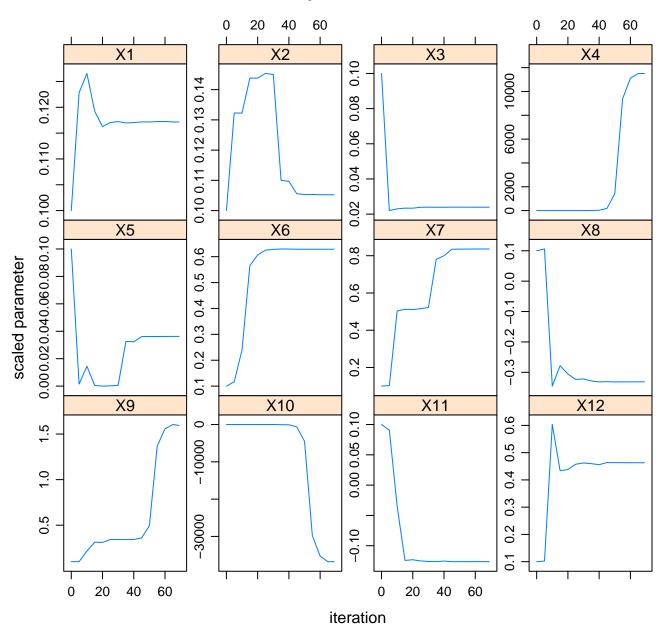
## **CWRES vs. Categorical Covariates**



#### **CWRES vs. Continuous Covariates**



## Model 1002 parameter search



#### Model 1002 gradient search

