Variable selection Lasso

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We use the Lasso regression to select covariates by using the linear change score method

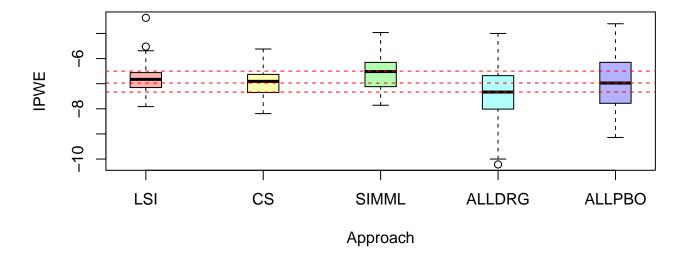
$$\operatorname{argmin} \sum_{i=1}^{n} (Y_i - \sum_{j=1}^{p} \beta_j X_{ij}) + \lambda \sum_{j=1}^{p} |\beta_j|$$

where Y_i is the change score for the *i*th subject and X_{ij} is the *j*th biosignature for the *i*th subject. 10 covariates are then selected.

decreaseRate	$w0_1071$	$w0_1113$	$w0_1203$	$w0_1205$
$w0_1269$	$w0_1271$	$w0_1341$	$w0_1435$	anxious

By using those 10 covariates, we calculate IPWE through our longitudinal method, change score method, and SIMML. 10 fold cross validations are conducted and the procedures are repeated for 100 times.

Lasso regression



Lasso regression

