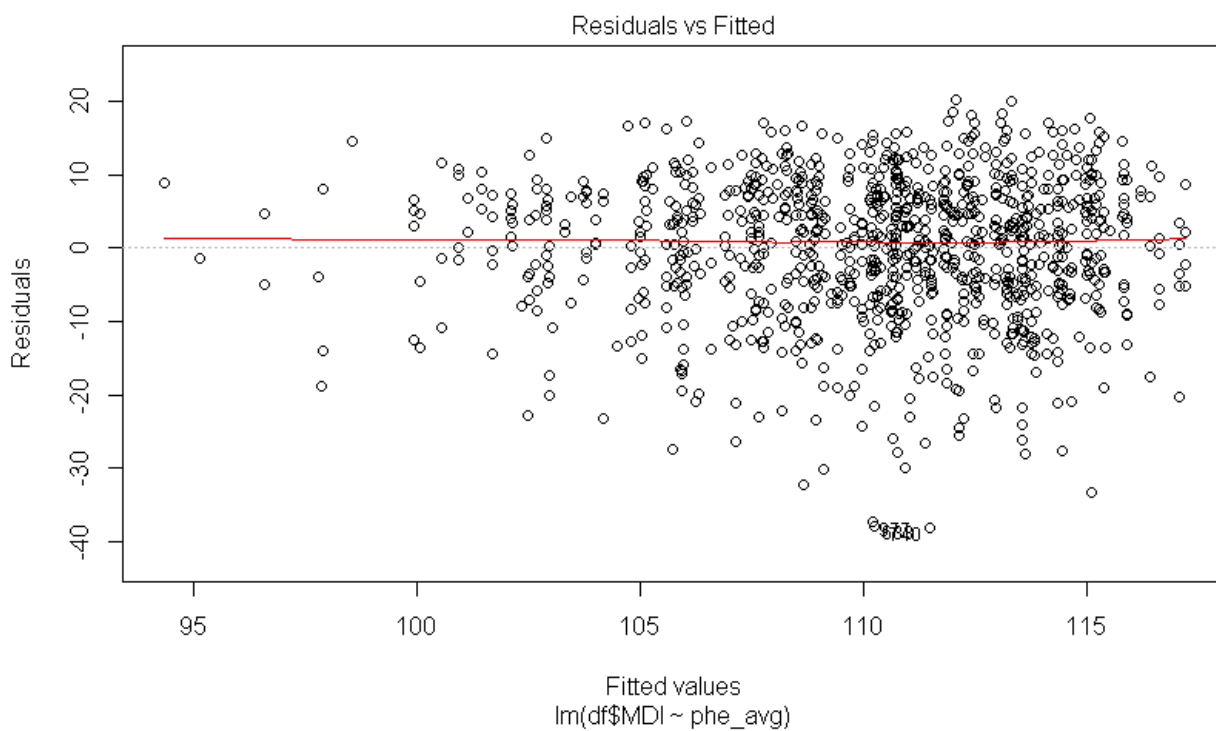
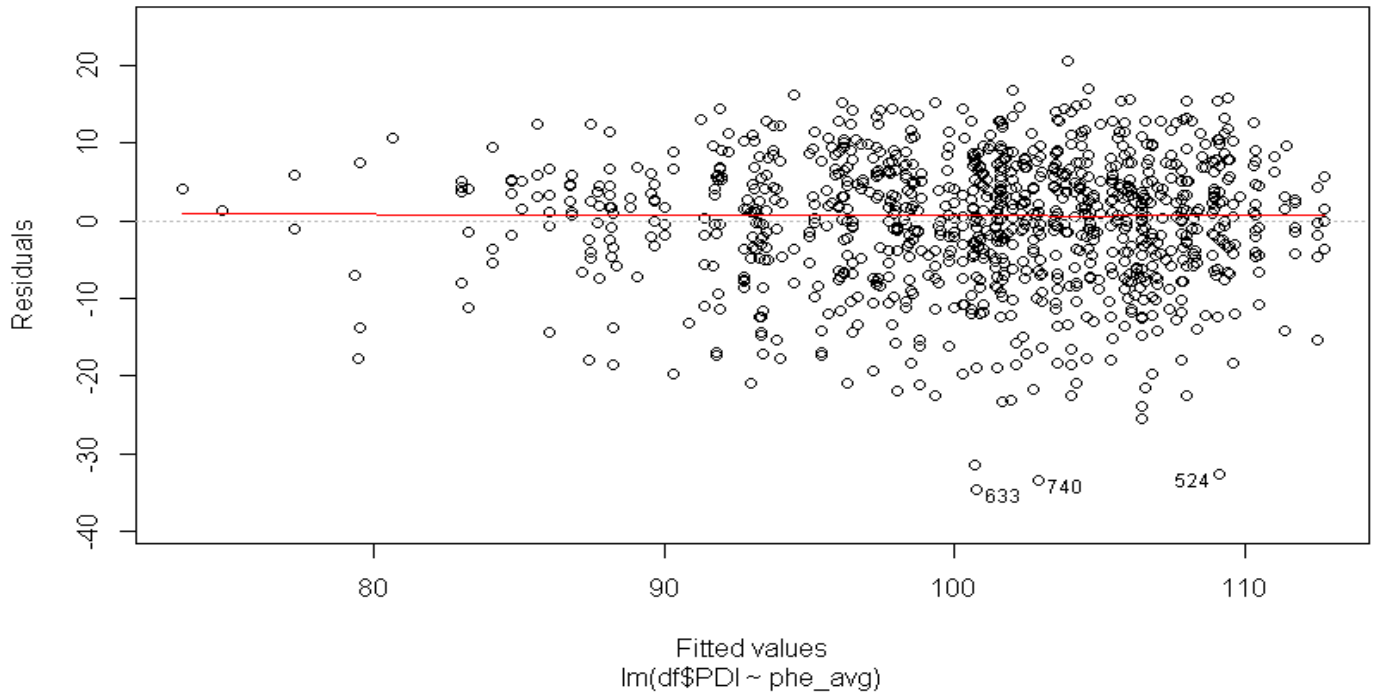


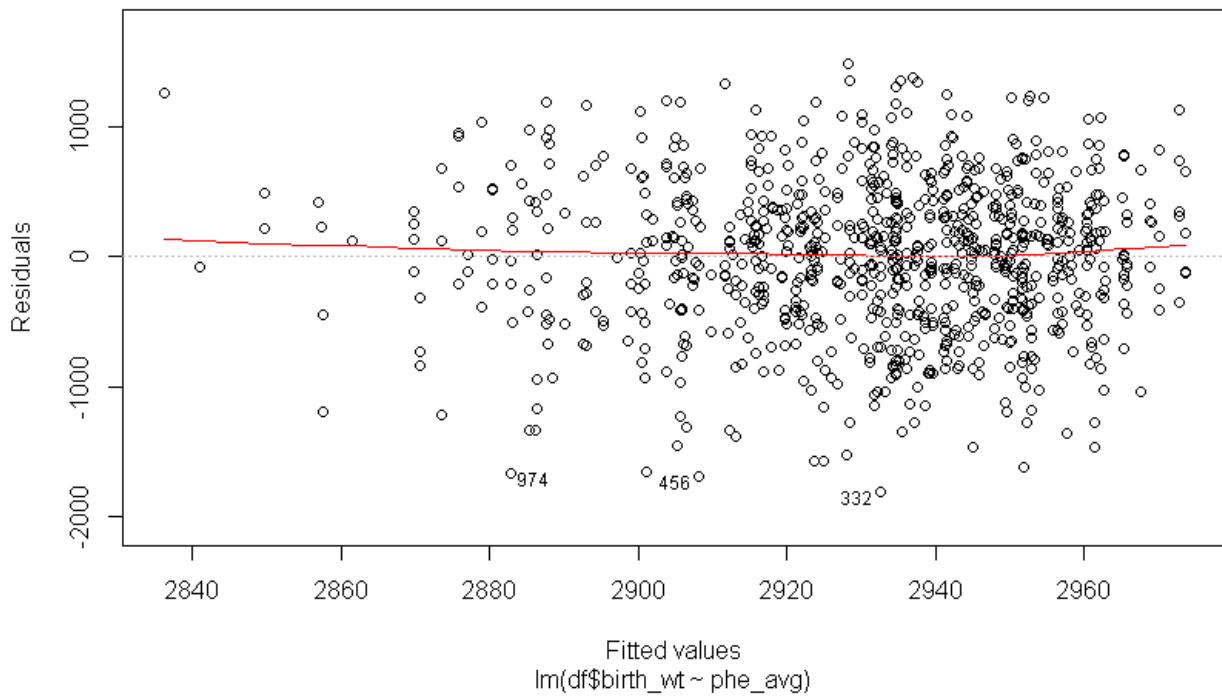
Variables Histograms



Residuals vs Fitted



Residuals vs Fitted



```

Residuals:
    Min       1Q   Median       3Q      Max
-5.2322 -1.3348  0.0023  1.3524  5.6642

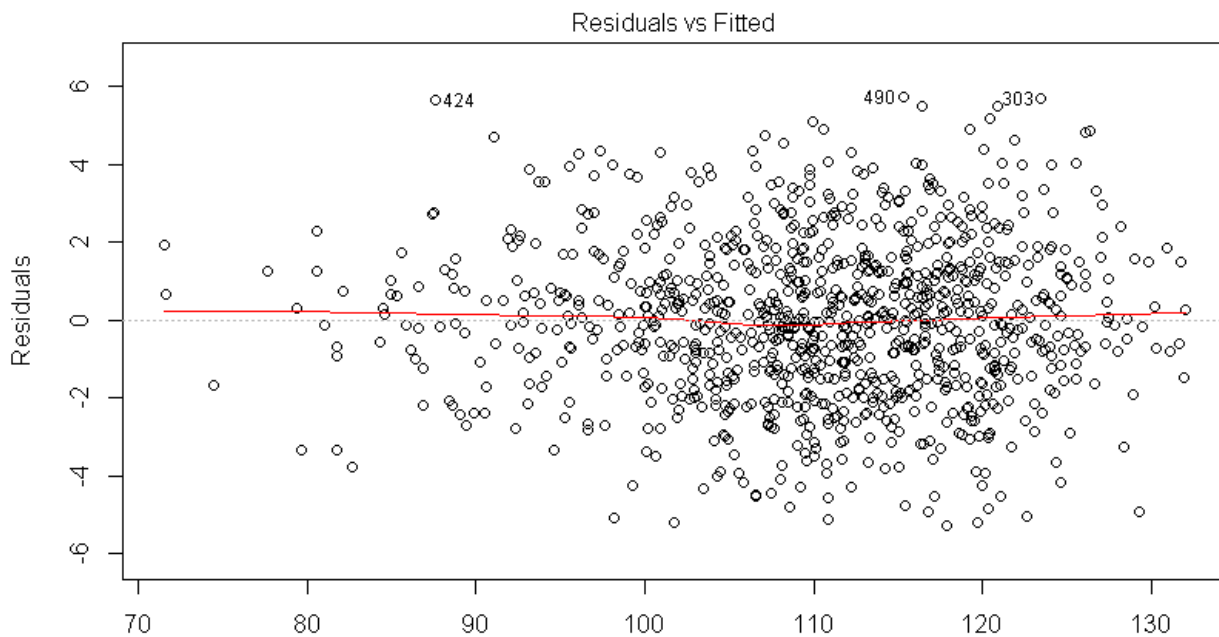
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept) -5.566e+01  2.269e+00 -24.530  <2e-16 ***
age          8.206e-03  1.475e-02   0.556   0.578
mVIQ        3.174e-03  3.836e-03   0.827   0.408
mPIQ       -7.877e-03  5.739e-03  -1.373   0.170
mIQ         4.314e-03  6.816e-03   0.633   0.527
phe_sd      4.754e-05  9.209e-04   0.052   0.959
wt_gain    -3.799e-03  5.707e-03  -0.666   0.506
phe_avg    -1.183e-02  2.811e-04 -42.060  <2e-16 ***
gestation   2.978e+00  2.846e-02 104.633  <2e-16 ***
birth_len  -2.757e-02  2.451e-02  -1.125   0.261
head_circum 1.535e+00  4.127e-02  37.196  <2e-16 ***
---
Signif. codes:
  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.004 on 614 degrees of freedom
(375 observations deleted due to missingness)
Multiple R-squared:  0.9657,    Adjusted R-squared:  0.9651

F-statistic: 1728 on 10 and 614 DF,  p-value: < 2.2e-16

```

Fit 1 Linear Model with all predictors (Used to remove insignificant variables)



Fitted values
lm(df\$MDI ~ phe_avg + gestation + head_circum)

Fit 1 Best

Residuals:

Min	1Q	Median	3Q	Max
-5.2683	-1.3915	-0.0438	1.3249	5.7188

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-57.241736	1.363274	-41.99	<2e-16 ***
phe_avg	-0.012154	0.000229	-53.07	<2e-16 ***
gestation	3.014914	0.023842	126.46	<2e-16 ***
head_circum	1.505908	0.032881	45.80	<2e-16 ***

signif. codes:

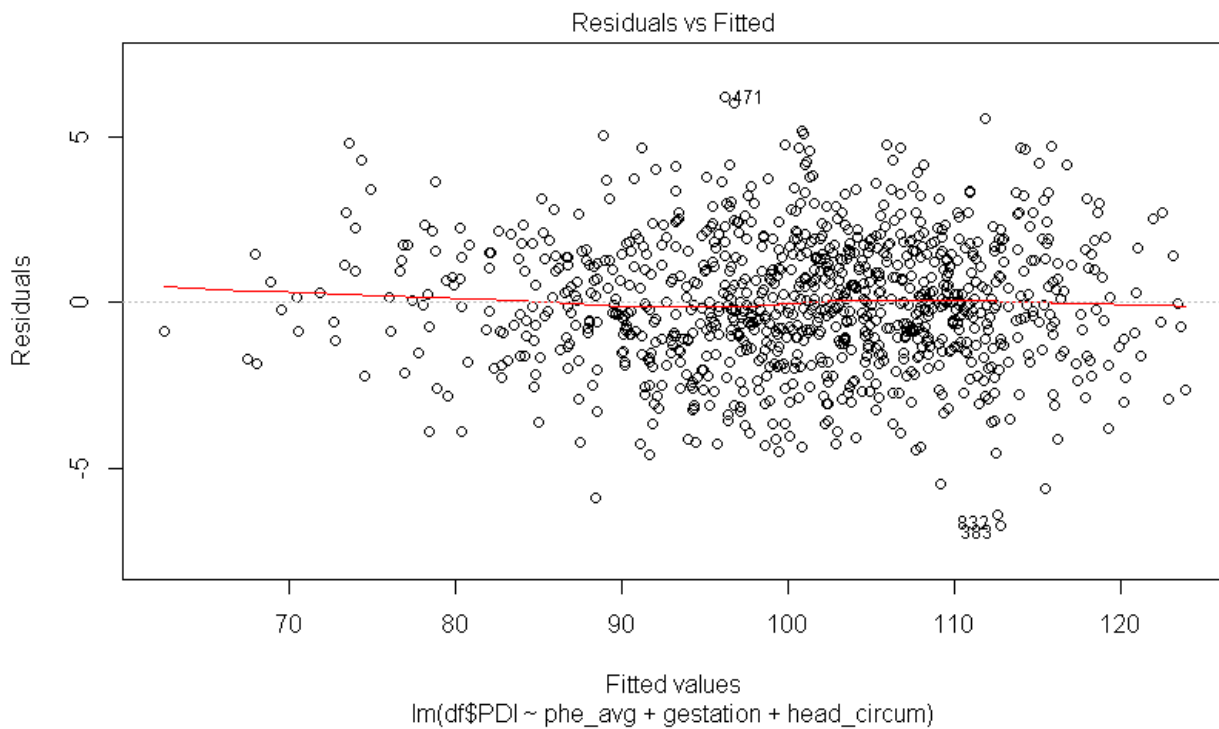
0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.042 on 984 degrees of freedom
(12 observations deleted due to missingness)

Multiple R-squared: 0.9614, Adjusted R-squared: 0.9613

F-statistic: 8166 on 3 and 984 DF, p-value: < 2.2e-16

Fit 1 Best Summary



Fit 2 Best

Residuals:

	Min	1Q	Median	3Q	Max
	-6.7042	-1.2429	-0.0732	1.3467	6.1882

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-3.991e+01	1.304e+00	-30.61	<2e-16	***
phe_avg	-2.199e-02	2.191e-04	-100.40	<2e-16	***
gestation	2.511e+00	2.280e-02	110.11	<2e-16	***
head_circum	1.468e+00	3.145e-02	46.69	<2e-16	***

Signif. codes:

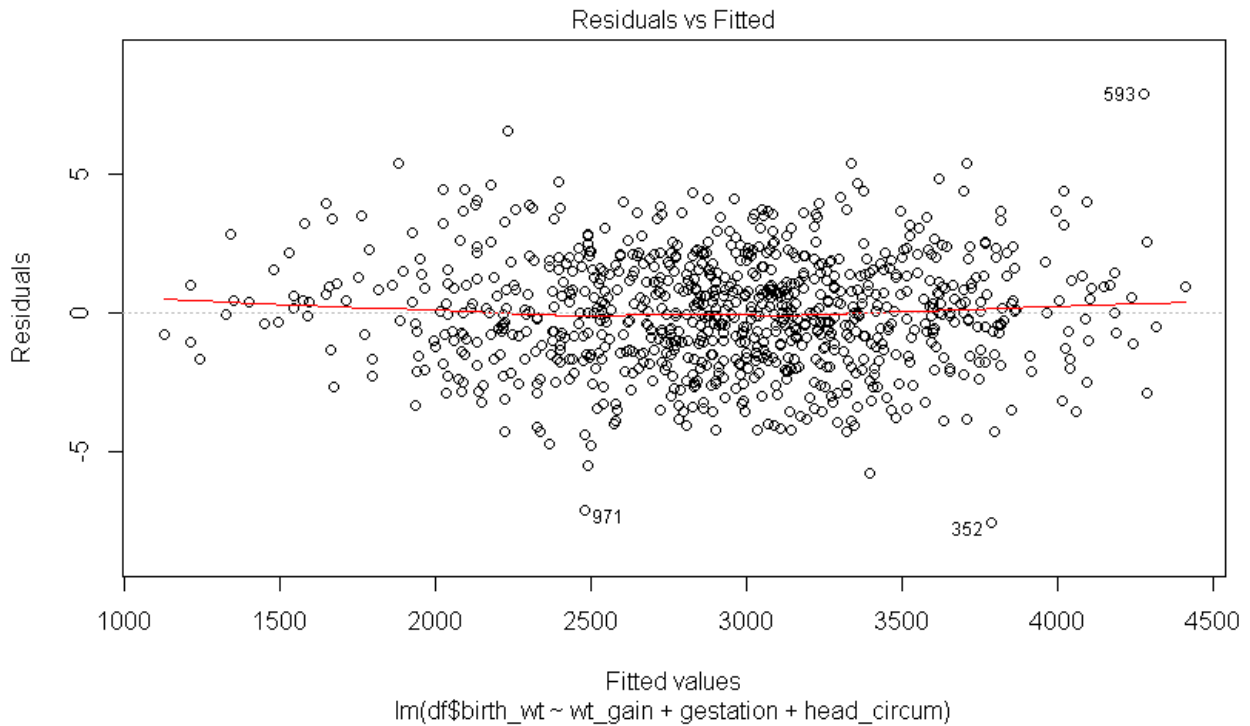
0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.953 on 984 degrees of freedom
(12 observations deleted due to missingness)

Multiple R-squared: 0.9665, Adjusted R-squared: 0.9664

F-statistic: 9467 on 3 and 984 DF, p-value: < 2.2e-16

Fit 2 best Summary



Fit 3 Best

```

Residuals:
    Min       1Q   Median       3Q      Max
-7.5258 -1.4172  0.0021  1.3575  7.8950

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)  1.70112    1.39423   1.22    0.223
wt_gain      40.99244    0.00499 8215.57 <2e-16 ***
gestation    37.97988    0.02488 1526.83 <2e-16 ***
head_circum   6.98153    0.03410  204.77 <2e-16 ***
---
Signif. codes:
  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.033 on 877 degrees of freedom
(119 observations deleted due to missingness)
Multiple R-squared:  1,    Adjusted R-squared:  1
F-statistic: 2.377e+07 on 3 and 877 DF,  p-value: < 2.2e-16

```

Fit 3 Best Summary