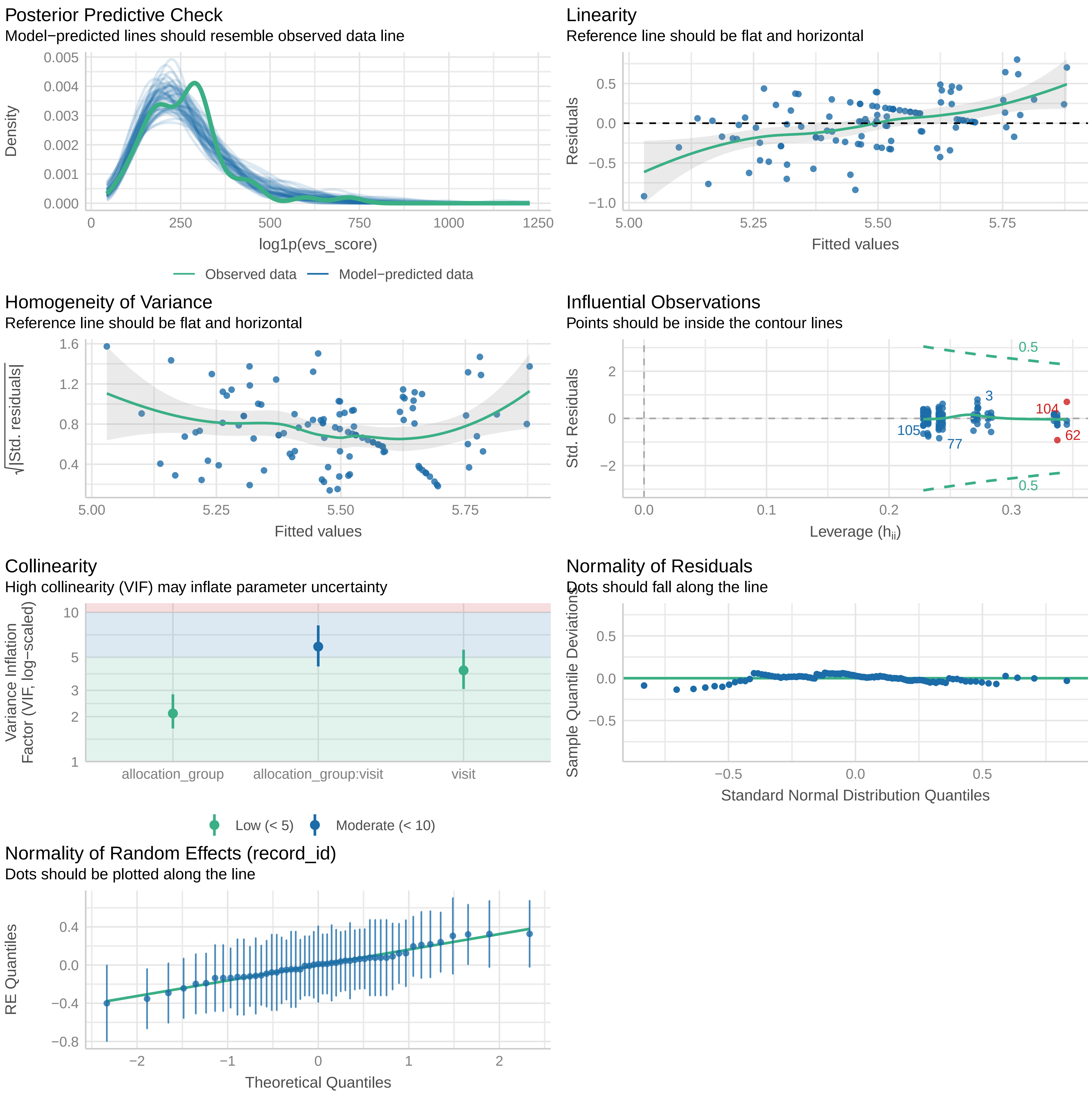

Posterior Predictive Check
Model−predicted lines should resemble observed data line
Density
log1p(evs_score)
0.000
0.001
0.002
0.003
0.004
0.005
0
250
500
750
1000
1250
Observed data
Model−predicted data
Linearity
Reference line should be flat and horizontal
Residuals
Fitted values
−1.0
−0.5
0.0
0.5
5.00
5.25
5.50
5.75
Homogeneity of Variance
Reference line should be flat and horizontal
√|Std. residuals|
Fitted values
0.4
0.8
1.2
1.6
5.00
5.25
5.50
5.75
Influential Observations
Points should be inside the contour lines
Std. Residuals
Leverage ($h_{ii}$)
−2
0
2
0.0
0.1
0.2
0.3
0.5
0.5
3
104
105
77
62
Collinearity
High collinearity (VIF) may inflate parameter uncertainty
Variance Inflation Factor (VIF, log−scaled)
1
2
3
5
10
allocation_group
allocation_group:visit
visit
Low (< 5)
Moderate (< 10)
Normality of Residuals
Dots should fall along the line
Sample Quantile Deviations
Standard Normal Distribution Quantiles
−0.5
0.0
0.5
−0.5
0.0
0.5
Normality of Random Effects (record_id)
Dots should be plotted along the line
RE Quantiles
Theoretical Quantiles
−0.8
−0.4
0.0
0.4
−2
−1
0
1
2