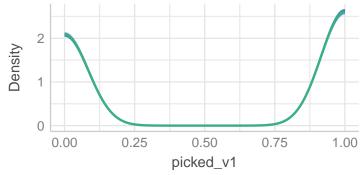
## reg\_rate \* reg\_dist + variation + baseline\_p

#### Posterior Predictive Check

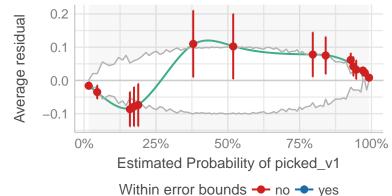
Model-predicted lines should resemble observed data line



# el-predicted data — Observed data — Observed data — N

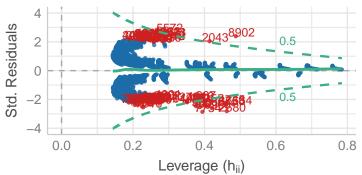
#### Binned Residuals

Points should be within error bounds



#### Influential Observations

Points should be inside the contour lines



## Collinearity

High collinearity (VIF) may inflate parameter uncertainty





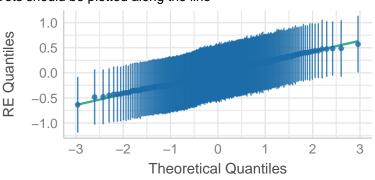
Low (< 5)

### Normality of Residuals Dots should fall along the line

6 Sample Quantiles 3 0 -3 -6 -2 0 Standard Normal Distribution Quantiles

# Normality of Random Effects (base)

Dots should be plotted along the line



### Normality of Random Effects (part\_id) Dots should be plotted along the line

RE Quantiles 3 0 -3 -3 -2 -1 0 2 3 Theoretical Quantiles