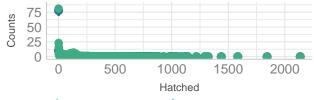
#### Posterior Predictive Check

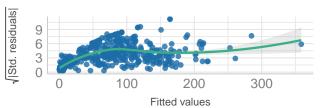
Model-predicted intervals should include observed data points



Observed data | Model-predicted data

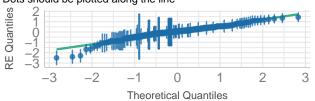
# Homogeneity of Variance

Reference line should be flat and horizontal



# Normality of Random Effects (female\_ID)

Dots should be plotted along the line



## Misspecified dispersion and zero-inflation

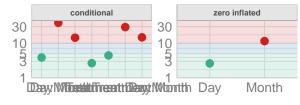
100

Observed residual variance (green) should follow predicted residual variance Residual variar 5000 2500

### Collinearity

High collinearity (VIF) may inflate parameter uncertainty

Variance Inflation Factor (VIF, log-scale





200

Predicted mean

300