

# MLR review stuff

Monday, November 27, 2023 18:13

Residuals vs. Fitted: check linearity assumption and homoscedasticity. In the residuals vs. fitted plot, the differences between observed and predicted values (aka the residuals) are plotted on the y-axis and the predicted values(fitted values) are plotted on the x-axis. The line not flat indicates a violation of the linearity assumption. See if fanning for heteroscedasticity.

Normal Q-Q: Normality assumption. Some departures at the tails is a potential violation of normality.

Scale-location vs. Sqrt(standardized residuals): used to check the homoscedasticity. Want the red line to be flat. Don't want it to be increasing.

Residuals vs. leverage: outliers and influential points. Flag if cook's distance  $>1$ .

Other diagnostics: VIF $>10$  bad.

Intercept only OLS:

The expected log rate per 100000 people is 2.236324 HIV cases without considering other covariates.

The exponentiated average of the log rate per 100000 people is 9.35886 HIV cases without considering other covariates.