Model Card - Predicting Blood Sugar Levels Overnight

Model Details
• Standard logistic and linear regression models

Intended Use
• Intended to determine fit for specific diabetes data relating to an uncontrolled diabetic for the duration of 9 months.
• Initially planned for prediction purposes, ultimately became an evaluation on what factors would fit regression models.

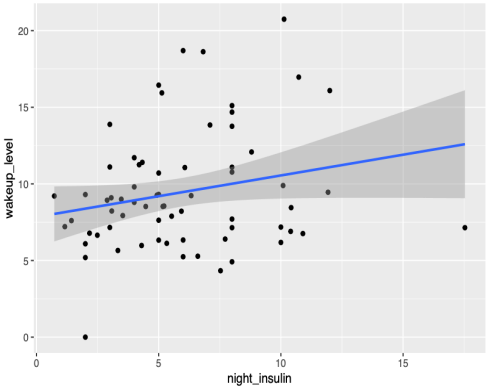
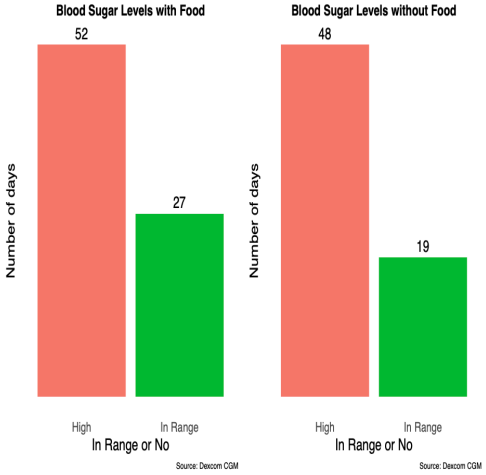


Figure 13: Plotting night insulin amount with morning blood sugar levels

Factors
• Based on available factors in the provided dataset. The dependent variable varies between blood sugar levels and insulin intale.
• Independent variables include carb intake (no specific breakdown on type of carbs, just measured in grams), blood sugar levels (in mmol/L), insulin intake (in mmol/L), time of day



Metrics
• Evaluation metrics included linearity, homogeniety, collinearity, and normality.
• Together they show whether the model fits the data, and where the gaps lie.

Group 1
• Taking insulin with food at night

Group 2
• Taking insulin without food at night

Ethical Considerations
• Data is based on a real individual's health data. Consent has been obtained for free use of the data. Any personal identifiers have been removed and any modelling will not reflect on the individual.

Caveats and Recommendations
• Data aggregates by hour, does not capture minute details.
• Data also captures insulin intake the moment blood sugar is high. Keep that in mind when creating regression analyses. There will always be a positive correlation between insulin iintake and blood sugar levels.