

# DS 201 Final

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# Importance

# Why does this matter?

- We are a gym business and want to know if poor health habits (high BMI, bad physical health, and bad general health) are correlated with worse mental health.
- We have had a decrease in customers showing up to the gym.
- We will use health metrics to incentivize more people to work out

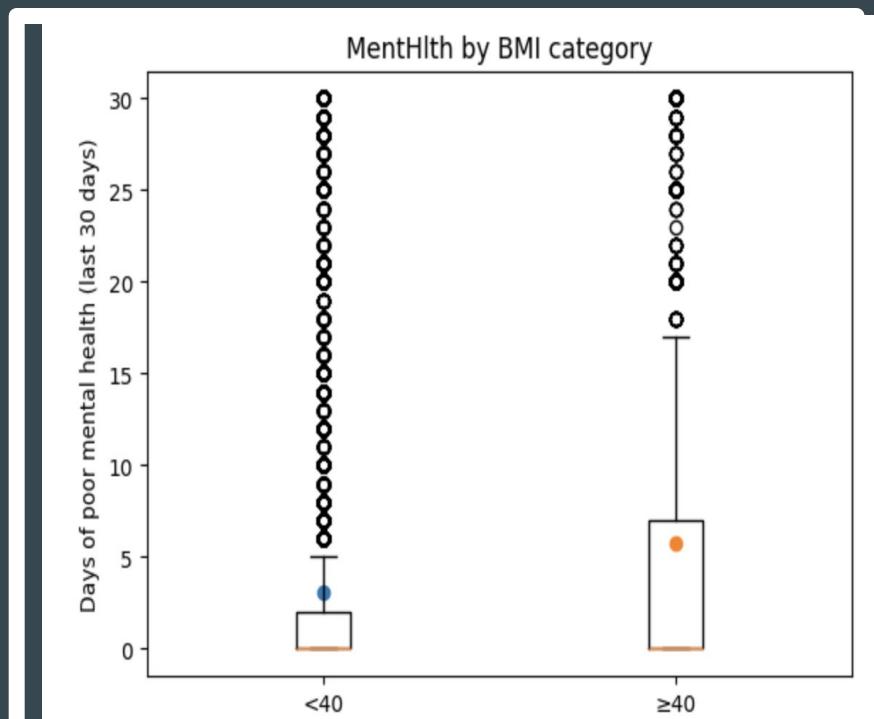
How does physical health impact mental health?

- Reduces stress
- Improves sleep
- Improves brain function
- Builds self-esteem
- Increased resilience

# Insights

# What have we learned?

- How to use the data science process in a real world situation.
- How to interpret data in a way to get results for a company
- The logistic regression model has about 65% accuracy, which indicates that self-reported health does not reliably identify high BMI individuals
- We found that self-reported health alone is not a good predictor of BMI status.
- BMI-only model showed that if the BMI is greater than or equal to 40, the probability of poor mental health doubles (from about 12% to 23%)



# Actions

# How can we use these insights?

- We hope to find patterns in the data and identify individuals who would make good candidates for a gym membership
- Get more gym membership subscriptions, especially from the people that would benefit most.

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