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**DATS 6101**

**Team 6**

**Topic Proposal**

While many scholars have studied the relationship between income inequality and human health, less research has focused on income inequality and people’s mental health. An initial literature review suggests that the relationship between income inequality and mental health has not been conclusively answered ([Tibber et al. 2022](https://doi.org/10.1007/s00127-021-02159-w)). Therefore, this issue is worthy of further study.

Given the potential differences in effects by geographic area, focusing on how the relationship between income inequality and mental health varies across parts of the U.S. would be valuable. We are asking the following SMART question:

*What is the relationship between the prevalence of mental health problems and income inequality across U.S. counties from 2016 to 2021?*

Our independent variable for [measuring](https://www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model/health-factors/social-and-economic-factors/income/income-inequality) *income inequality* is the “ratio of household income at the 80th percentile to income at the 20th percentile.” Our dependent variable, the [rate of](https://www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model/health-outcomes/quality-of-life/frequent-mental-distress) *frequent mental distress*, is the “percentage of adults reporting 14 or more days of poor mental health per month.”

Our dataset combines annual datasets tracking county-level public health data, containing approximately 19,000 observations in total. The specific timeframe of 2016-2021 provides the most complete data for our dependent and independent variables.

**Source of data sets:** RWJF County Health Rankings; [2016-2019;](https://www.countyhealthrankings.org/explore-health-rankings/rankings-data-documentation/national-data-documentation-2010-2019) [2020-2021](https://www.countyhealthrankings.org/explore-health-rankings/rankings-data-documentation)

**GitHub repo:** <https://github.com/mfebrizio/DATS-6101-group-6>