**Final-Project:**

**Project Title**  
Investigating Binge Drinking and Its Relationship with Body Mass Index in Adults: A Cross-Sectional Analysis of the 2022 Behavioral Risk Factor Surveillance System

**Description**

This project examines the association between binge drinking and Body Mass Index (BMI) categories (underweight, normal weight, overweight, and obese) among adults aged 18–65 years and older in the United States. Using data from the 2022 Behavioral Risk Factor Surveillance System (BRFSS), the analysis evaluates how factors such as age, sex, race/ethnicity, physical activity, smoking status, and healthcare access influence this relationship. The study aims to provide insights into the intersection of alcohol consumption and obesity-related public health risks.

**Features**

* Full analysis provided in a reproducible R Markdown file (analysis.Rmd).
* Includes data cleaning, visualization, and statistical modeling steps.
* Uses multiple imputation to handle missing data and ordinal logistic regression to analyze BMI predictors.
* Organized workflow and adherence to STROBE guidelines for reporting.

**Contents**

* analysis.Rmd: The R Markdown file containing all code, analyses, and visualizations.
* README.md: A guide to understanding and reproducing this project.
* LICENSE: Licensing information.

**Requirements**  
To reproduce the analysis, ensure you have the following:

**Software:**

* R (version 4.4.1 or higher)
* RStudio

**R Packages (loaded via pacman):**

* haven: For importing SPSS, Stata, or SAS data.
* readr: For reading tabular data.
* tidyverse: A collection of packages for data manipulation and visualization.
* naniar and VIM: For exploring and handling missing data.
* mice and lattice: For multiple imputations.
* table1: For creating descriptive tables.
* DiagrammeR and rsvg: For visualizing flowcharts.
* dplyr: For data manipulation.
* car: For regression diagnostics.

**Usage**  
Clone the repository to your local machine:

bash

Copy code

git clone https://github.com/NanaAfia-a/Githubdemoada.git

Open the analysis.Rmd file in RStudio.

Run the .Rmd file:

* Click **Knit** to generate an HTML or PDF report of the analysis and results.
* Alternatively, execute code chunks interactively to explore the workflow.

**Results**  
Key findings:

* Binge drinking was significantly associated with BMI categories, highlighting its potential role in obesity-related health outcomes.
* Physical activity and smoking status were notable moderating factors, influencing the relationship between alcohol consumption and BMI.