Dataset Download and Preparation Instructions

This Shiny application uses publicly available health data from the Institute for Health Metrics and Evaluation (IHME). The purpose of this document is to explain how to download the same dataset I used and how to prepare it so the application can run correctly.

1. Data Source

The data for this project comes from the Global Burden of Disease (GBD) 2023 Study, produced by the Institute for Health Metrics and Evaluation (IHME).

You can access the data from the Global Health Data Exchange (GHDx) at:

https://ghdx.healthdata.org/gbd-2023

2. How to Download the Dataset

To download the dataset used in this application, follow these steps:

1) Go to the GHDx website listed above.
2) Navigate to the section where you can download GBD 2023 results.
3) In the download interface, choose the following options:
    o Measure: Prevalence
    o Metric: Percent
    o Age: All ages
    o Sex: Male and Female
    o Year: 2023
    o Locations: Countries and territories in Latin America and the Caribbean
    o Causes:
        ▪ Cardiovascular diseases
        ▪ Ischemic heart disease
        ▪ Stroke

4) Export the filtered dataset as a CSV file.
5) Rename the file to IHME-RAW.csv.
6) Place the file into the same folder as the Shiny application.

3. Preparing the Data

Before running the application, the raw dataset needs to be cleaned.

To make the dataset consistent with what the application uses, I include a data preparation script (data_prep.R). Running this script will:

- Filter the raw dataset

- Keep only the variables used in the dashboard
- Restrict the data to the year 2023
- Save the cleaned file as IHME-DATA.csv

This cleaned dataset is the one required by the Shiny app.

4. Running the Shiny Application

Once the cleaned dataset is ready and saved as IHME-DATA.csv, place it in the same directory as the application files.

To run the app:

- Open R or RStudio.
- Set the working directory to the folder containing the application.
- Run the following command:

```
library(shiny)

runApp()
```

Make sure the folder contains the following files:

- ui.R (or the combined file app.R)
- server.R
- IHME-DATA.csv
- data_prep.R (optional, but included for reproducibility)

5. Reproducibility

By following the steps above, anyone can download the original dataset, prepare it, and run the Shiny application exactly as I did. This ensures that the project is fully reproducible and easy for others to modify or expand.