An Analysis of Global Sugar Consumption

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Problem Statement

The National Institutes of Health is conducting research on the impact of sugar consumption on global health and economy. The goal of the project is to understand the intricate relationships between sugar consumption, life expectancy, and Gross National Income (GNI) per capita across diverse countries. By examining these relationships, this study seeks to provide valuable insights for public health initiatives, policy-making, and economic decision-making, offering actionable information that spans across regions and socioeconomic statuses.

Methods

- **Imported libraries and data from sources**
- **Cleaned data**
- **Calculated summary statistics**
- **Conducted exploratory data analysis**
- **Visualized data**
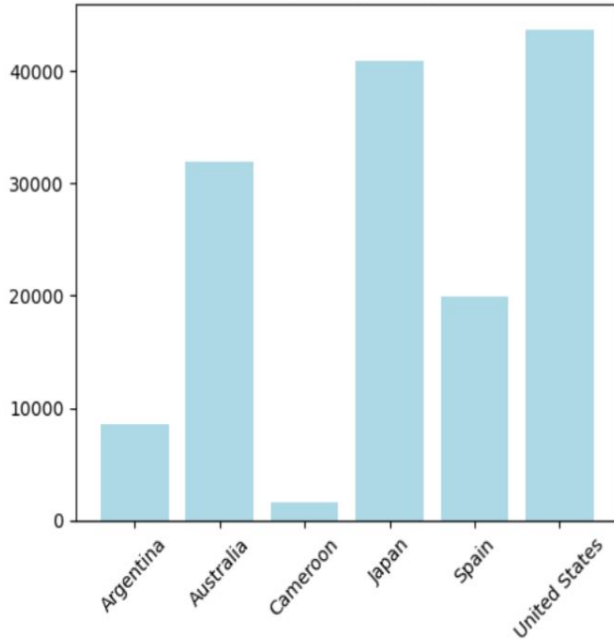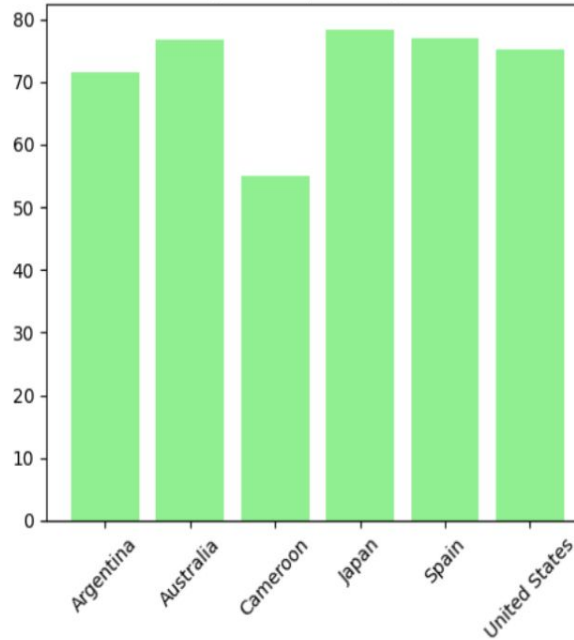- **Discovered conclusions and made recommendations**

Primary Findings

|	1961	2018
Highest Sugar Consumption	**Australia**	**United States**
Lowest Sugar Consumption	**Cameroon**	**Cameroon**
Highest Life Expectancy	**Australia**	**Japan**
Lowest Life Expectancy	**Cameroon**	**Cameroon**
Highest GNI	**United States**	**United States**
Lowest GNI	**Cameroon**	**Cameroon**

Primary Findings

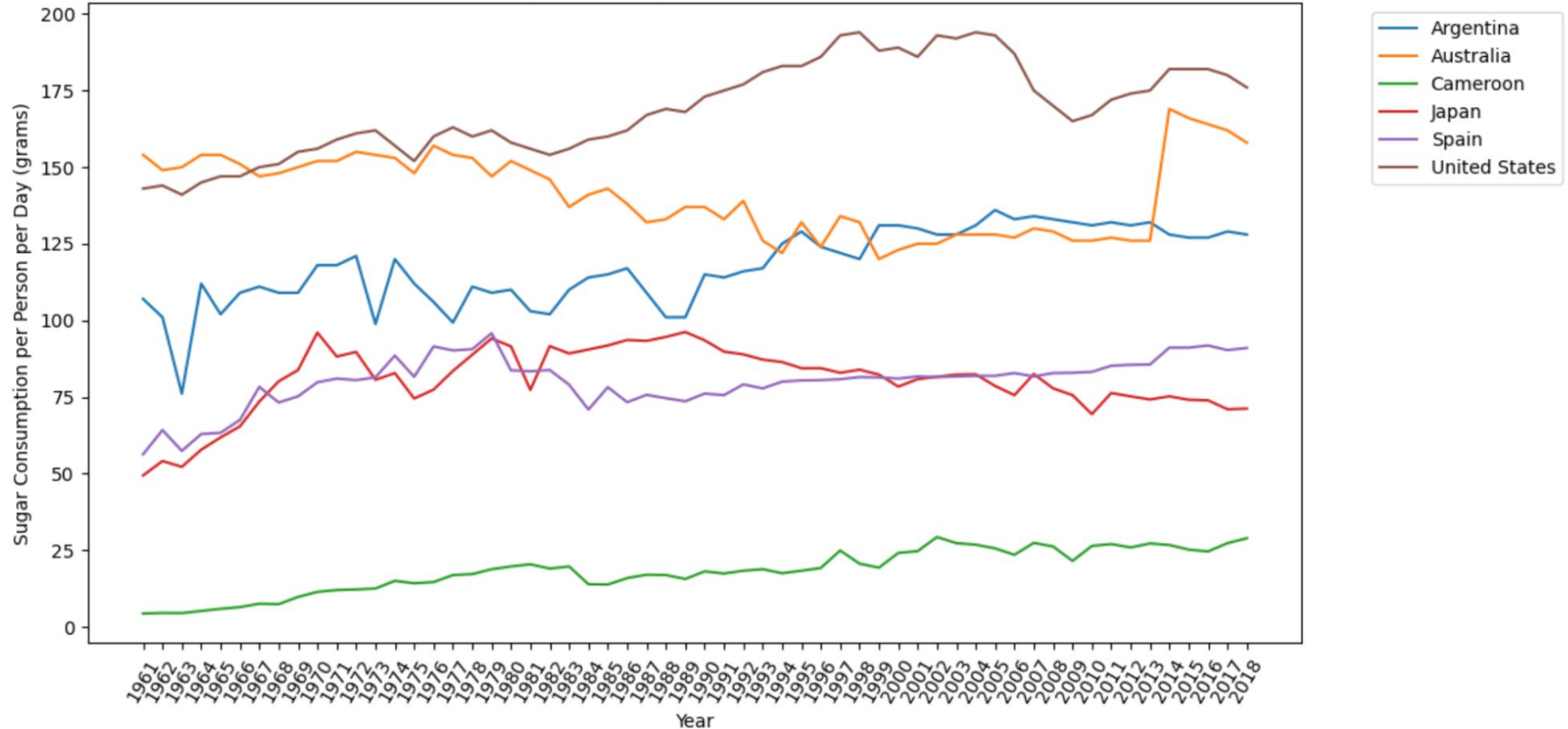Average GNI per Capita | Average Life Expectancy in Years | Average Sugar Consumption in Grams per Person per Day
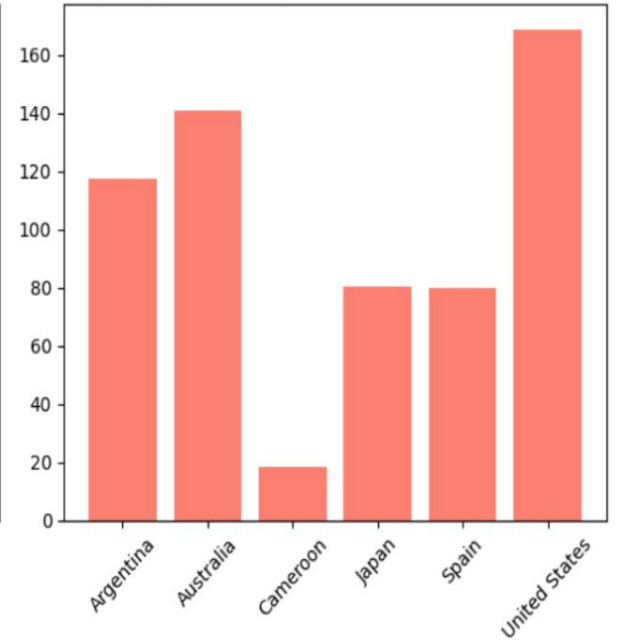
GNI, life expectancy, and sugar consumption by country between the years 1961 and 2018.

Primary Findings

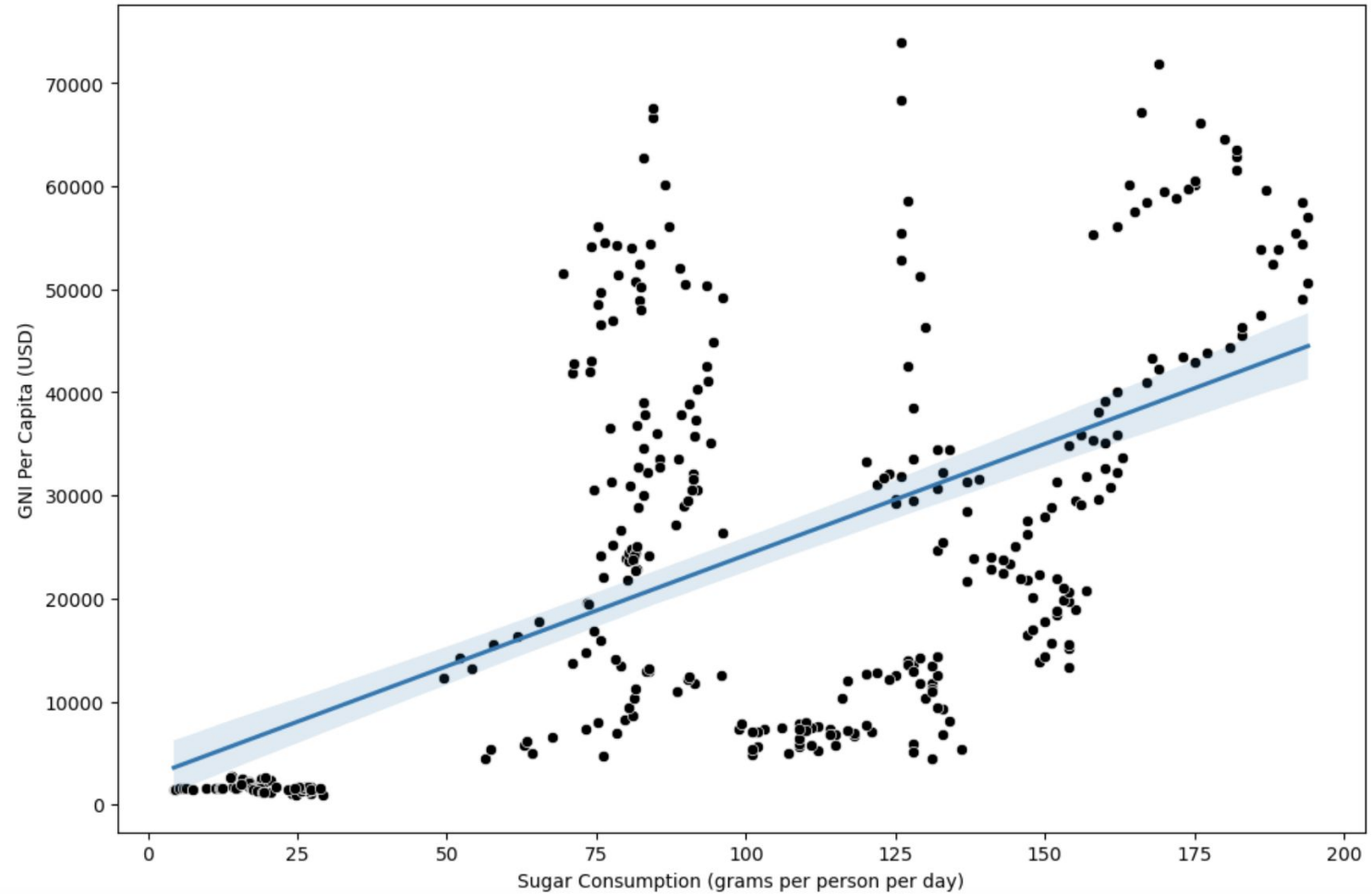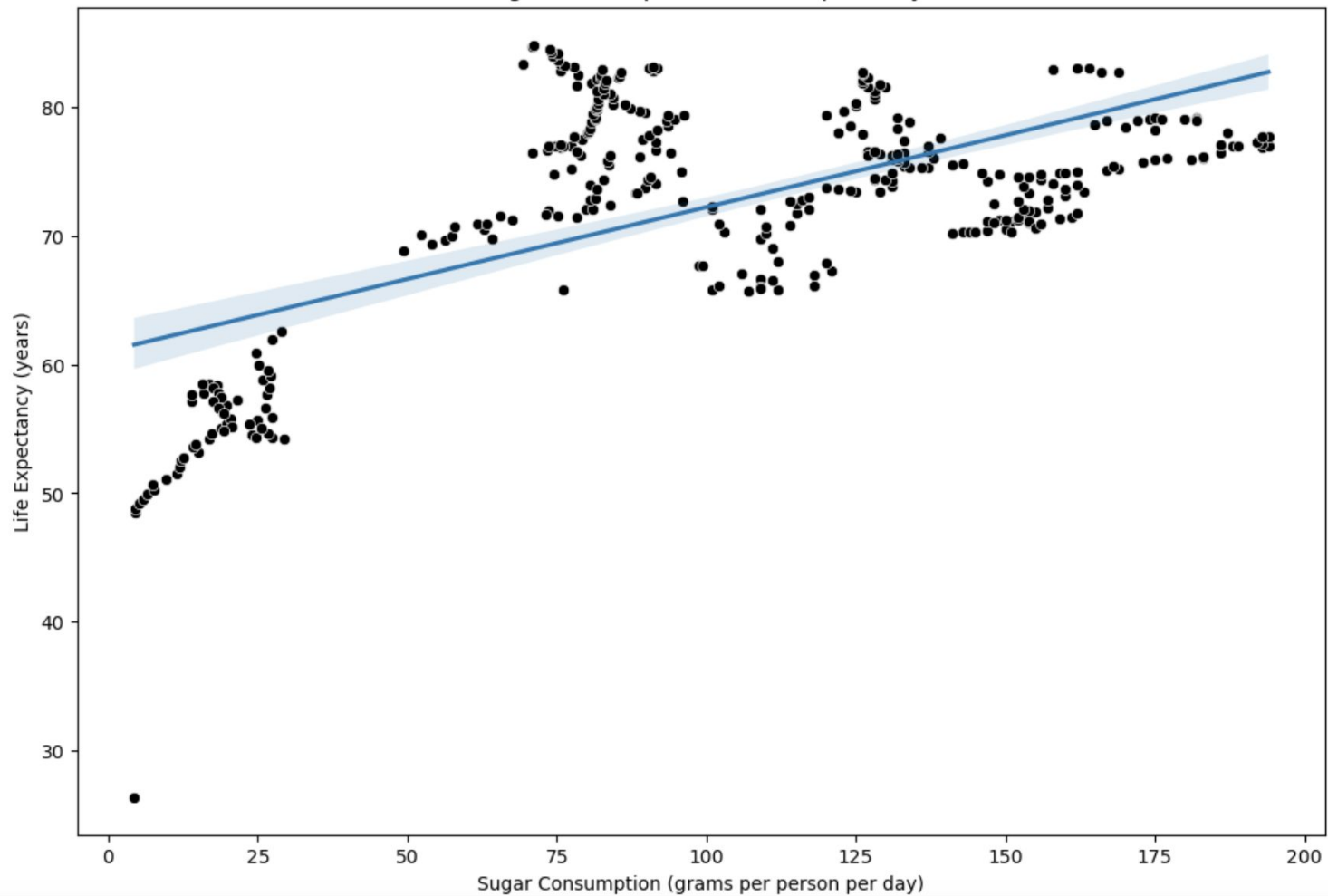Trend of Sugar Consumption Between 1961 and 2018

Results

We will be looking at the correlation between:
- **Sugar Consumption vs. GNI Per Capita**
- **Sugar Consumption vs. Life Expectancy**
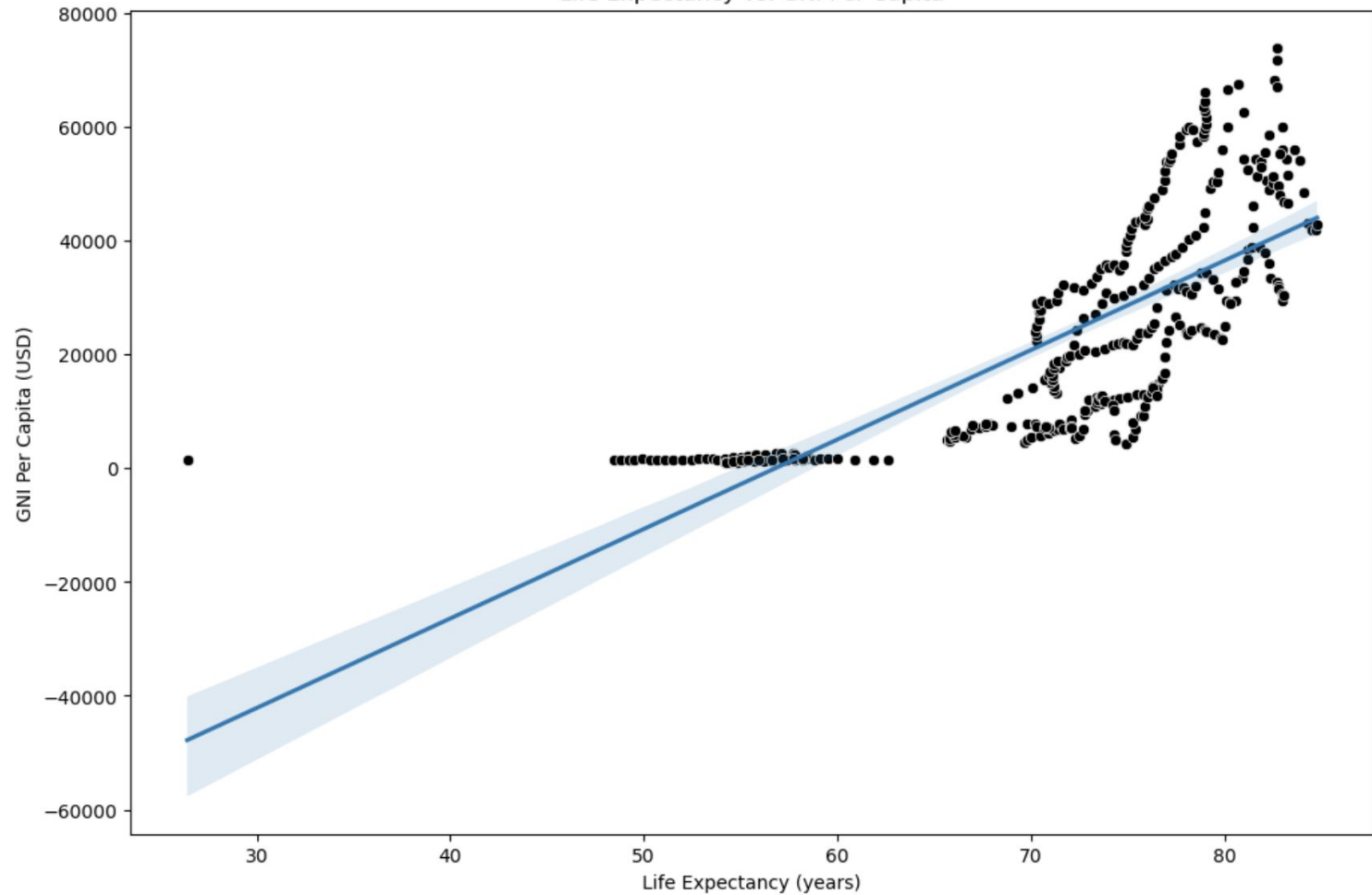- **Life Expectancy vs. GNI Per Capita**

Sugar Consumption vs. GNI Per Capita

Sugar Consumption vs. Life Expectancy

Life Expectancy vs. GNI Per Capita

Conclusions and Recommendations

- Moderate positive correlation between sugar consumption and GNI
- Wealthier countries tend to have higher sugar consumption
- Slight positive correlation between sugar consumption and life expectancy
- Strong positive correlation between life expectancy and GNI
- Countries with higher economic status tend to have longer life expectancy
- Moderation is still key since excessive sugar intake can lead to various health issues
- Individuals should be encouraged to consume other foods to maintain a balanced and healthy lifestyle
- Remember: correlation does not imply causation!

Limitations and Future Studies

- **This study was limited to the data from six countries**
- **This study was limited to the time frame between 1961 and 2018 (inclusive)**
- **Future studies should include expanding both the countries and the time frame to include a larger sample size**
- **Future studies should also explore other factors that can affect life expectancy**

Sources

- **Gapminder datasets (https://www.gapminder.org/data/):**
  - Life Expectancy by Country (life_expectancy.csv)
  - Gross National Income (GNI) per capita in current US dollars (gni_per_cap_atlas_method_con2021.csv)
  - Sugar in grams per person per day (sugar_per_person_g_per_day.csv)
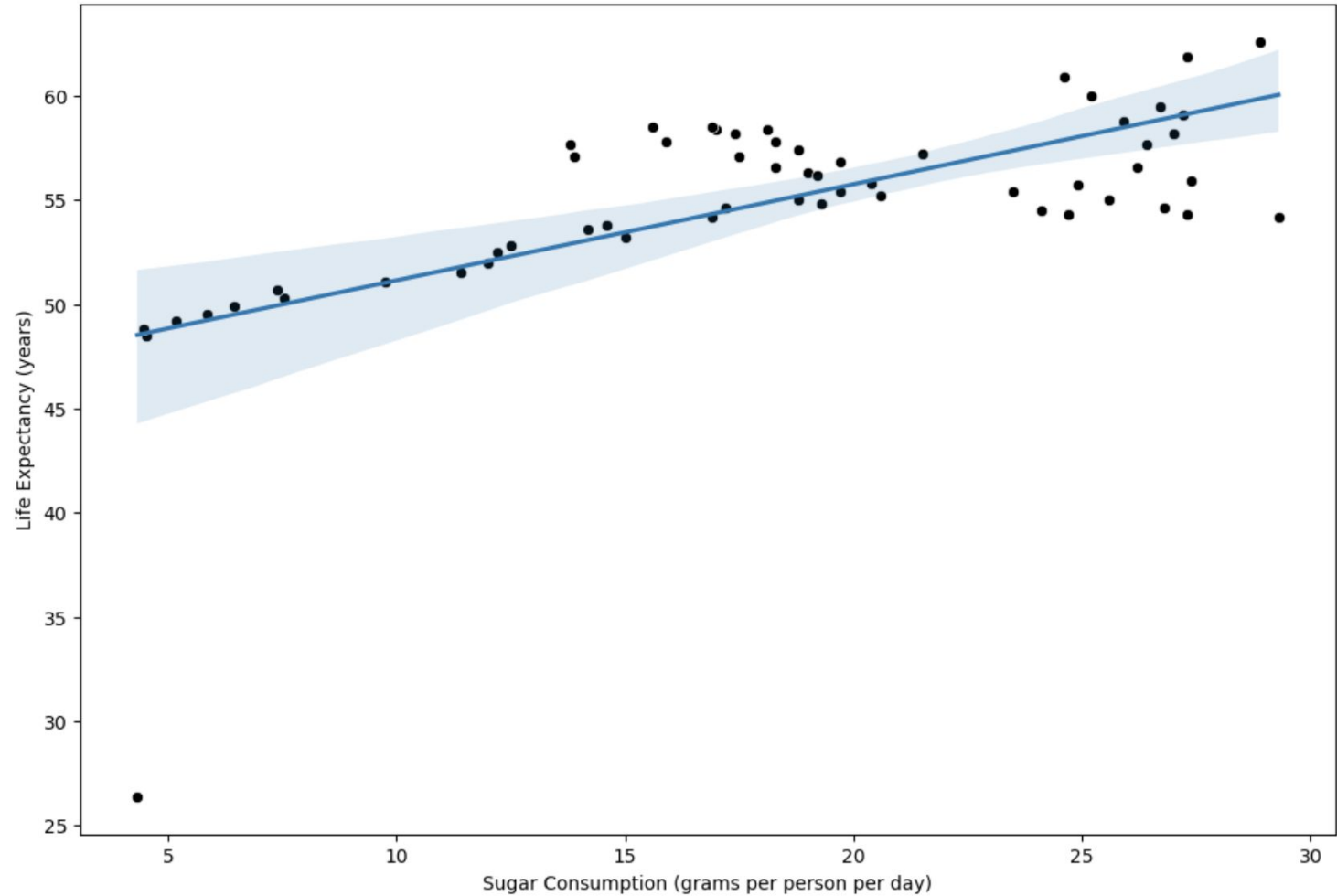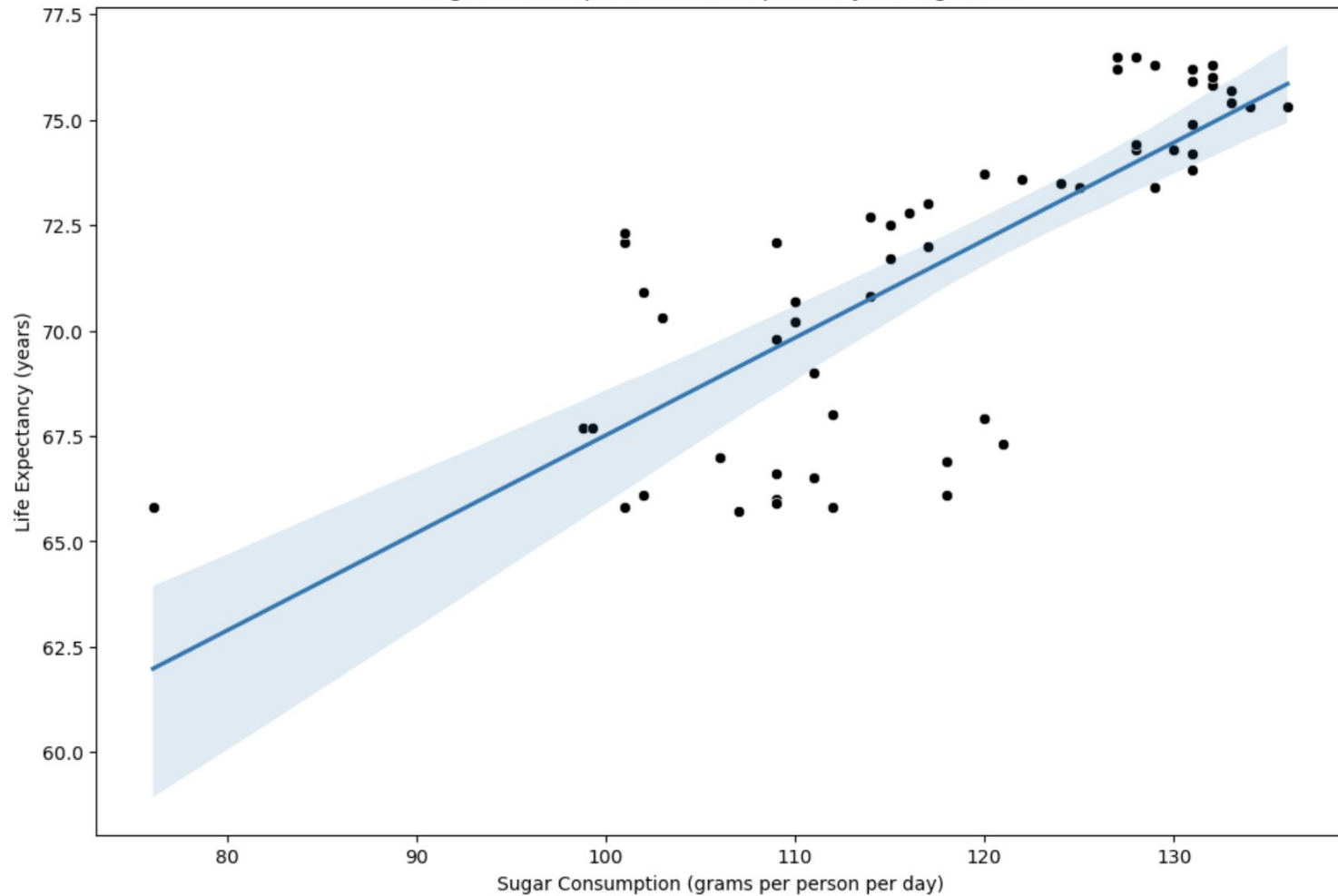- **Website (Bloomberg Global Health Index): https://worldpopulationreview.com/country-rankings/healthiest-countries**
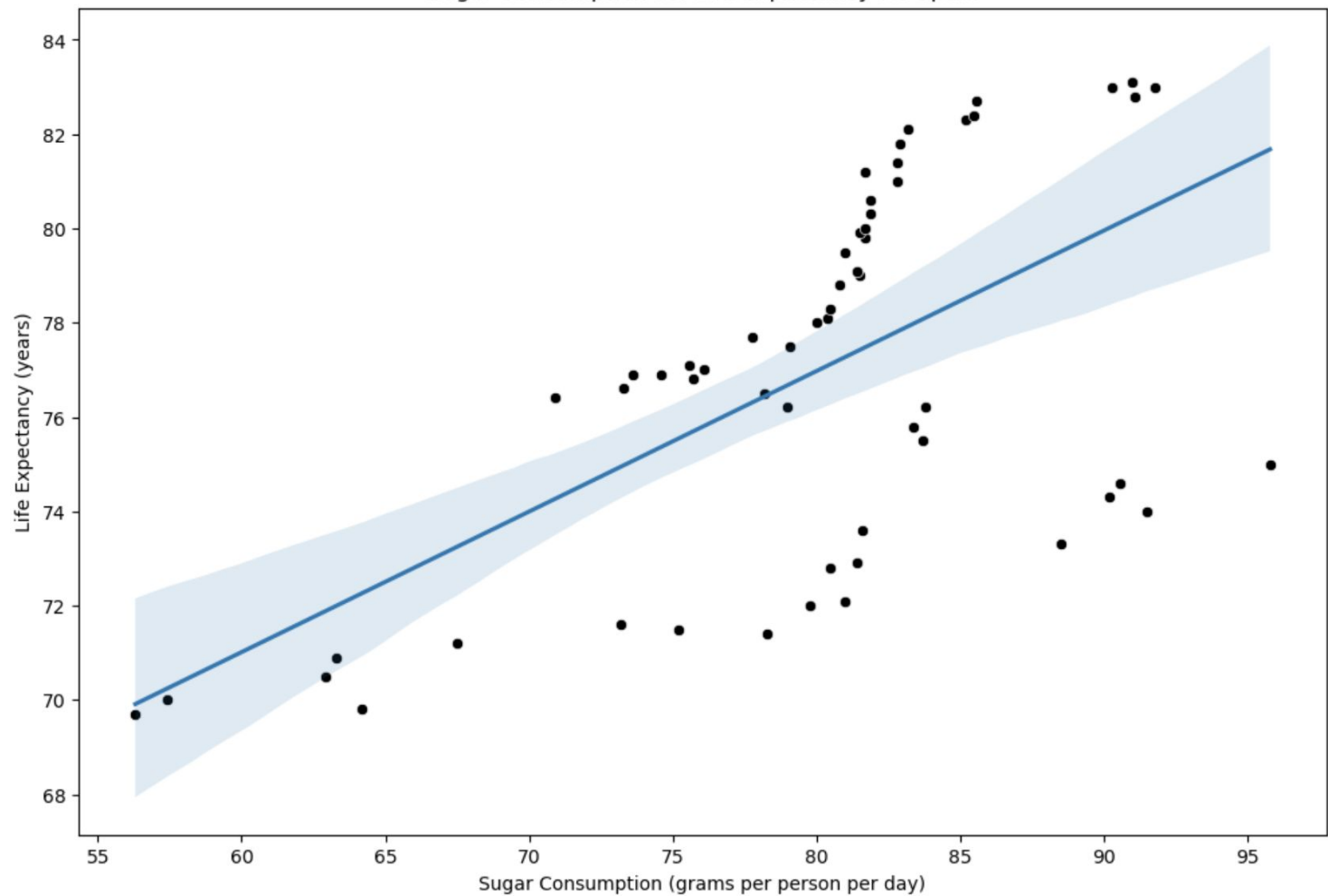
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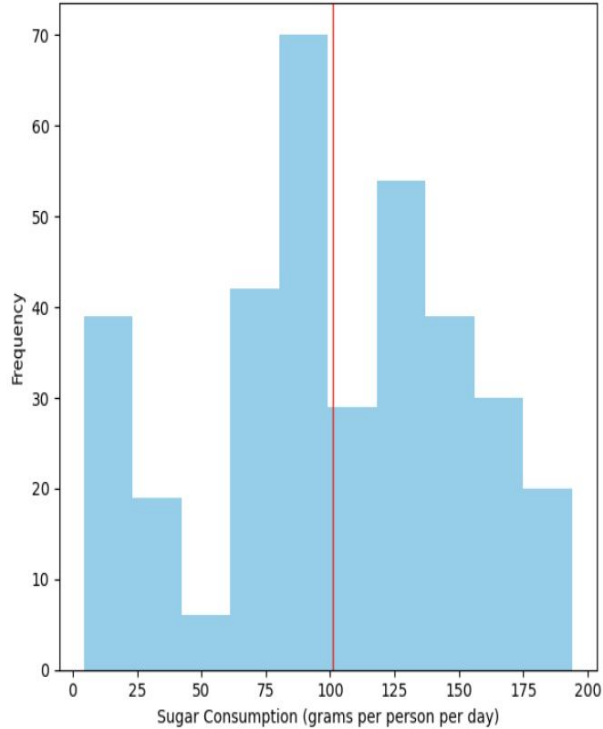
Appendix

Sugar Consumption vs. Life Expectancy for Cameroon

Sugar Consumption vs. Life Expectancy for Argentina

Sugar Consumption vs. Life Expectancy for Spain
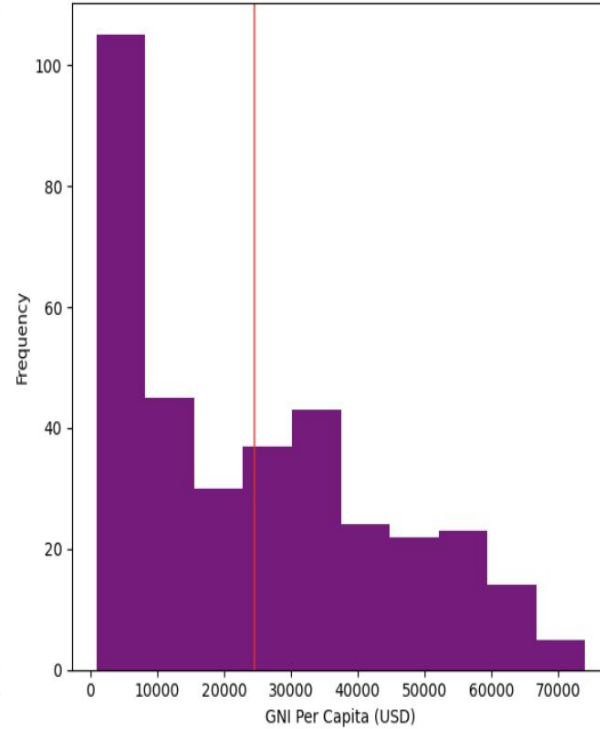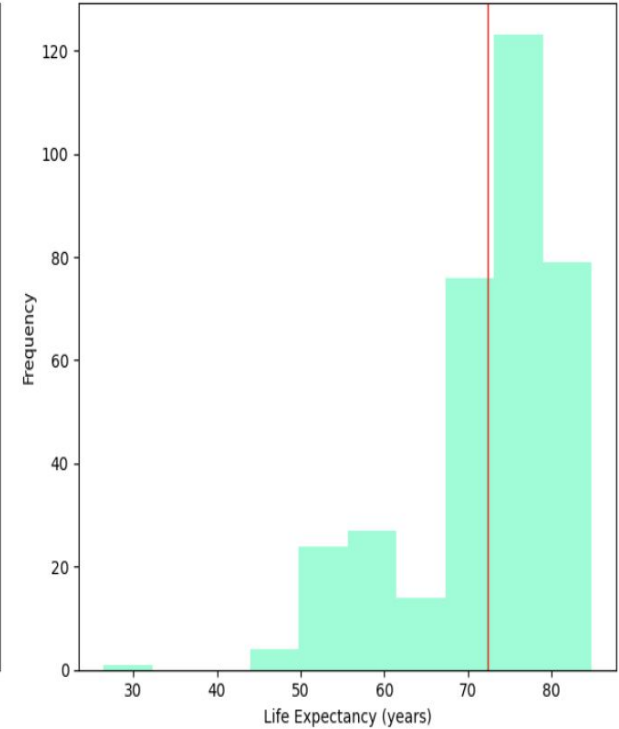
Distribution of GNI, life expectancy, and sugar consumption between the years 1961 and 2018.