

Exploring the relationship between daily income and life expectancy

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1) Main outputs

Figure A)

Life Expectancy by Country (2020)

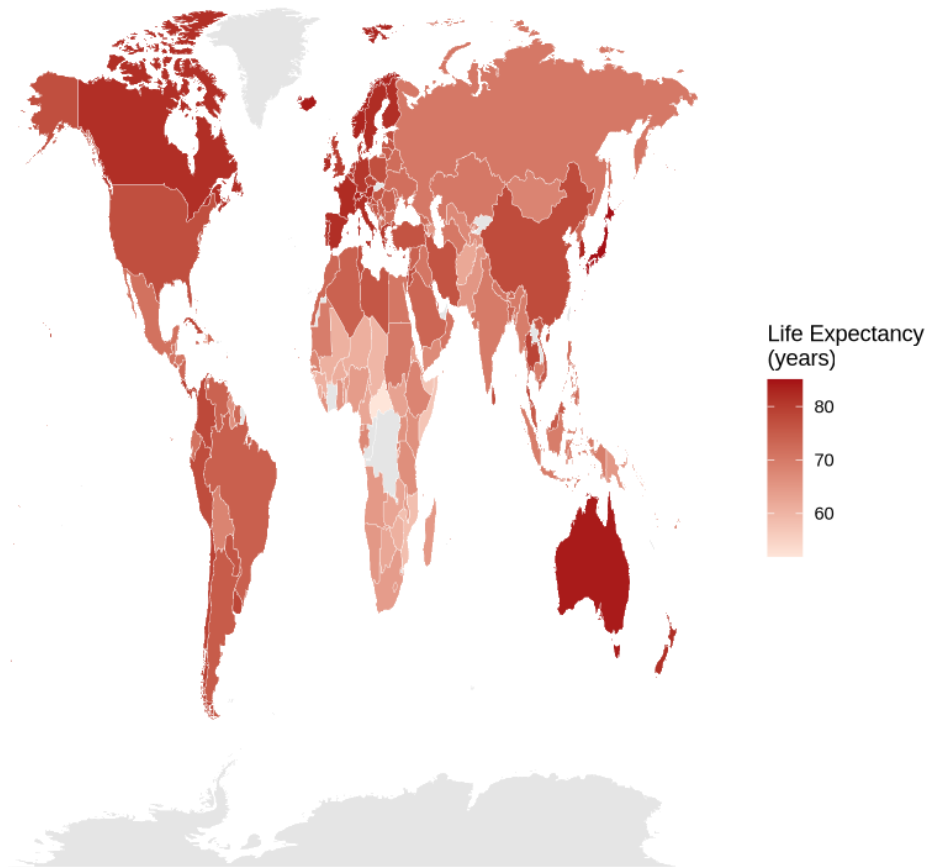


Figure B)

Daily Income per Capita by Country (2020)

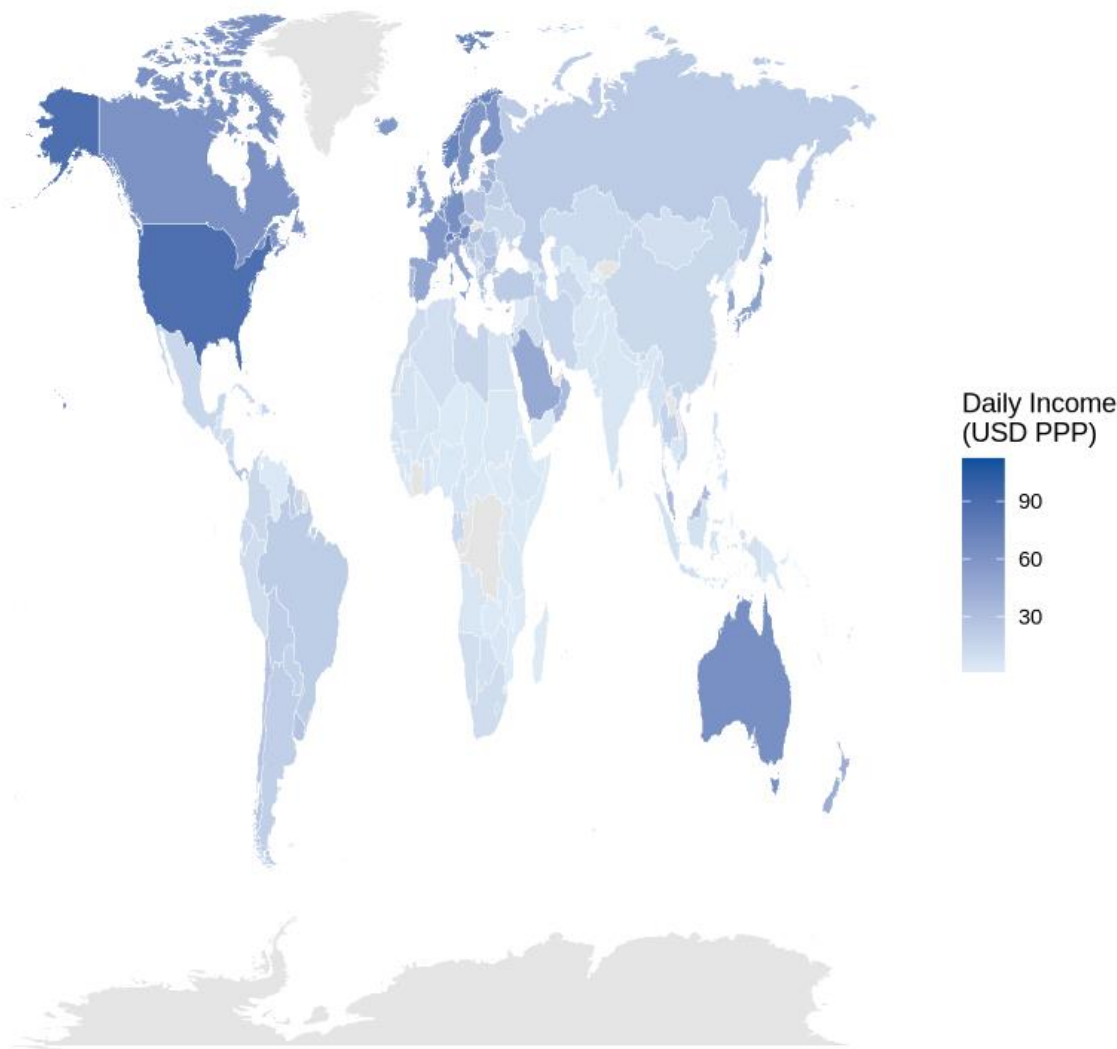
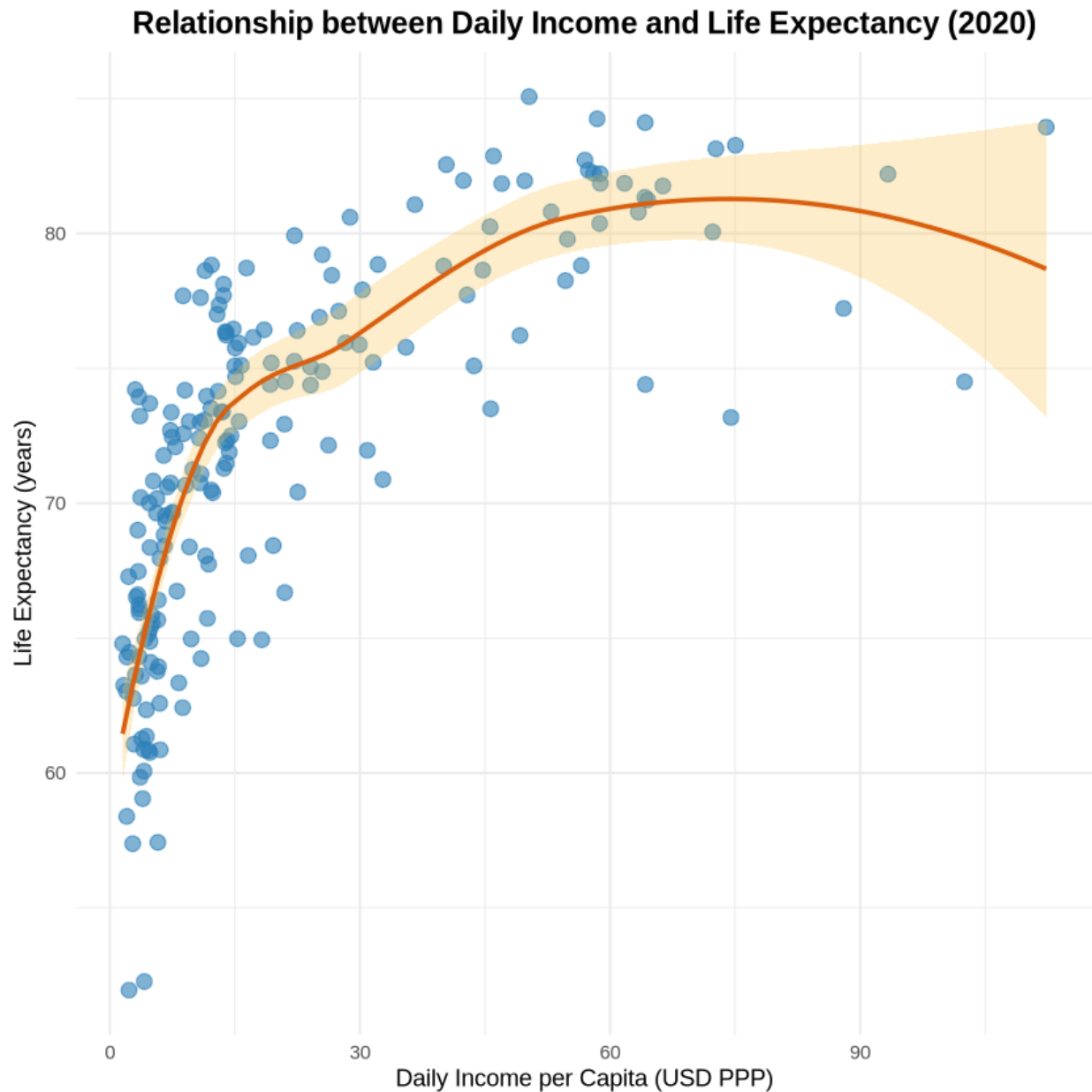


Figure C)



2) Interpretation:

The analysis reveals a **strong positive relationship** between daily income and life expectancy in 2020:

- **Correlation coefficient: 0.705** - This indicates a strong positive correlation between the two variables.

- **Pattern:** The scatterplot shows a clear non-linear relationship. Countries with higher daily income tend to have higher life expectancy, but the relationship follows a logarithmic pattern:
 - At lower income levels (under \$10/day), small increases in income are associated with substantial gains in life expectancy
 - At higher income levels (above \$30/day), the relationship plateaus - additional income produces diminishing returns in life expectancy gains
- **Geographic patterns:** The maps show that wealthier regions (North America, Western Europe, parts of Asia) have both higher incomes and longer life expectancies, while sub-Saharan Africa and parts of South Asia show lower values for both indicators.

This relationship suggests that economic development is strongly associated with health outcomes, though other factors (healthcare systems, education, infrastructure) likely mediate this relationship, especially at higher income levels.

3) Reflection:

I really enjoyed it. I had never used Julius before and it was incredibly straightforward with the very precise and clear instructions. I can definitely see myself using it again in the near future. It was surprising how quickly and organized Julius presented the outputs, without a single mistake.