



Understanding Obesity and Thinness in Context

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Research question

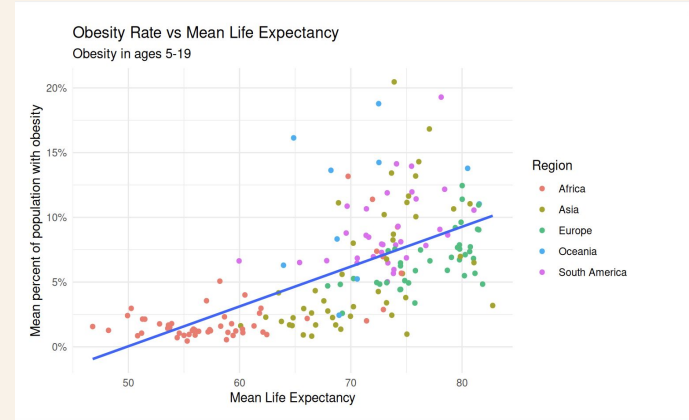
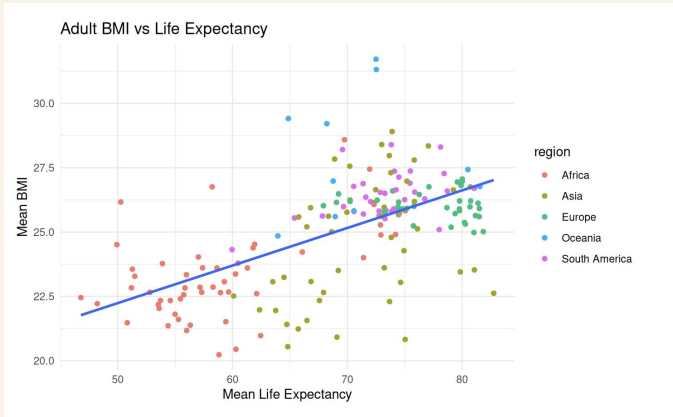
How does thinness and obesity relate to life expectancy and what is the role of a country's economic well-being in shaping this relationship?

Our data

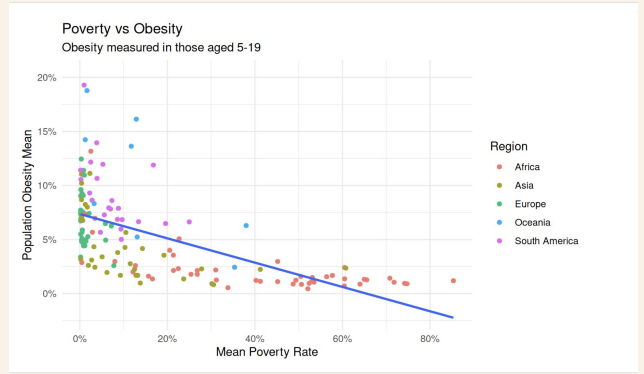
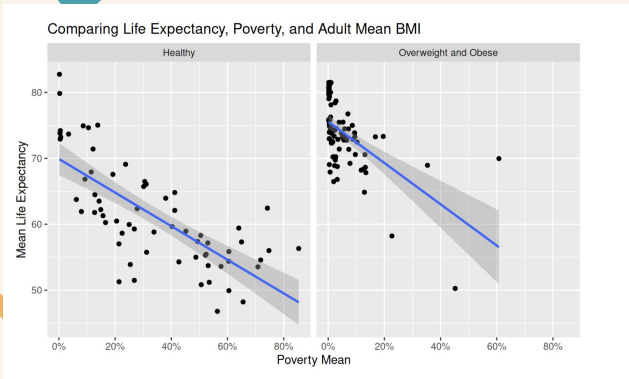
We used a data set measuring these variables across 183 countries and 16 years (2000-2016):

life_expect_mean	Life expectancy mean in a country
thinness_mean	Percentage of population in a country aged 5-19 affected by thinness
obesity_mean	Percentage of population in a country aged 5-19 affected by obesity
poverty_mean	Percentage of population affected by poverty in a country
mean_bmi	Average adult BMI in a country
gni_capita_mean	Gross National Income per capita in a country

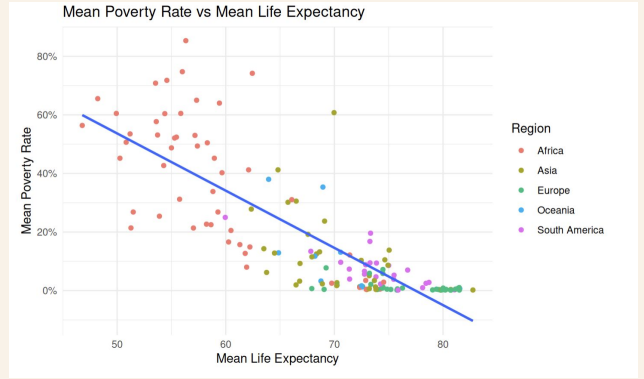
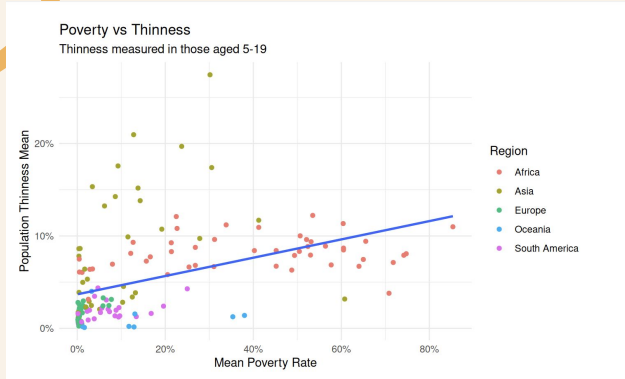
We took the mean of these percentages across the years. This allowed the data to be easily plotted and analyzed. We removed N/A values from the mean calculation.

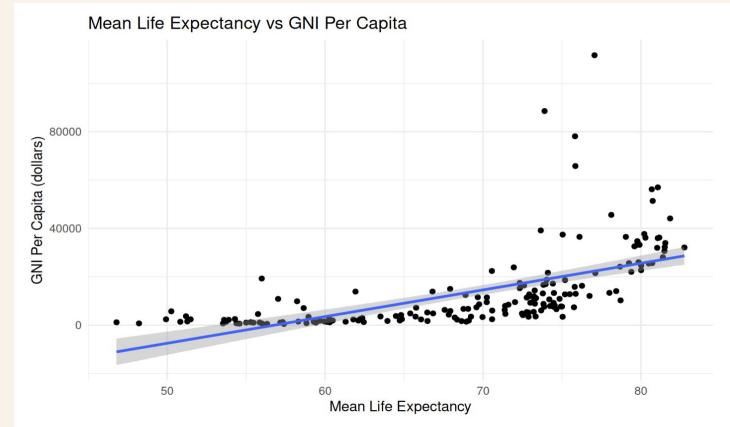
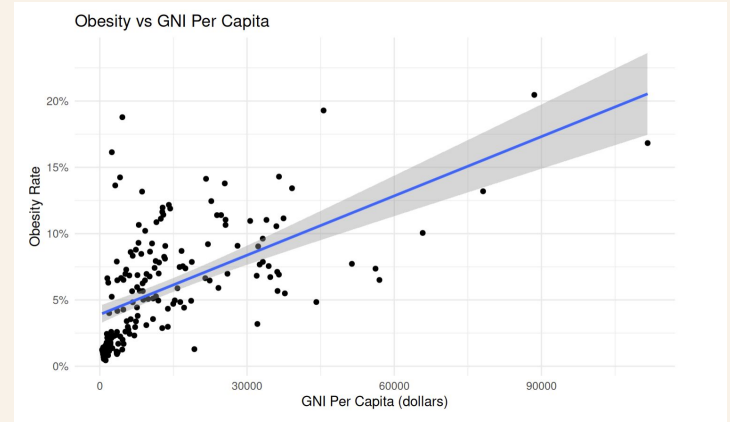
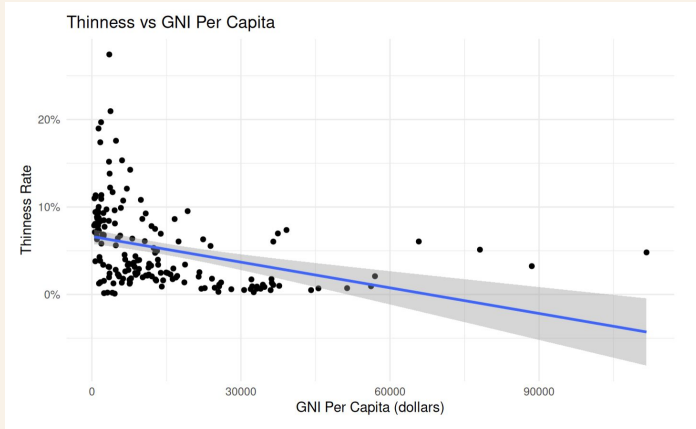


Life expectancy



Poverty





GNI

Analysis

- Thinness and lower BMIs are correlated with lower life expectancies, higher rates of poverty, and lower GNIs per capita.
- Obesity and higher BMIs are correlated with higher life expectancies, lower rates of poverty, and higher GNIs per capita

Discussion

- Obesity and life expectancy are positively correlated, which seems odd, considering obesity is medically proven to negatively impact health
- Adding in the context of country wealth, countries that have higher GNI per capita and lower poverty rates also have higher obesity/BMI rates
- Collectively, this shows that economic factors play more of a role than anticipated in predicting a country's life expectancy

Conclusion

Obesity and life expectancy are positively correlated, forcing us to reevaluate the role of obesity on health, especially in richer countries. Understanding the importance of a country's wealth is beneficial to approaching policy options regarding population health.

Critiques

Our data included columns of NAs, which led us to discarding multiple variables. If these variables had values, we might have been able to build stronger trends and add on to our analysis.

For the sake of more simplistic analysis, multiple years worth of data was averaged and then analyzed. More specific analysis could have been done with time series data or in using the entire dataset