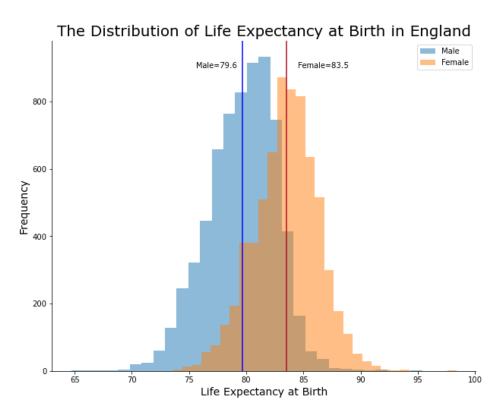
Analysis of Health Inequalities in England Report

Health inequalities are disparities in health status or the allocation of health resources across various population groups that result from the socioeconomic circumstances under which individuals are born, develop, live, work, and age. Health imbalances are unjust and can be remedied with the correct combination of government interventions.

This analysis treats trivial questions relating to health imbalance in all the cities in England with reference to the life expectancy at birth. The dataset given could be downloaded here. The detail of the data-wrangling process and the steps taken to arrive at the conclusion could also be found here.

I began by asking a simple question, "What is the overall distribution of life expectancy in England?" Interestingly, this led me down the path of discovering data insights relating to the subject matter.



Life expectancy is unimodal and follows a normal distribution. with male peaks at 79 and female peaks at around 83. Clearly, the life expectancy at birth in England spans from 64 to 98 years. The distribution also suggests that in most circumstances, females tend to have a longer life expectancy than males.

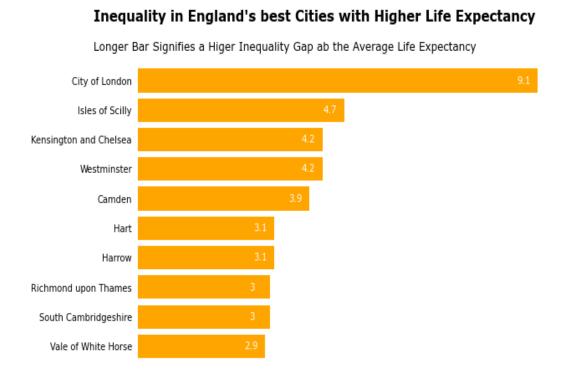
Haven established that there is a difference between male (mean=79.6 years)and female (mean=83.5 years) life expectancy, I drilled further to find cities where females led by life expectancy. Surprisingly, out of 326 cities, only in the City of London is male life expectancy higher than female life expectancy. Clearly, females have a 99.7% chance of living longer lives in any place in England. Furthermore, I determined the mid-point between gender life expectancy to establish the average life expectancy at birth for British residents regardless of where they live in the country to be 81.6 years.

Using the average life expectancy (81.6 years) as a baseline, I investigated the nations that outperformed and those that fell short. The average life expectancy in 193 of England's 326 cities is higher than the baseline, while the remaining 133 cities are lower.

Top 5 cities to live longer and their average life expectancy at birth: City of London (90.7 years), Isles of Scilly(86.3 years), Kensington and Chelsea (85.8 years), Westminster (85.8 years) and Camden (85.5 years)

Worst cities to live long and their average life expectancy at birth: Hartlepool (78.8 years), Blackburn with Darwen (78.7 years), Lincoln (78.6 years), Stoke-on-Trent (78.6 years) and Burnley (78.6 years)

Further, I discovered how the cities' life expectancy at birth differs from the national average for both the best and worst cities.



Click this link to see the graph depicting the inequality in England's worst cities with a lower life expectancy

Conclusion

In general, the difference in life expectancy between any city and the average English life expectancy runs between -4.7 and 9.1. Despite its reputation for "hustle and bustle," London has the greatest inequality gap, 9.1. In other words, a newborn born in the City of London is more likely to live longer than in any other city in England. This is much worse in Blackpool, where the inequality gap is 4.7 years lower than the national average compared to London. In other words, a newborn in Blackpool is more likely to die 13.8 years earlier than his counterpart in the City of London.

Limitation

The dataset is insufficient to fully explain the causes of health inequalities in England. Additional data must be collected to determine the differences identified in this analysis.