Supporting Doctors Go Anywhere to better understand where they should expand their services to

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Problem Statement

- Doctors Go Anywhere are looking to expand their outreach after their recent funding. In order to understand where their services would be the most valuable, they would like to identify the Top 10 regions that have the lowest access to healthcare.
- The objective of this project, alongside identifying the above, we will also be looking into the following statements:

1. Investigating how the money invested by the Government into healthcare correlates a countries position in the rankings
2. Investigating how the Life Expectancy correlates with a countries position

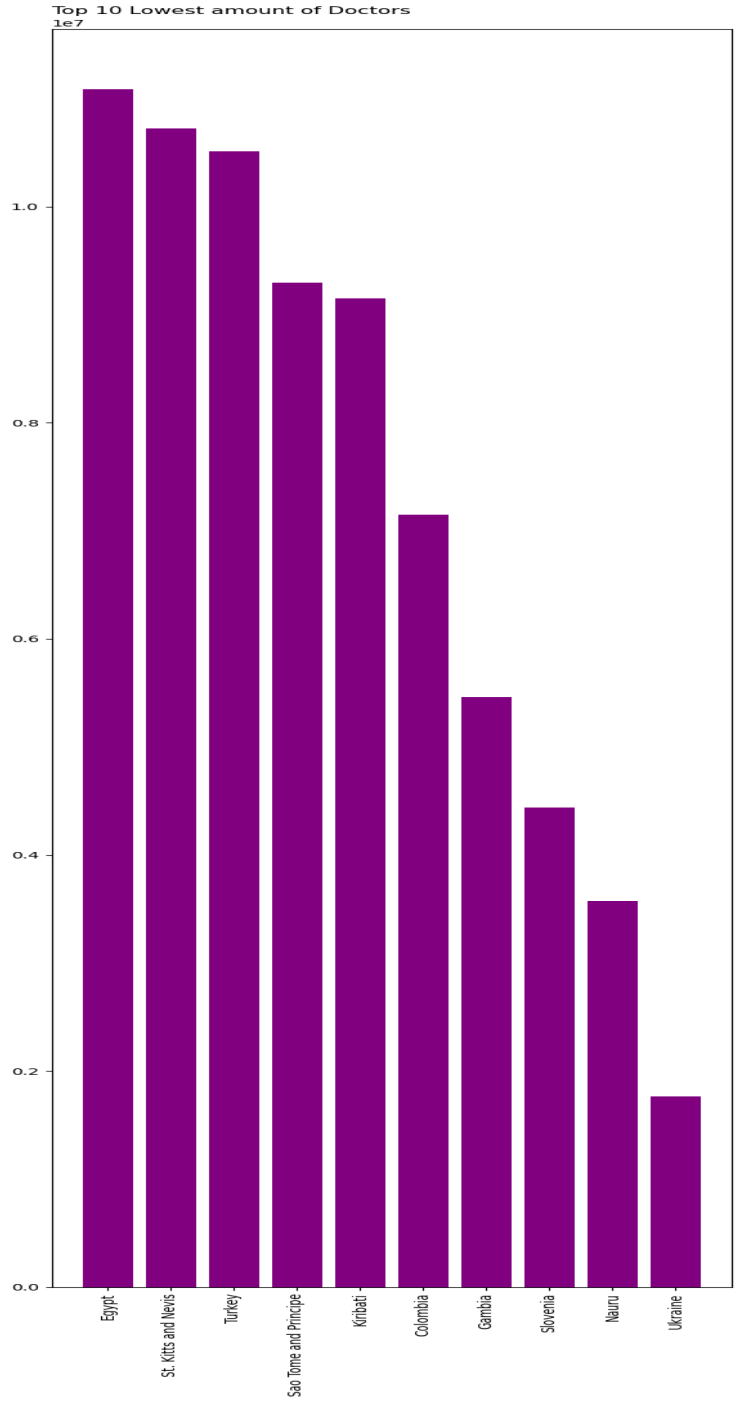
Background Research

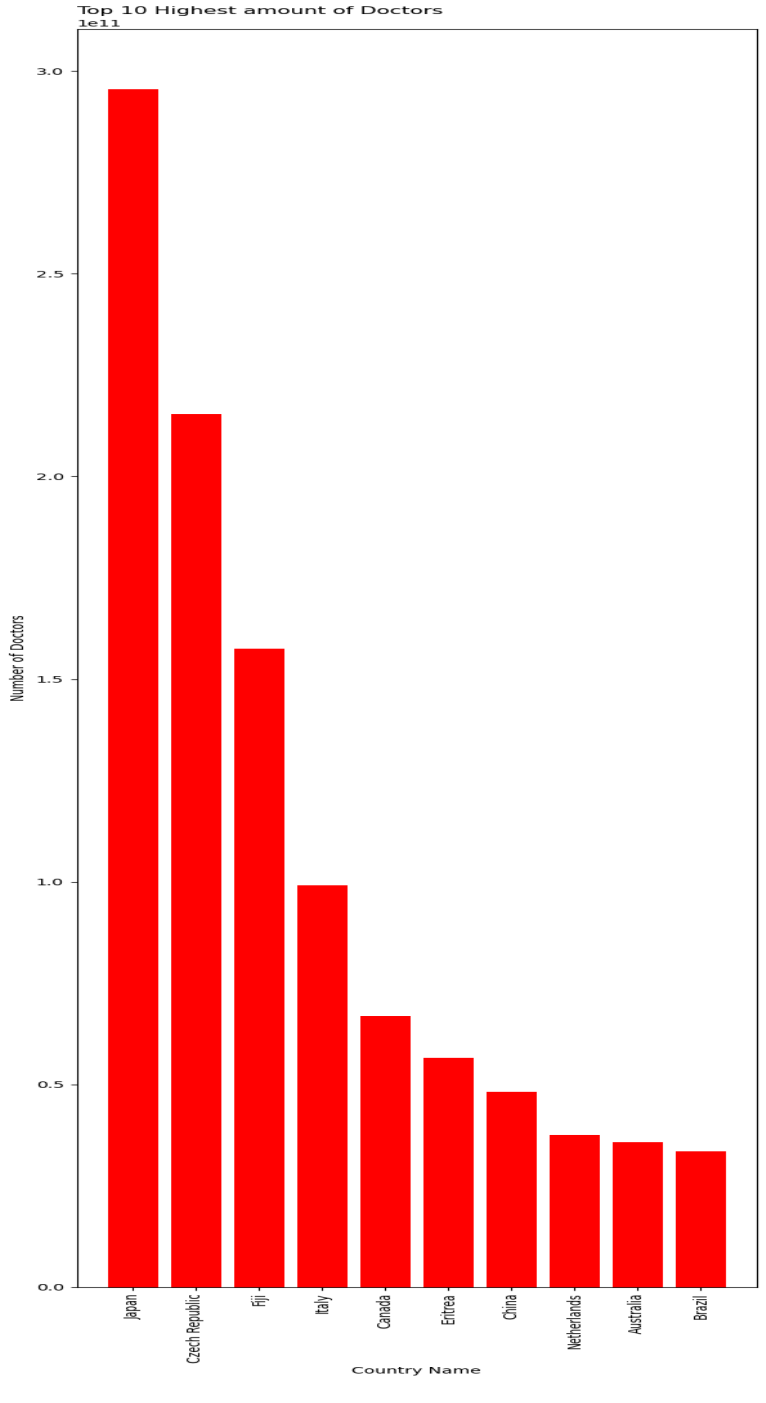
- 1) Ukraine - They were there from the start of the war, providing aid to the "war-wounded patients in emergency departments and operating theaters, ambulances and MSF's medical referral train"
- 2) Pakistan - Where they had "Record-breaking rainfall this year led to massive flooding in Pakistan, leaving more than 1,300 people dead and 12,700 others injured. "
- 3) Nigeria - Helping provide aid, medicine and care to the malnutrition and less fortunate
- 4) Afghanistan - Checking for Malnutrition and providing other medical aid during "Food insecurity and political"

$$\left(\left(\frac{Doctors\ per\ 1000}{1000}\right) \div \text{len}(\text{doctors per 1000})\right) \times Aver\ Population$$

Who are the Top 10 countries with the highest and lowest amount of doctors?

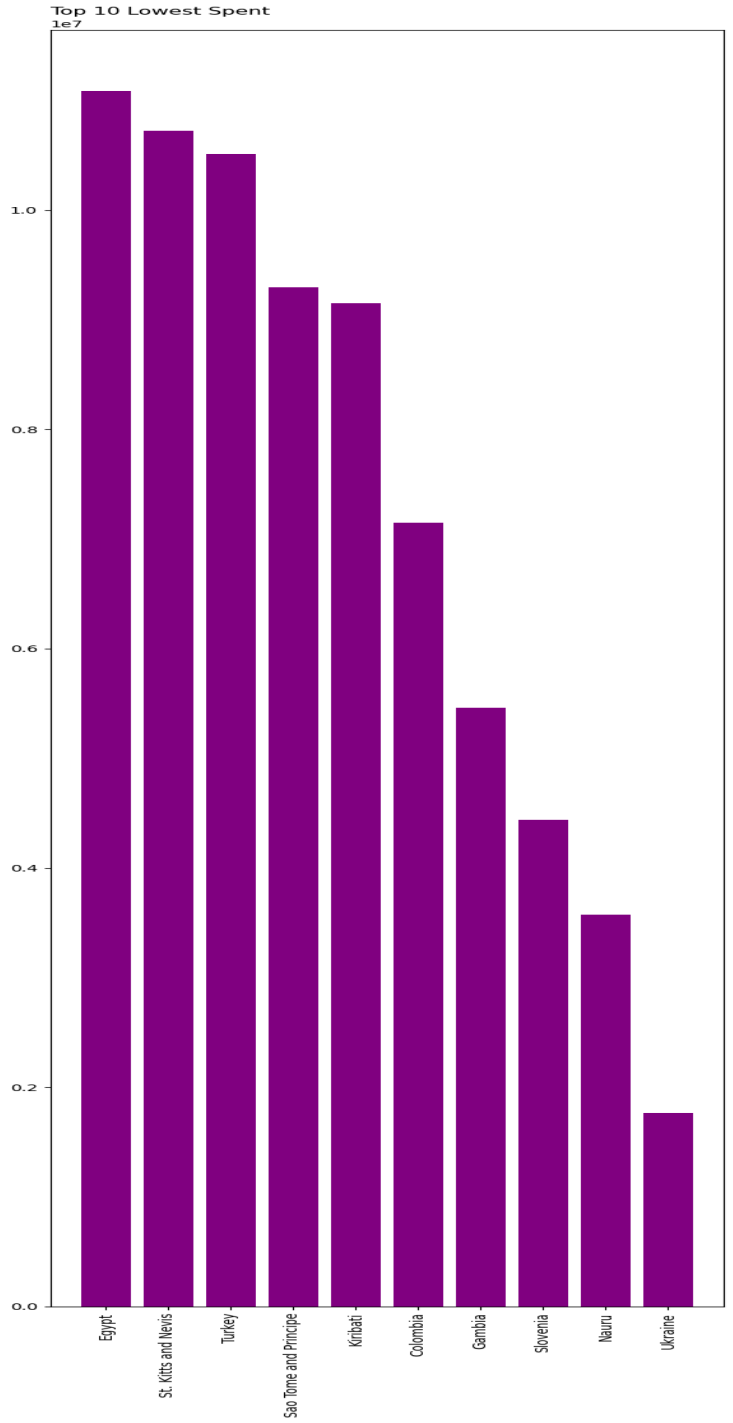
count 2.000000e+01
mean 1.436204e+05
Standard Deviation 3.546161e+05
min 3.637359e+00
25% 5.387873e+01
50% 3.412306e+04 7
5% 1.024706e+05
max 1.584598e+06

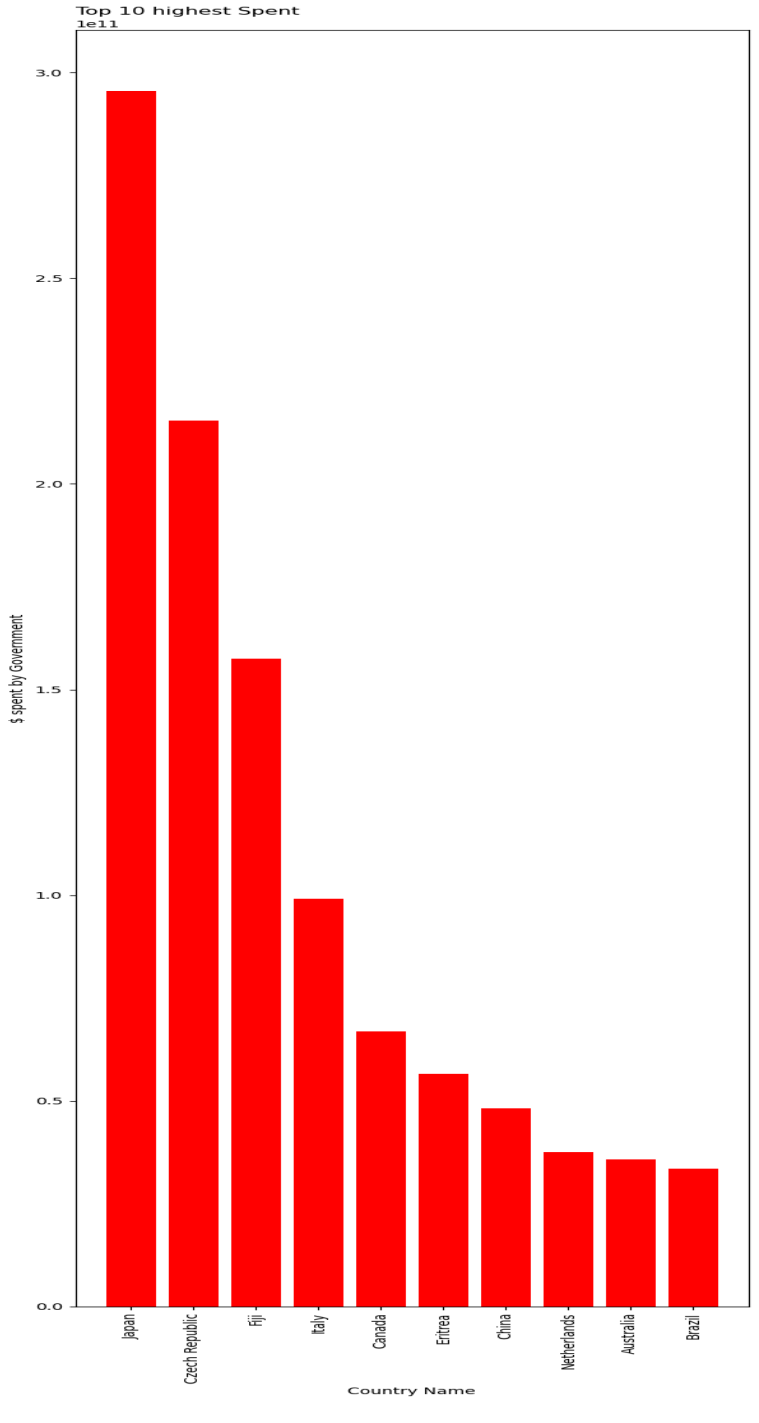




How does the number of doctors correlate with the amount of money spent by the government on healthcare?

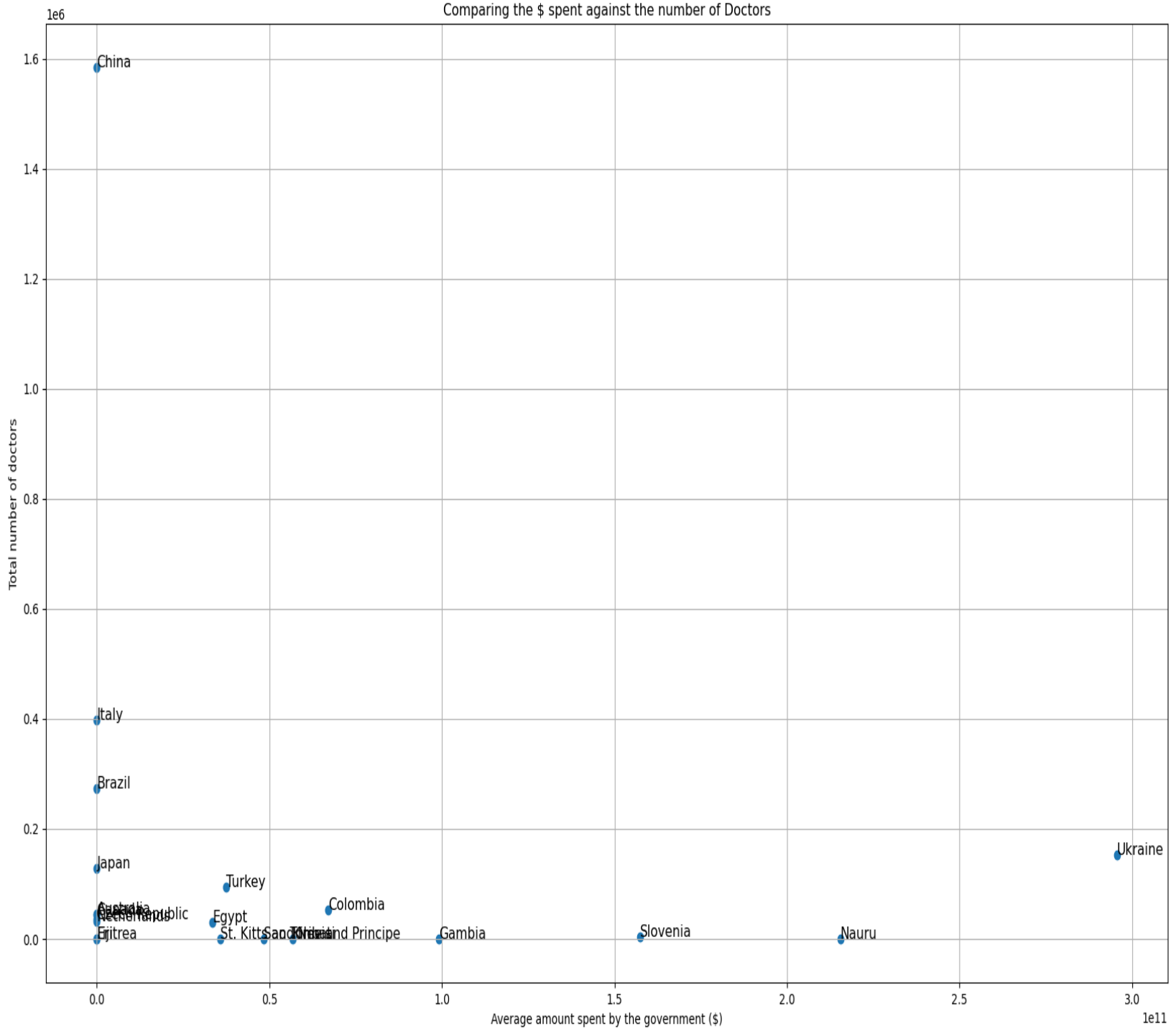
- Lets look at the money spent first
- $\frac{total\ of\ person\ spend}{length\ of\ total} \times mean\ population$
- Standard Deviation = 81919227853.01564





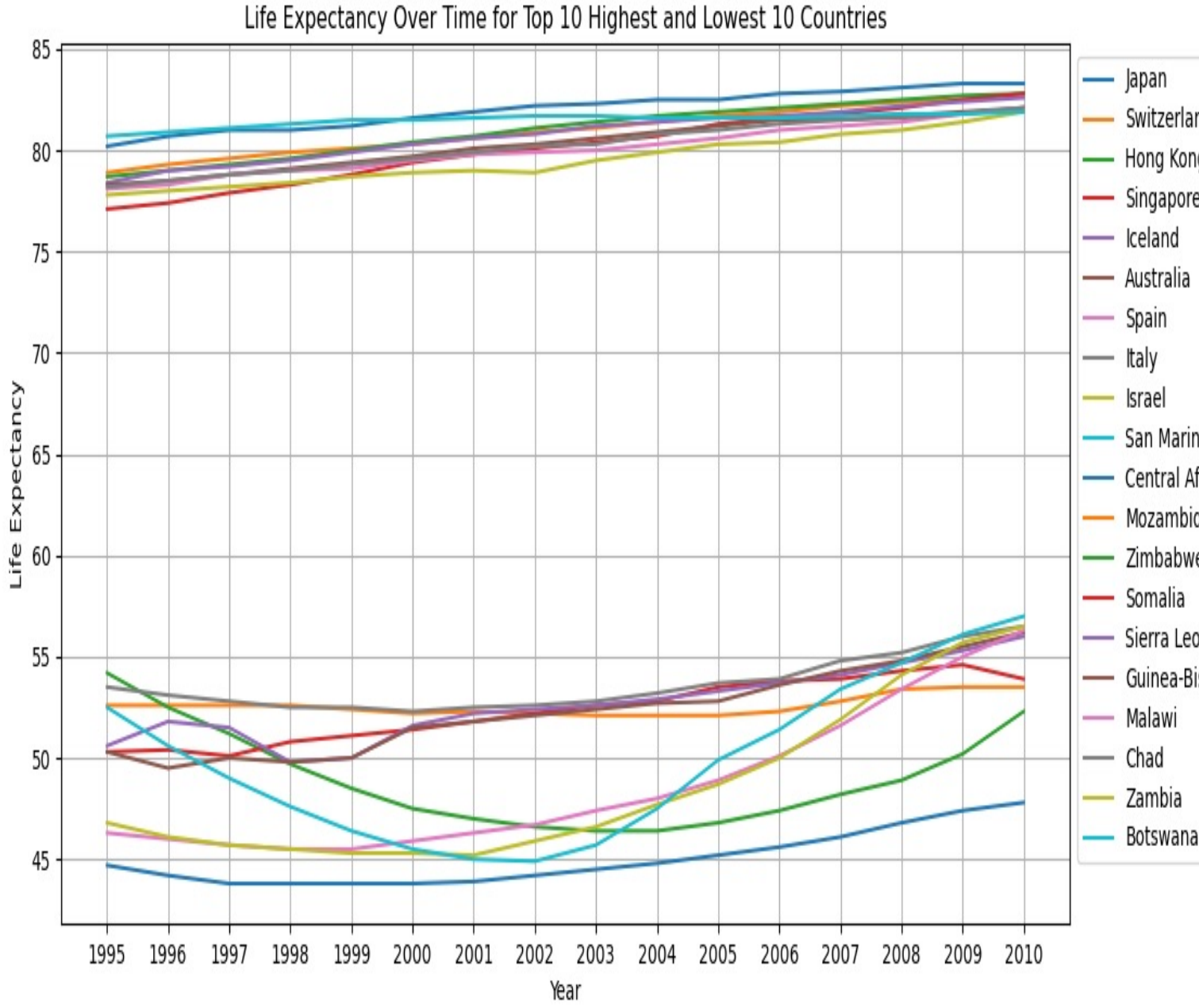
How does the number of doctors correlate with the amount of money spent by the government on healthcare?

- No Correlation
- Is China a anomaly
- Ukraine high investment but low amount of doctors



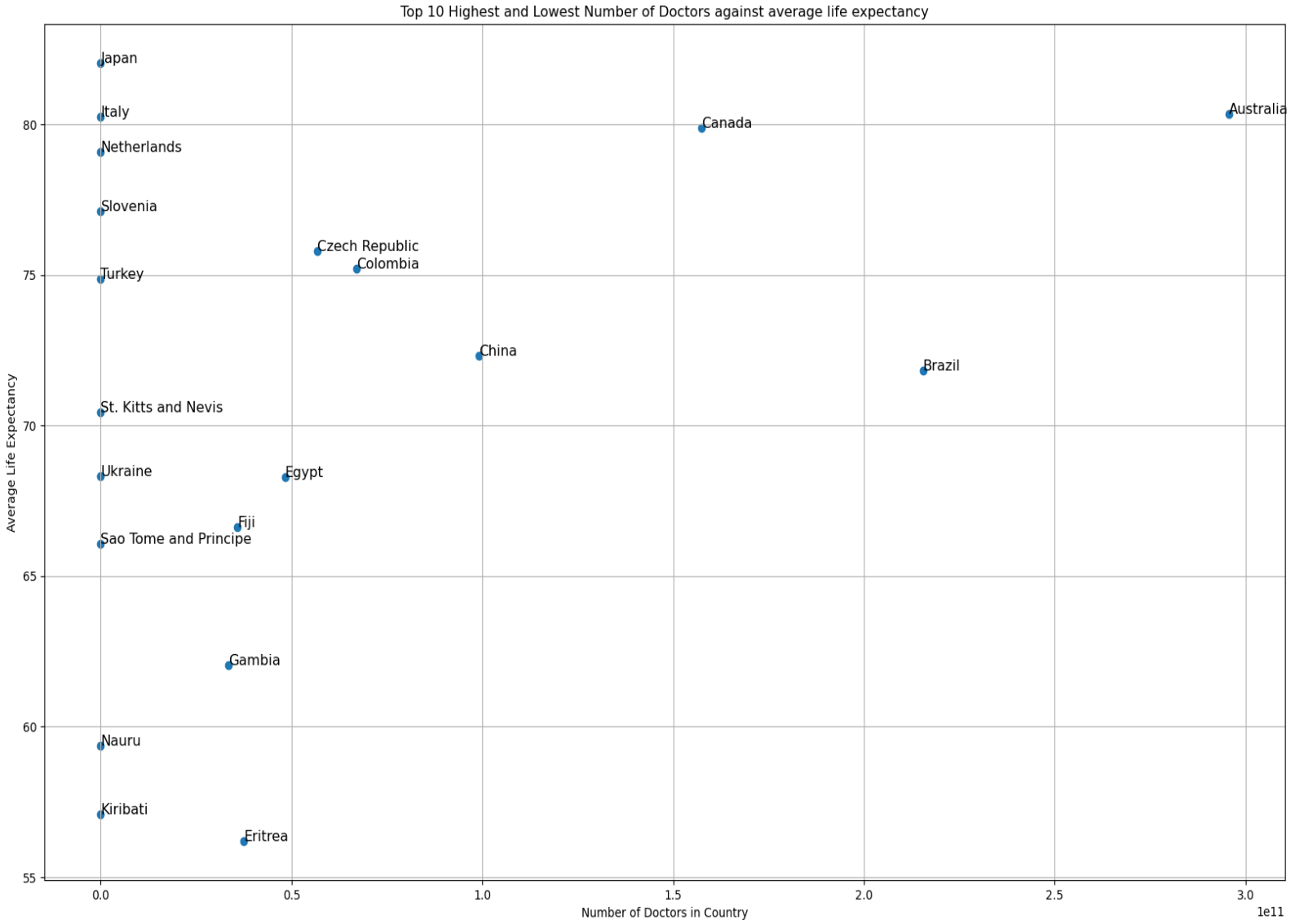
How does the Life Expectancy correlate with Top 10 Highest and Lowest total amount of doctors?

- Steady Linear increase
- Hong Kong and San Marino dip
- What caused those dips



How does the Life Expectancy correlate with Top 10 Highest and Lowest total amount of doctors?

- Japan high average government spend but low amount of doctors
- More may not always be better



Conclusion

- We have identified the Top 10 countries that could benefit from receiving additional support
- No Correlation between Government spend and number of doctors
- More factors will need to be taken in consideration to understand the correlation between life expectancy and the number of doctors
- Recommendations:

1) Understand how China a significantly large amount of Doctors whilst having a low amount of contribution from the government
2) Investigate Why China and San Marino took a deep in life expectancy from 1995 to 2002
3) Investigate how Japan has one of highest life expectancies with a low amount of Doctors compared to the rest.