**FE-550**

**Spring 2020**

**Group Data Product 3: Demonstrate your Solution**

**Team 1:**

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**Research Summary**

We are presenting what already exists.The story presented would have insights into what’s impacting the Life expectancy rate, and how has it changed over the years. Along with showing the relation between life expectancy and social, economic state of the countries.

Here is how we answered our research questions.

* **How has life expectancy changed over years?**

We answered this using a map, which changes color with change in years. Along with life expectancy you would also be able to see how few social factors have changed during this time.

* **What social, economic or health factors impacted the most for countries who has seen a change in life expectancy?**

For this, we have considered few African countries who have shown a great increase in life expectancy over the 15 years. From our visualizations, we saw the most significant increase was the percentage of people, who had Hep B immunization. It was the health factor that impacted the most for African countries.

* **Should developing countries adapt strategies that developed countries implement?**

The answer is no. For example, in developed countries only 60% of the population have had Hep B vaccine, while developing countries have around 70%, Hep B is prominent in developing countries, then developed. Each country should implement its own strategies.

* **Does spending higher percentage of GDP towards health care means having life expectancy?**

It’s a yes and a no. Spending higher percentage of GDP doesn’t necessarily mean spending more per person. For example, United States spends 17% of its GDP, which is really high when compared to other countries, but does it spend more in terms of per person, no. Like US spends 132 dollars per person, whereas Korea, spends only 7% yet spends 1,169 dollars per person.

Life expectancy does not totally really on how much the government is spending on life expectancy.

* **Is there a relation between fertility rate and life expectancy?**

Yes, our plots show there an indirect relationship with fertility rate, we could see as the fertility rate decreased, there is increase.

**Data Visualizations**

All our visualizations are in Tableau story, which is attached along this file. We have used animation to show the transition over the years and also many interactive dashboards.

|  |  |
| --- | --- |
| Plot Type | Reason |
| Maps | Our data is many. Showing life expectancy rates and comparing it with other countries. Maps enabled us to do this in a clean an efficient way. |
| Line | It was used to show how different social and health factors have changed over the years and to see which was the most defining factor. |
| Bar | It was used to make a comparison between developed and developing counties |
| Scatter Plots | To show change in different factors with respect to life expectancy. |
| Text Boxes | We believe as simple as just displaying the numbers also could speak for itself. We used it to display the averages in each year. |

**Product Credibility**

Our data product is credible as we made sure our data is from a trusted source. So we took the data from CDC and data.worldbank. We even implement few random checks while aggregating the data to ensure, data is copied properly.

**Commercial Applications**

This could educate people, about how people in other countries are living. This could even be used by the governments to analyze; how other countries are dealing with the problems they face.

**References**

* <https://ourworldindata.org/health-meta>
* <https://www.ted.com/talks/hans_rosling_the_best_stats_you_ve_ever_seen?language=en#t-844979>
* <https://www.cdc.gov/nchs/fastats/life-expectancy.htm>
* <https://data.worldbank.org/>