Data Analysis and Visualization
Final Project

Title: Causes of Death over the World

Submitted By:

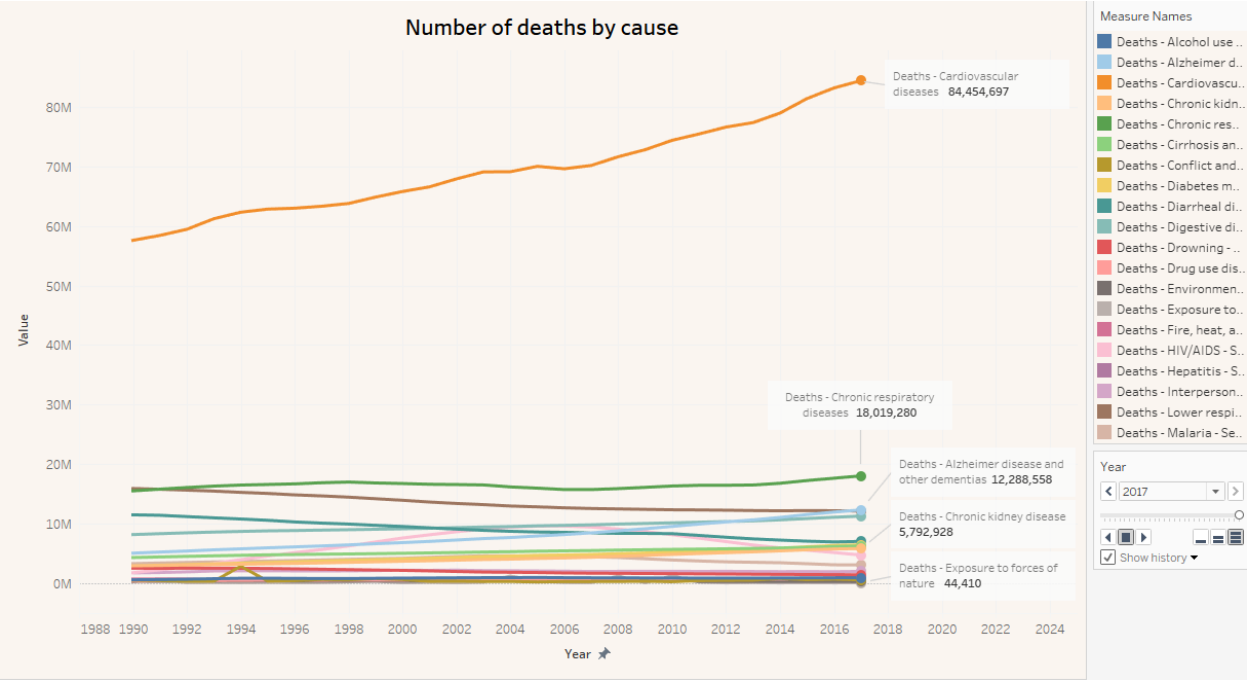
Anshul Jaiswal

Yashasvi Sharma

Causes of Death:
In law, medication, and statistics, cause for death is an authority assurance of conditions bringing about a human's death, which might be recorded on a death certificate. A reason for death is dictated by a clinical analyst. The reason for death is a particular illness or injury, rather than the way of death which is several categories like "natural", "accident", "suicide", and "homicide", "diseases", which have different legal implications.

Here are some visualizations which we used to analyze the causes of deaths in the world.

Deaths by Cause:

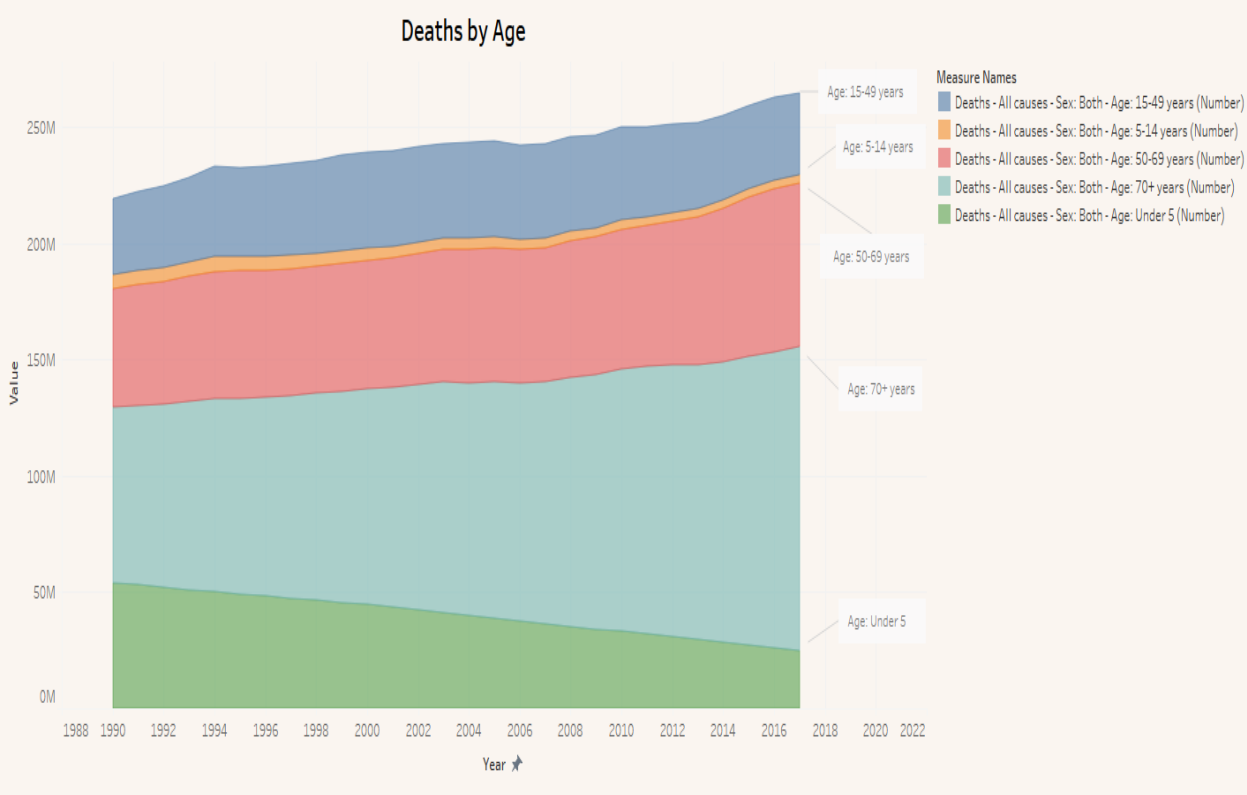


The share of deaths from infectious diseases are declining; a larger share is dying from cardiovascular diseases.
In the visualization we see the distribution of global deaths broken down by different causes. Cardiovascular diseases have played a major role in causing deaths. In the year 1990 also, there were around 60 million deaths and in the year 2017 it has increased to around 84 million, which means that the graph keeps getting to increase over the years. There are two major reasons for this, firstly population of the world keeps getting high and, second could be the health issues.

If we look at other diseases, we can see that the graph for them doesn’t has a lot of change, it seems to be somewhat stable over the years. Also, there are diseases whose graph has fallen like for digestive diseases we can see that in the year 1990 it caused around 15 million deaths but on the other hand in the year 2017 it caused only around 11 million deaths.

Furthermore, we can see that the least number of deaths are caused by exposure to forces of nature. That means the nature plays least important role in causing deaths.

Deaths by Age:



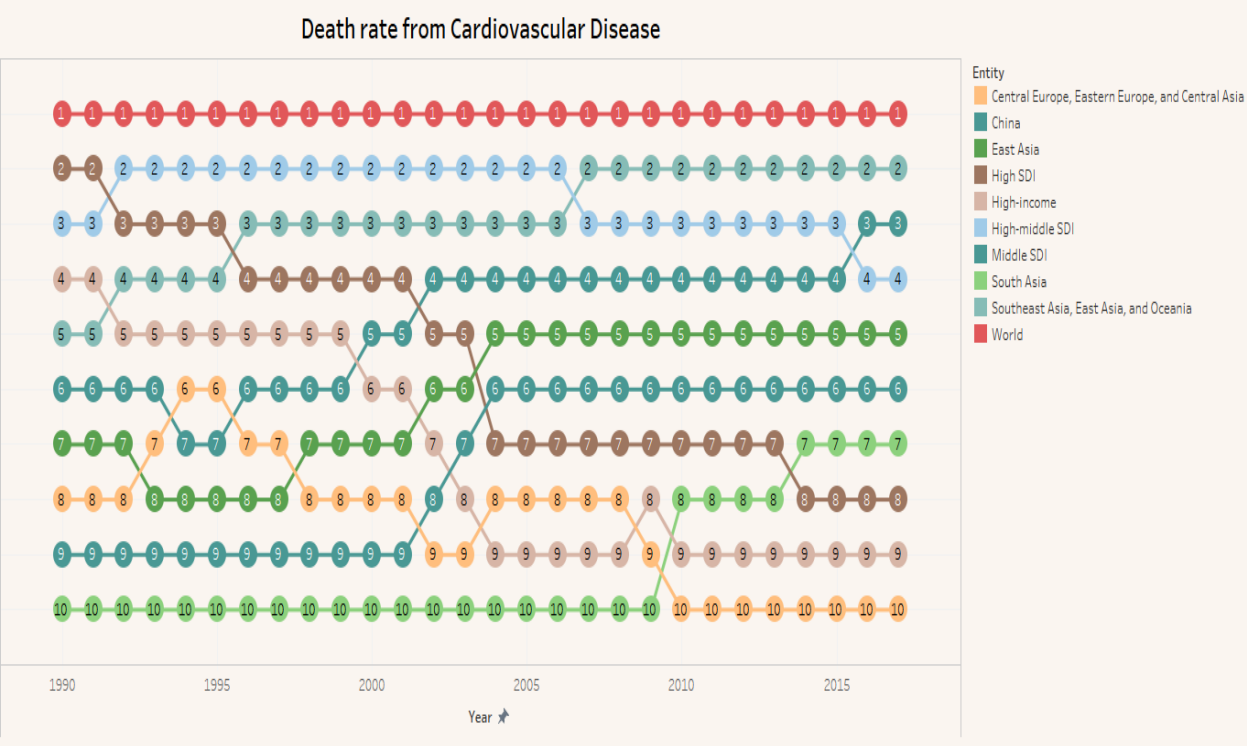
To analyze about the death rate around the world, the number of deaths by age is an important aspect to be observed as this will provide information about the deaths per age group and we can focus more on the increase or decrease of a particular age group.

The area graph above shows details of various age groups and the sum of the counts of death from year 1990 to year 2017. It can be analyzed that the age group 70+ has the maximum number of deaths recorded all over the period. It is represented in the teal blue color. Also, the age group 5 - 14 provides the least count of deaths.

It is also shown that the age group 70+ provides the increase in the number of deaths moving from year 1990 to year 2017 whereas age group under 5 marks decrease in the count of the deaths. Apart from these two the three age groups 5 – 14 years, 15 – 49 years and 50 – 69 years maintain a consistent count of deaths.

An Increase of about 25 – 30 million is seen in the difference from year 1990 to year 2017.

Death rate from cardiovascular disease:



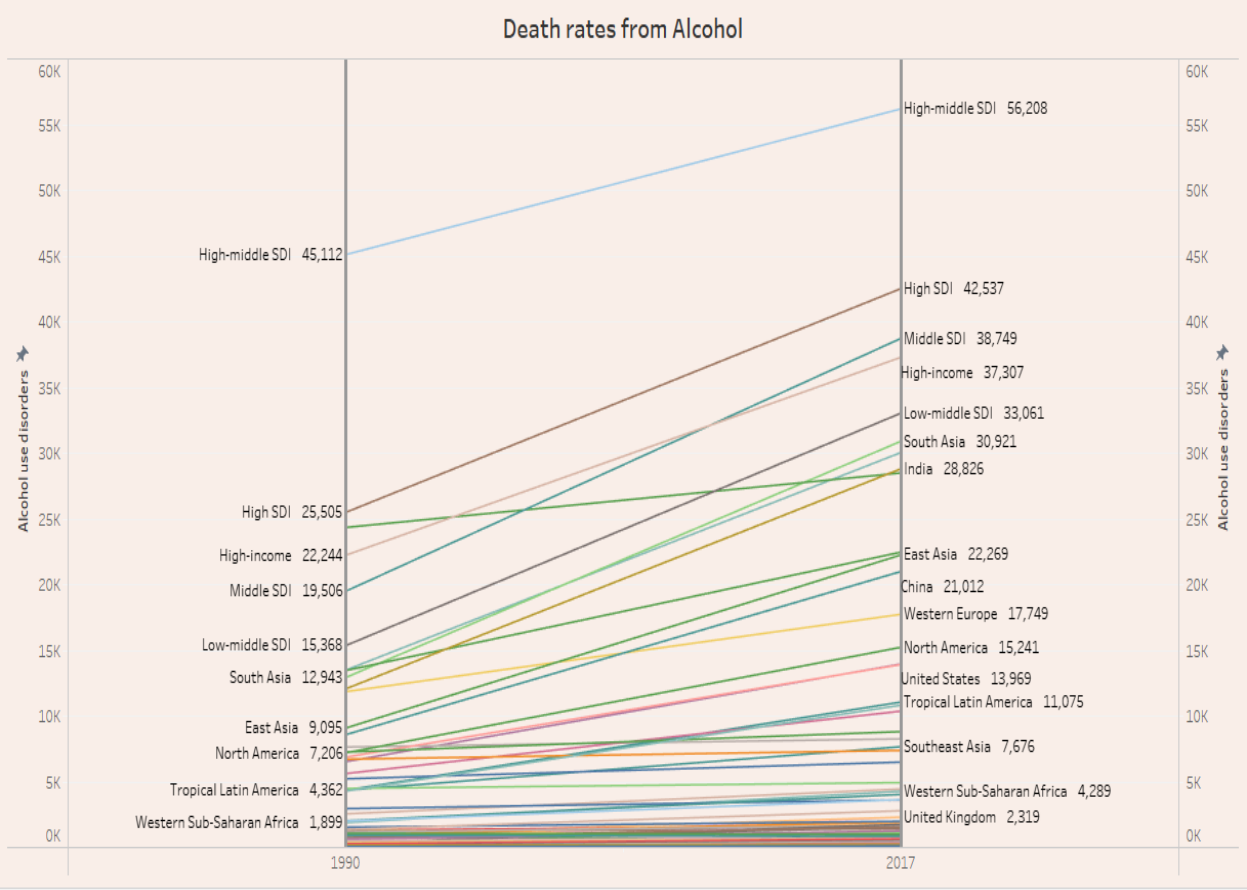
Here we have considered cardiovascular diseases for exploring it as it has caused the highest number of deaths over the years. The above bump chart explains the top 10 regions which has caused the highest number of cardiovascular deaths. The bump chart also makes out the regions based on rank.

For instance, we can see that China's rank is 9 over the period of 1990-2001 but, after that the deaths in China due to cardiovascular diseases got increased and China went on 6th place in 2004 and then was stable on rank 6 throughout.

There is also a region as High SDI which was ranked 2 in the initial years but the deaths in that region due to cardiovascular diseases kept falling over the period that in the year 2014 it went to 8th position as the number of deaths decreased so much.

This was all about the bump chart in which regions were ranked from 1 to 10 for deaths.

Death rates from Alcohol:



This is the slope chart for death rates from alcohol for the years 1990 and 2017.

We can see that for the region High-middle SDI the death count is highest for both the years, in fact the death rate has increased from 45,112 to 56,208 which shows that people in that region have started to consume more alcohol, or the population has increased.

The lowest death rate is for Afghanistan for the year 2017 i.e., 125 also in the year 1990 it was the least only which is 76.

There are a lot of regions in the bottom section whose graph is stable or has changed slightly. Most of the regions in the middle part are the ones who has not expected a huge difference.

We know China has the highest population in the world but then to death rates from alcohol for China is not that high which can be assumed as that a greater portion of population may not be interested in drinking much.

Conclusion:

The story can be concluded by the very fact that there is an increase in the death rate from year 1990 to year 2017 significantly around 25 - 30 million. If we see in context with the different diseases, we can see that cardiovascular diseases stands on the top with maximum count for the death rate, but the number of deaths is being increased in every disease. The lease count of the deaths is provided by the Exposure to forces of nature. As per the division of age group older people tend to count more in the death count and are increasing over years. Alcohol too seems to be a reason for increased deaths in some regions while a constant graph in some other regions.