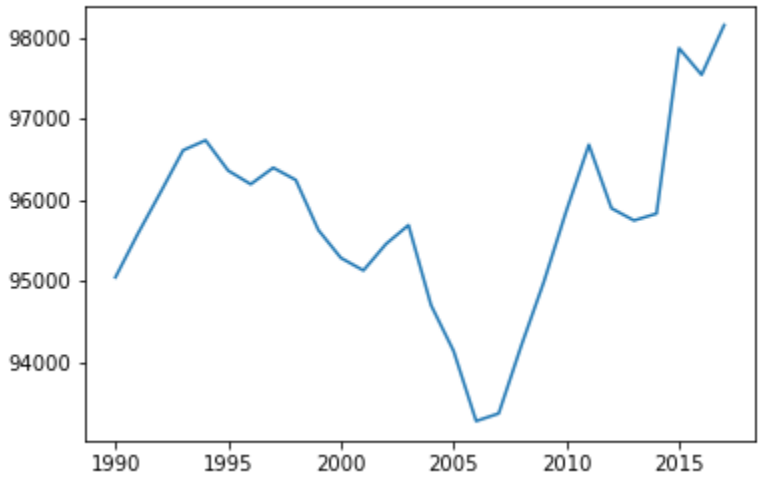
Graphs Report

By Bhavya Yasaswini Gadu

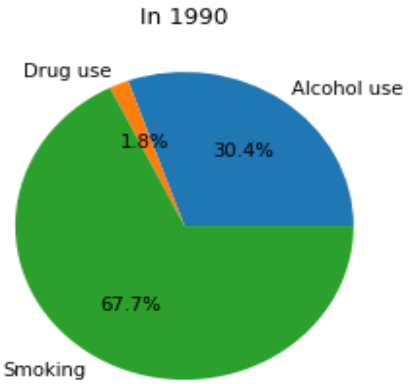
1. Air Pollution rates in world countries from 1990 to 2017

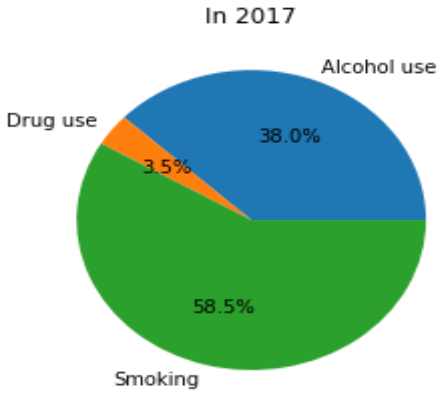


Analysis:

Air pollution rates in the world have seen an increase till the year 1994 and after that the rates have been fluctuating as there are ups and downs. From the year 2003 there has been a drastic decrease in the pollution rate in the world countries but it did not last long as there was a steep increase again in the pollution rate and from then the peak point was observed in the year 2017 according to the analyzed data.

2. Comparison of death rates in 1990 and 2017 in India due to different causes

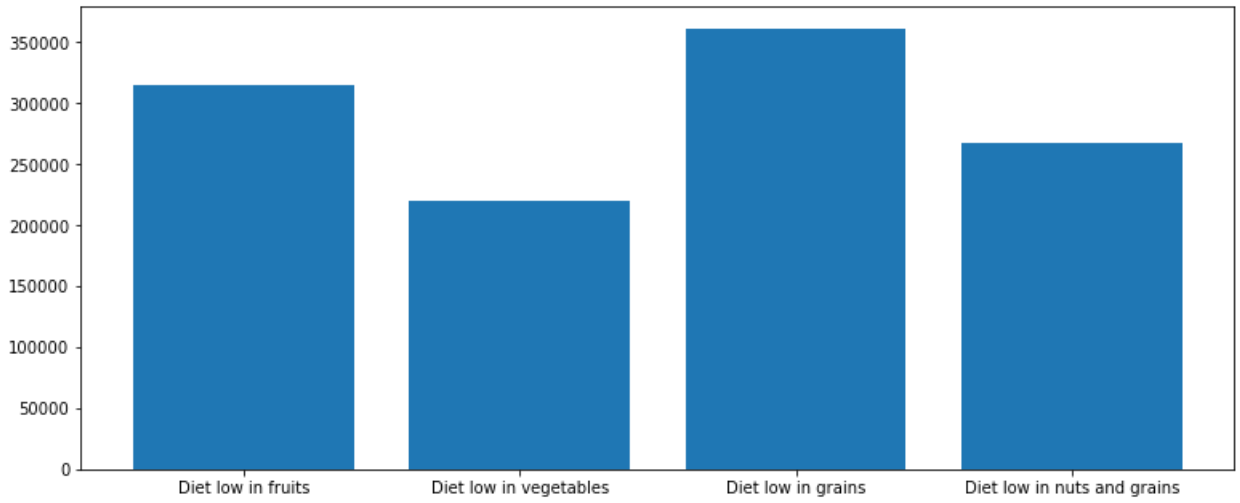




Analysis:

In India, the death rates due to Alcohol consumption, drug use and smoking are 30.4%, 67.7% and 1.8% respectively in the year 1990. The deaths occured due to drugs are very low when compared to the other two. By the year 2017, the statistics have not seen much change with a little rise in drug usage and alcohol use. Smoking deaths has observed to be decreased.

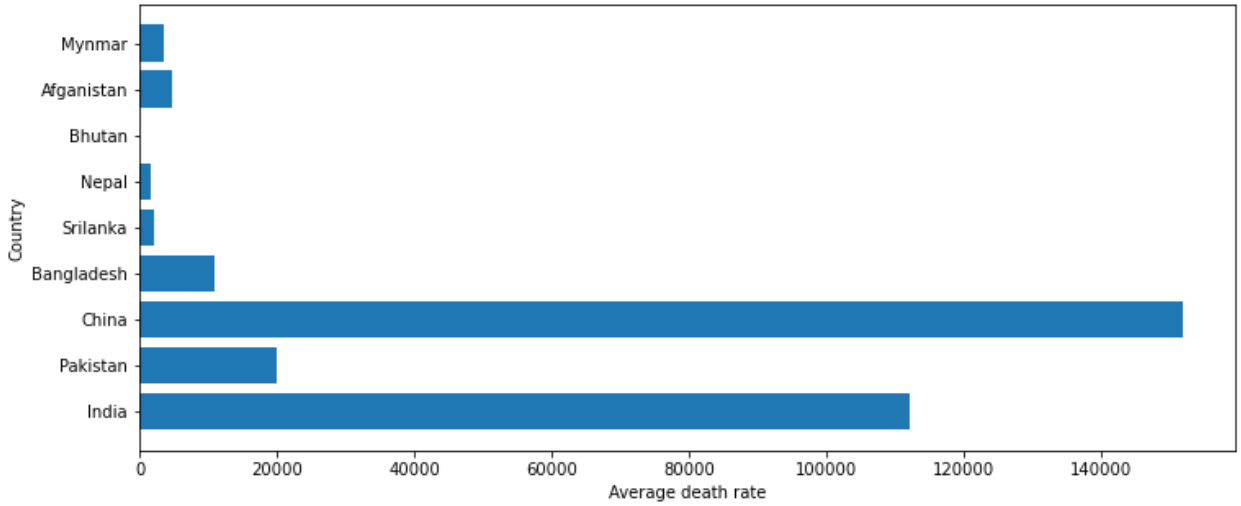
3. Comparison of malnutrition causes in India



Analysis:

From 1990 to 2017, it can be observed that on an average more than 3 lakh deaths have occured due to malnutrition in different aspects. Mainly due to low diet in grains around 4 lakh people died in India in 27 years. And from the analysis it can be observed that fruits are scarce than vegetables in India.

4. Comparison of death rate due to low physical activity rate in neighboring countries



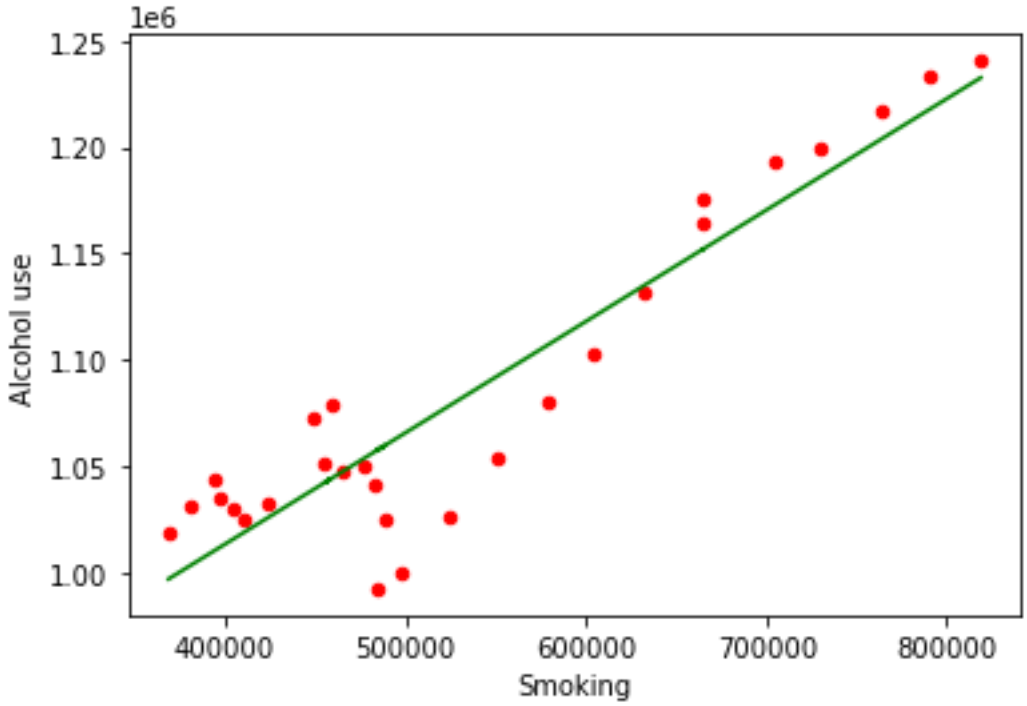
Analysis:

Neglection towards physical activity has also become a reason for deaths in the countries. This analysis is about comparing the death rates on this criterion among neighboring countries of India. From the analysis it is observed that average death rate in china due to low physical activity is maximum and Indians have also faced high range of deaths due to this cause. Bhutan has almost negligible death rate which shows that its citizens are more fitness centric. Nepal and Sri Lanka are also with low death rate with average less than 2000.

Regression Analysis Reports

By Bhavya Yasaswini Gadu

1. Relation between air pollution and outdoor air pollution in India

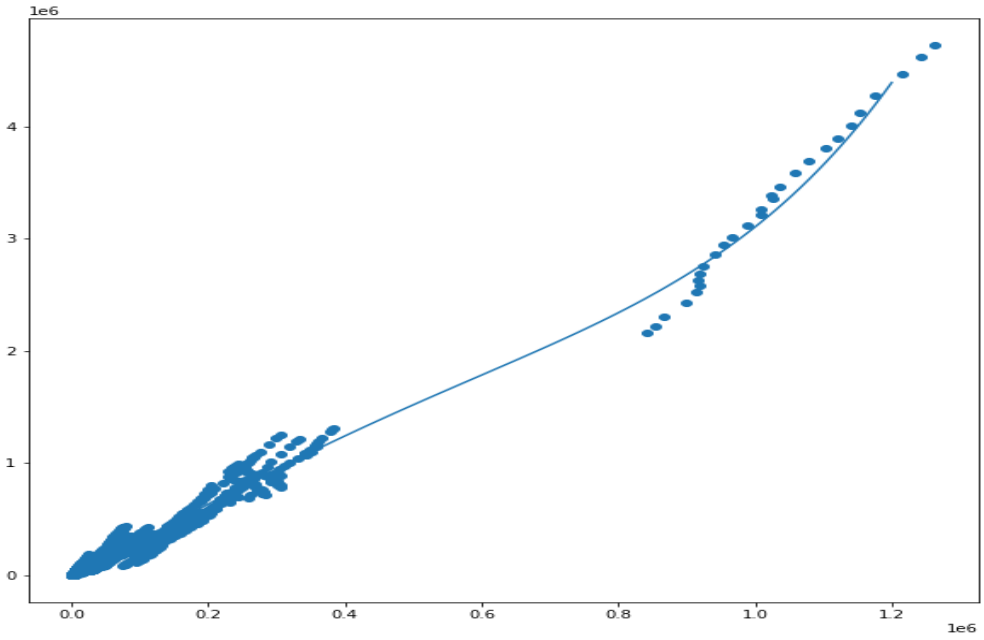


Regression coefficient= 0.5231291380349647

Analysis-

From the regression coefficient which is 0.52, it can be observed that the two features air pollution and outdoor air pollution in India are not very much correlated. Even though the outdoor air pollution is one of the cause of air pollution in India but it is not the only reason for the pollution.

2. Predicting the relation between physical activity and body mass index using Polynomial regression



R2 score is 0.9873629367367641

Analysis-

From the r2 score which is 0.98, it is clearly understood that the physical activity and body mass index are highly correlated. Clear awareness on physical activities helps the population to have balanced body mass index. From the prediction it is observed that for 1000 units decrease in awareness towards physical fitness or lack of physical fitness leads to 5000 units increase in high body mass index.

3. Comparing the handwashing facility in India and Pakistan using Multinomial Regression

India ----- [0.53941374 0.12691466]
Pakistan -- [0.14601608 0.38339417]

Analysis-

From the regression coefficient it is clearly evident that India's water sources are contributing much to the country's handwashing facility than in Pakistan i.e., one-unit downfall in the water source purity leads to 0.53 units decrease in access to handwash. In Pakistan, the sanitation is contributing much to the handwashing facility than in India i.e., one-unit downfall in the sanitation facility leads to 0.38 units decrease in access to handwash.

The comparisons within the countries provides the clear insight that in India the water sources effect on handwashing facility is much more than the effect of sanitation on handwashing facility. On the other hand, in Pakistan, the handwashing facility is degrading due to unhygienic sanitation.

Finally, it can be inferred that in order to increase the handwashing facility, the water sources need to be improved in India and sanitation need to be improved in Pakistan.