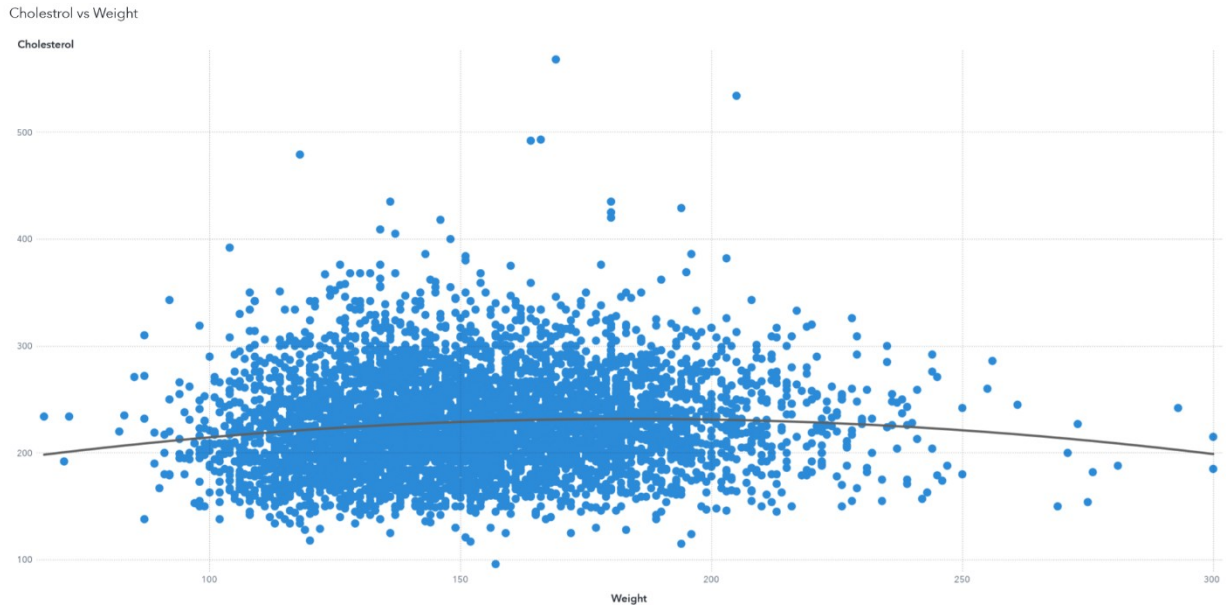
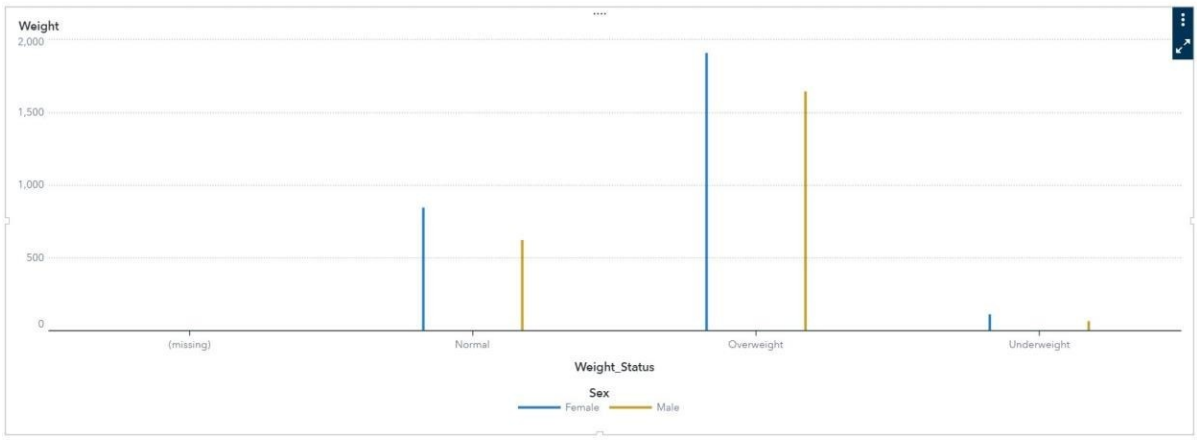
Hypothesis 1 - Weight and cholesterol are correlated



Here, the relationship between weight and cholesterol levels is investigated using a scatterplot. The two variables have a 0.0724 correlation value. As a result, while weight does influence whether a person has high cholesterol, it is not a significant factor; instead, we need to include other factors to get a more accurate picture. Further data-gathering efforts could study variables like exercise intensity, diet, and underlying health conditions. Weight and cholesterol are weakly correlated.

Conclusion – The hypothesis is false.

Hypothesis 2 - Men are usually more obese than women

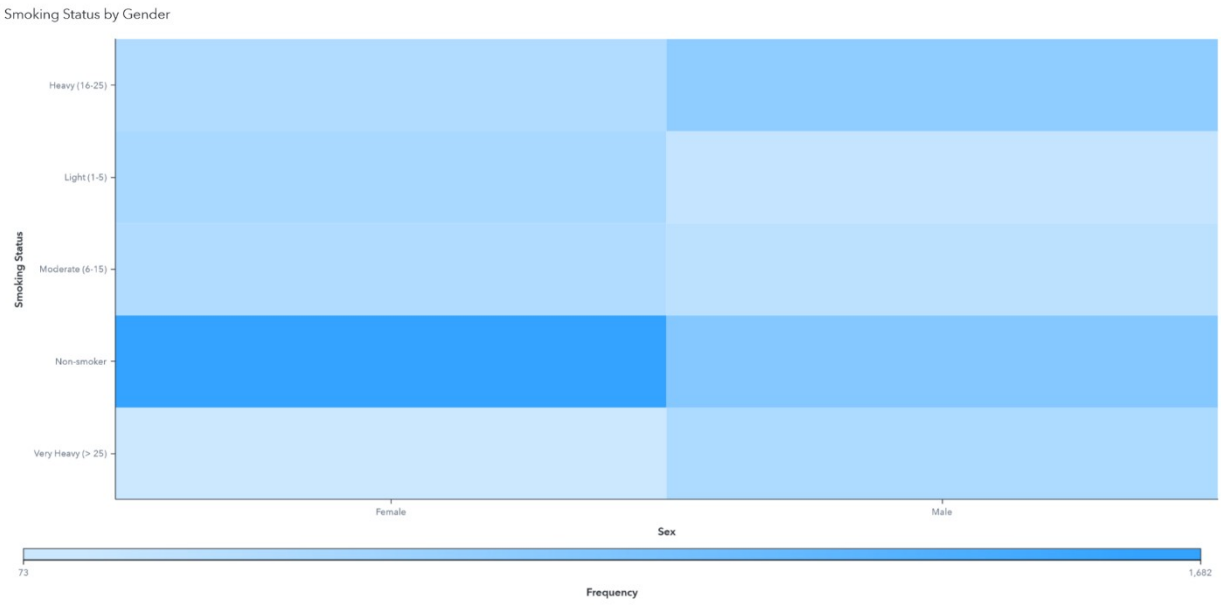


Weight_Status	Weight	Sex
Normal	846	Female
Normal	626	Male
Overweight	1,907	Female
Overweight	1,643	Male
Underweight	116	Female
Underweight	65	Male

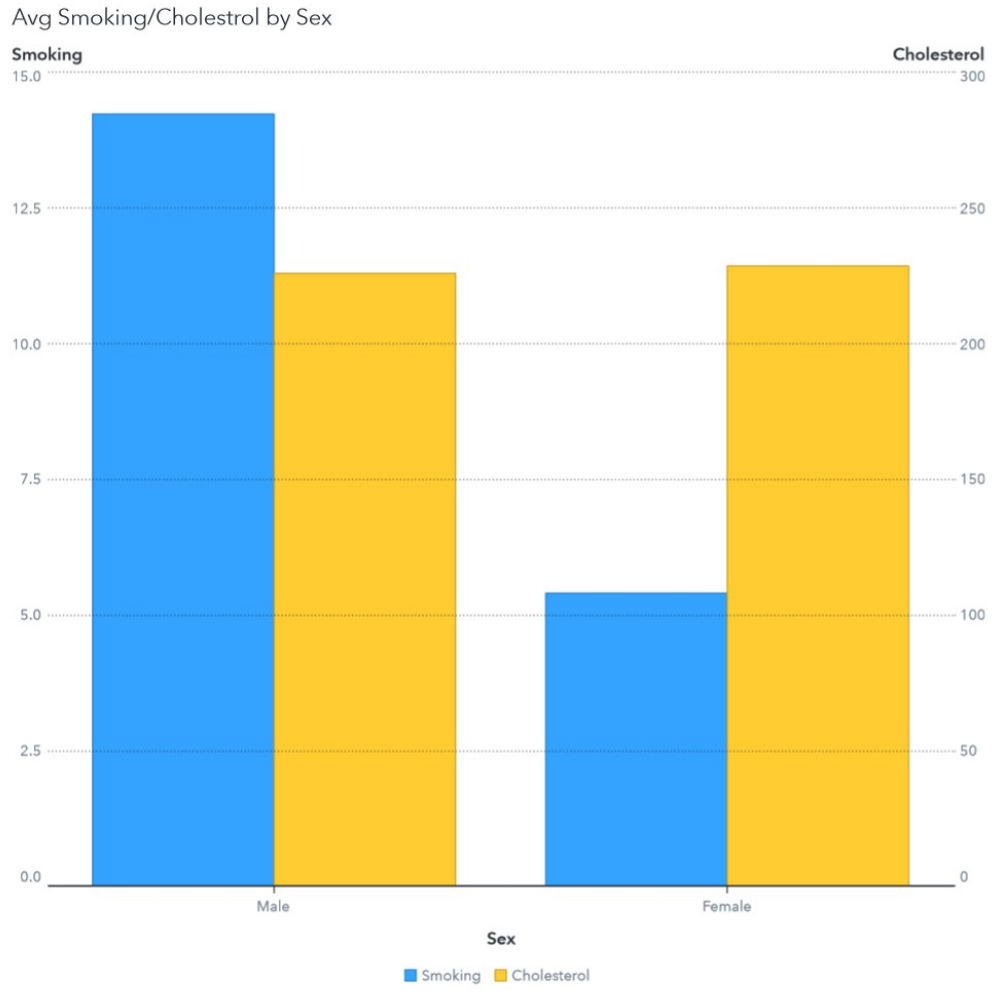
We cannot agree with the hypothesis that men tend to be more obese than women because, as the chart and table show, there are more overweight females than overweight males.

Conclusion – The hypothesis is false.

Hypothesis 3 - Women usually smoke less than men, but their cholesterol level is higher



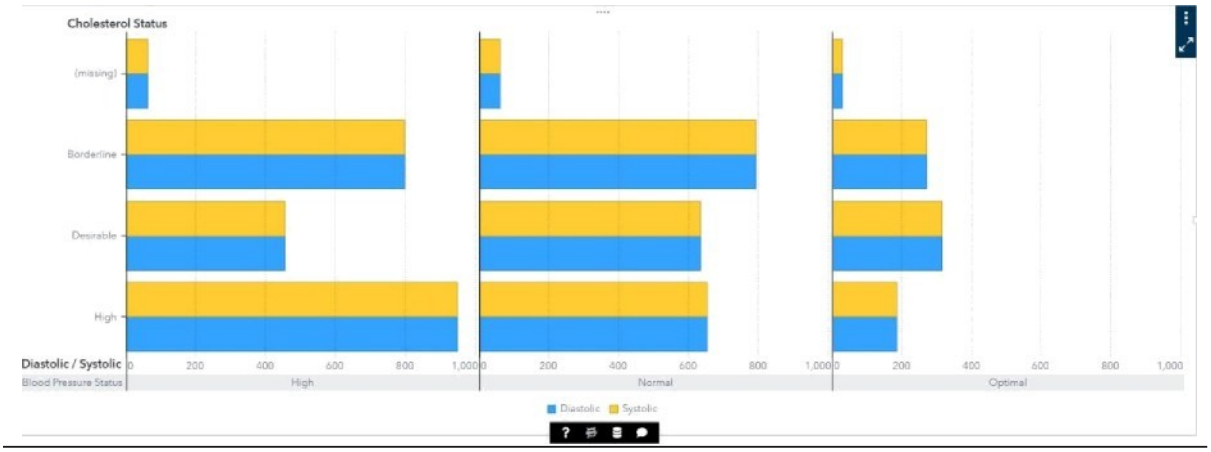
The proportion of each gender inhabiting each tier of smoking was first visualized using a heatmap. Compared to male smokers, most women do not smoke, and those that do make up a smaller portion of the female population.

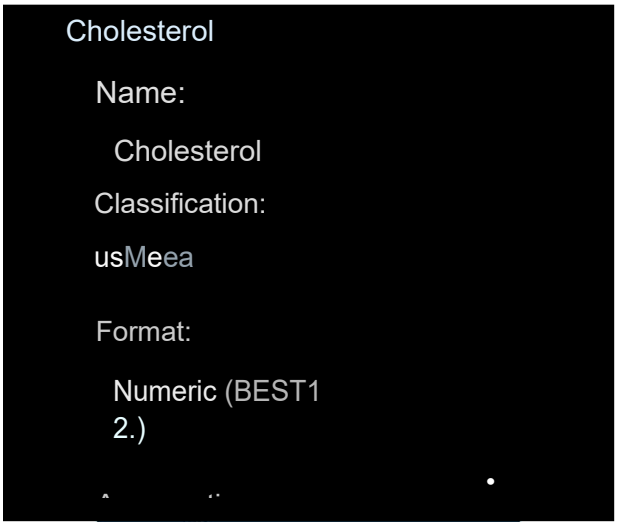


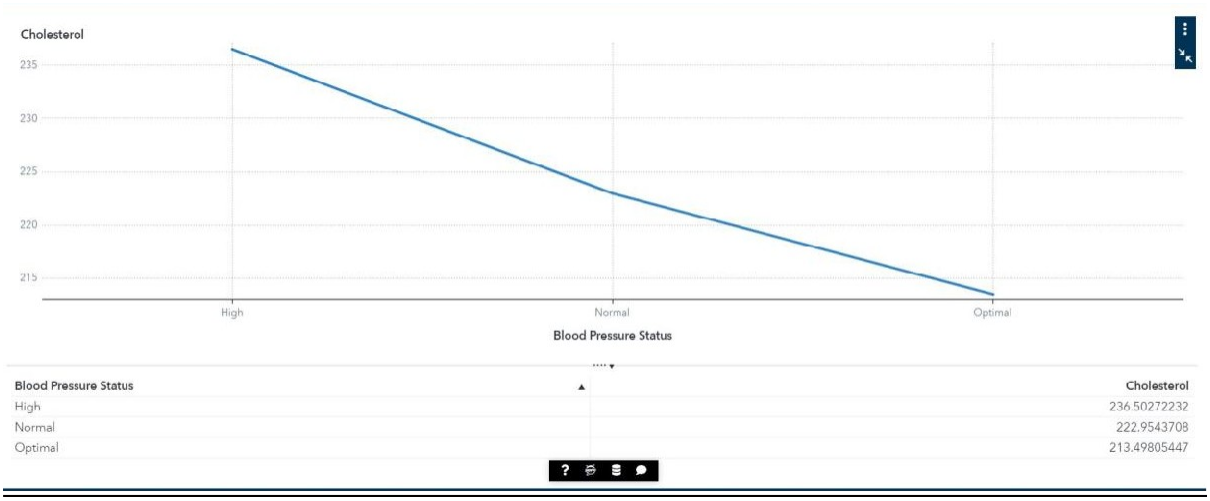
Although women generally smoke less than men, their cholesterol levels were similar and were even slightly higher in women. While there are many underlying factors that might affect cholesterol levels, including health conditions, food, and even pregnancy, smoking alone is not a reliable indicator of cholesterol levels.

Conclusion – The hypothesis is true.

Hypothesis 4 - The blood pressure is higher for people with higher cholesterol levels



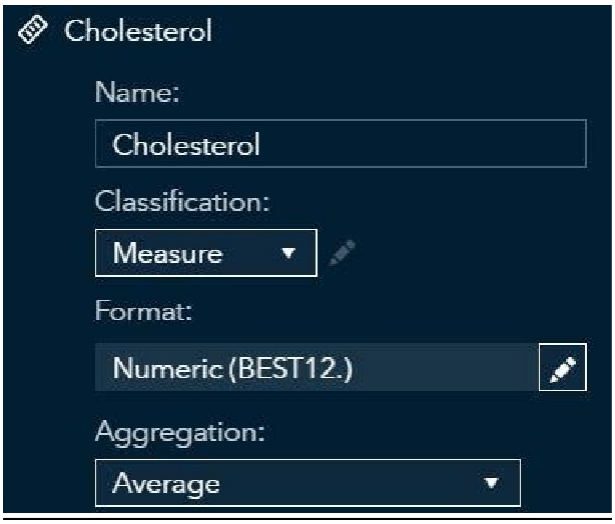


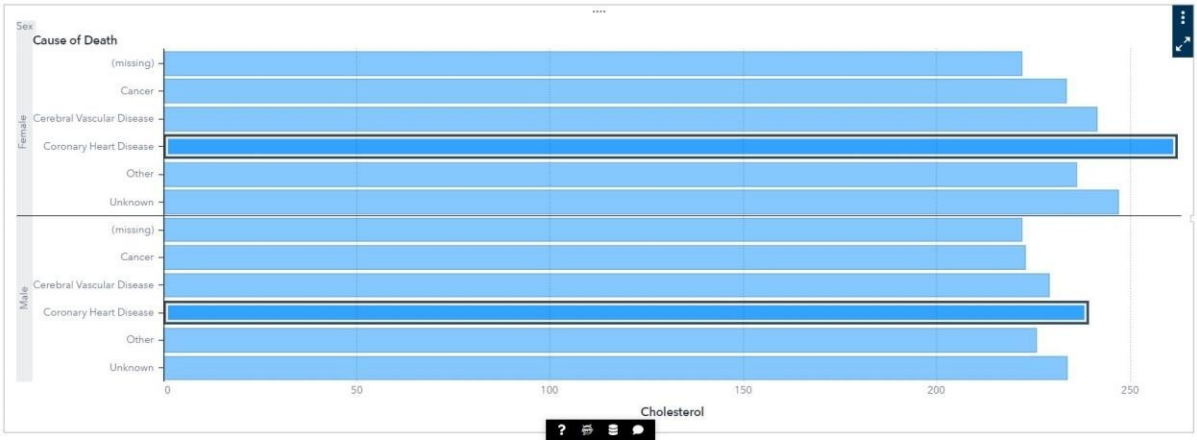


As seen from the screenshots above, we see that the Diastolic and Systolic numbers were high for borderline and high Cholesterol levels as well as for people with high blood pressure, the average blood pressure was quite high.

Conclusion – The hypothesis is true.

Coronary Heart Disease





We look at the average Cholesterol level of Men and Women and found that people who died of coronary heart disease had significantly higher cholesterol levels than people dying from other conditions.

We also saw that the average age of death was the least for coronary heart diseases after cancer, along with that there was the greatest number of smokers who died from coronary heart diseases.

High blood pressure and high cholesterol levels were associated with a greater risk of death from the condition.
It appears that problems with blood flow are what largely cause the condition. High amounts of cholesterol induce arterial limitations, contributing to high blood pressure.