

# Heart Disease Indicators

A Excel Capstone Project by Ritam Sahu.



# Objectives

- To educate the people about heart disease indicators.
- To create a dynamic dashboard based on dataset from Kaggle, after analyse the dataset with various plots and conclusions.

# Dataset

- Individuals: **4,00,000**
- Rows: **319766**
- Columns: **18**
- Country: **USA**

Originally, the dataset come from the CDC and is a major part of the Behavioural Risk Factor Surveillance System (BRFSS), which conducts annual telephone surveys to gather data on the health status of U.S. residents. I collected it from Kaggle.com.

# Problem Statements

01

Which age group has the highest incidence of heart disease?

02

What is the highest BMI among different ages?

03

What is the smoking and alcohol consumption rate among all?

04

What is the reason for most women having heart disease?

05

Is Heart disease associated with higher BMI?

06

Are diabetic conditions the most common cause of heart disease?

07

What is the highest BMI among races?

08

Which races are most affected by heart disease?

09

Which race and age group consumes the most alcohol and cigarettes?

10

Which races has most diabetic?



# Introduction

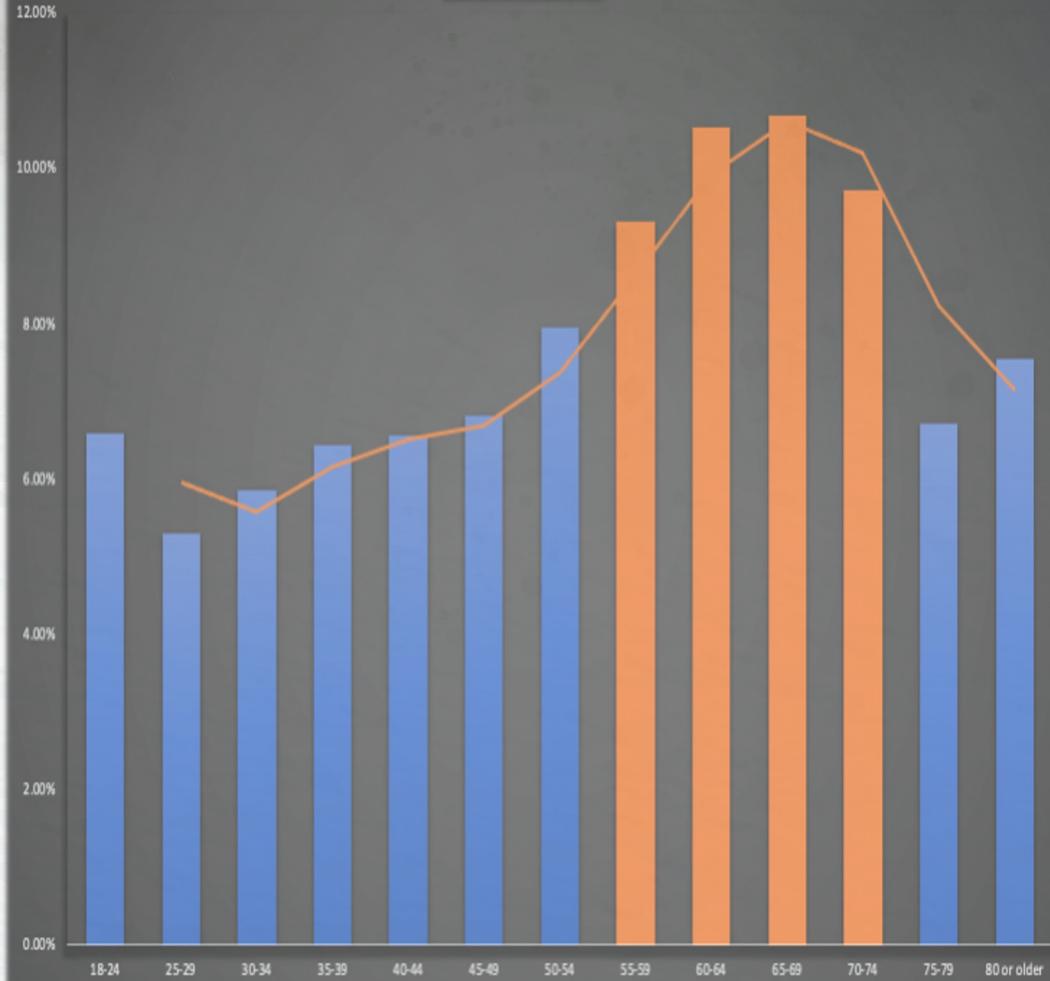
- Heart disease is one of the leading causes of death for people of most races in the US (African Americans, American Indians and Alaska Natives, and white people).
- About half of all Americans (47%) have at least 1 of 3 key risk factors for heart disease: high blood pressure, high cholesterol, and smoking. Other key indicator include diabetic status, obesity (high BMI), not getting enough physical activity or drinking too much alcohol.
- Detecting the factors that have the greatest impact on heart disease is very important in healthcare.

01

# Heart Disease

Which age group has the highest incidence of heart disease?

## Heart Disease



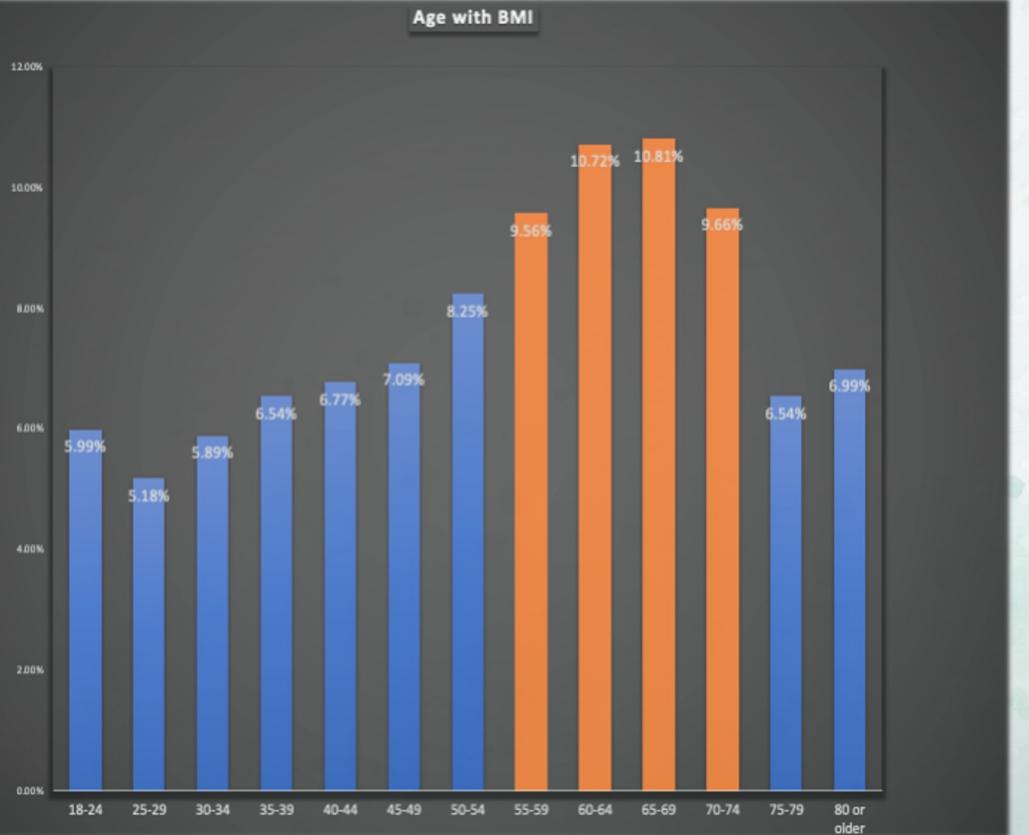
Age wise Heart disease

What age group has the highest incidence of heart disease?

02

# BMI

What is the highest BMI among different ages?



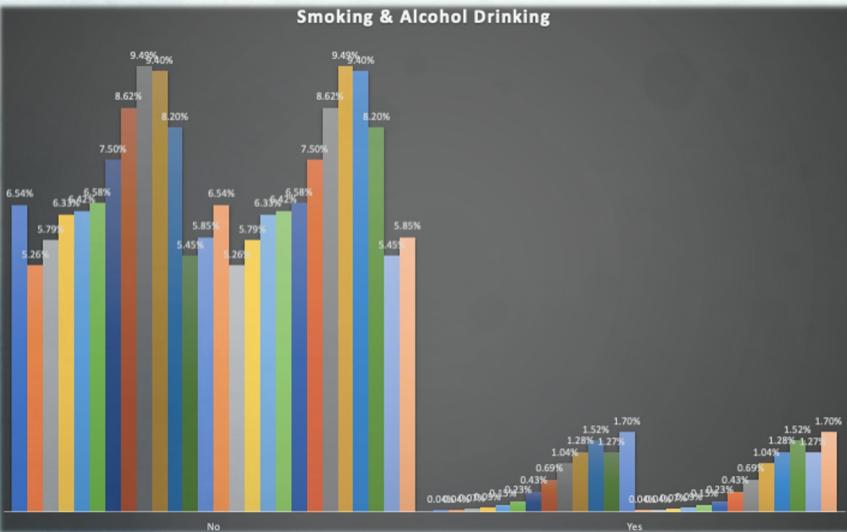
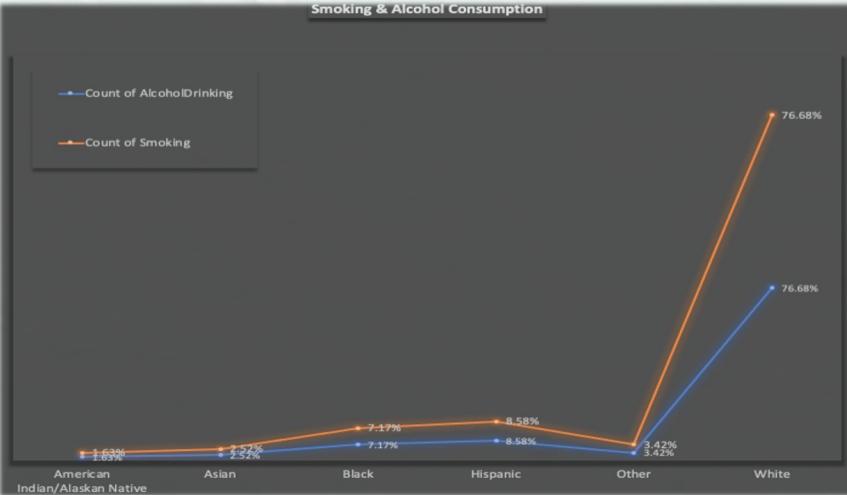
What is the highest BMI among different ages?

BMI is a key factor

03

## Bad Habits

What is the smoking and alcohol consumption rate among all?



## Smoking

Smoking increases heart rate, tightens major arteries, and can cause an irregular heart rhythm, all of which make your heart work harder.

## Alcohol

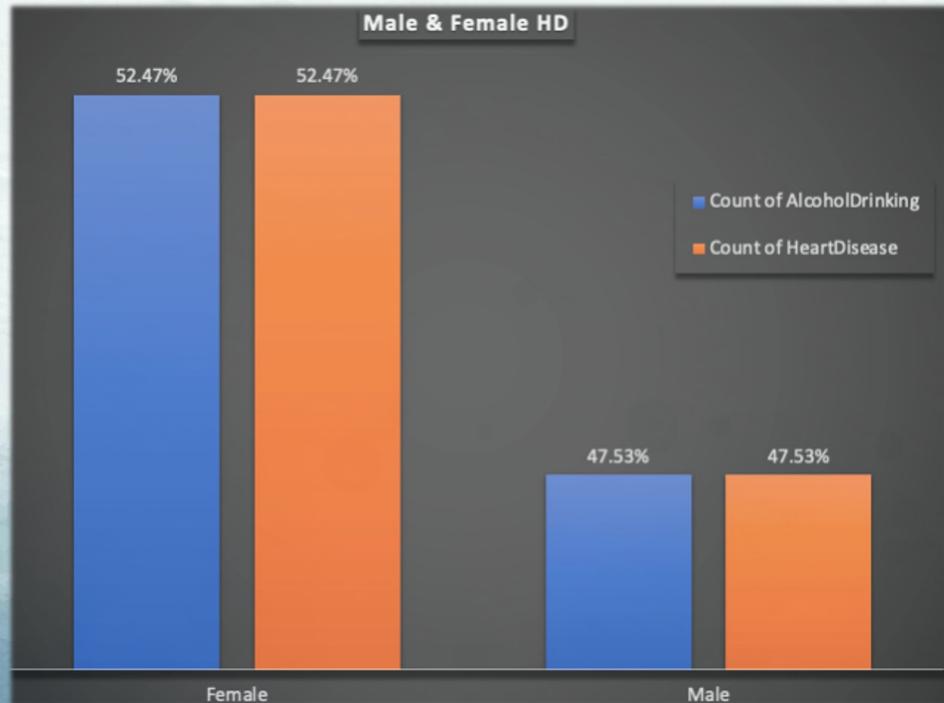
Excessive alcohol intake can lead to high blood pressure, heart failure or stroke.

Smoking & alcohol drinking increases with age.

04

## Females Affected

What is the reason for most women having heart disease?



What is the reason for most women having heart disease?

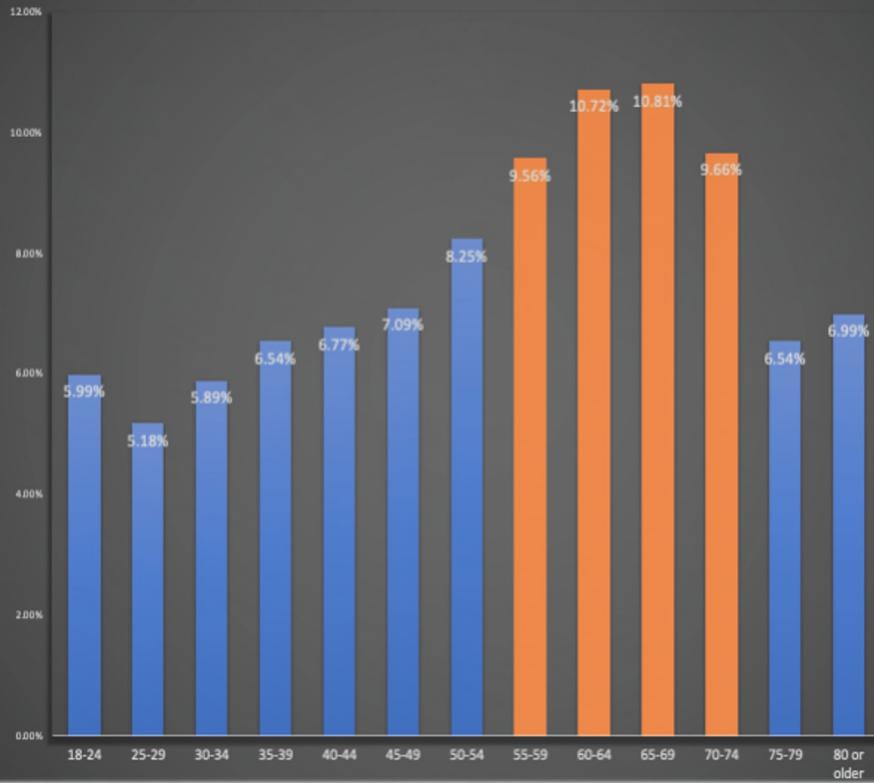
Excessive alcohol intake can lead to high blood pressure, heart failure or stroke.

05

## High BMI

Is heart disease associated with higher BMI?

Age with BMI



Heart disease is associated with higher BMI?

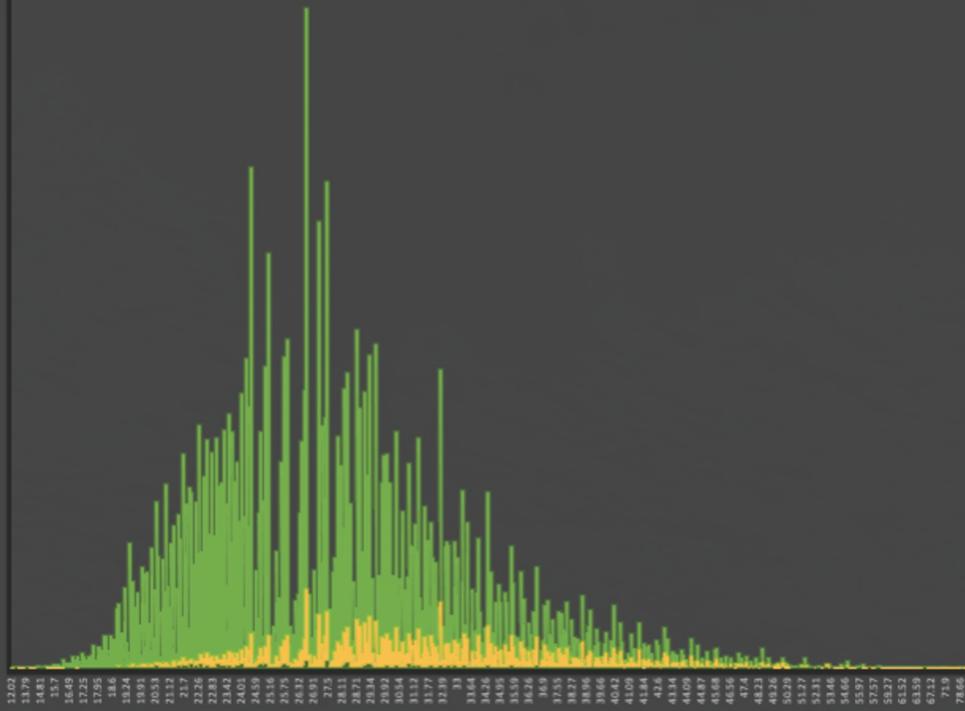
Age 55-74 shows highest no of heart disease

05

# Diabetic

Are diabetic conditions the most common cause of heart disease?

## Heart disease With Diabetic



■ Are diabetic conditions the most common cause of heart disease?

■ Most affected heart disease persons are diabetic.

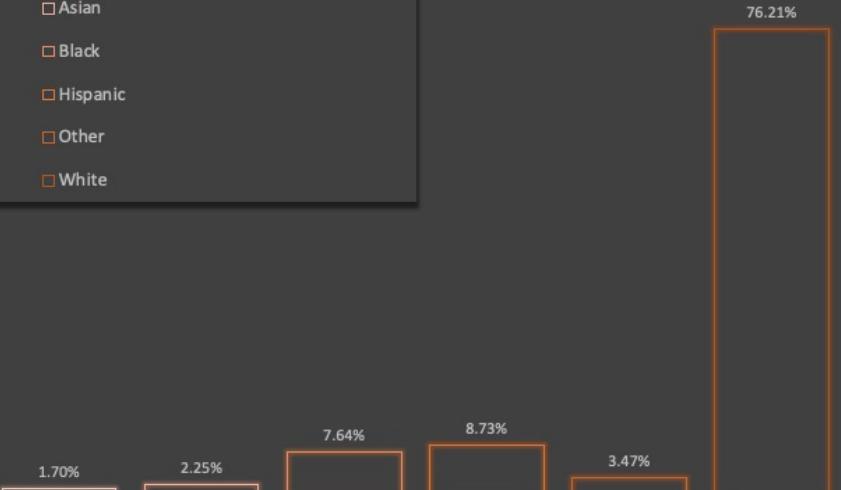
07

## Races BMI

What is the highest BMI among races?

# BMI

- American Indian/Alaskan Native
- Asian
- Black
- Hispanic
- Other
- White

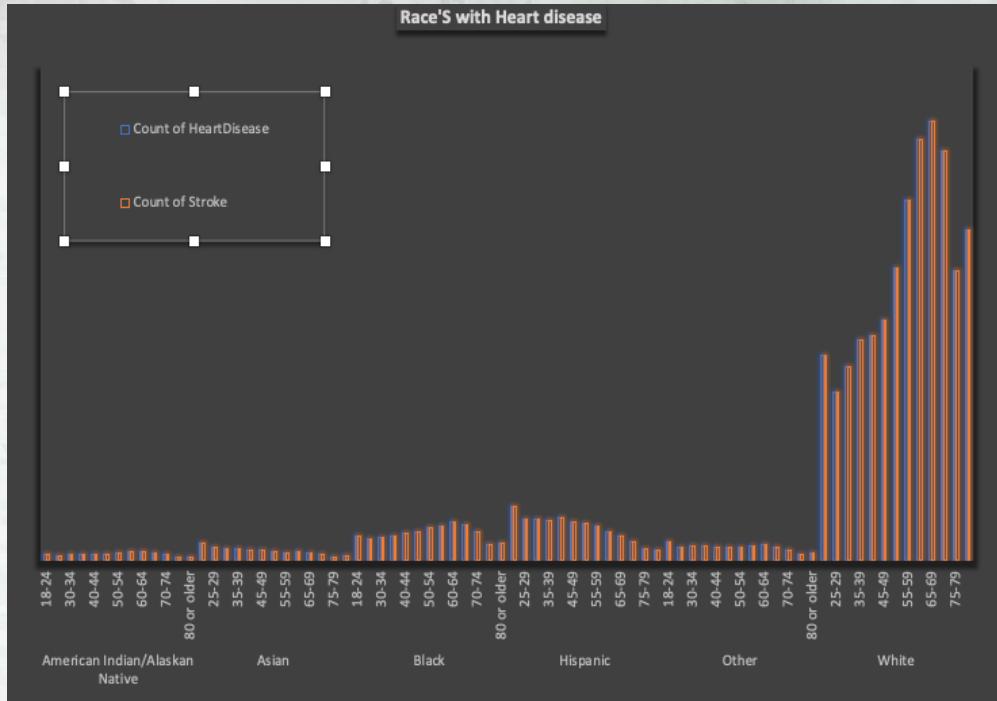


What is the highest BMI among races?

08

# Races Heart Disease

Heart disease affects which races the most?



Heart disease affects which races the most?

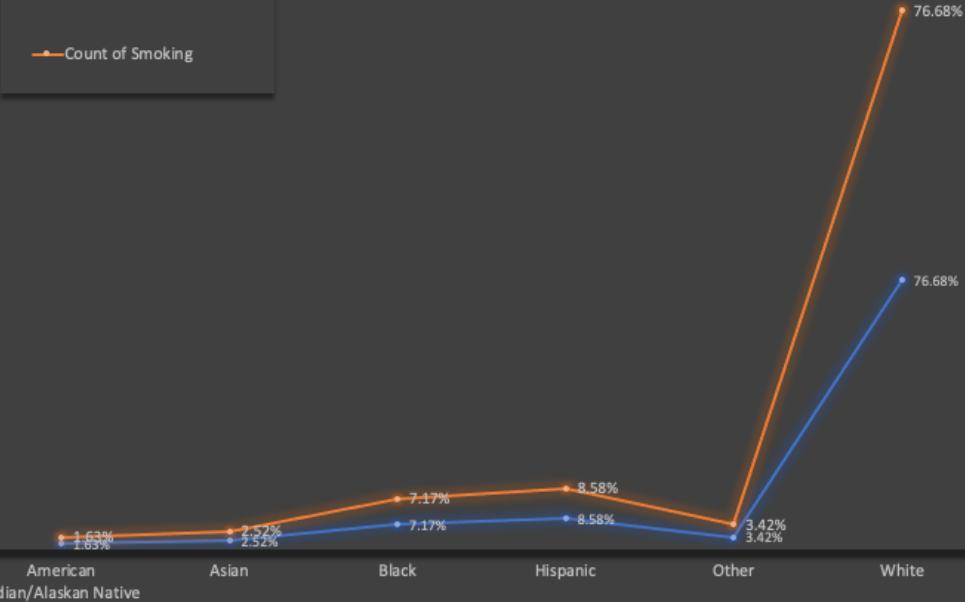
09

# Races Consumption

Which race and age group consumes the most alcohol and cigarettes?

### Smoking & Alcohol Consumption

- Count of AlcoholDrinking
- Count of Smoking



Which race and age group consumes the most alcohol and cigarettes?

Smoking & alcohol drinking increases with age.

10

# Diabetic Races

Which races has most diabetic?

## Diabetic

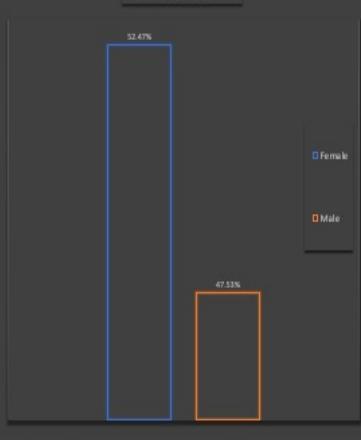
Legend:

- American Indian/Alaskan Native
- Asian
- Black
- Hispanic
- Other
- White

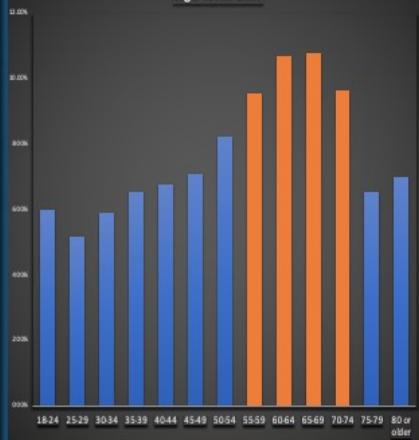
# DASHBOARD

# HEART DISEASE

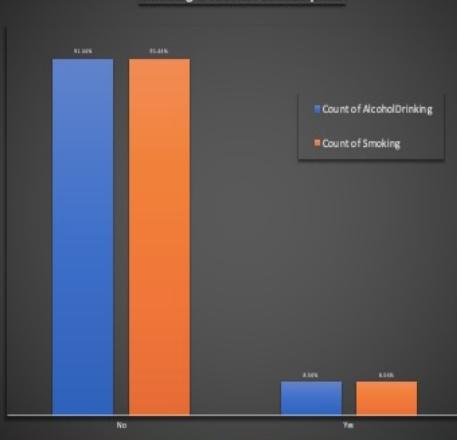
Male & Female Ratio



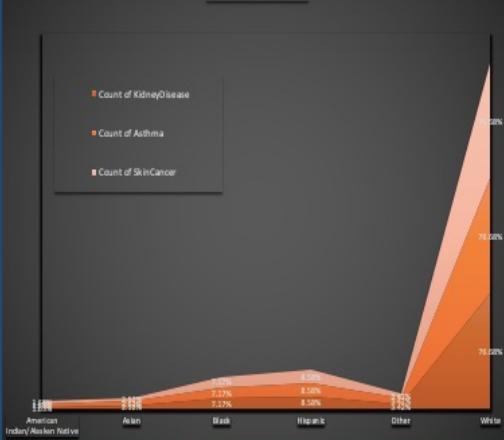
Age With BMI



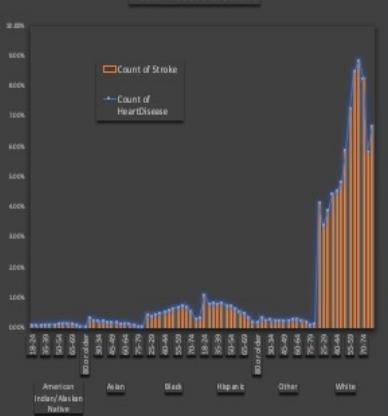
Smoking & Alcohol Consumption



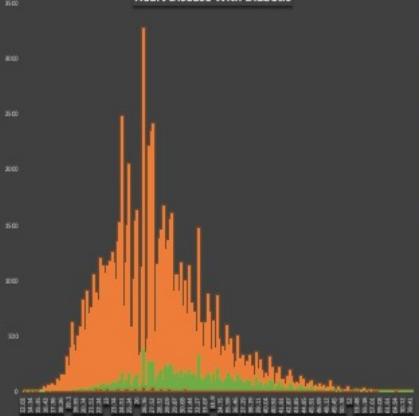
Others Diseases



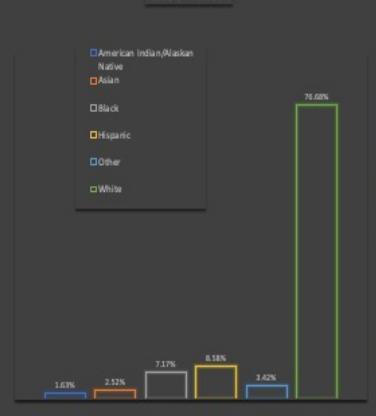
Heart Disease & Stroke



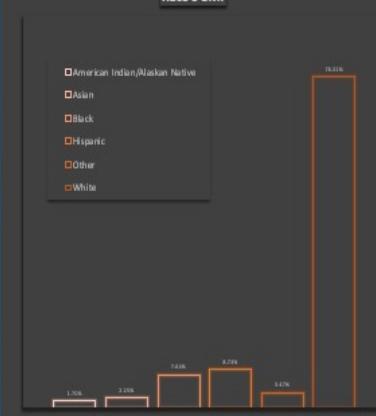
Heart Disease With Diabetic



Race's Diabetic



Race's BMI



## Video Link

<https://youtu.be/feSFcajXoFg>