

Healthy Hearts for Cleveland





Overview of the Project

- Conduct an analysis of the Cleveland Heart Disease database
- Inform programming for the Cleveland Health Department's Heart Disease Task Force





Project objective

- Determine if there is a difference between men and women with respect to cardiovascular risk profiles.
- Determine if risk profiles can inform more targeted public health programming.



Questions Examined

1

What is the **cumulative effect of risk factors** on the probability of heart disease in men?

2

Are there any **particular symptoms** of heart disease that serve as a signal to seek care in men?

3

What is the **cumulative effect of risk factors** on the probability of heart disease in women?

4

Are there any **particular symptoms** of heart disease that serve as a signal to seek care in women?



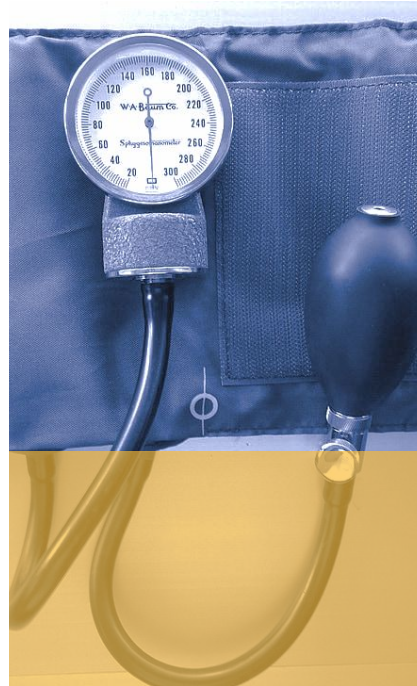
Data Points



Measures of Risk

01

- Fasting Blood Sugar > 120 mg/dl
- Resting Blood Pressure > 120 mmHG
- Cholesterol > 240 mg/dl





Measures of Symptoms

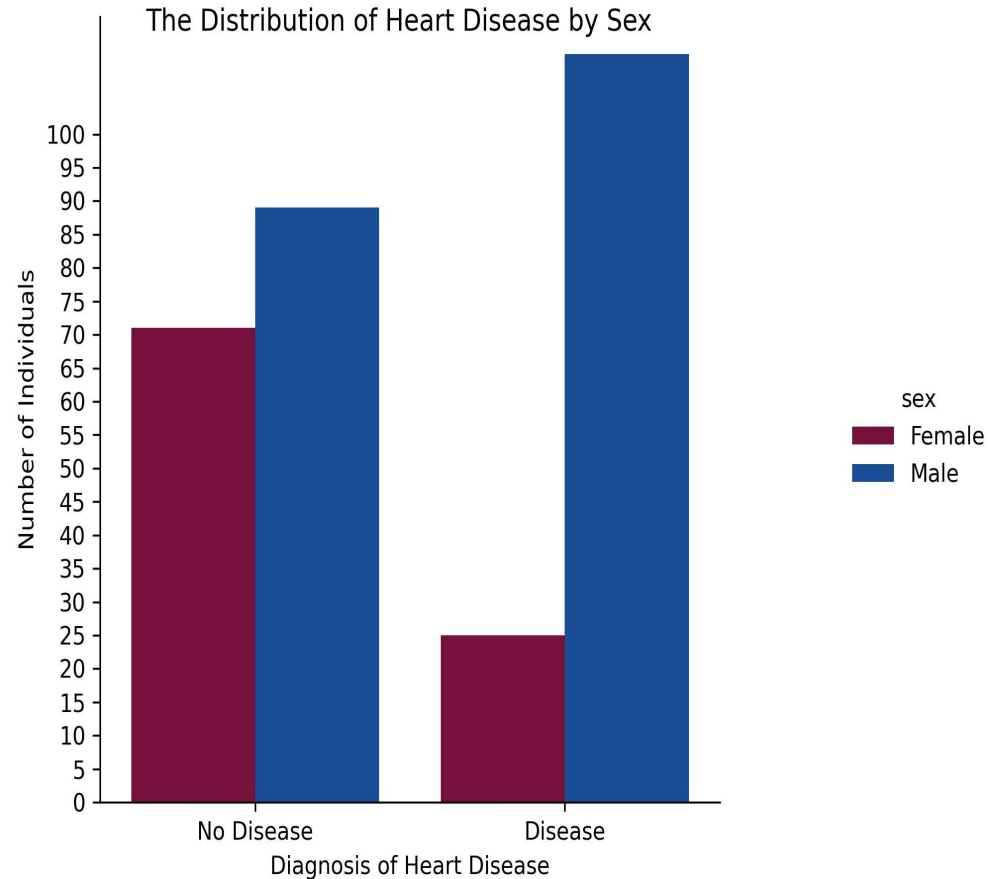
02

- Chest Pain
- Exercise-induced Chest Pain



Participant Characteristics

Total:	297
Male:	201
Female:	96
Average age:	54
Median age:	56
Youngest:	29
Oldest:	77

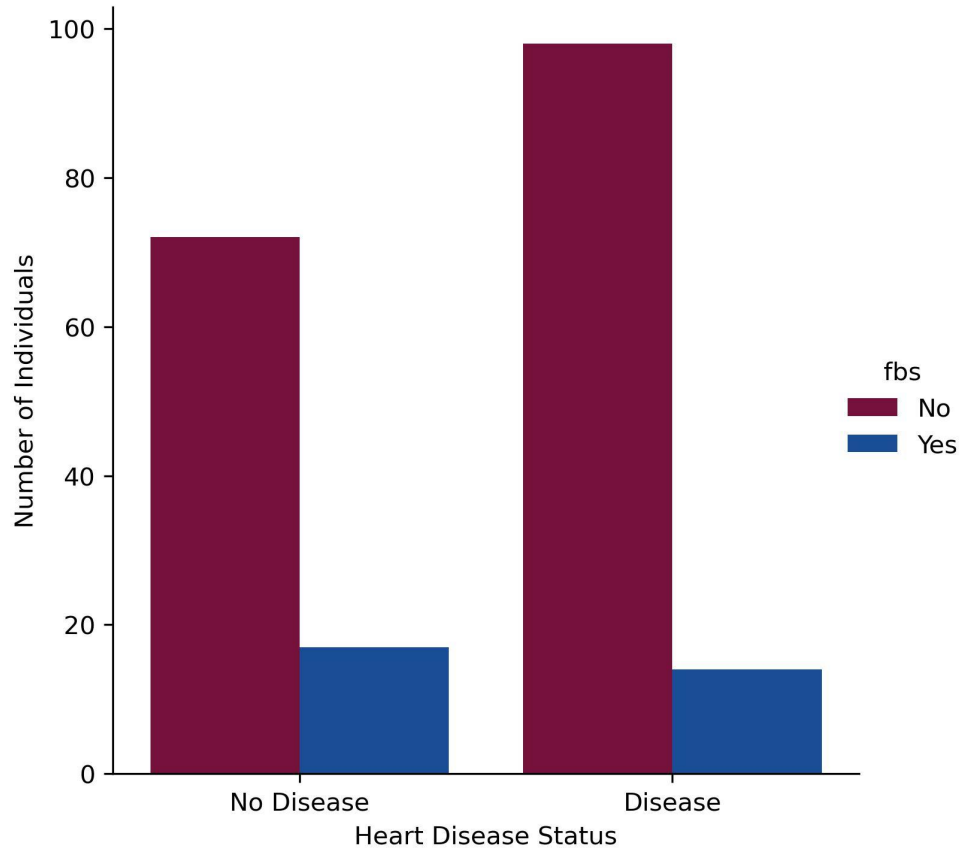




Risk Profile & Symptomatology of Men



Fasting Blood Sugar and Heart Disease (Men)



High Blood Sugar

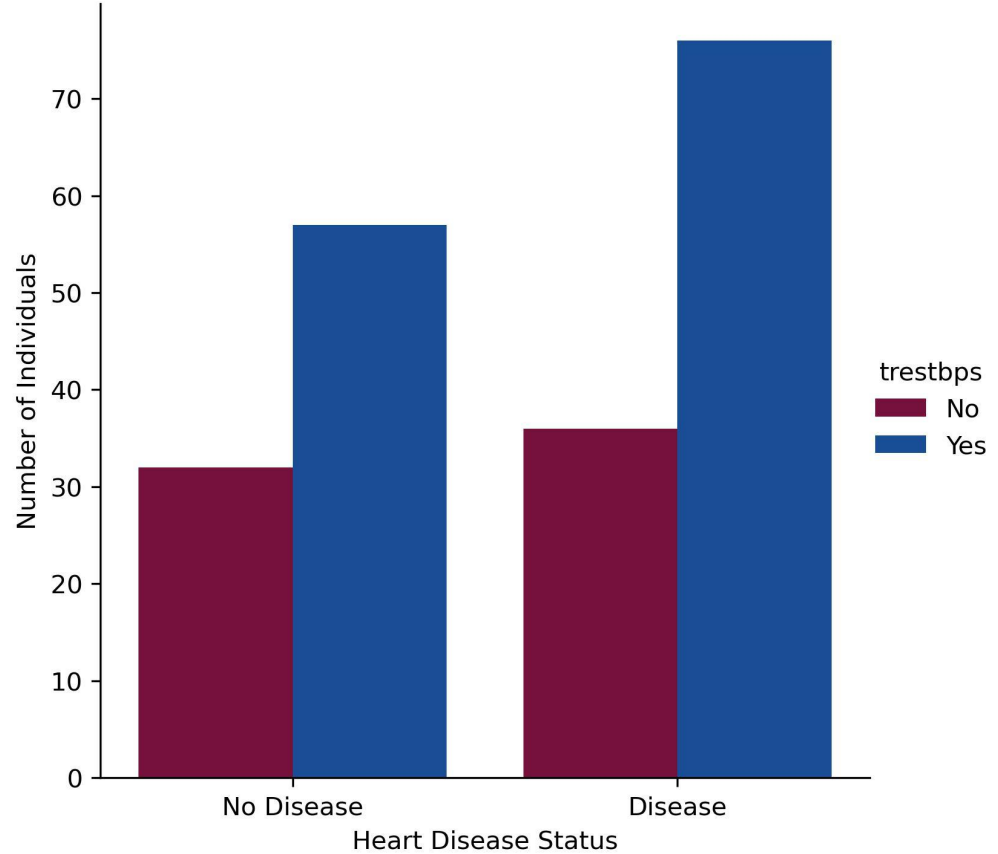
- No effect noted



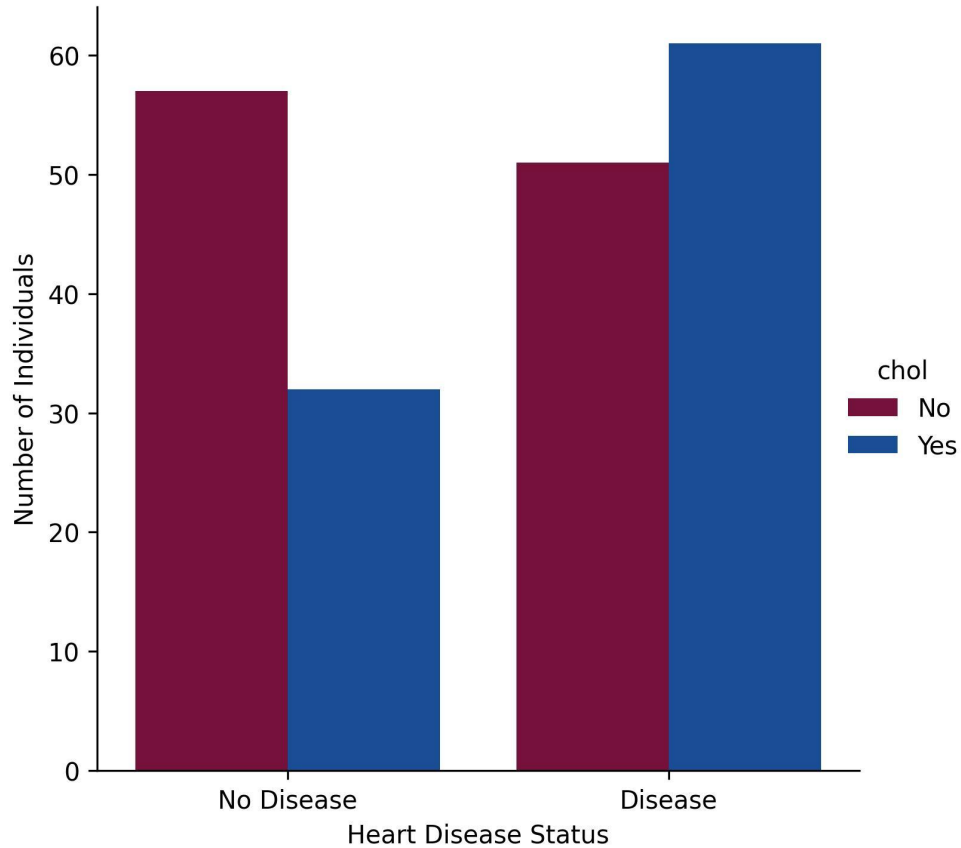
High Blood Pressure

- Effect noted

Resting Blood Pressure and Heart Disease (Men)



Cholesterol and Heart Disease (Men)

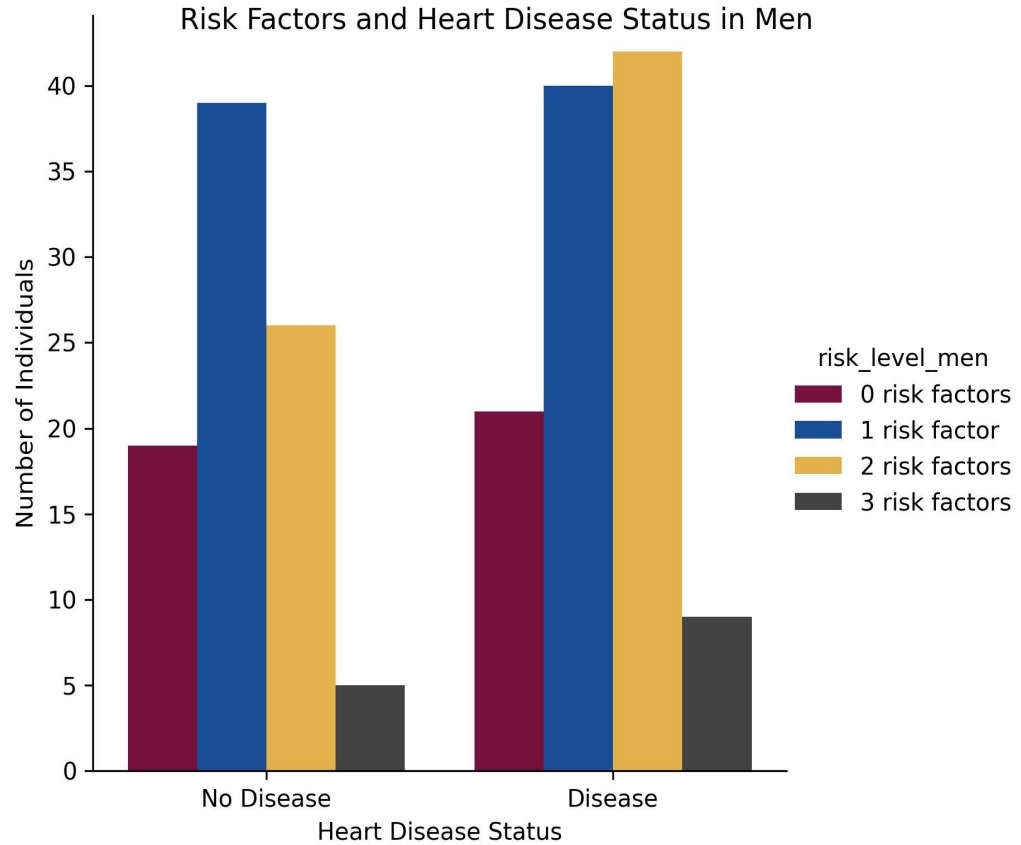


High Cholesterol

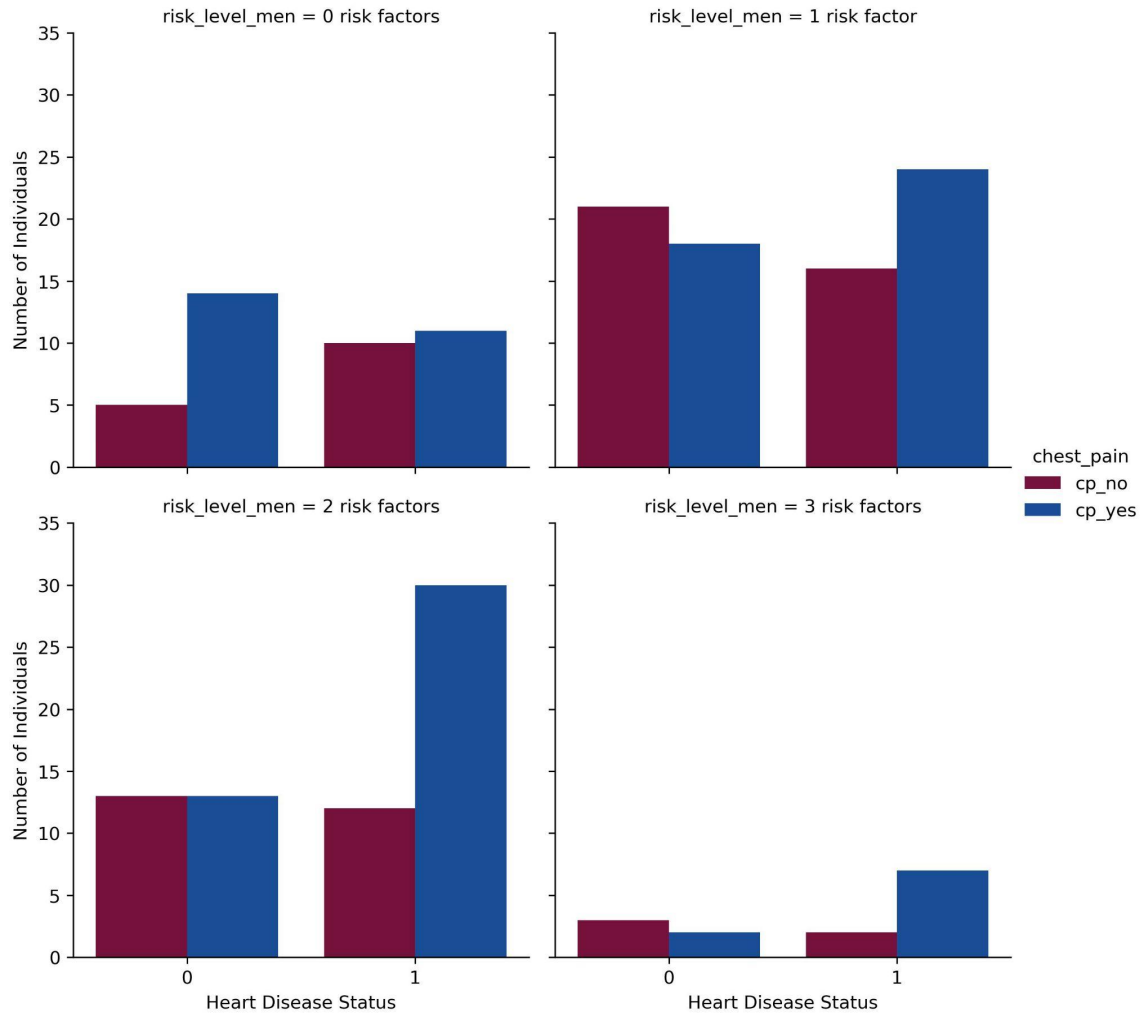
- Effect noted



Risk Profile



Heart Disease by Risk Factor and Chest Pain in Men



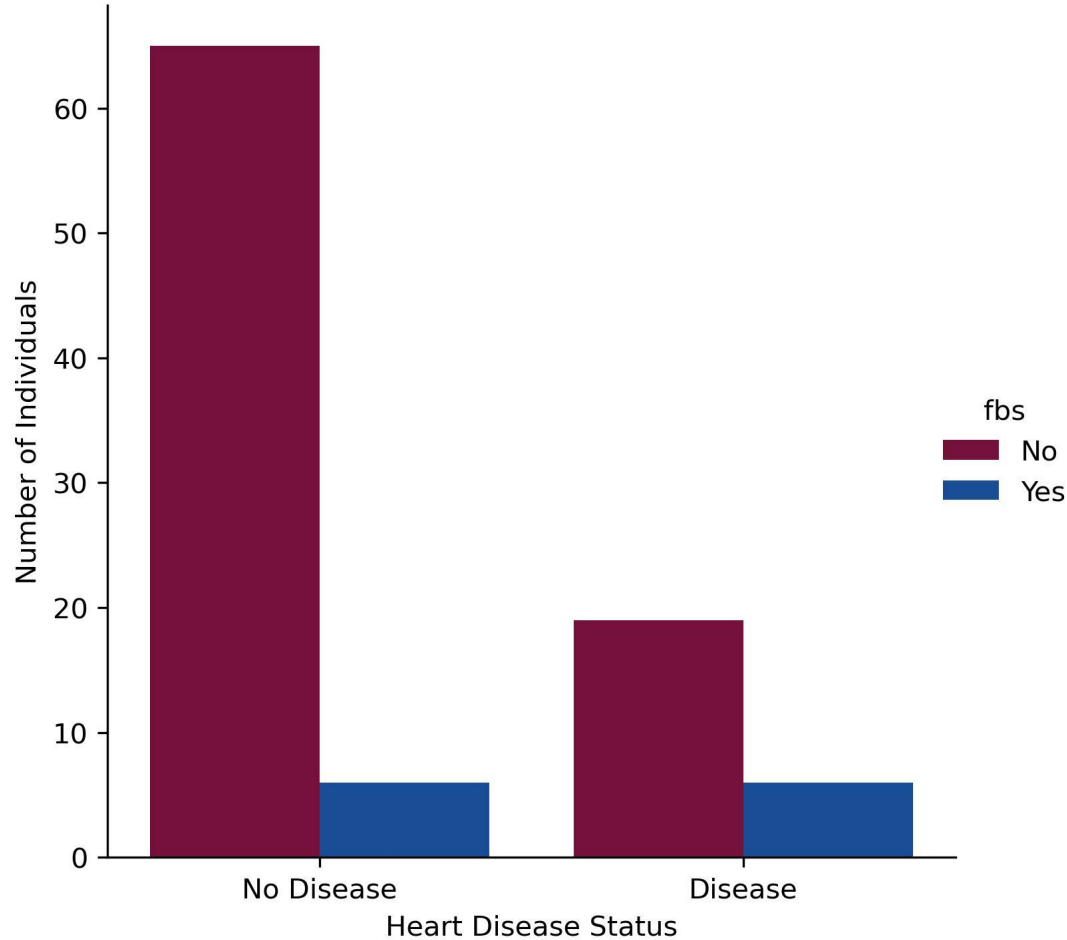
Chest Pain



Risk Profile & Symptomatology of Women



Fasting Blood Sugar and Heart Disease (Women)



High Blood Sugar

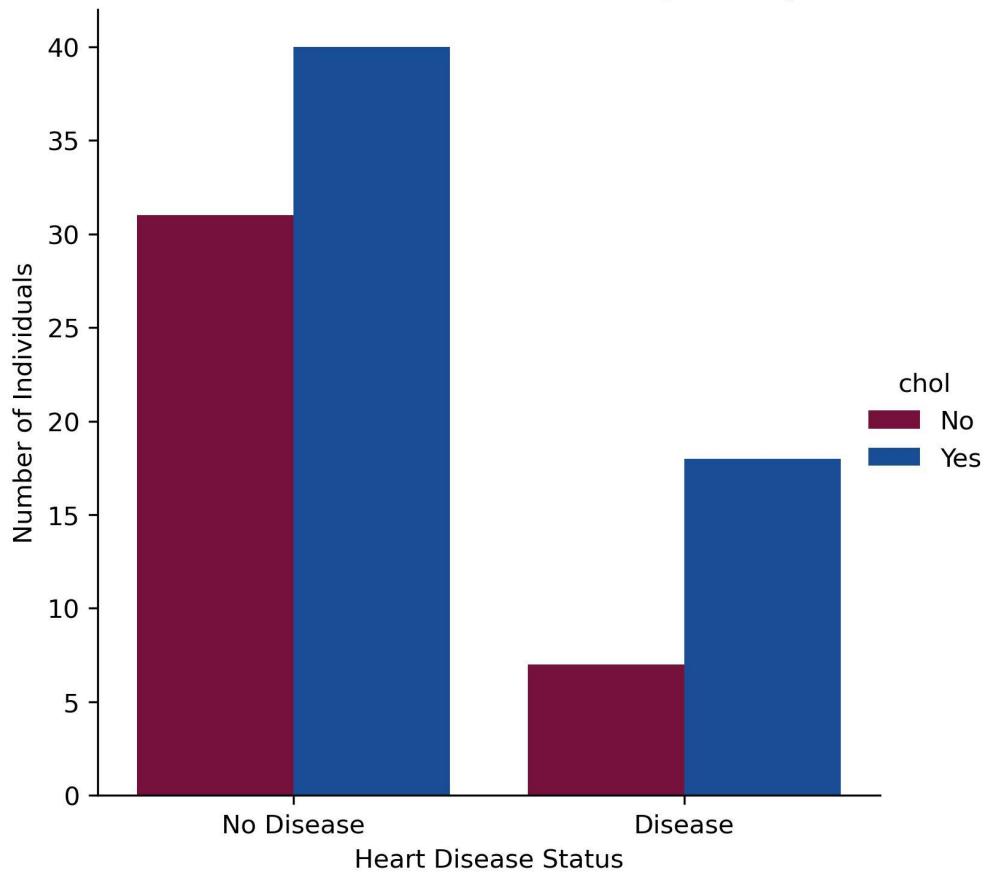
- Effect noted

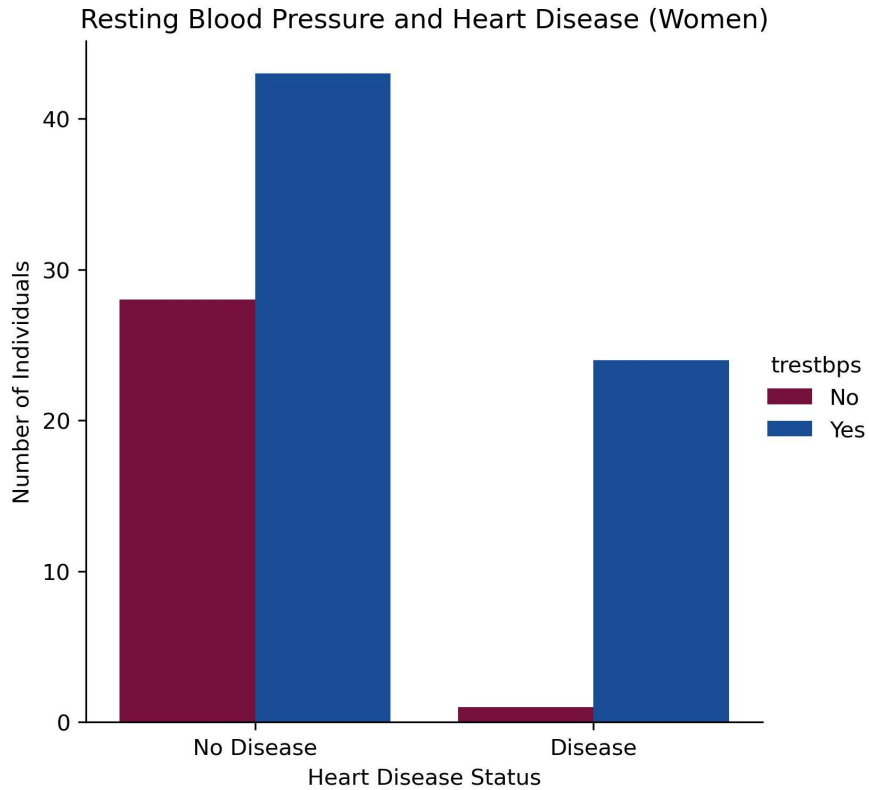


High Cholesterol

- Effect noted

Cholesterol and Heart Disease (Women)



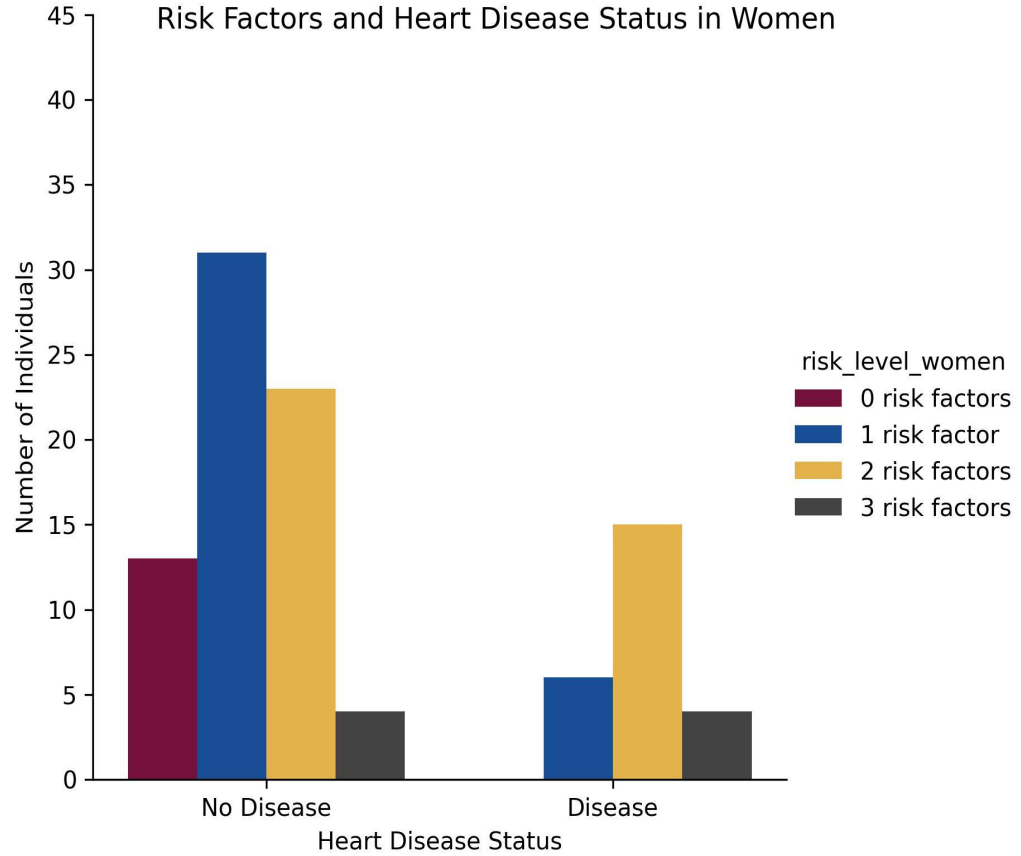


High Blood Pressure

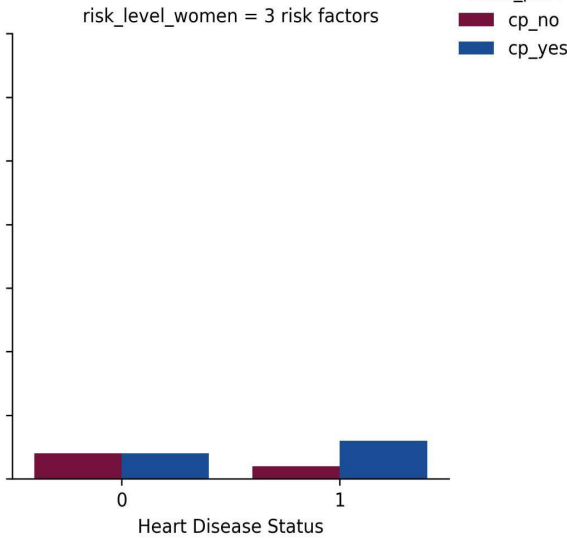
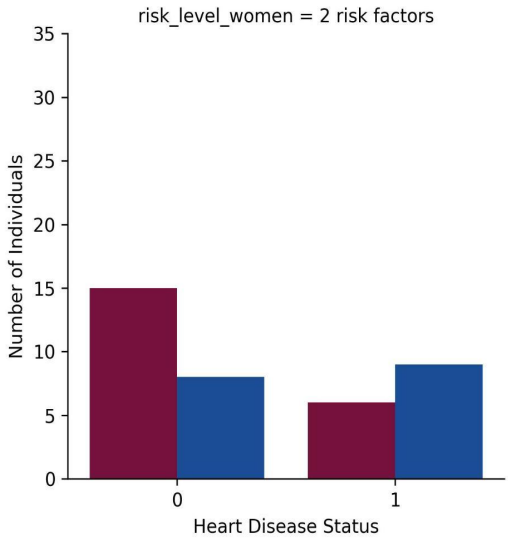
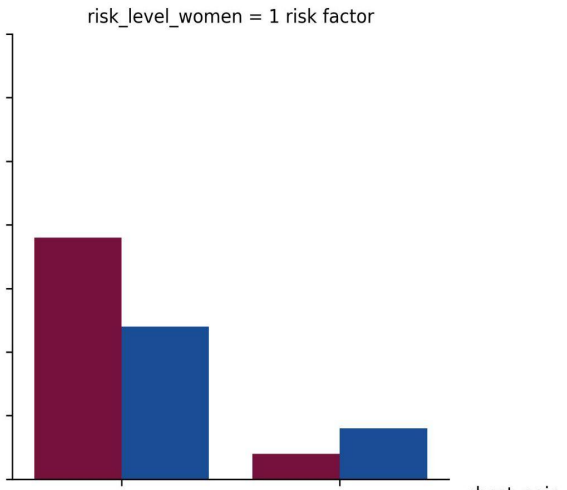
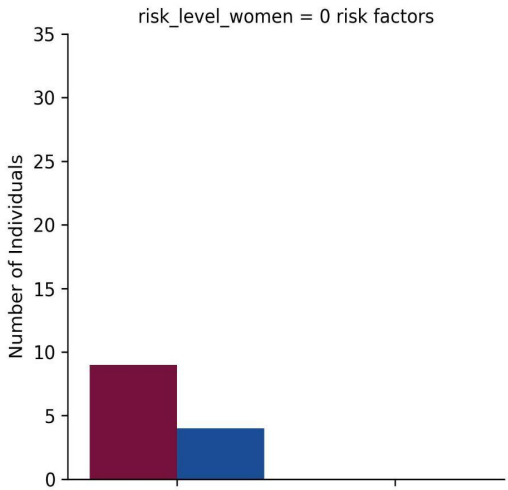
- Strong effect noted



Risk Profile



Chest Pain



chest_pain
cp_no
cp_yes



Key Findings & Conclusions

1

The **cumulative number of risk factors** for women is the strongest indicator of heart disease.

3

Resting Blood Pressure is a strong predictor for women, but a weaker predictor for men.

2

The key indicators for men are a combination of the same risk factors **plus the presence of chest pain**.

4

High Cholesterol is a predictor of heart disease in both men and women, with a stronger association in women than in men.



Recommendations

1

Raise awareness with respect to **chest pain** and heart disease risk for men.

2

Raise awareness of **high blood pressure** and heart disease risk for women.

3

Promote screening for high blood pressure, diabetes, and high cholesterol for all.

4

Continue to promote healthy behaviors that address diet, exercise, and stress management.



Thank you.