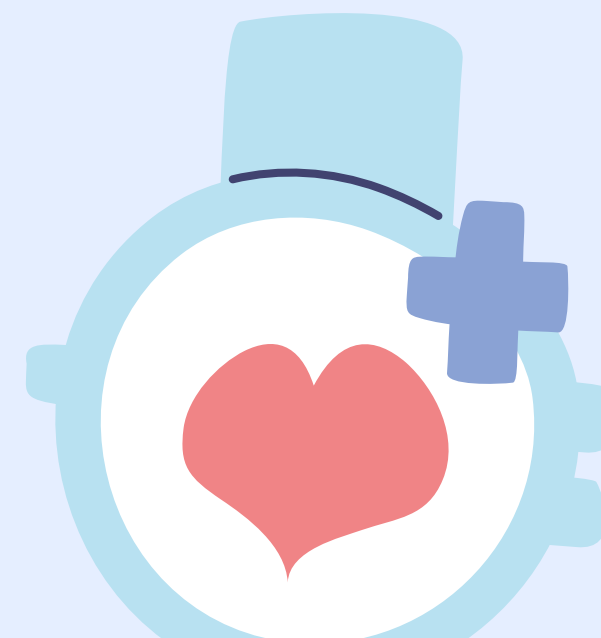


Predicting Heart Attack Risk

Don't Guess the Signs.
Predict, Prevent, Protect.

By Nikhar Bhavsar



Heart Disease: A Leading Cause of Death in Canada

According to
Public Health Canada

Heart disease is the second leading cause of death in Canada, accounting for over 50,000 deaths annually.

1 in 3 cases go undiagnosed until severe symptoms occur.

Why is Early Detection Challenging?

Doctor Shortages

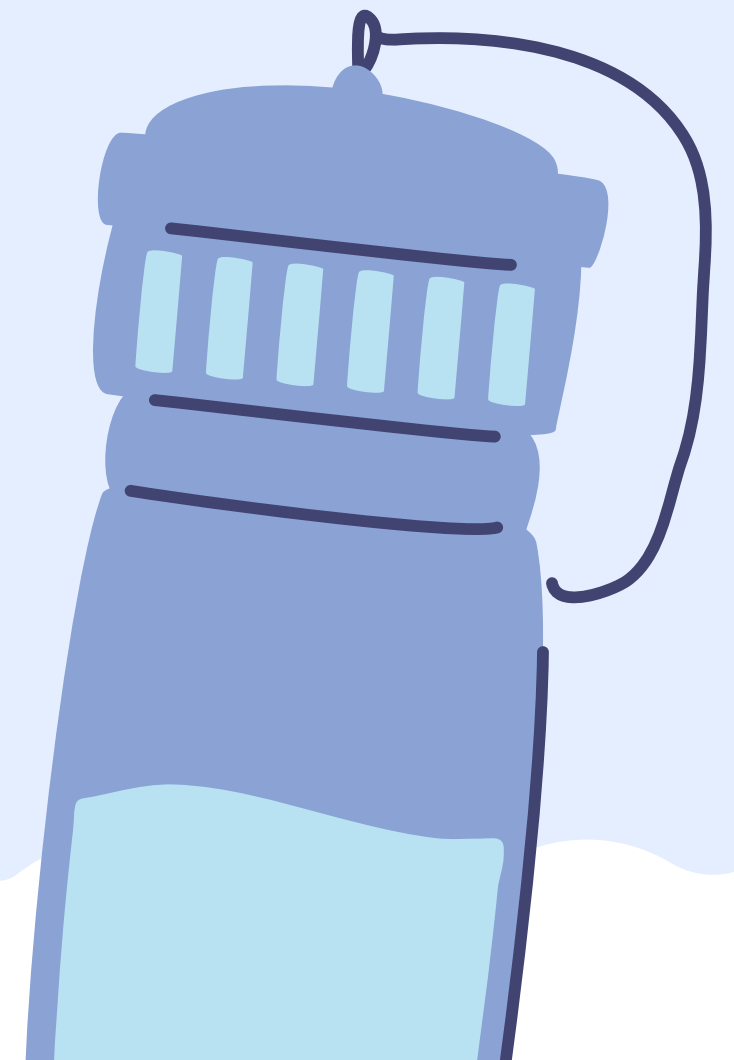
4.7 million Canadians lack a family physician (Statistics Canada 2023).

Limited Awareness

Early warning signs like high blood pressure or cholesterol are often ignored.

Testing Gaps

Rural and remote communities lack access to diagnostic facilities.





Proposed Solution



Early Risk Assessment with Machine Learning

- Analyzes health data to predict heart disease risk.
- Factors considered: Diabetic, Physical Active, BMI, etc.
- Alerts users to seek medical attention before severe symptoms arise.

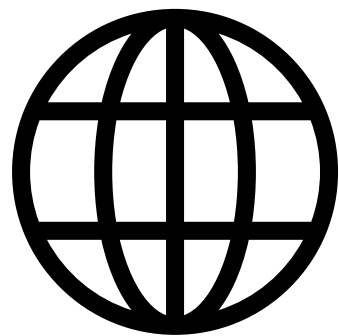


Early detection can reduce healthcare costs and save lives.



Data Overview

Source



Kaggle

Shape



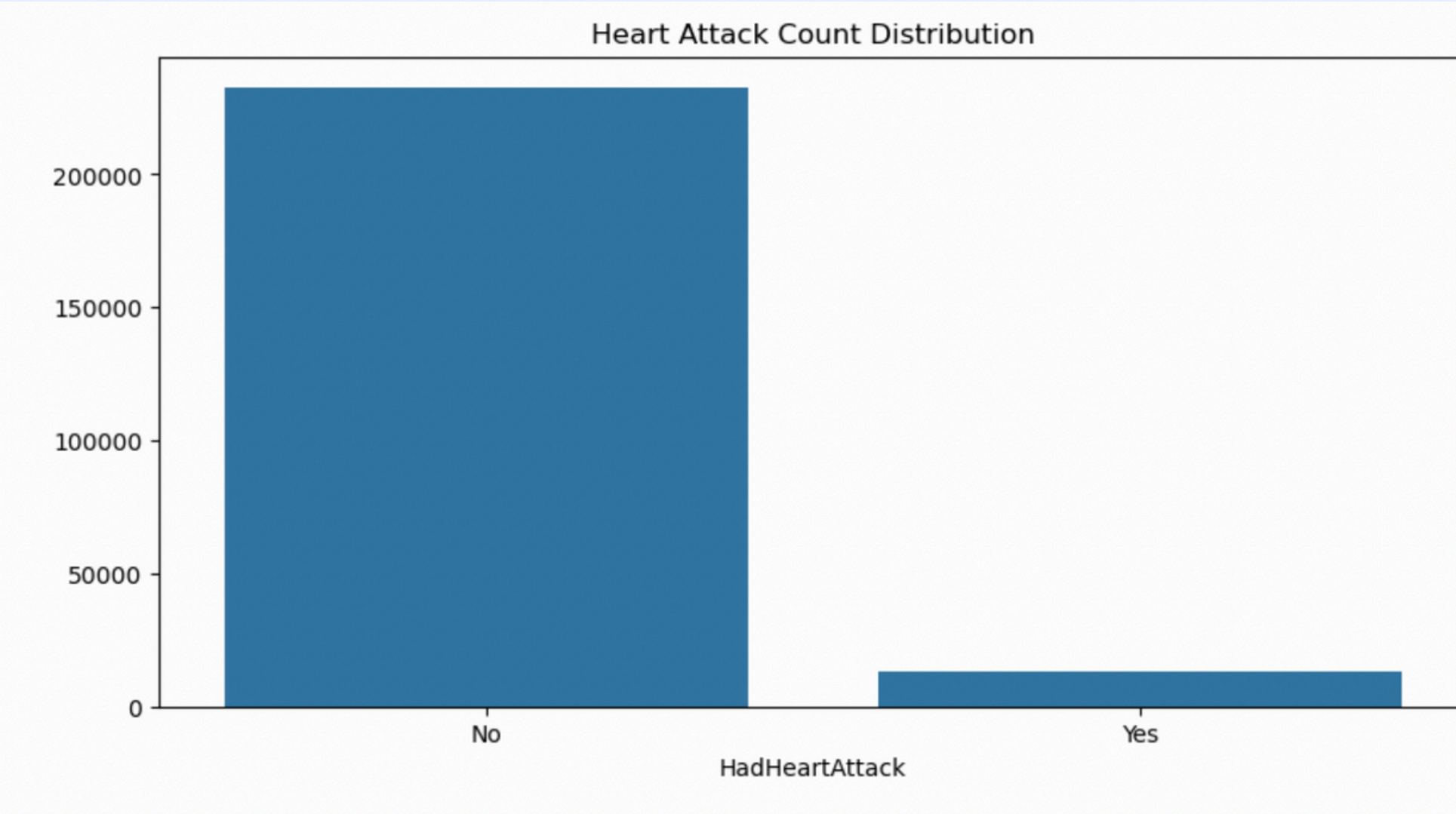
Rows - 246022
columns - 40

Factors



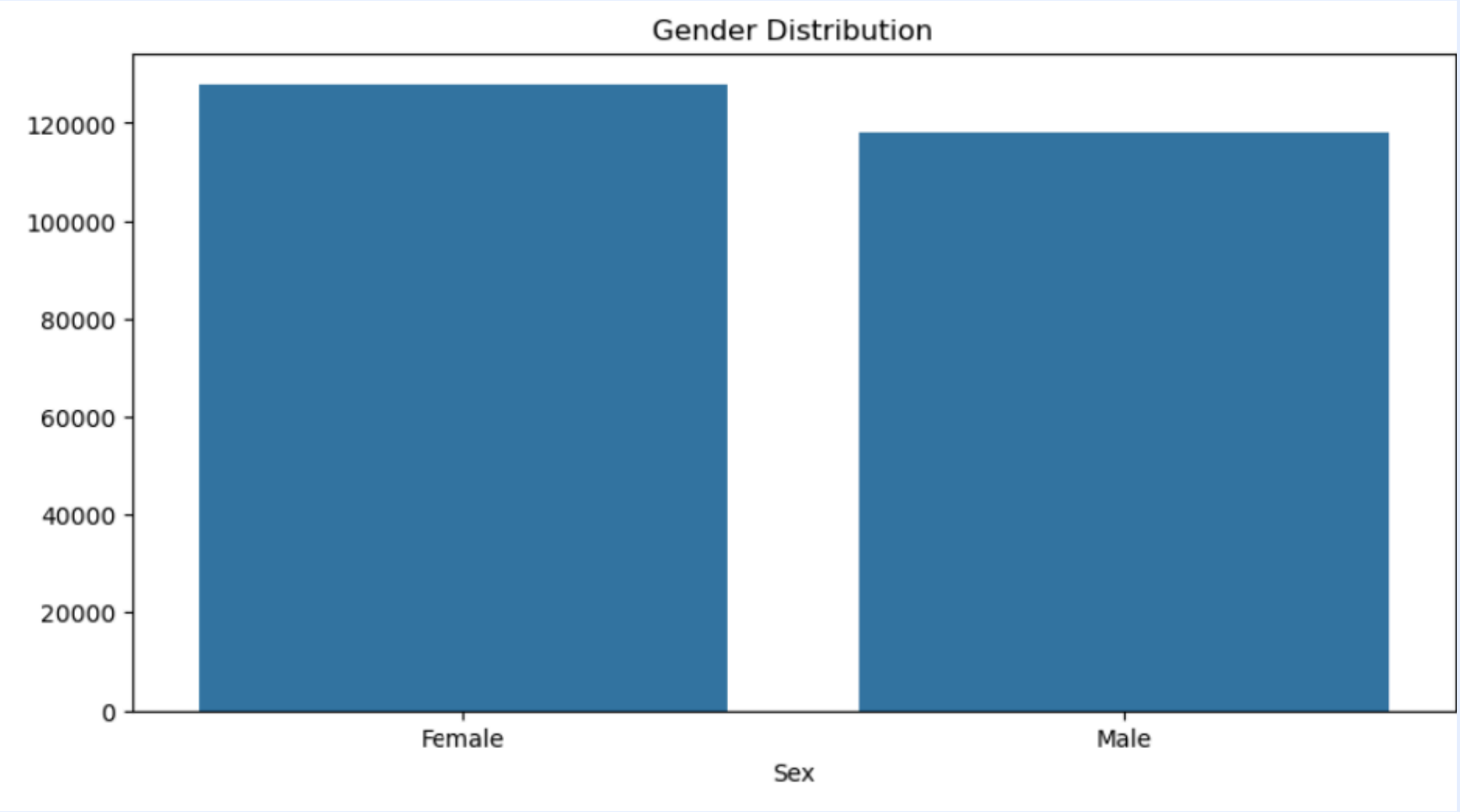
Age, Gender, Diabetic
Physically Active etc.

EDA Findings



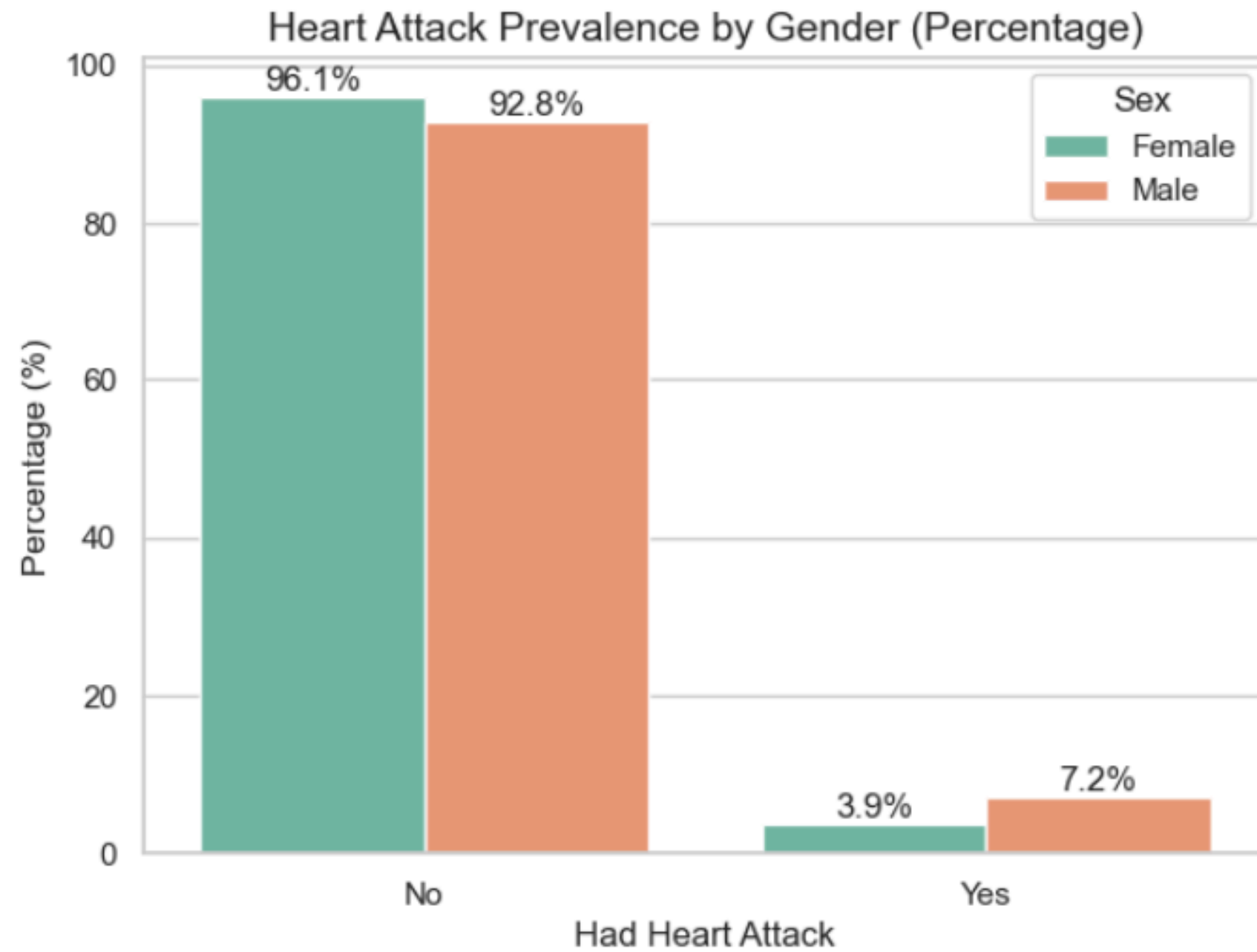
Had Heart Attack	232578	94.54%
No Heart Attack	13435	5.46%

EDA Findings

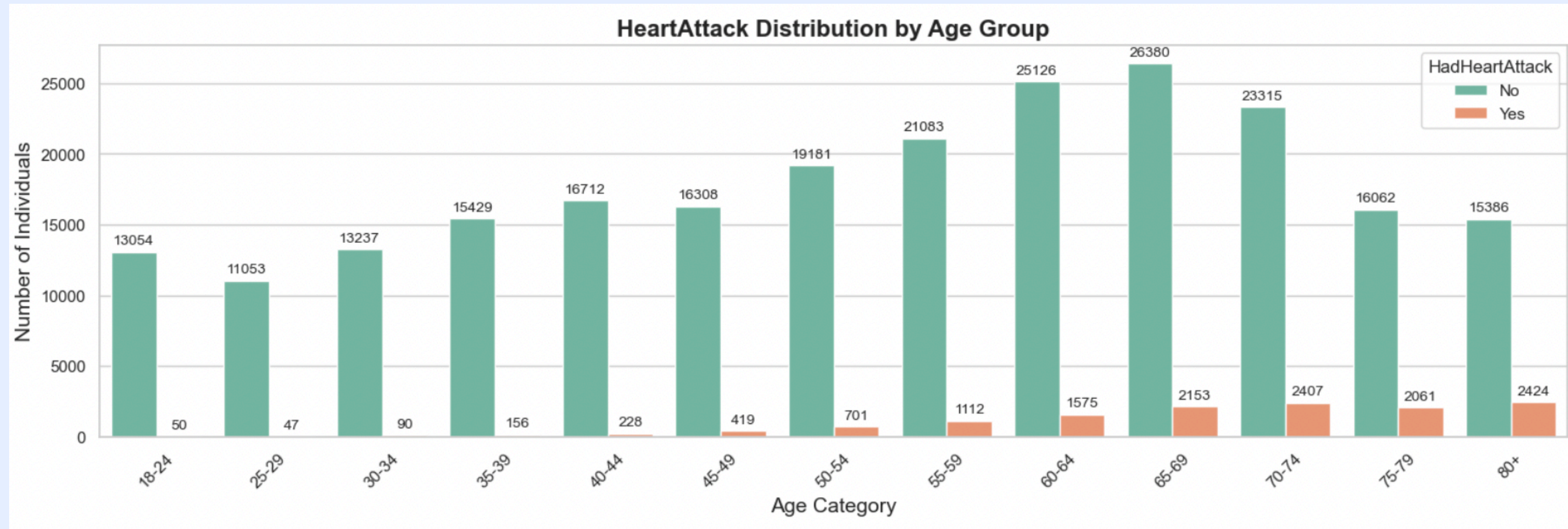


Male	118207	48.05%
Female	127806	51.95%

EDA Findings



EDA Findings



Next Steps:

- 1 Handling the Imbalanced data
- 2 Feature Engineering
- 3 Apply Logistic regression as a base Algorithm
- 4 Modal Optimization using other Algorithms



Thank You

