

The background is a stylized medical illustration. It features a light orange and cream-colored background with dark blue curved shapes. Various medical items are scattered around: a blue glucometer with a screen showing a graph, a blue insulin pump with a tube, a blue syringe, a blue insulin bottle labeled 'INSULIN Injection 10ml', a blue container with multiple syringes, a blue pen, and a blue pill bottle. The title 'ANALYSIS OF RISK FACTORS FOR DIABETES' is centered in a bold, dark blue font.

ANALYSIS OF RISK FACTORS FOR DIABETES

An Exploration of the 2015 BRFSS Dataset
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BACKGROUND

- The CDC conducts annually phone interviews.
- Over 400,000 Americans participate, providing data on health behaviors, chronic conditions, and preventive health measures.
- This analysis uses the 2015 dataset to explore diabetes risk factors.



OBJECTIVES

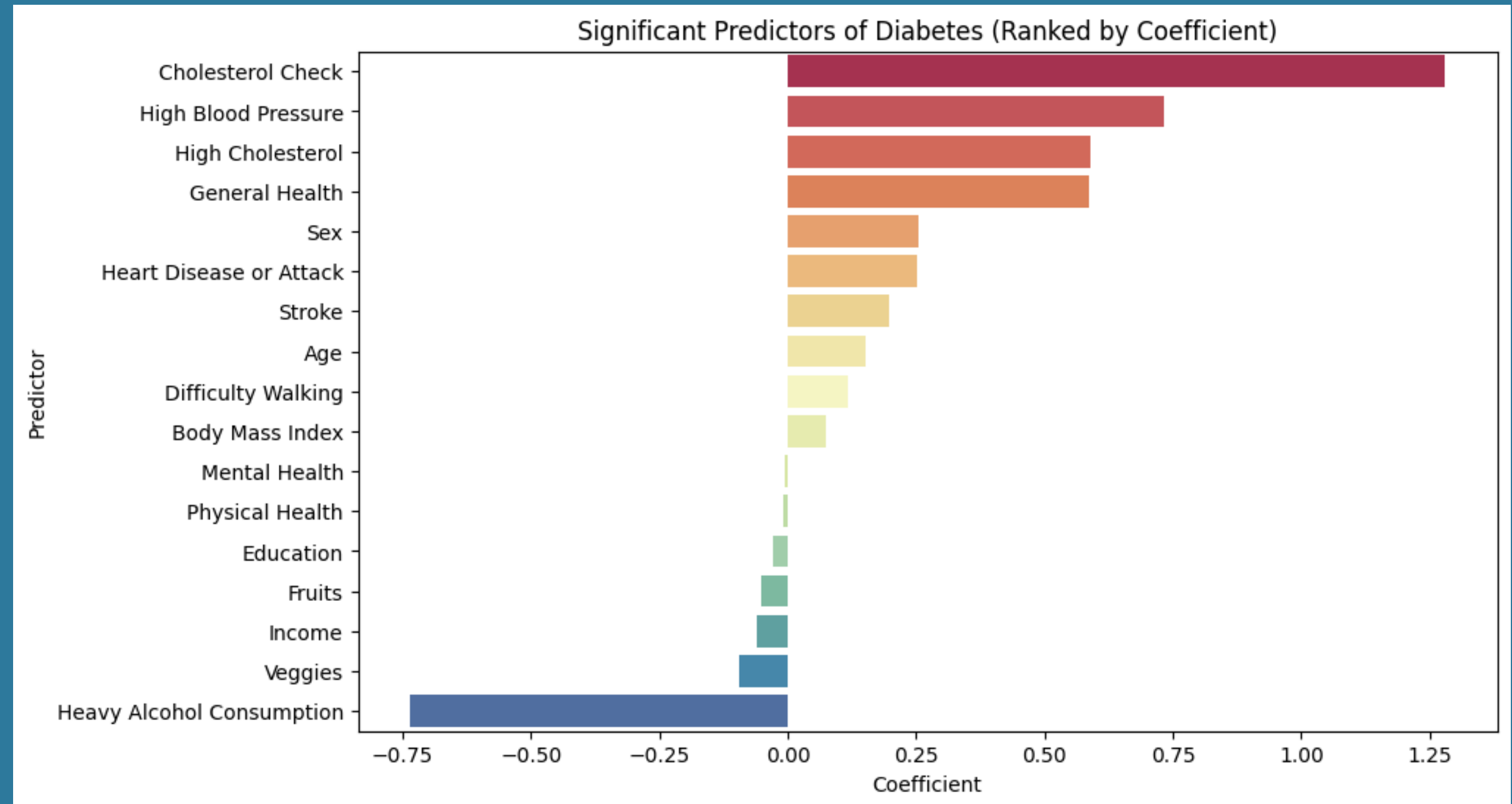
- Identify and quantify diabetes risk factors.
- Apply Machine Learning Model to analyze health and demographic data.
- Focus on variables such as cholesterol, blood pressure, BMI, age, and physical activity.

METHODOLOGY

- Utilized a Supervised Machine Learning Algorithm: Logistic Regression.
- Analyzed relationships between health variables and diabetes diagnosis.
- Dataset was balanced with equal numbers of diabetic and non-diabetic individuals.
- Model Performance: AUC Score of 0.83, indicating good discrimination ability.

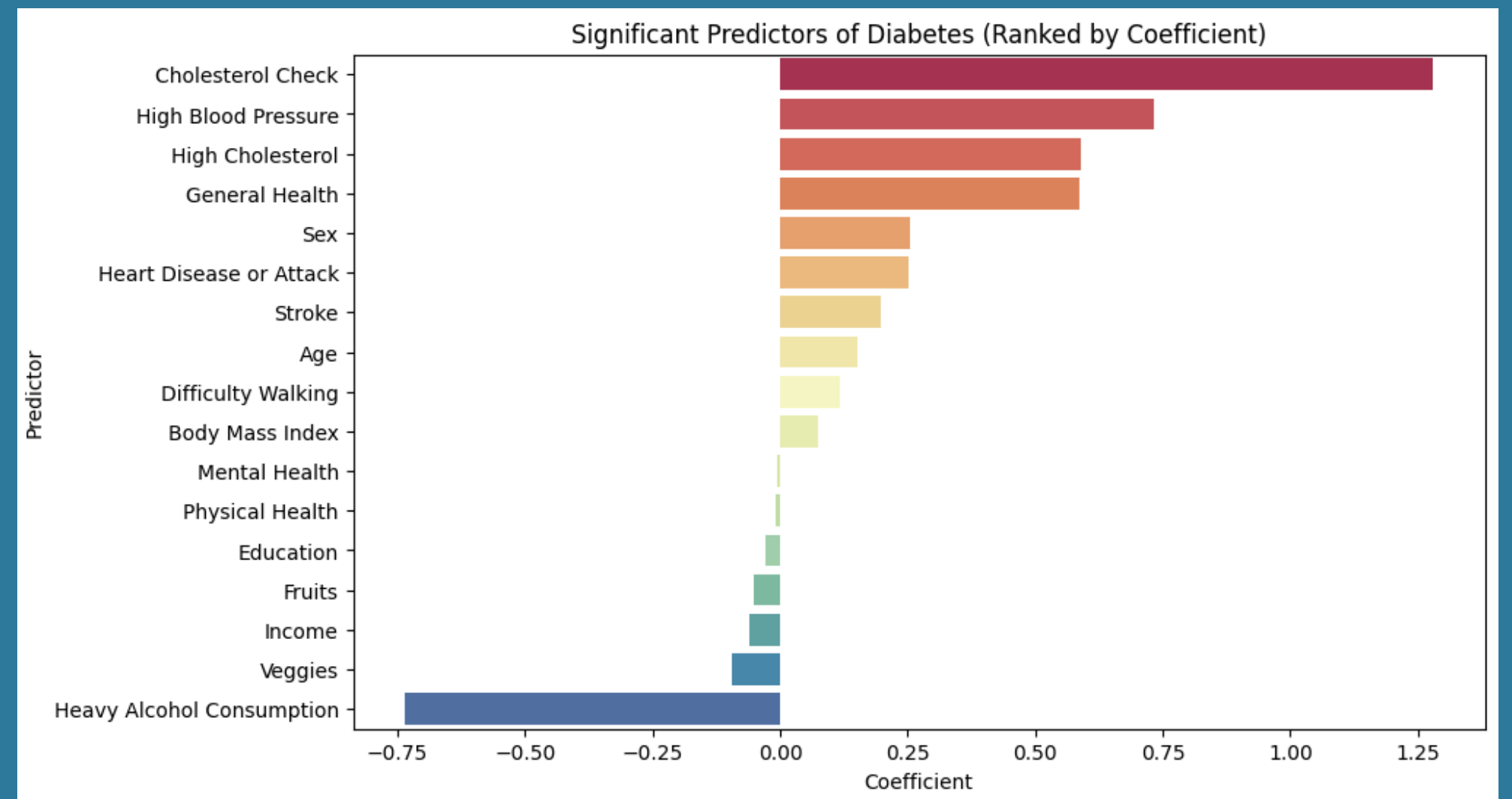
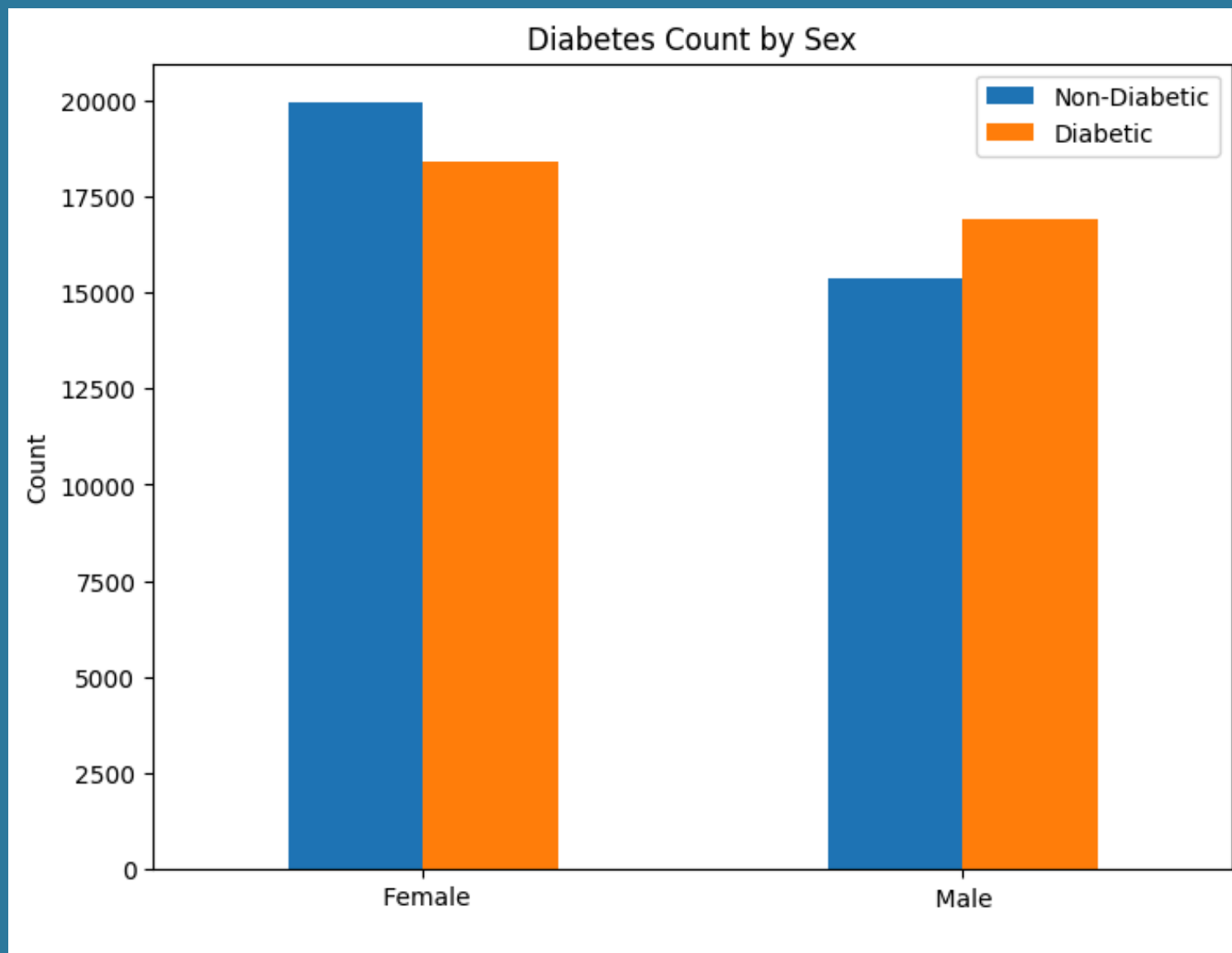
KEY FINDINGS: SIGNIFICANT RISK FACTORS

- The most significant predictors for Diabetes are likely behaviour changes after they started getting Treatment.



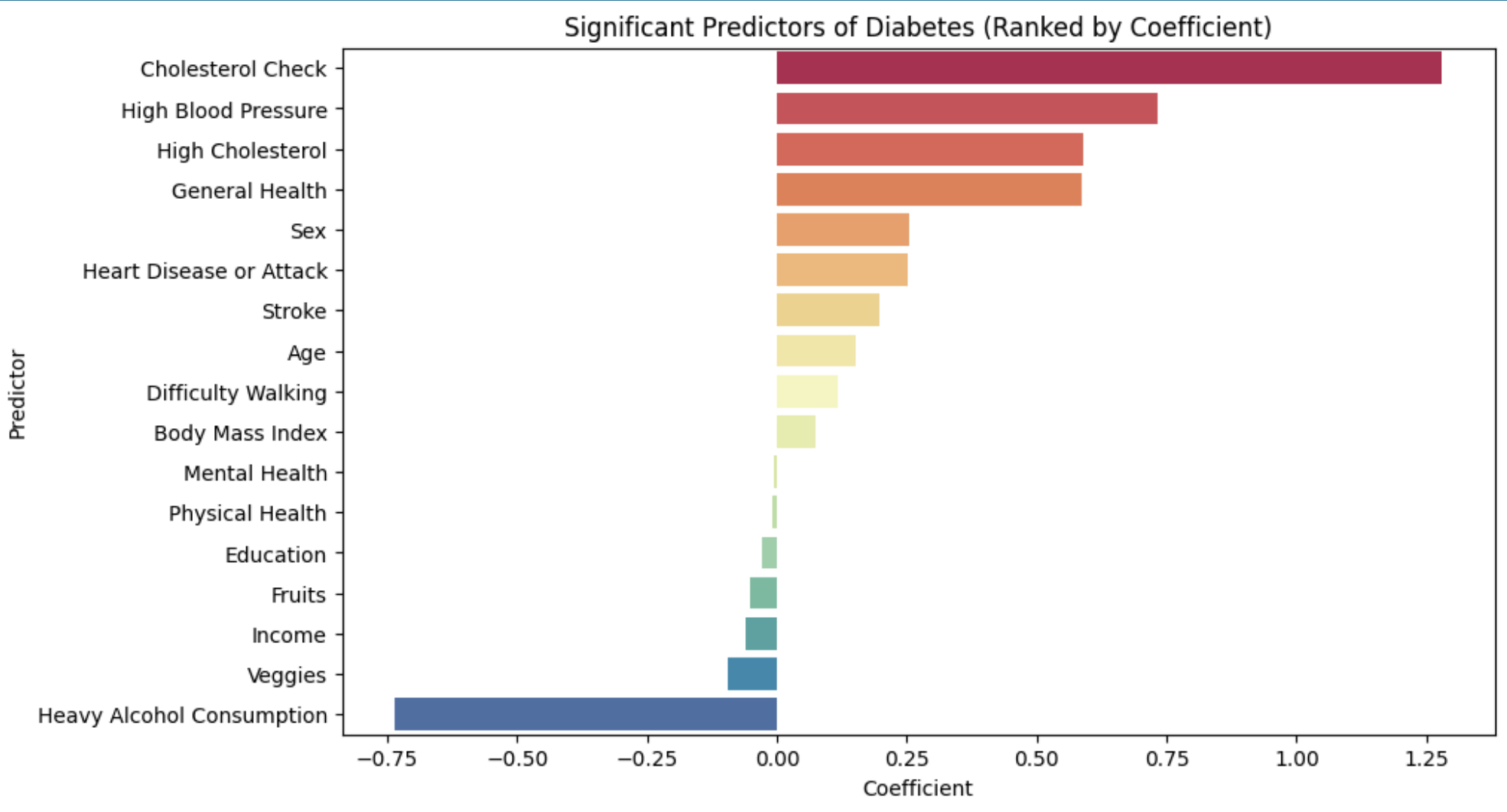
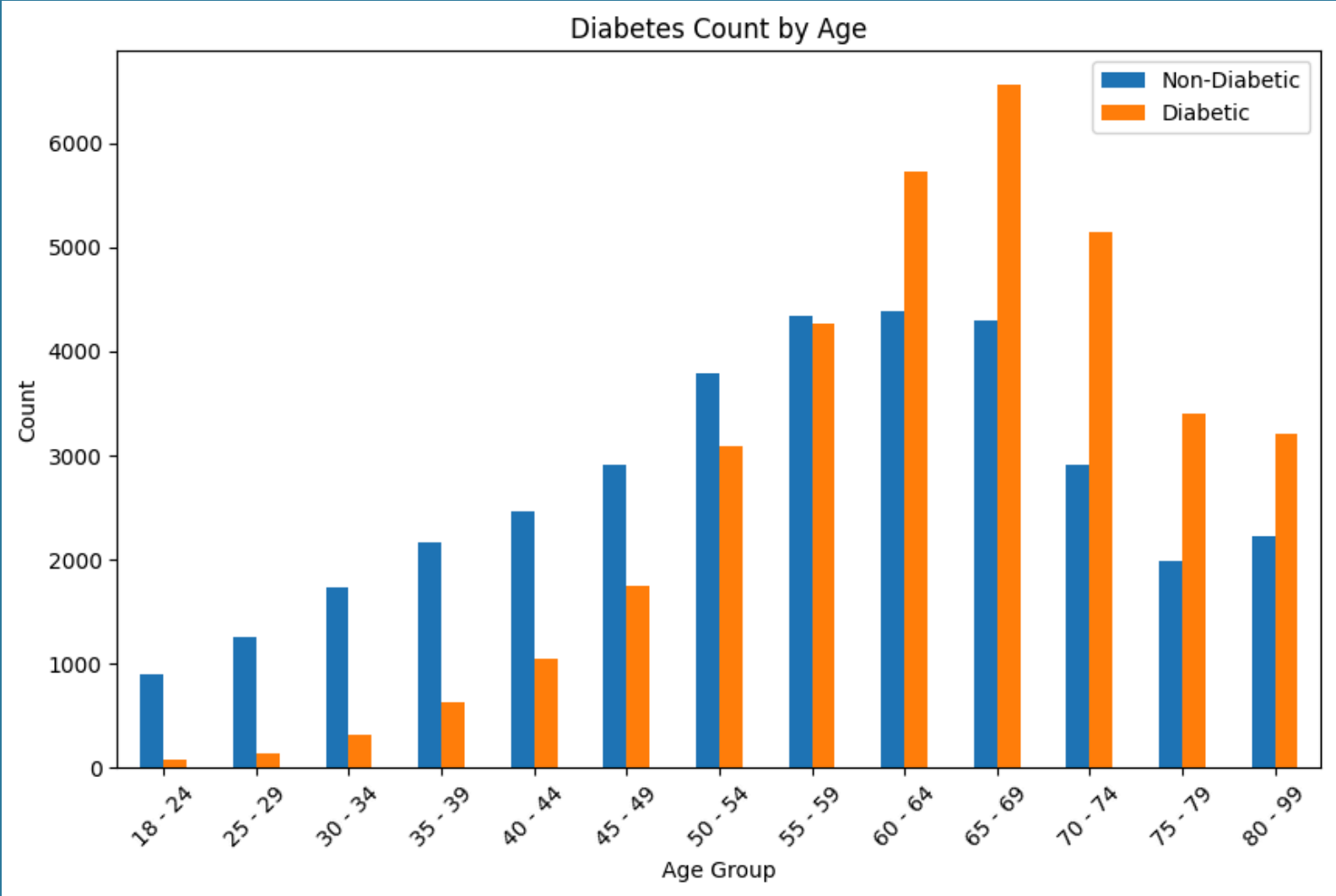
KEY FINDINGS: SEX

- Gender differences exist in diabetes risk, Males are more likely to get diabetes with a significant effect found.



KEY FINDINGS: AGE

- Older age significantly increases the risk of diabetes.



RECOMMENDATIONS

1. Validating Results with Research
2. Focused preventive Measures for males and older age Groups
3. Long term Studys

