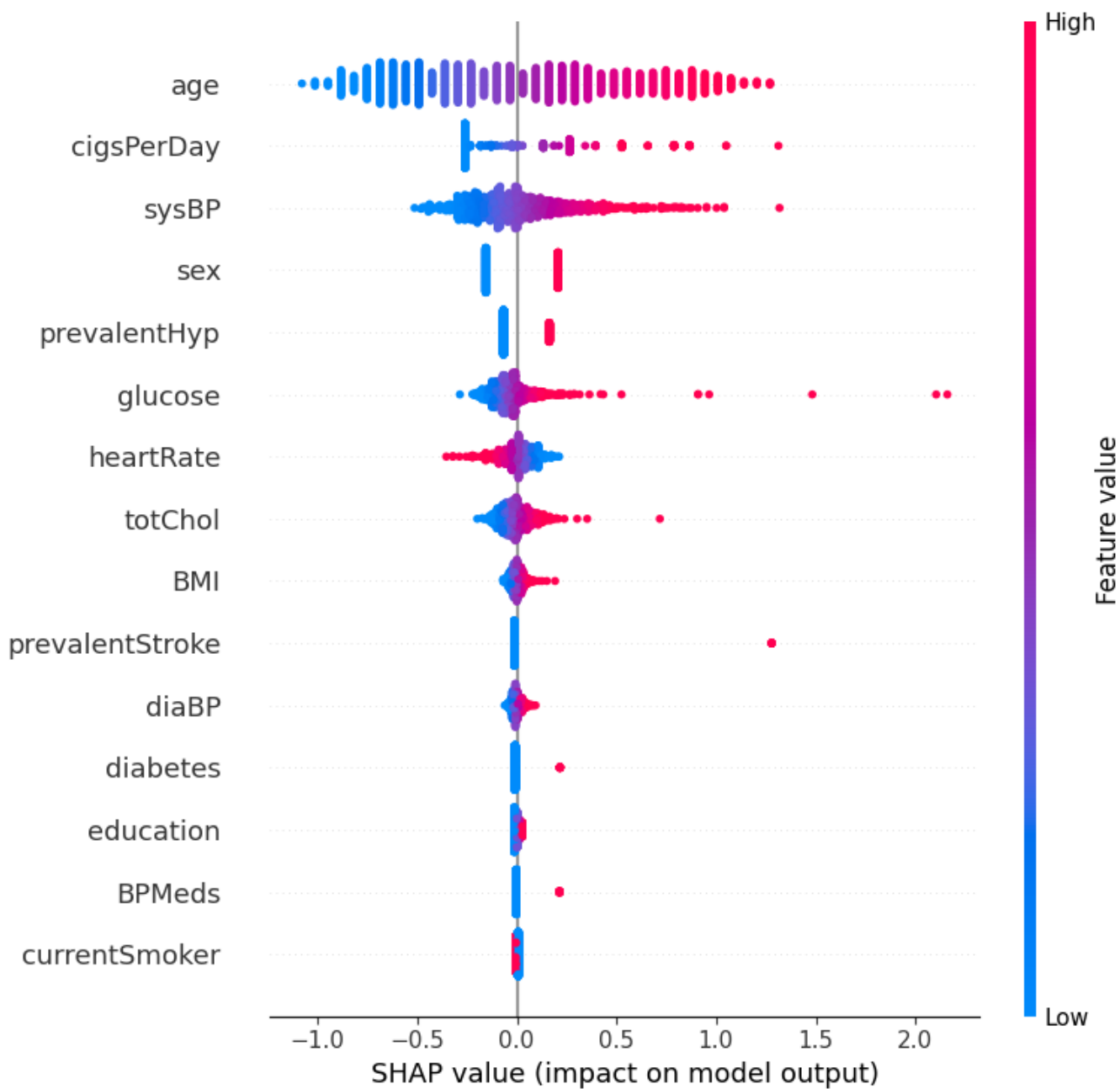


SHAP Summary Plot - Feature Contributions



# Heart Disease Prediction Report

## Health Risk Explanation:

Based on your input, your health risk for heart disease is low. Keep up with a healthy lifestyle!

Here's why:

- Elevated glucose levels, which may indicate risk for diabetes and heart disease.
- Smoking, which significantly increases heart disease risk.

Your risk factors are within a healthy range, but it's important to continue a balanced diet, regular exercise, and monitoring of health parameters.

## User Input Data with Explanations:

sex: 1 (1 = Male, 0 = Female)

age: 55.0

education: 3.0

currentSmoker: 1 (1 = Yes, 0 = No)

cigsPerDay: 25.0

BPMeds: 1 (1 = Yes, 0 = No)

prevalentStroke: 0 (1 = Yes, 0 = No)

prevalentHyp: 1 (1 = Yes, 0 = No)

diabetes: 1 (1 = Yes, 0 = No)

totChol: 220.0

sysBP: 130.0

diaBP: 85.0

BMI: 30.0

heartRate: 75.0

glucose: 110.0

## Prediction and Probability:

Prediction: Low risk of heart disease

Probability of heart disease: 44.33%

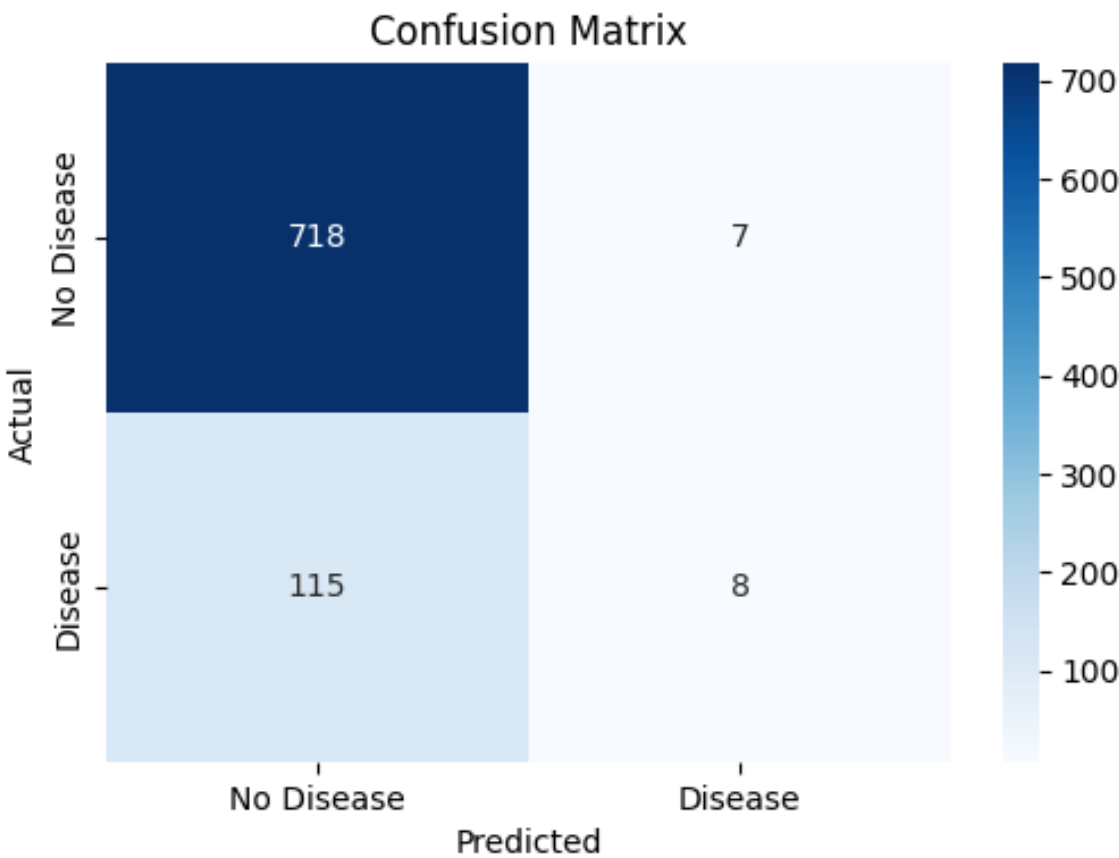
## Diet Recommendation:

### Diet Plan for Low-Risk Individuals:

- Continue maintaining a balanced diet with plenty of fruits, vegetables, and lean proteins.
- Regular physical activity to maintain a healthy weight and cardiovascular health.
- Limit alcohol intake and avoid smoking.
- Regularly monitor cholesterol, blood pressure, and glucose levels.

Health Score:  
Your health score is: 4

Confusion Matrix



ROC Curve

