

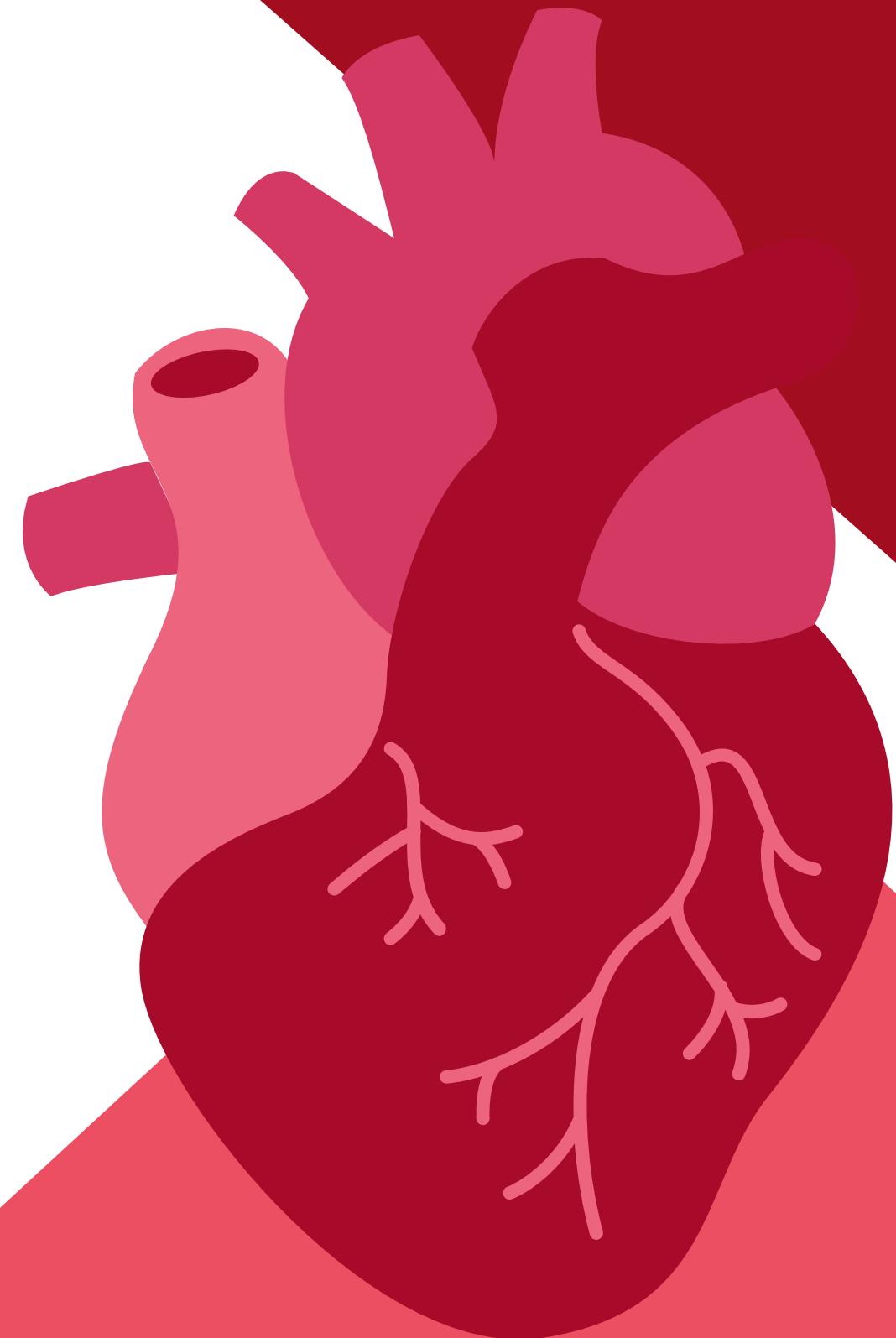
HEART FAILURE PREDICTION

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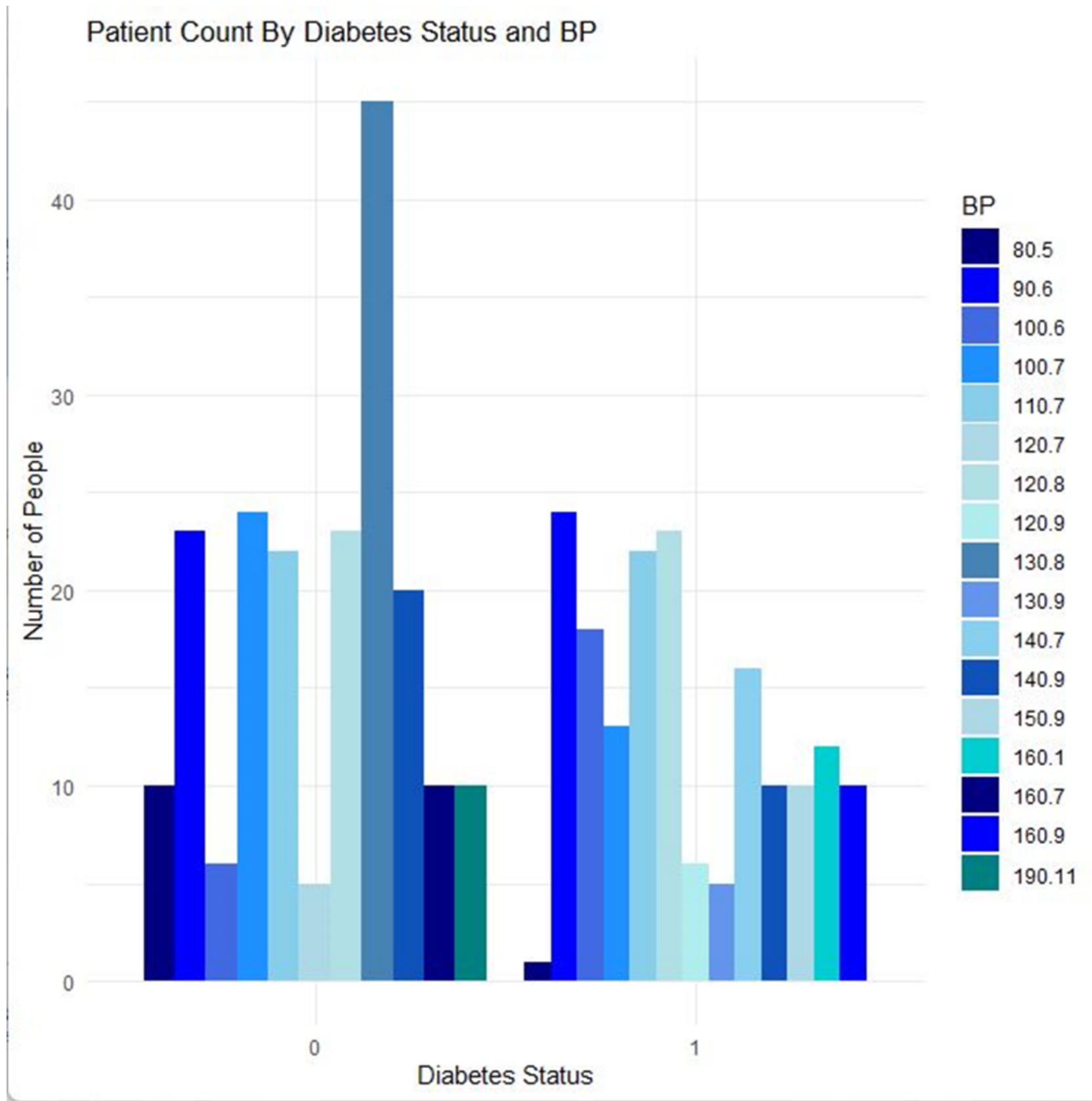
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Introduction

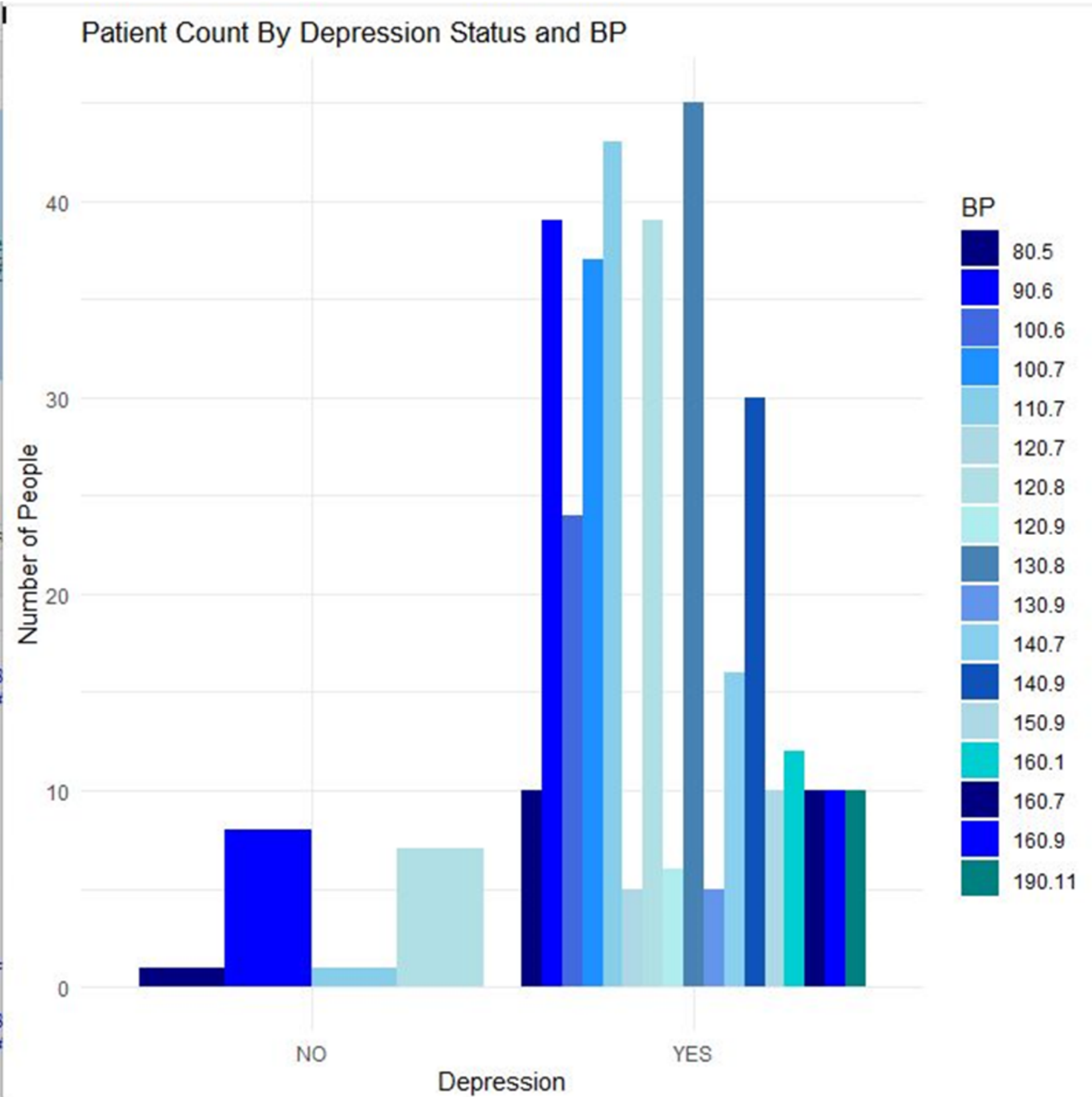
- Heart failure is a common and serious medical condition with high morbidity and mortality rates.
- This report analyzes the factors associated with heart rate failure and patient outcomes using a large dataset of electronic health records.
- Clinical and demographic characteristics of 368 heart failure patients, as well as mental state, unhealthy habits, age, and blood composition, were examined.
- Advanced statistical techniques were employed to identify key factors linked to heart rate failure and develop predictive models for adverse outcomes.
- The findings emphasize the need to monitor heart rate measures in heart failure patients and identify key risk factors for targeted interventions.

Diabetes And BP



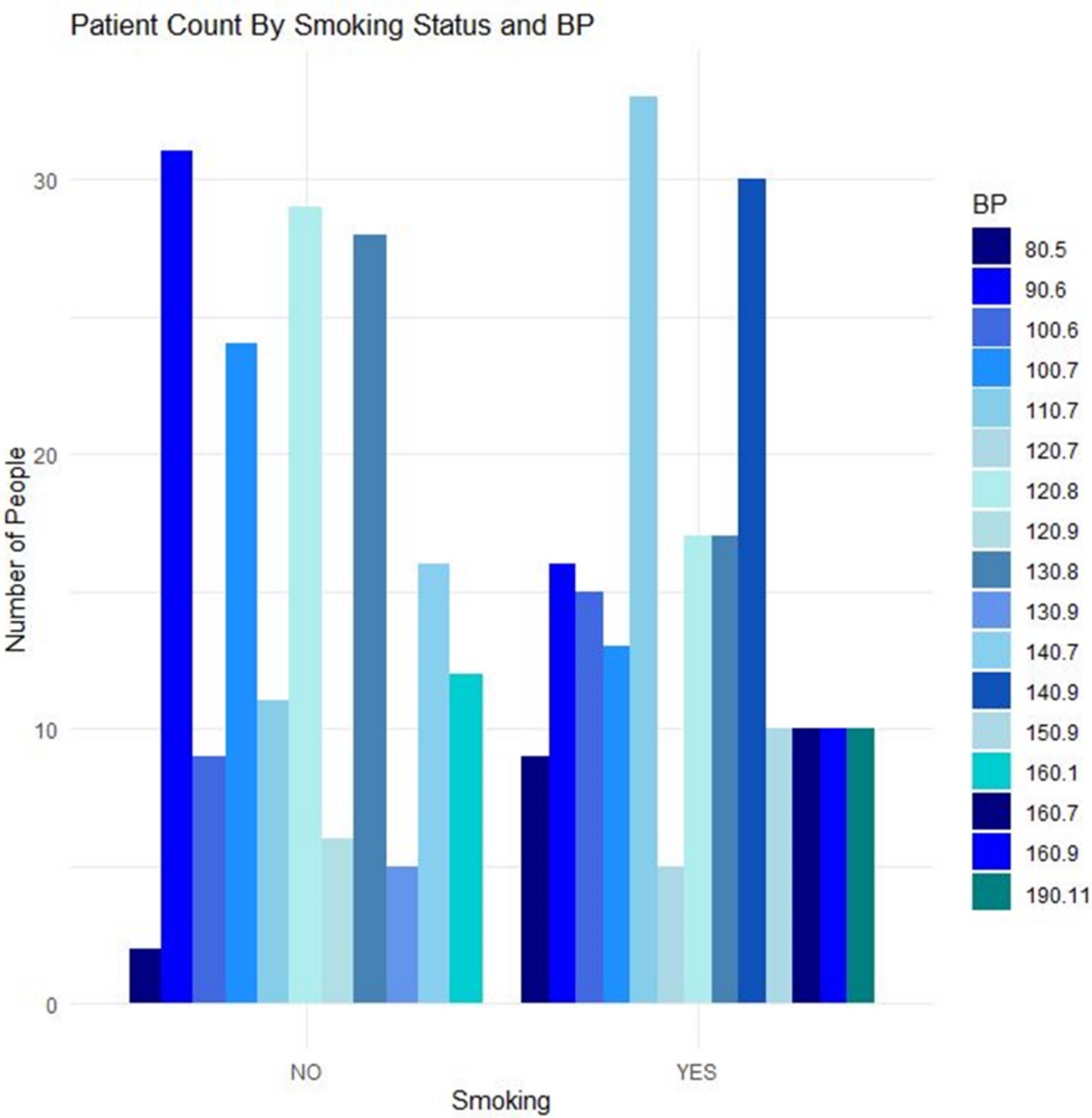
- The histogram analysis shows that most patients in the dataset do not have diabetes and have normal BP levels.
- A cluster of patients with high BP levels is observed, especially among those with diabetes.
- This suggests that diabetes may be a contributing factor to high BP levels in some patients.
- Conclusion: Further analysis is needed to explore the relationship between diabetes and high BP levels, such as examining other potential risk factors or investigating interventions to reduce the risk of high BP in diabetic patients.

Depression And BP



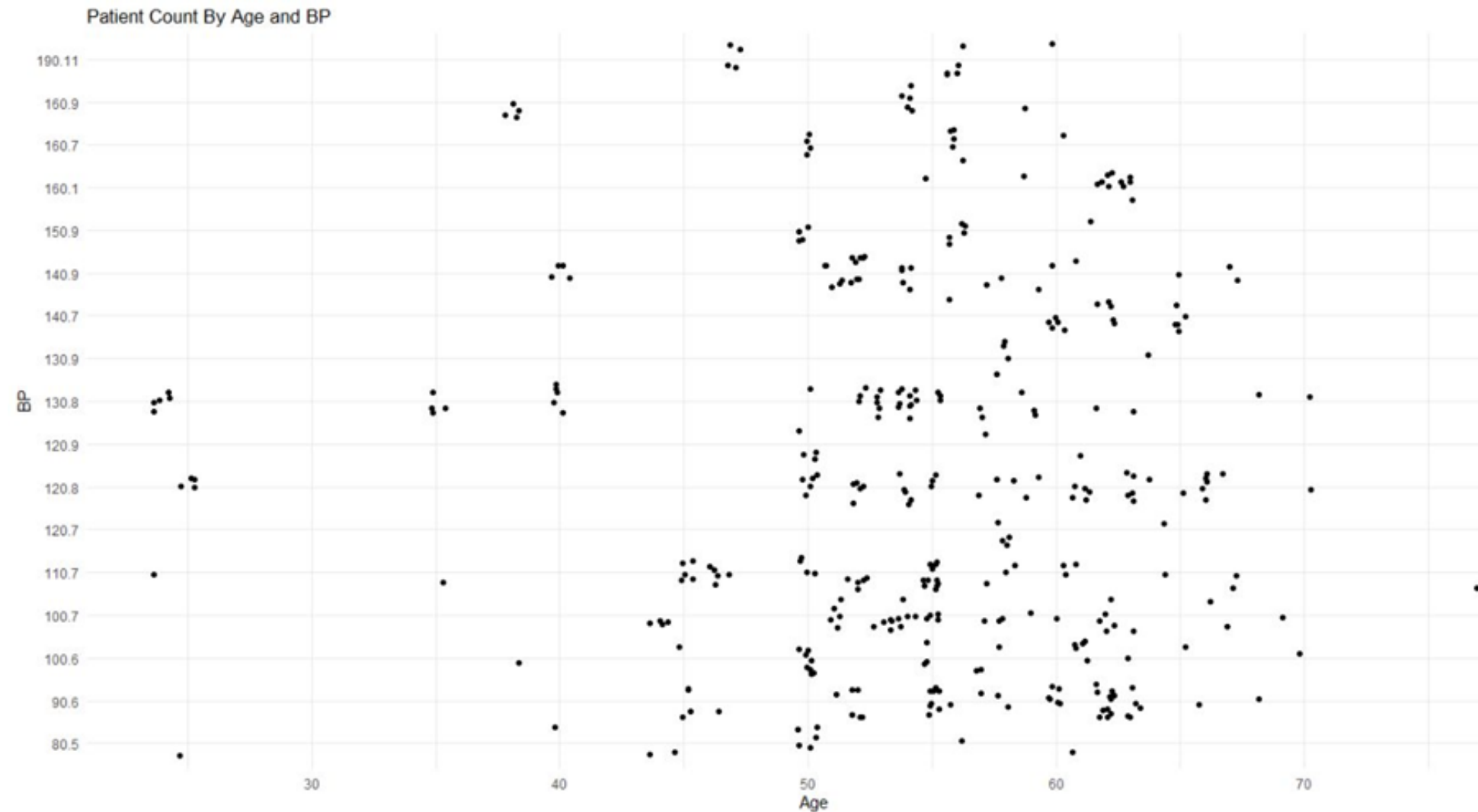
- Majority of patients have normal blood pressure regardless of their depression status.
- Patients with depression have slightly higher proportion of high blood pressure compared to those without depression.
- Patients with normal blood pressure have higher count compared to those with high blood pressure.
- Conclusion: Depression may have a minor impact on blood pressure in patients, with slightly higher proportion of high blood pressure in patients with depression, but the majority of patients have normal blood pressure regardless of their depression status.

Smoking And BP



- Smokers generally have higher blood pressure levels compared to non-smokers.
- Majority of patients, both smokers and non-smokers, had BP readings in the normal range.
- Non-smokers showed a more symmetrical distribution of BP readings, while smokers showed a skewed distribution towards higher BP readings.
- Conclusion: Smoking is associated with higher blood pressure levels, emphasizing the need for smoking cessation programs to prevent and manage hypertension.

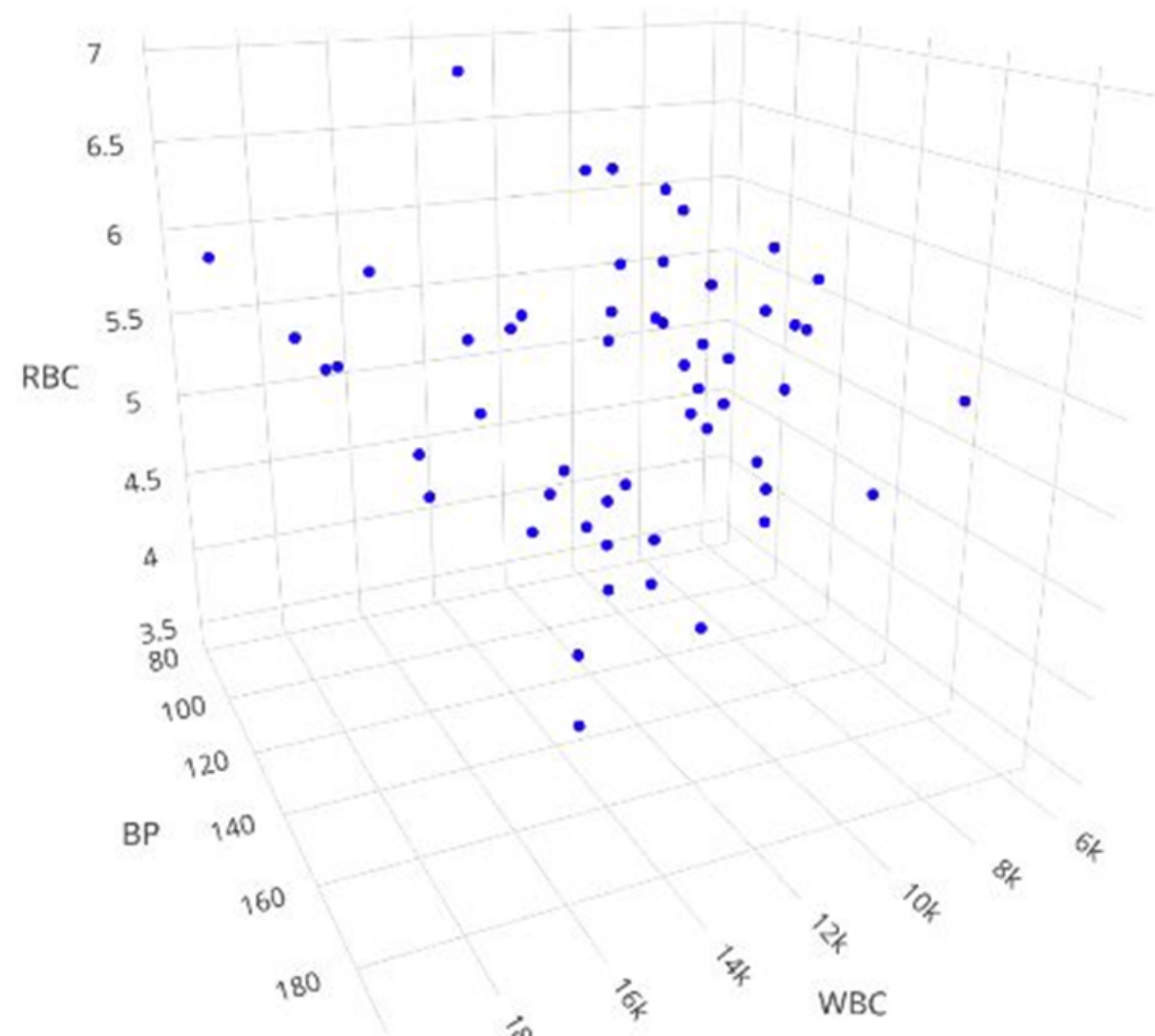
Age And BP



- The graph shows the relationship between age and heart rate of patients in the datasheet.
- Older patients (50-60 years) have higher heart rates compared to younger patients.
- The conclusion drawn is that as a person gets older, their heart is more stressed and they have a higher heart rate.
- Therefore, it can be inferred that older people have a higher rate of heart failure.

WBC, RBC And BP

Patient Count By WBC, BP and RBC

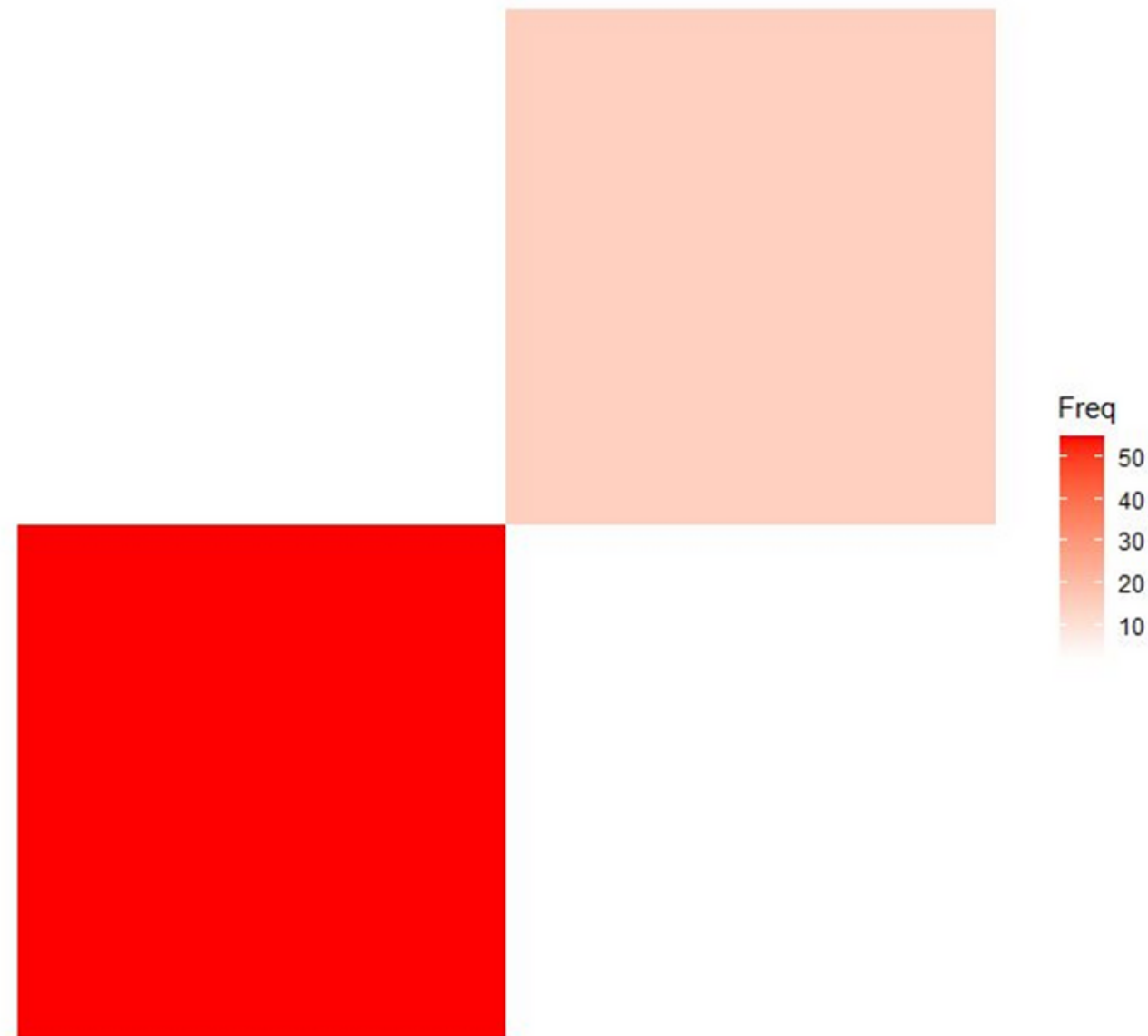


- The plot is a 3D representation of patient data points in WBC count, BP, and RBC count.
- Each point represents a patient's values for WBC, BP, and RBC.

Conclusion: The 3D plot suggests that patients with lower blood pressure tend to have lower white blood cell and/or red blood cell counts.

Confusion matrix

Confusion Matrix



- Visual interpretation of a graph helps analyze the performance of a classification model.
- The distribution of predicted and actual outcomes is examined to evaluate the accuracy and errors of the model.
- Darker tiles in the graph represent correct predictions or higher frequencies.
- Lighter tiles in the graph represent incorrect predictions or lower frequencies.
- The graph provides an intuitive and visual way to evaluate the performance of a classification model.



Thank you