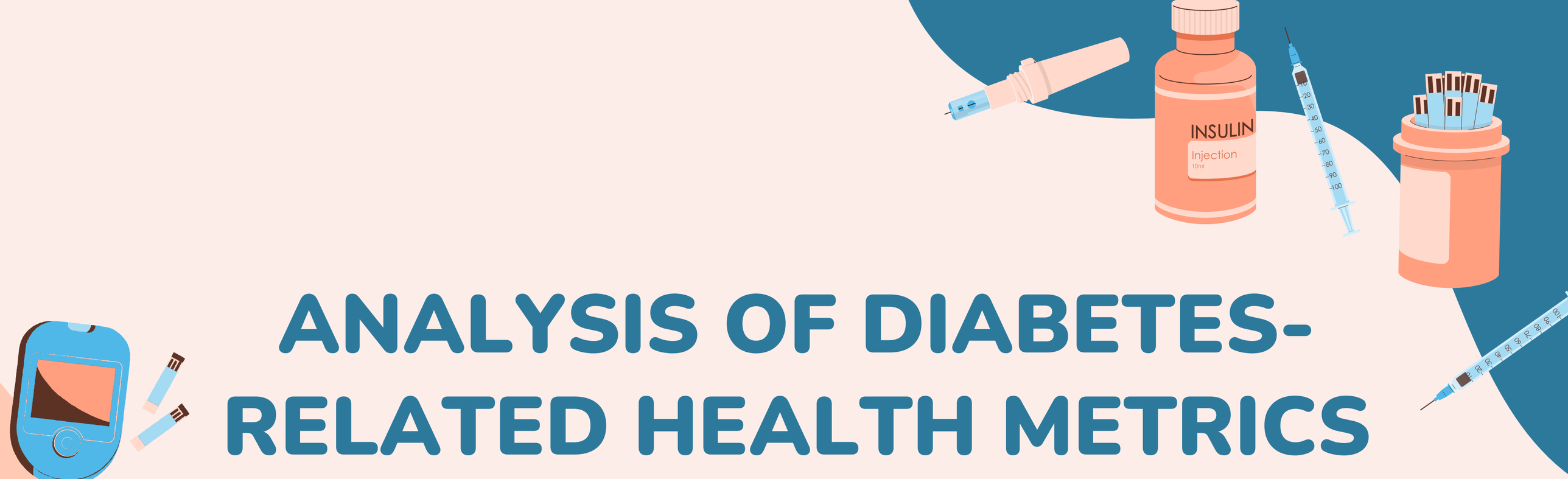


ANALYSIS OF DIABETES-RELATED HEALTH METRICS

Investigating Key Indicators of Diabetes Prevalence and Risk

INTRODUCTION

DIABETES

- chronic condition affecting millions worldwide, with increasing prevalence.
- Understanding its risk factors is crucial for prevention and management.

OBJECTIVE

- Use dataset insights to explore relationships between physiological metrics (e.g., glucose, BMI) and diabetes.

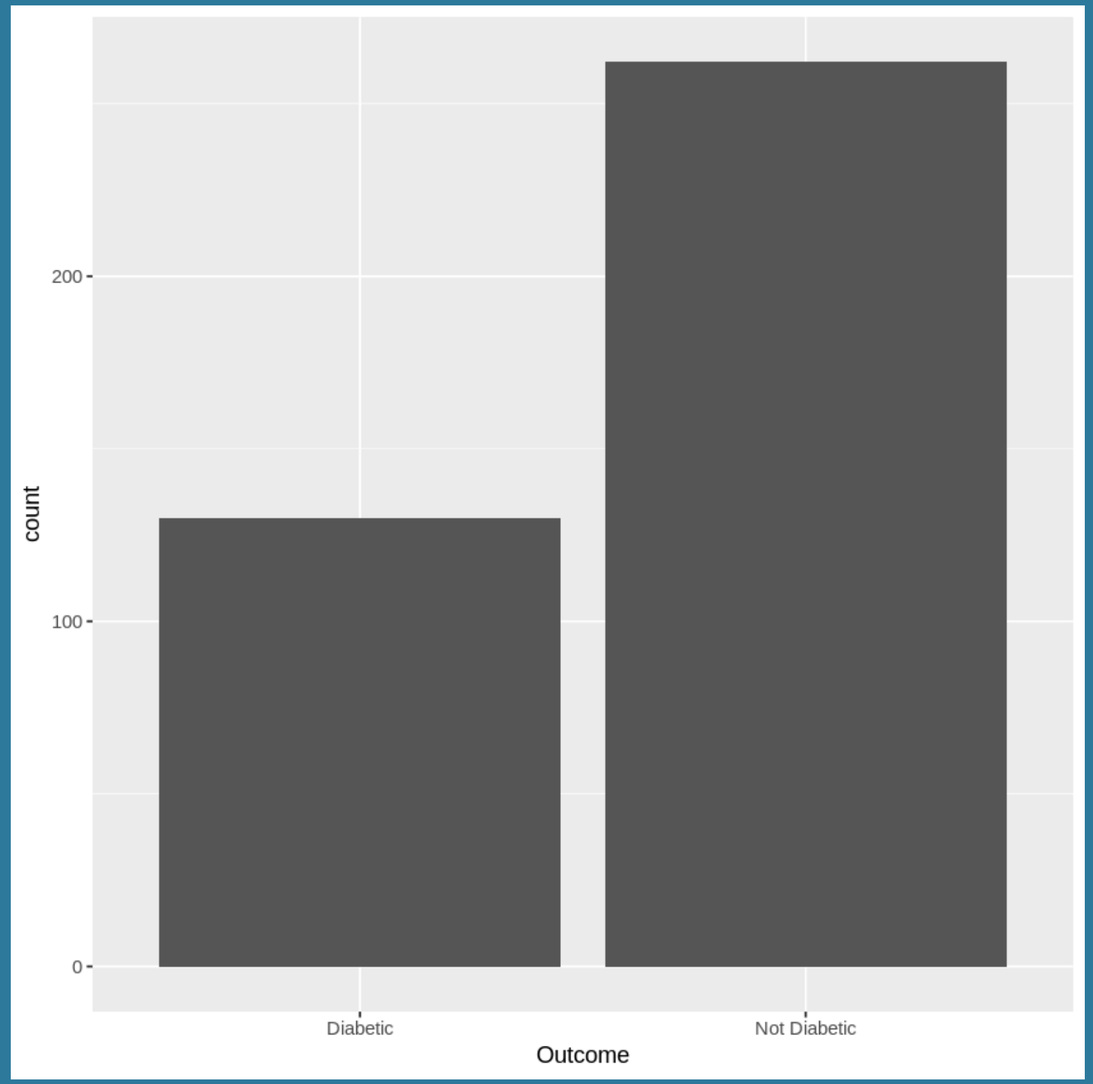
DIABETES PREVALENCE

Dataset Findings

- Global diabetes prevalence: 10.5% of adults.
- Significant public health concern.

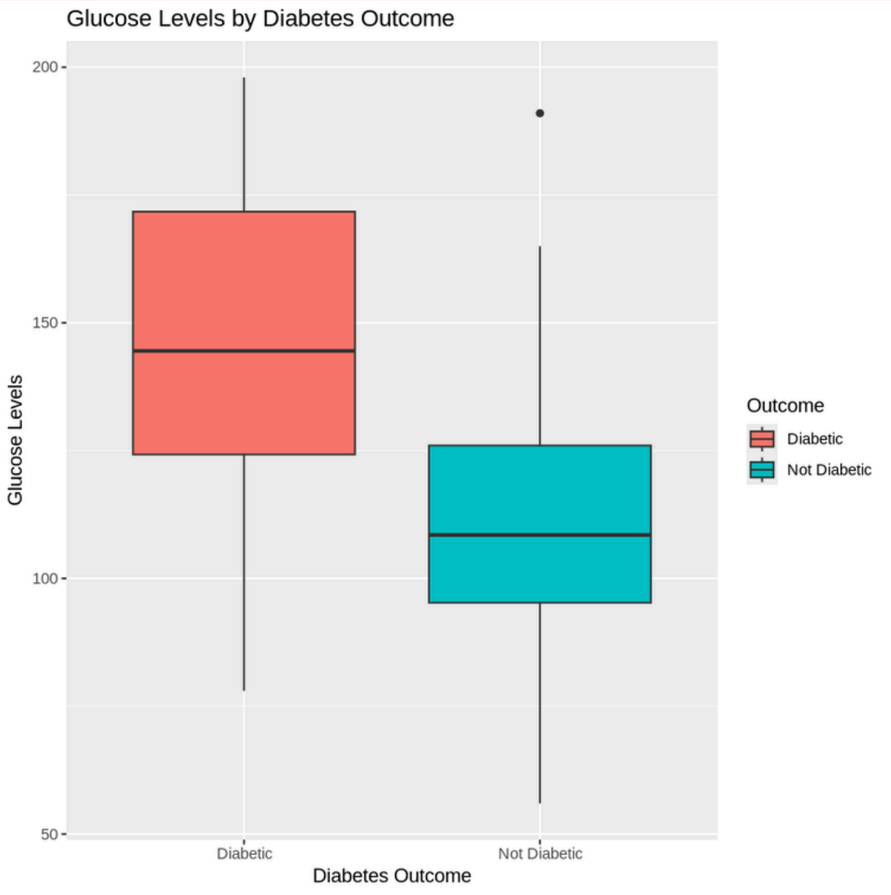
Dataset Findings

- Diabetes rate in the dataset: 34.9%.



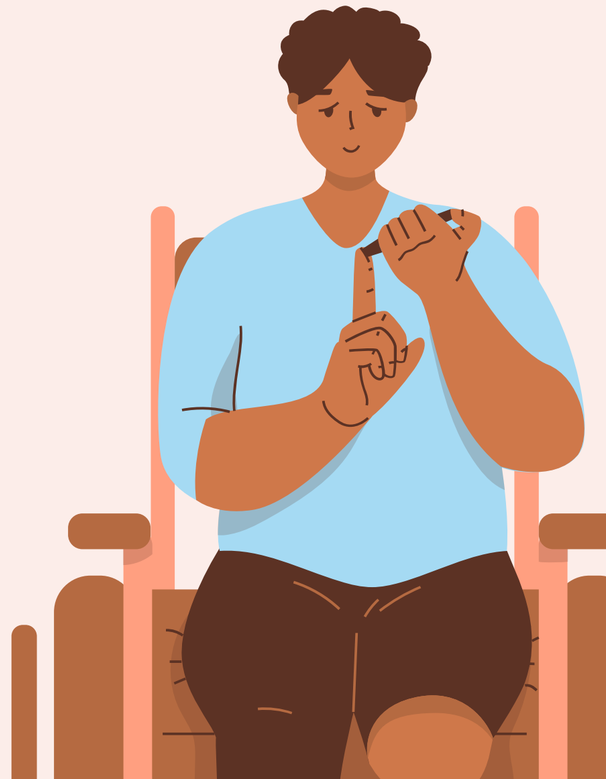
Glucose Levels and Diabetes

Diabetic patients have significantly higher glucose levels than non-diabetics.

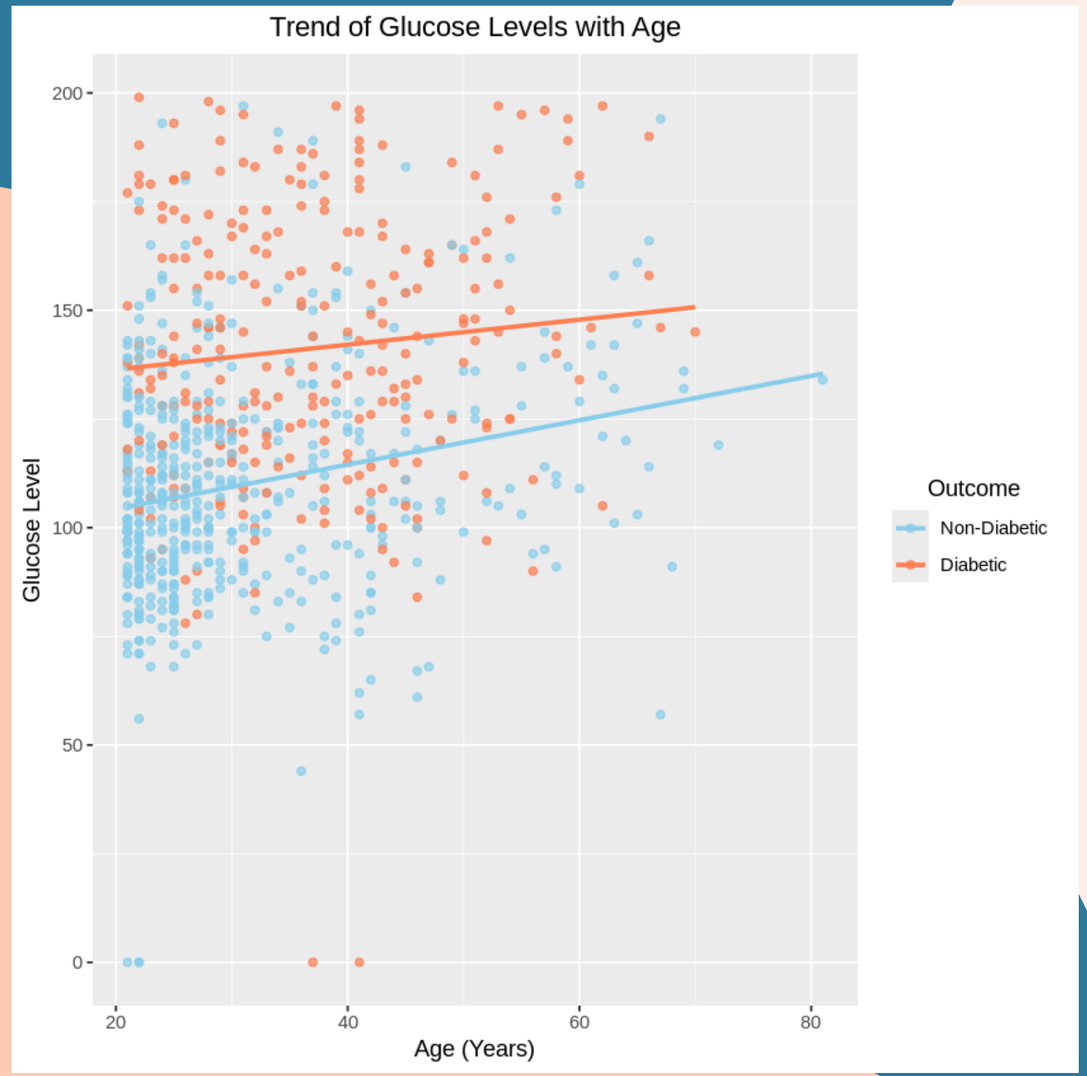


KEY DATA:

- **MEAN GLUCOSE**
  - Diabetics: 145.19 mg/dL
  - Non-diabetics: 141.2 mg/dL



AGE TRENDS IN DIABETES



Finding:

- Diabetic patients are older on average.
- Glucose levels increase with age across both groups.

Key Data:

- Average Age:
  - Diabetics: 31 years
  - Non-diabetics: 37 years.

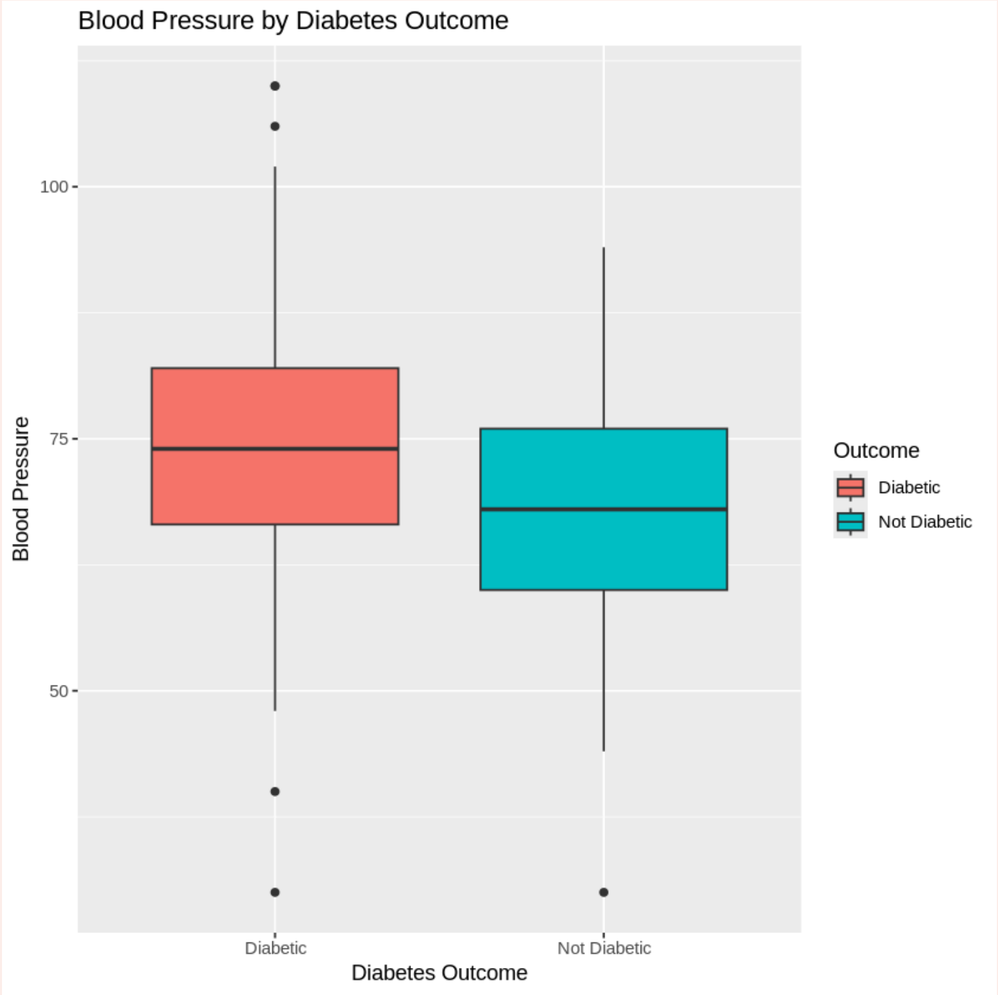
BLOOD PRESSURE AND DIABETES

Finding:

- Slightly higher blood pressure in diabetic patients.

Key Data:

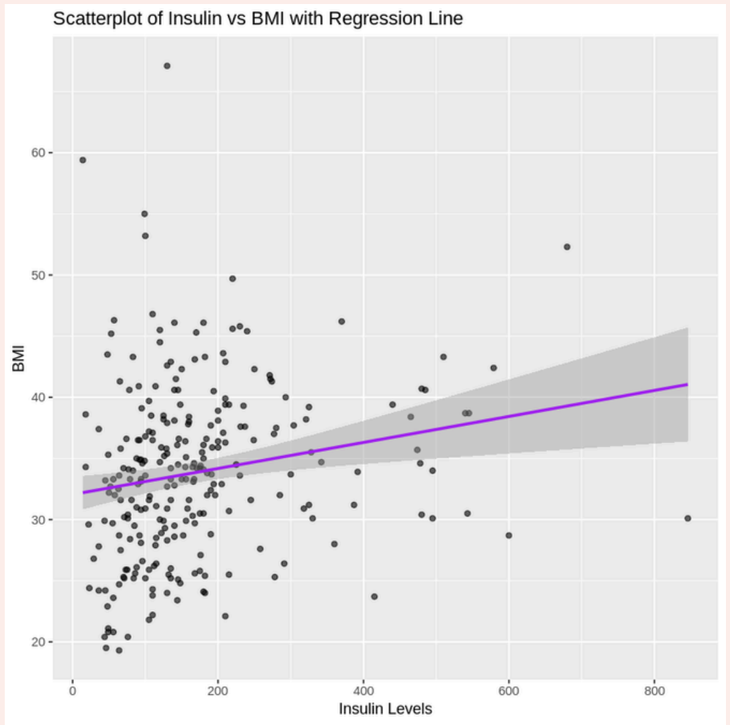
- Average BP
  - Diabetics: 70.8
  - Non-diabetics: 68.2

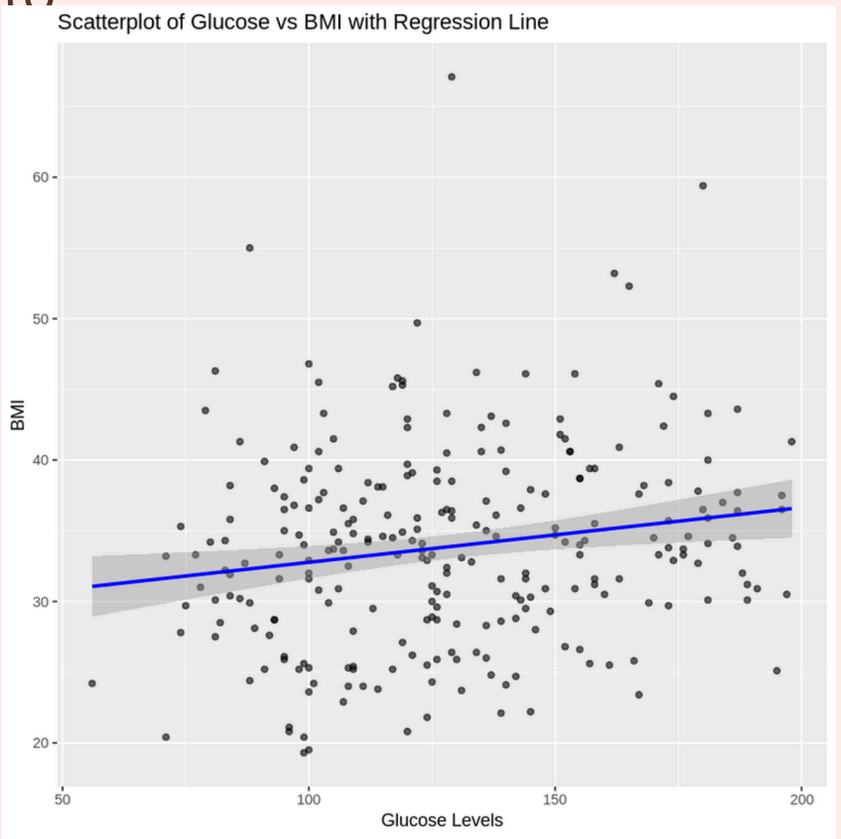


CORRELATION INSIGHTS

Finding:

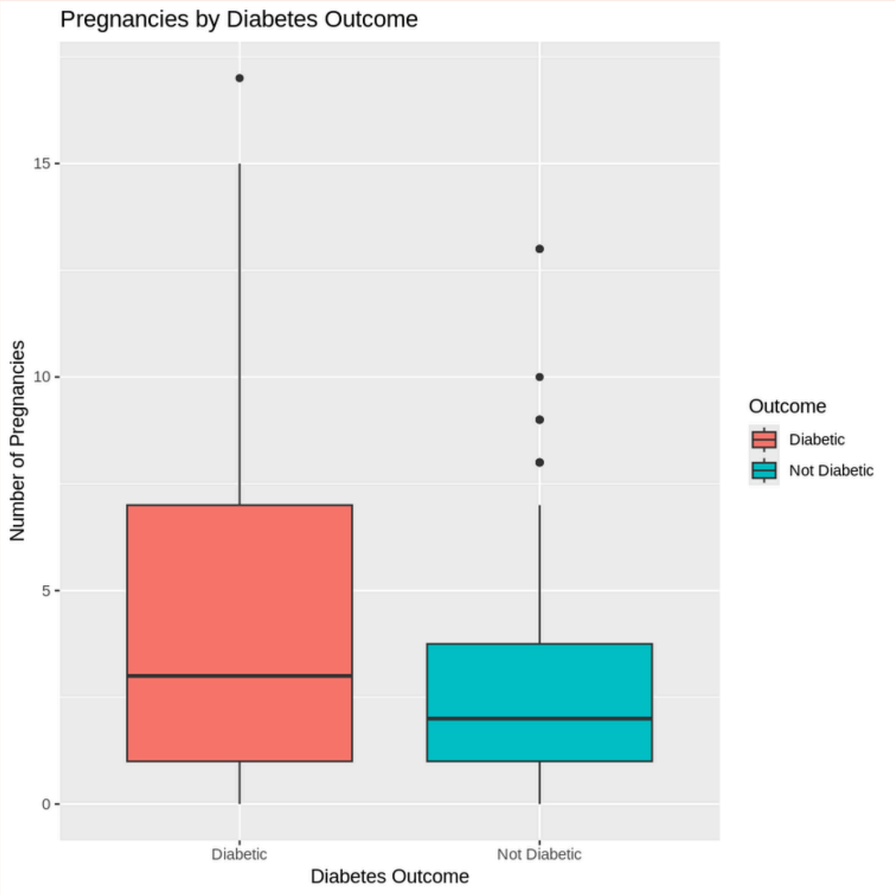
- Moderate positive correlation between glucose levels and BMI (r = 0.17).
- Plots also Indicate that higher BMI often corresponds to higher glucose levels and higher insulin levels.





Pregnancy and Diabetes Risk

Diabetic patients have higher pregnancy counts. The strong association confirmed through T-tests and Chi-Square tests.



KEY DATA:

- **MEAN PREGNANCY COUNT**
  - Diabetics: 4.5
  - Non-diabetics: 2.7

KEY RISK PROFILES

Glucose & Insulin Levels

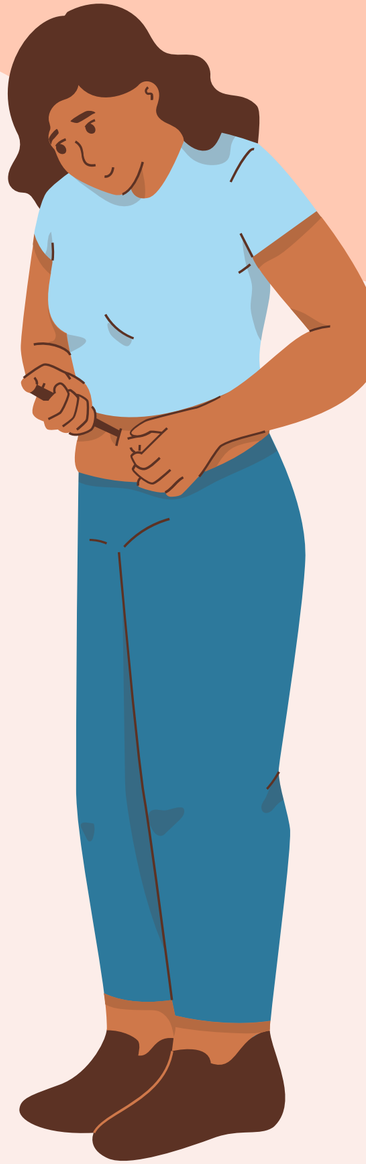
Strongest predictor of diabetes.

BMI

Consistently higher in diabetics.

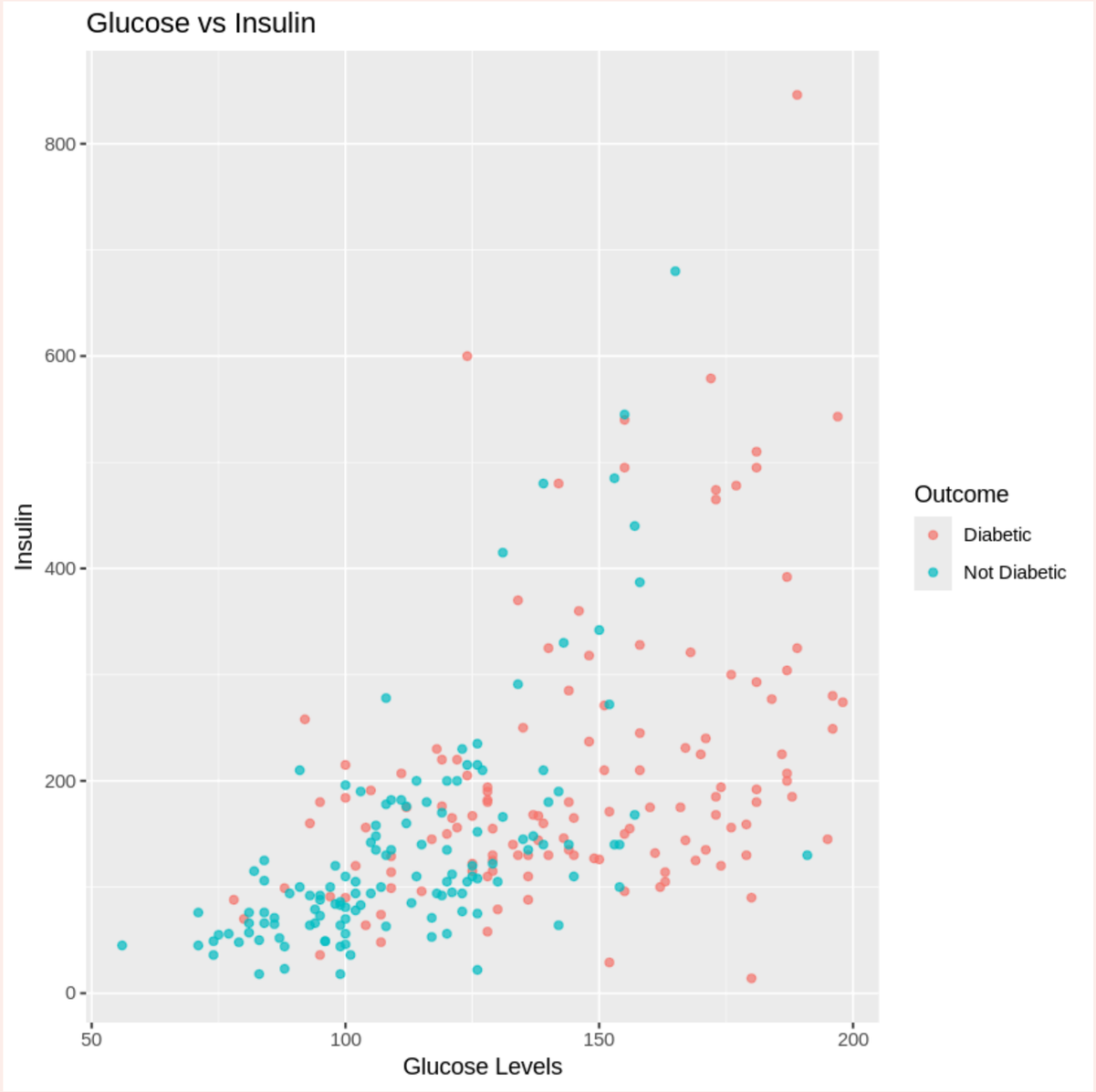
Pregnancies

Higher counts linked to increased risk.



Glucose & Insulin Levels

Both metrics are corelated and the increase in both of them is usually a risk profile for being diabetic



CONCLUSION

KEY TAKEAWAYS:

- DIABETES RISK IS STRONGLY ASSOCIATED WITH GLUCOSE, BMI, AND PREGNANCIES.
- MODERATE CORRELATIONS WITH OTHER FACTORS LIKE BLOOD PRESSURE AND INSULIN.

NEXT STEPS:

- EXPAND ANALYSIS TO INCLUDE LIFESTYLE AND GENETIC FACTORS.
- FOCUS ON PREVENTION STRATEGIES BASED ON IDENTIFIED RISK PROFILES.

THANK YOU!

Thank you so much for watching our presentation! Do you have any questions, comments, or suggestions?