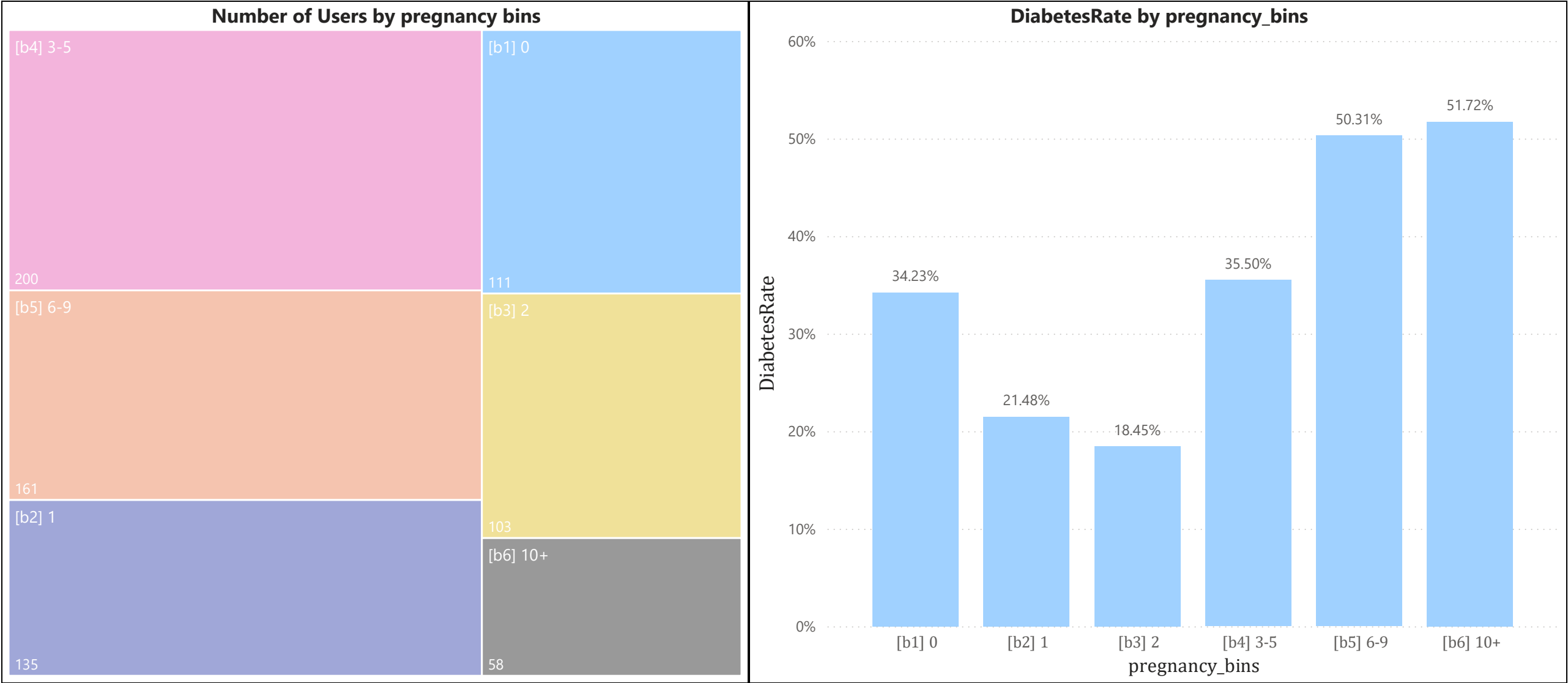


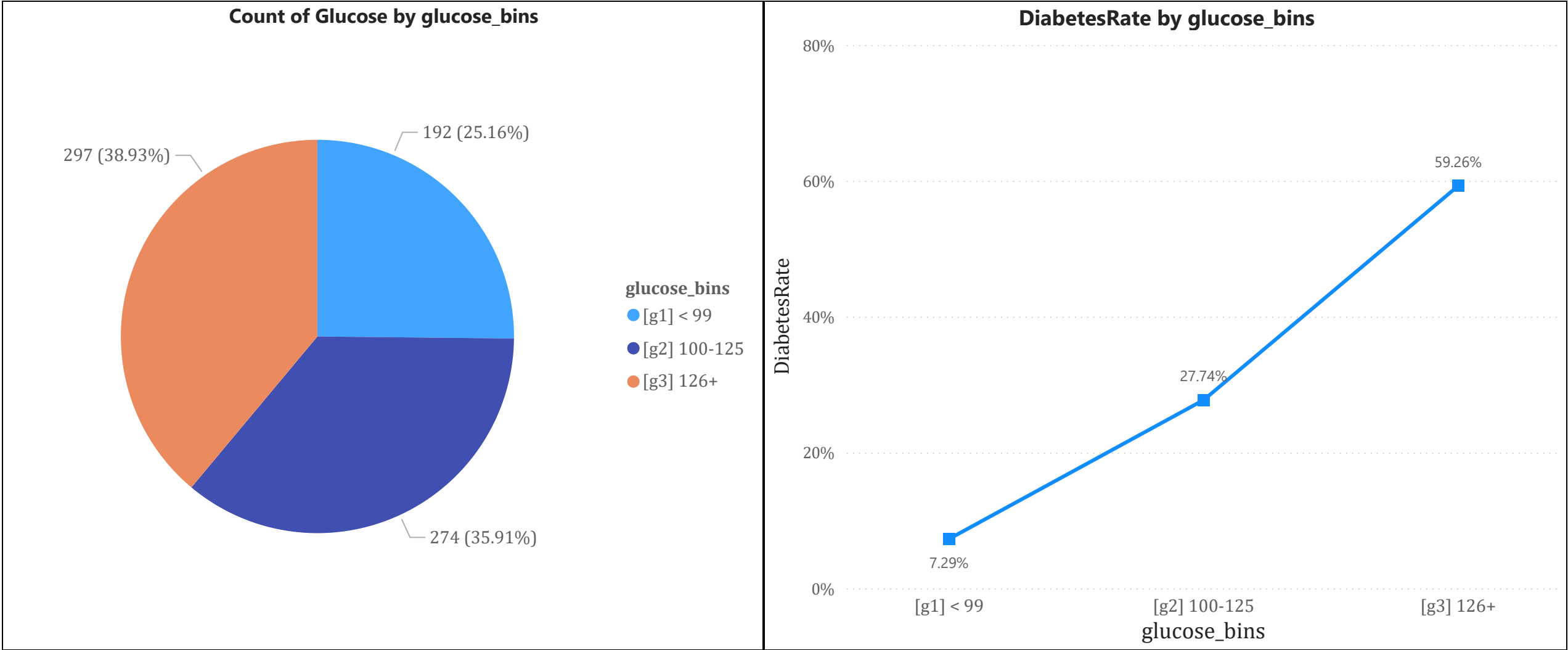
Pregnancy VS Diabetes

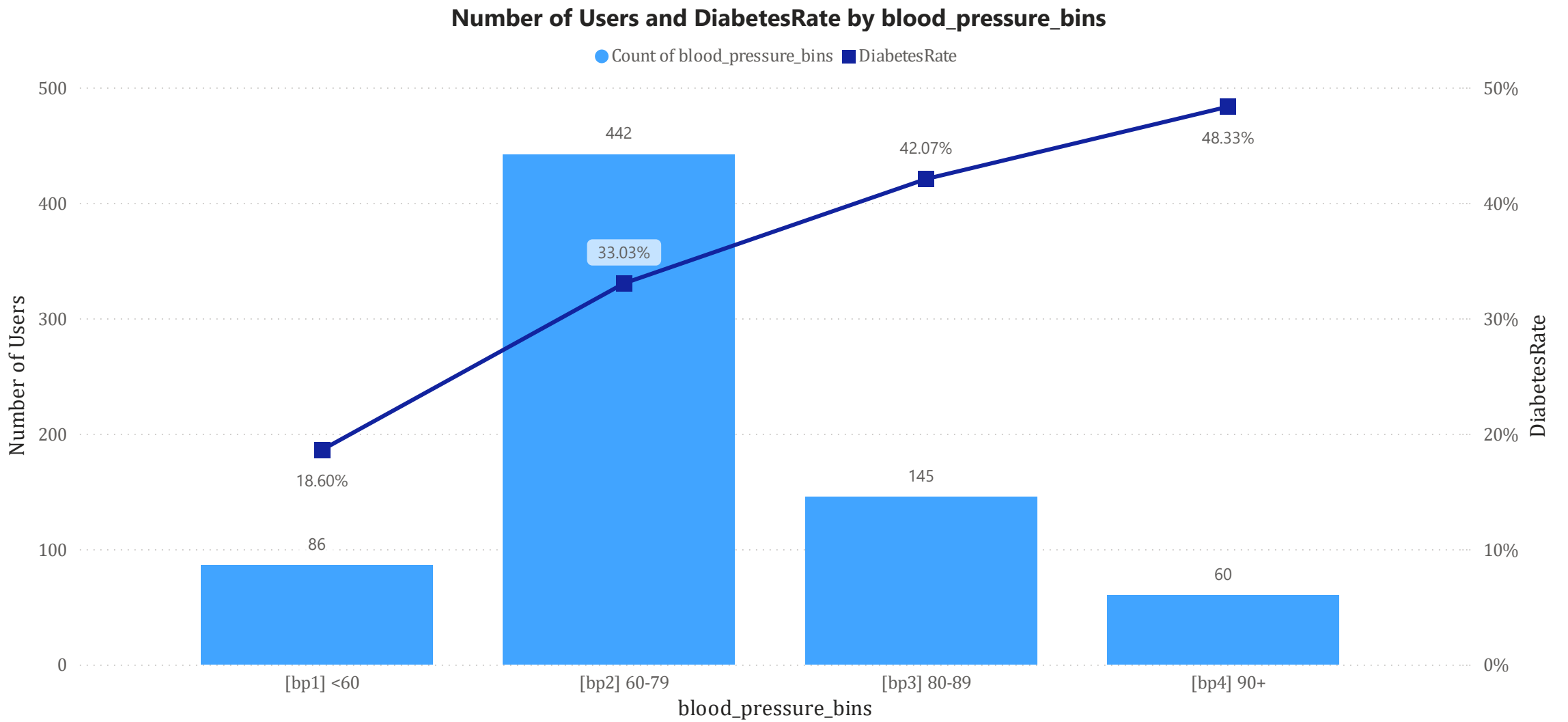
Insight:
As the number of pregnancies increases, the diabetes rate rises significantly.



Glucose VS Diabetes

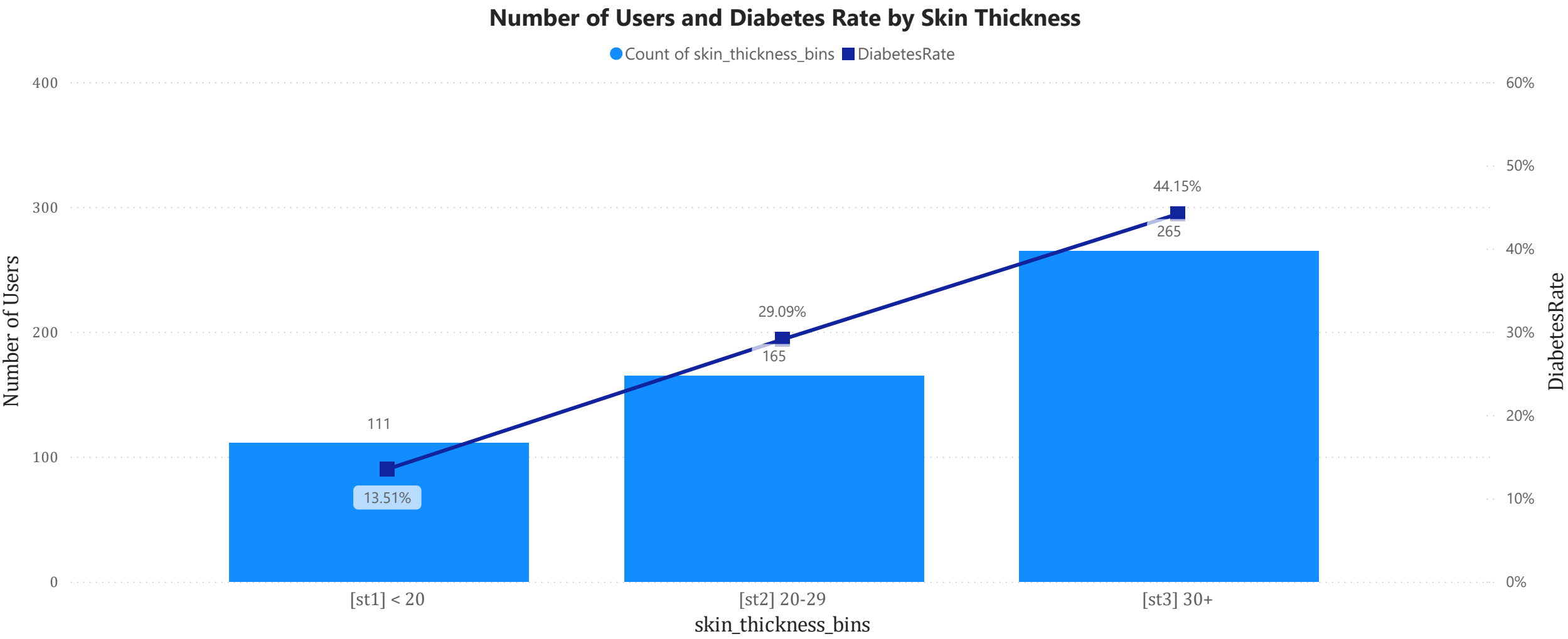
Insight:
As glucose levels increase, the diabetes rate rises significantly.





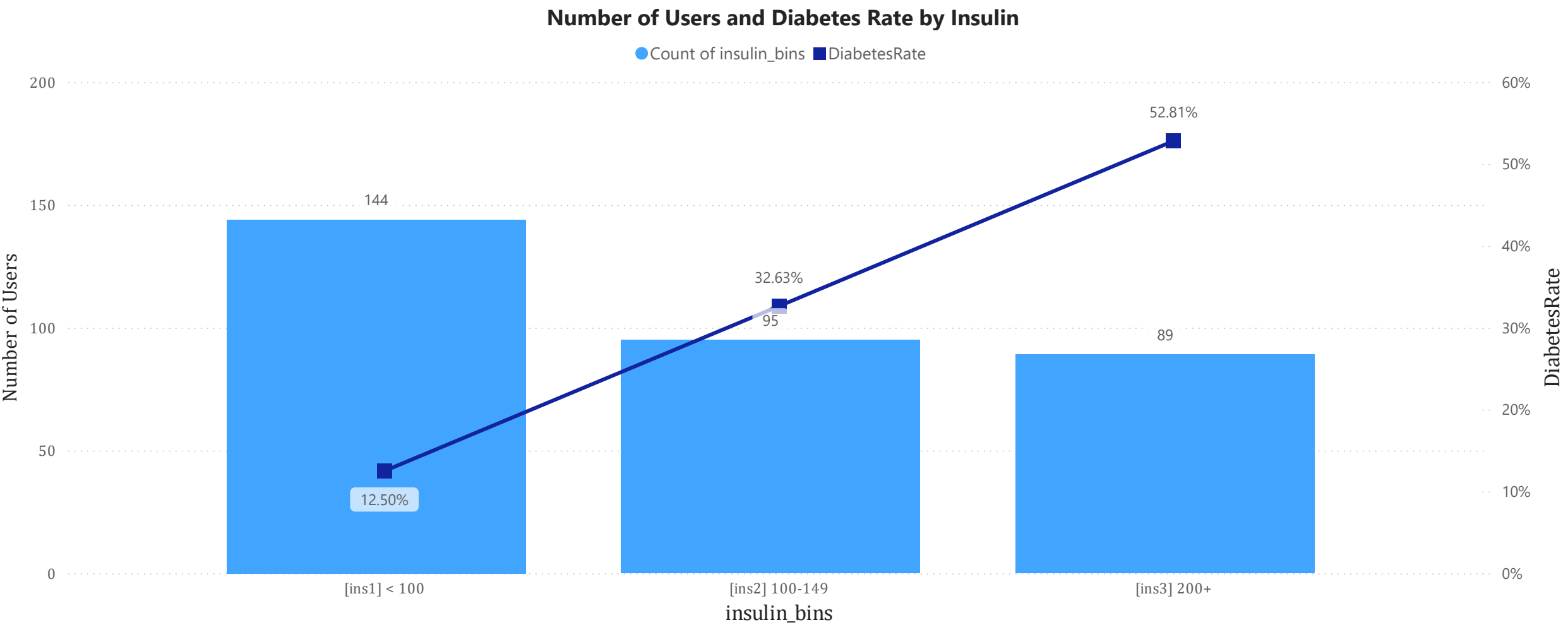
SkinThickness VS Diabetes

Insight:
Positive correlation between skin thickness and diabetes rate.



Insulin VS Diabetes

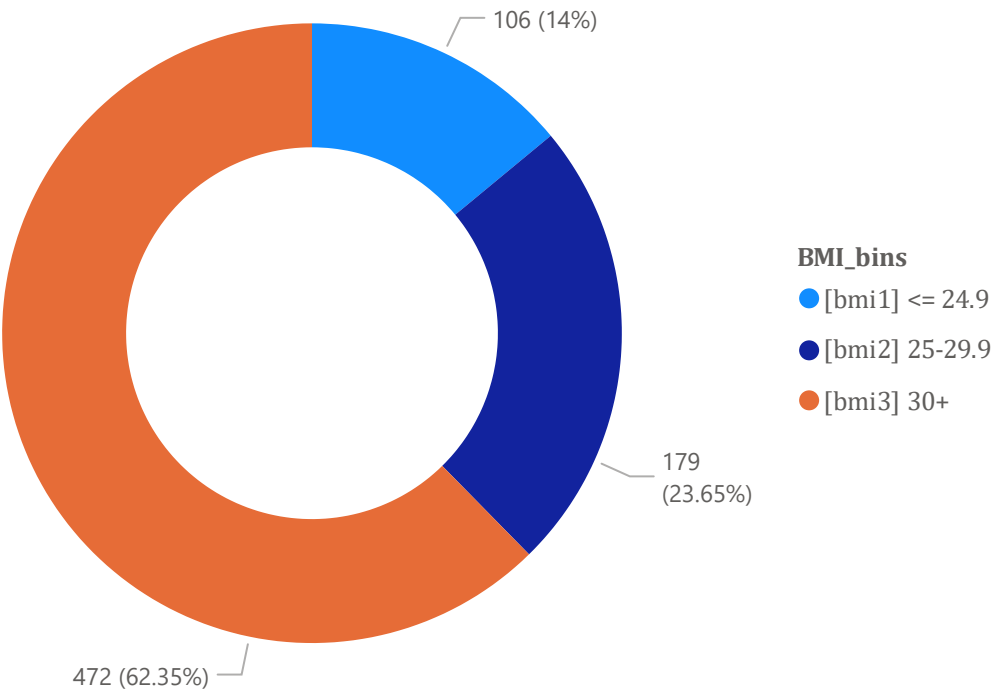
Insight:
The chart indicates that as insulin levels increase, the diabetes rate rises significantly.



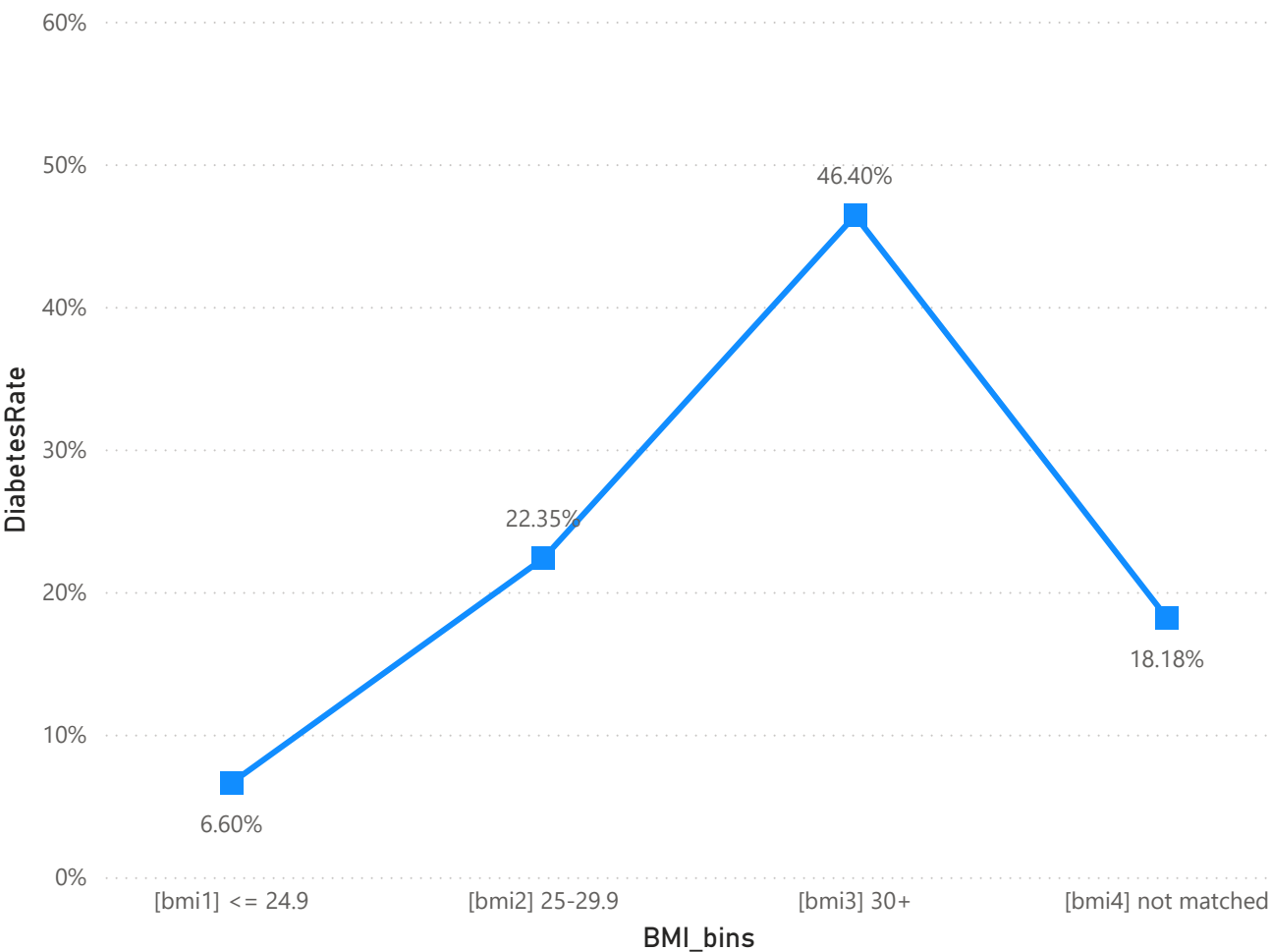
BMI VS Diabetes

Insight:
As BMI increases, the diabetes rate rises significantly.

Number of Users By BMI

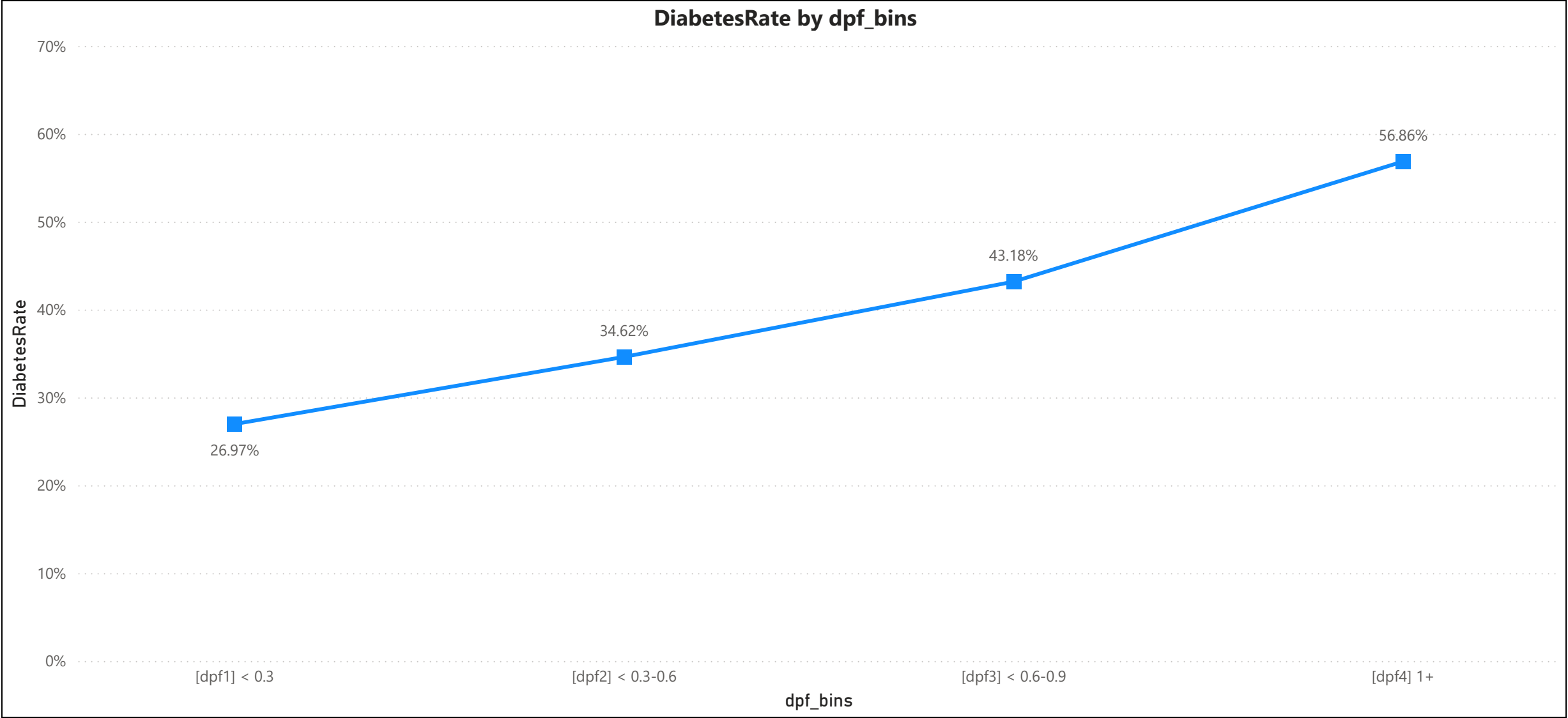


DiabetesRate by BMI_bins



DPF VS Diabetes

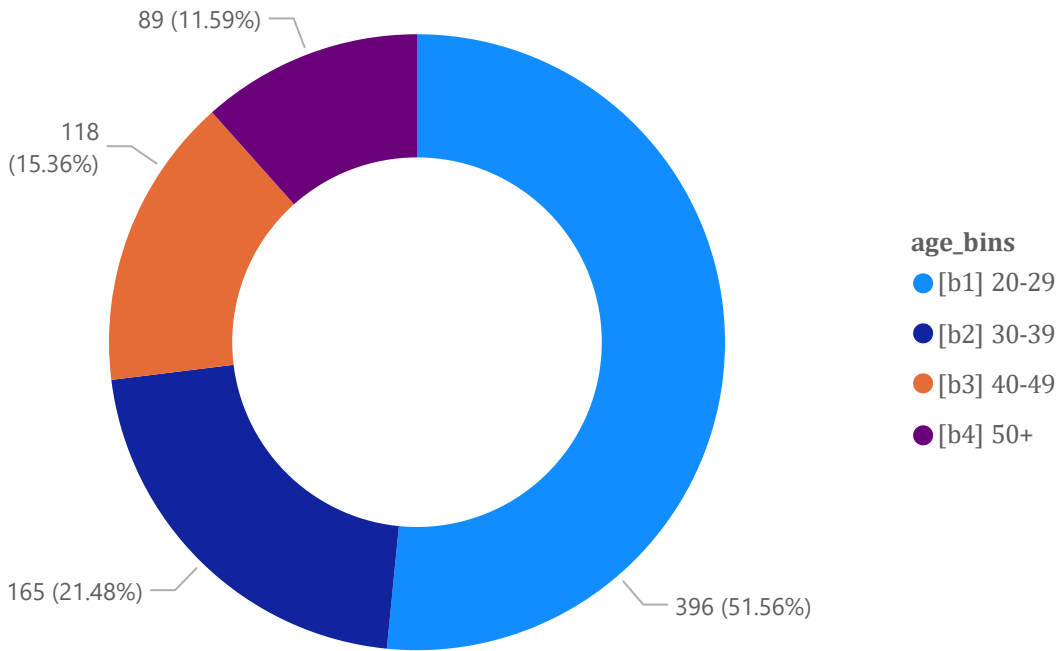
Insight:
The chart shows that as DPF increases, the diabetes rate gradually rises.



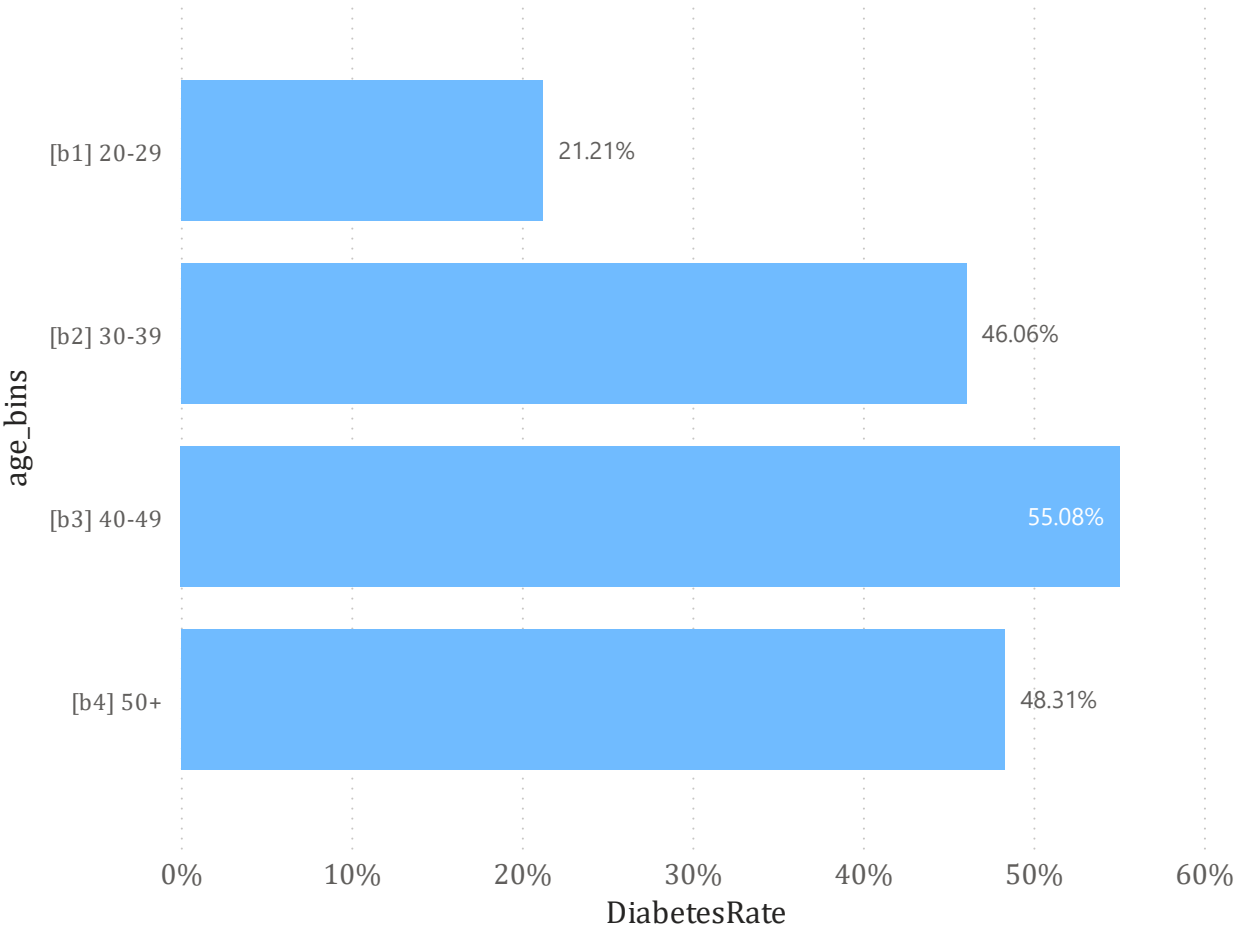
Age VS Diabetes

Insight:
Diabetes prevalence increases with age.

Number of Users by Age_bin



DiabetesRate by age_bin



Summary:

The data analysis reveals several important insights about the relationship between various health indicators and the risk of developing diabetes:

- **Pregnancy:** Diabetes risk grows with an increase in the number of pregnancies, reaching its peak for women with 10 or more pregnancies.
- **Glucose Levels:** Higher glucose readings (above 126) are strongly tied to diabetes, with a 59.26% rate observed in this group.
- **Blood Pressure:** Elevated blood pressure (over 90) is linked to a diabetes rate of 48.33%.
- **Skin Thickness:** Thicker skin (greater than 30) correlates with a higher diabetes rate of 44.15%.
- **Insulin Levels:** Increased insulin levels (over 200) show a significant rise in diabetes cases, with a rate of 52.81%.
- **BMI:** A BMI above 30 is a clear indicator of higher diabetes risk.
- **Diabetes Pedigree Function (DPF):** A stronger genetic predisposition, shown by a DPF above 1, is associated with a diabetes rate of 56.86%.
- **Age:** Older age groups, particularly those over 50, show the highest diabetes prevalence at 55.08%.

Recommendations for Lowering Diabetes Risk:

1. **Keep a Healthy BMI:** Staying active and eating a balanced diet can help control weight and reduce diabetes risk.
2. **Monitor Blood Sugar:** Regular screenings can catch early signs of diabetes or pre-diabetes.
3. **Regulate Blood Pressure:** Lifestyle adjustments or medication can support healthy blood pressure levels.
4. **Manage Insulin:** Monitoring insulin levels with a healthcare provider's guidance can reduce diabetes complications.
5. **Health Focus for Future Mothers:** Women planning for multiple pregnancies can reduce their diabetes risk by adopting healthy lifestyle habits early on.