Patient Diabetes Analysis for females at least 21 years old of Pima Indian heritage

Introduction

The objective is to diagnostically Analysis females at least 21 years old of Pima Indian heritage according to diabetes based on certain diagnostic measurements (several medical predictor variables) included in the dataset. Several constraints were placed on the selection of these instances from a larger database.

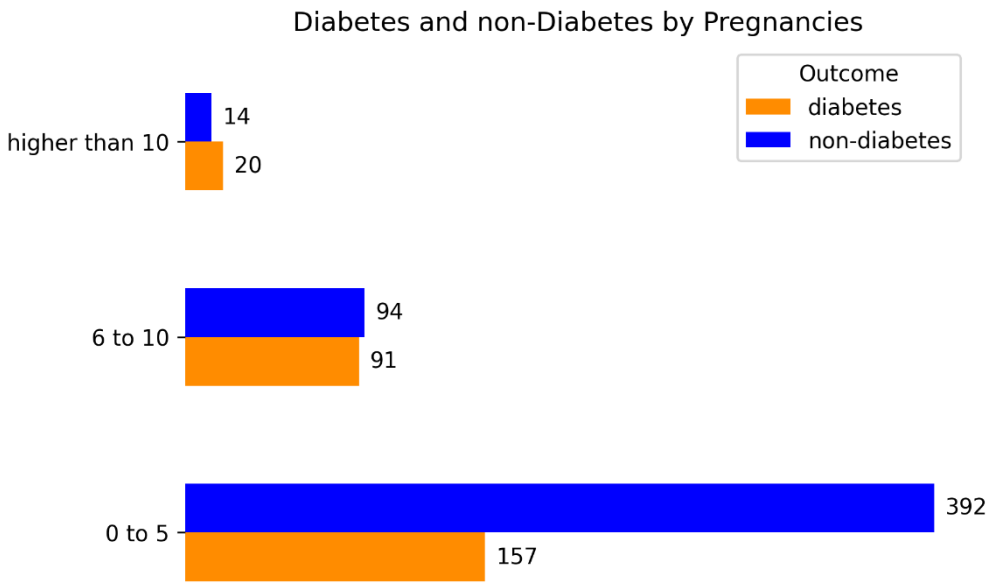
Analysis Components

1. Diabetes and non-Diabetes by Pregnancies

Analysis according to "Pregnancies", we divide Females according to it into 3 categories:

1- 0-5 Pregnancies
2- 6-10 Pregnancies
3- higher than 10 Pregnancies

So, we get the Relation between Diabetes and non-Diabetes by Pregnancies



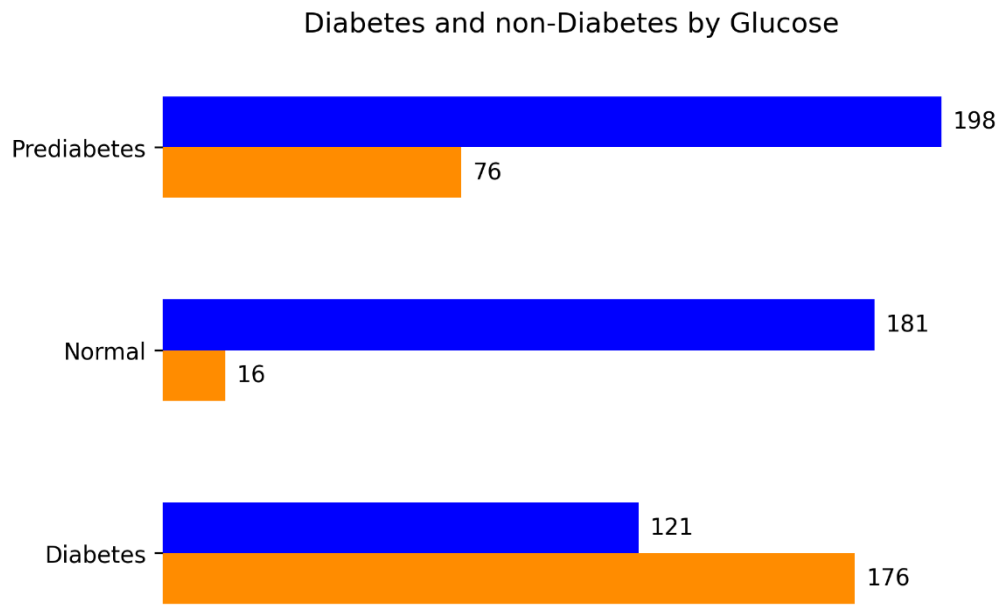
From the Dataset we get indication, as more Pregnancies happen, the female can be diabetes.

2. Diabetes and non-Diabetes by Glucose

Analysis according to "Glucose" medical predictor variable, we divide Females according to it into 3 categories:

1- Prediabetes medical Glucose
2- Normal medical Glucose
3- Diabetes medical Glucose

So, we get the Relation between Diabetes and non-Diabetes by Glucose



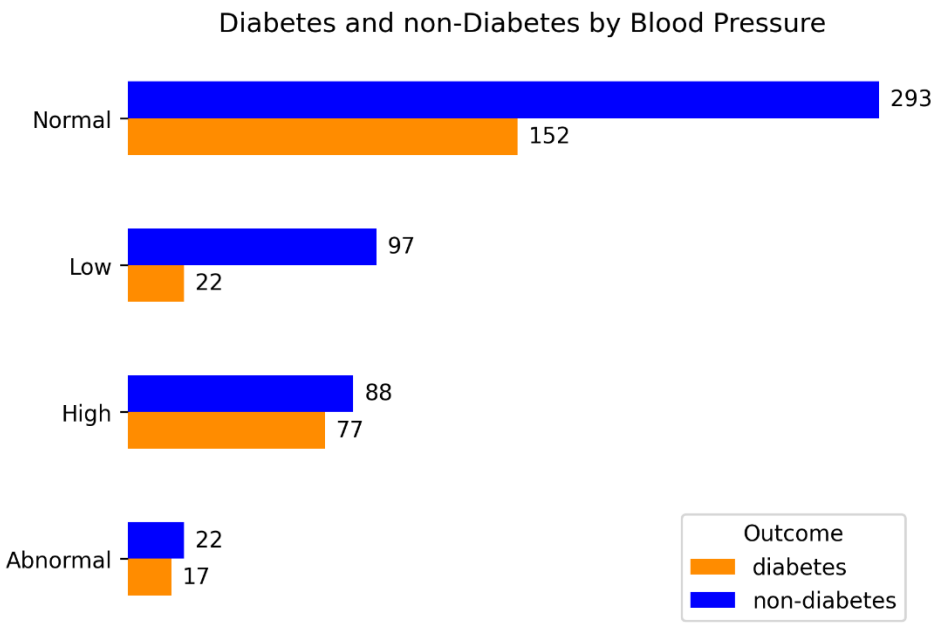
From the Dataset we get indication, as more Glucose Level goes to Diabetes Level, the female can be diabetes.

3. Diabetes and non-Diabetes by Blood Pressure

Analysis according to "Blood Pressure" medical predictor variable, we divide Females according to it into 4 categories:

1- Normal medical Blood Pressure
2- Low medical Blood Pressure
3- High medical Blood Pressure
4- Abnormal medical Blood Pressure

So, we get the Relation between Diabetes and non-Diabetes by Blood Pressure



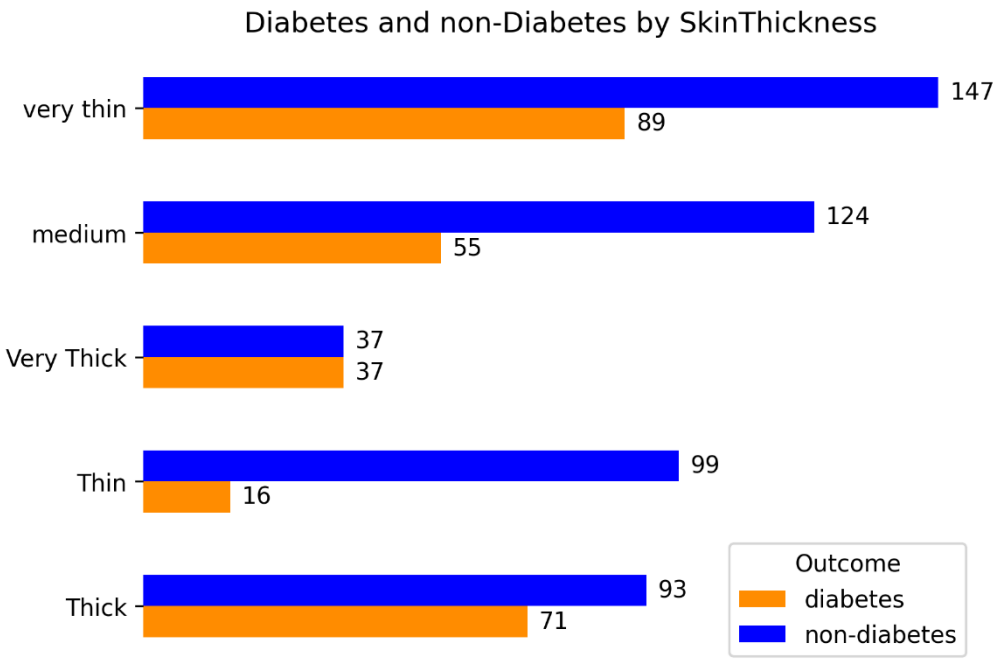
From the Dataset we get indication, as more Blood Pressure can be, the female can be diabetes.

4. Diabetes and non-Diabetes by Skin Thickness

Analysis according to "Skin Thickness" medical predictor variable, we divide Females according to it into 4 categories:

1- Normal
2- Low
3- High
4- Abnormal

So, we get the Relation between Diabetes and non-Diabetes by Skin Thickness



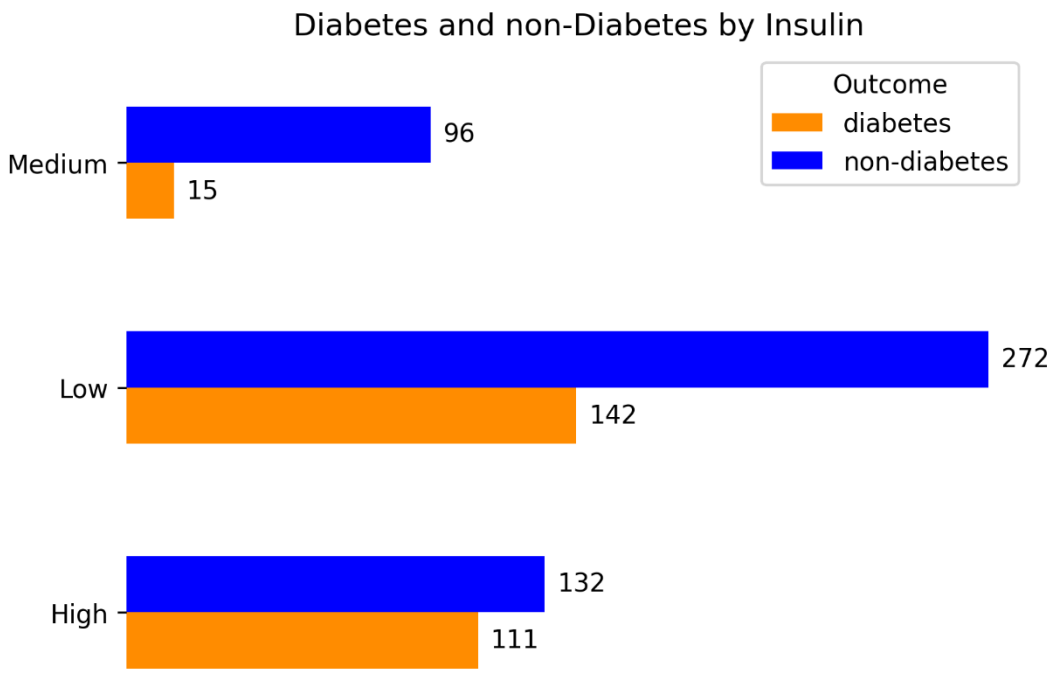
From the Dataset we get indication, as more Skin Thickness can be, the female can be diabetes.

5. Diabetes and non-Diabetes by Insulin

Analysis according to "Insulin" medical predictor variable, we divide Females according to it into 4 categories:

1- Normal medical Insulin
2- Low medical Insulin
3- High medical Insulin
4- Abnormal medical Insulin

So, we get the Relation between Diabetes and non-Diabetes by Insulin



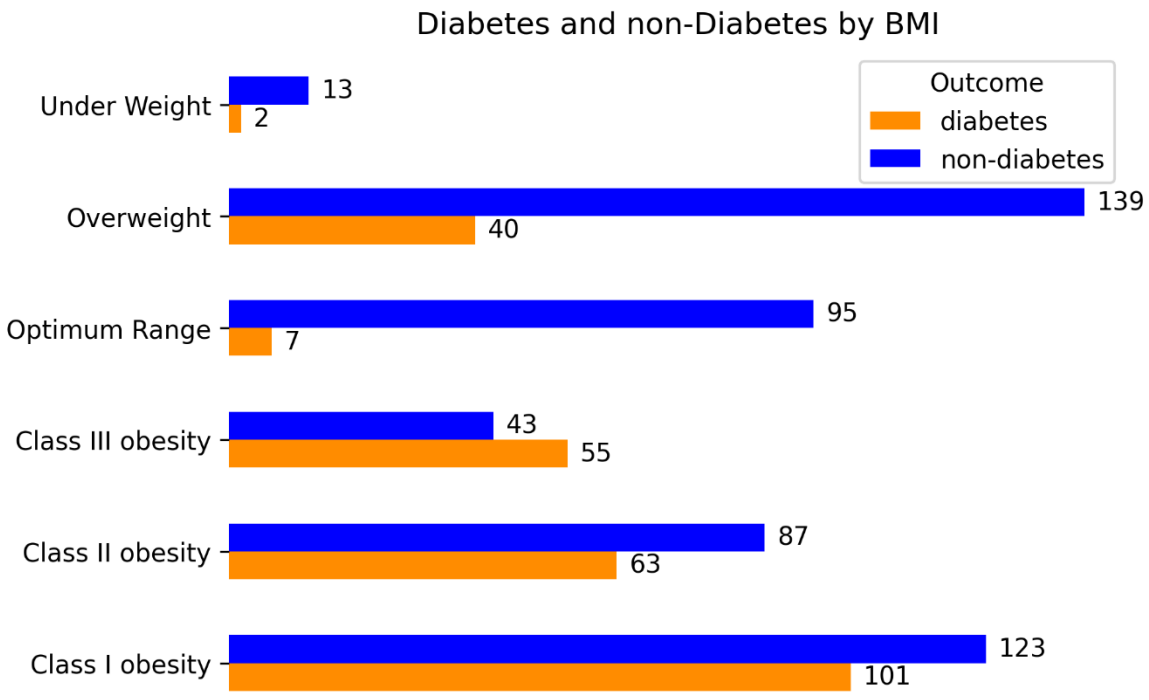
From the Dataset we get indication, as more Skin Insulin can be, the female can be diabetes.

6. Diabetes and non-Diabetes by BMI

Analysis according to "BMI", we divide Females according to it into 6 categories:

1- Under Weight
2- Optimum Range
3- Overweight
4- Class | obesity
5- Class || obesity
6- Class ||| obesity

So, we get the Relation between Diabetes and non-Diabetes by BMI



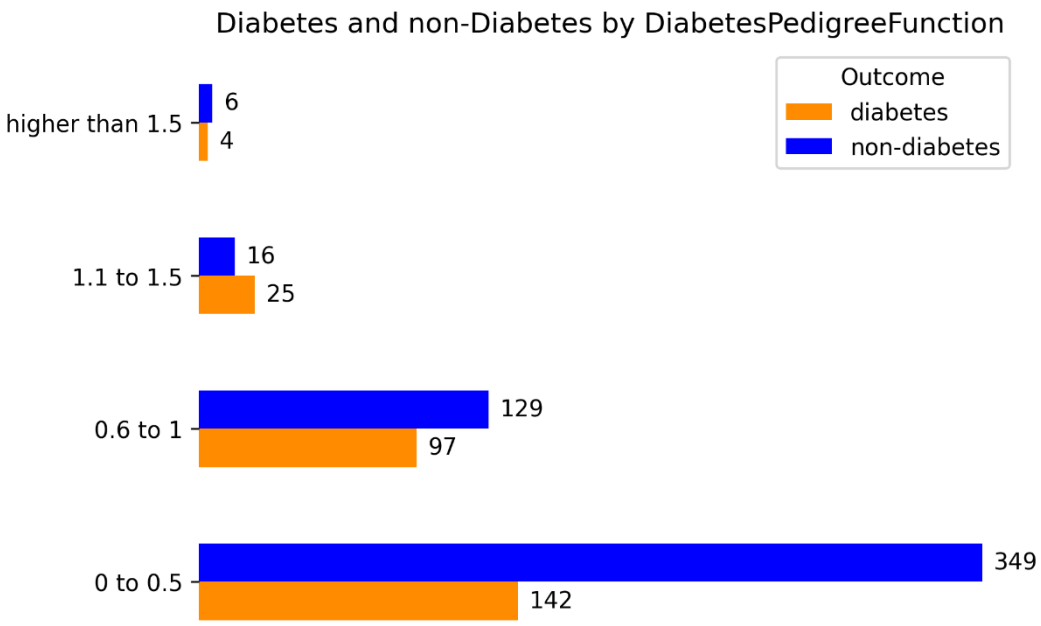
From the Dataset we get indication, as more BMI can be, the female can be diabetes.

7. Diabetes and non-Diabetes by DiabetesPedigreeFunction

Analysis according to "DiabetesPedigreeFunction" medical predictor variable, we divide Females according to it into 4 categories:

1- 0 to 0.5
2- 0.6 to 1
3- 1.1 to 1.5
4- Higher than 1.5

So, we get the Relation between Diabetes and non-Diabetes by DiabetesPedigreeFunction



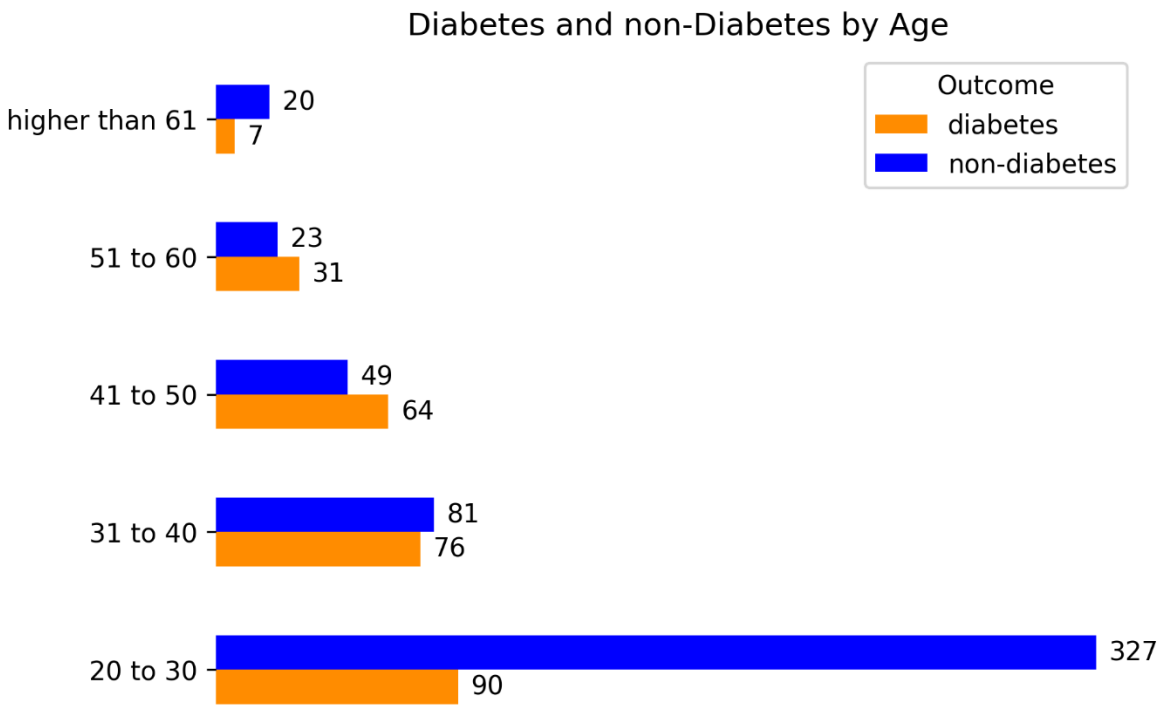
From the Dataset we get indication, as more DiabetesPedigreeFunction can be, the female can be diabetes.

8. Diabetes and non-Diabetes by Age

Analysis according to "Age", we divide Females according to it into 5 categories:

1- 20 to 30
2- 21 to 40
3- 41 to 50
4- 51 to 60
5- Higher than 61

So, we get the Relation between Diabetes and non-Diabetes by Age



From the Dataset we get indication, as more Age can be until 60, the female can be diabetes.

Conclusion

In conclusion Patient Diabetes Analysis for females at least 21 years old of Pima Indian heritage, we predict when medical predictor variables (Blood Pressure, Insulin, Skin Thickness, Glucose and DiabetesPedigreeFunction), Age, Pregnancies and BMI increase the diabetes increase for them.