



The case of Healthcare Corporation



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- **Healthcare Corporation is a diagnostic centre**
- **Healthcare Corporation has collected diabetes related data of an ethnic population in India**
- **Healthcare Corporation wishes to address the following questions:-**
 - **Does demographics (Gender and Age, either individually or collectively) have a significant effect on the occurrence of diabetes?**
 - **Can HBA1C replace OGTT /PPFBS test method to identify diabetes? How and why ?**
 - **Can we predict diabetes using individual parameters like Height, Weight, Age, Sex, BMI, HC, WHR, etc., without doing any tests at all**
 - **From a time and logistics perspective, can we predict diabetes by just through one test FBS, or OGTT1PGBS /PPBS1 parameter.**
- **Healthcare Corporation wishes to develop an algorithm addressing the questions mentioned above.**



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Variables Description

Total size :921x 15

Data file : diabetes.xlsx

Variables	Description
Age	Age of the patient
Sex	Gender of the Patient
FBS	Fasting Blood Sugar level (mg/dl) - Blood sugar level taken after 6-8 hours of fasting
OGTT1	Whether Oral glucose tolerance test was perfomes
HBA1C1	Glycated haemoglobin level. Test used to evaluate average blood glucose levels over3 months.
OGTT1FBS	Same as FBS
OGTT1PGBS	Blood sugar level taken after giving 75g of Glucose
PPBS1	Postprandial blood sugar - Blood Sugar levels taken 2hrs after breakfast



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Variables Description

Total size :921x 15

Data file : diabetes.xlsx

Variables	Description
NDD	Diabetic (1) or Nondiabetic (0); Criterion: FBS > 125 or PPBS1/OGTT1PGBS > 200 then diabetic - WHO Standard. Target Variable. A person is diabetic iff NDD = 1
Height	Height of the patient in cm
Weight	Weight of the patient in kg
BMI	Body Mass Index
HC	Hip Circumference (in cm)
WHR	Waist/Hip circumference ratio
NonOGTT	reverse of OGTT1: 0 (1 test not done) and 0 (test done)



Thank you