



# Metabolic Syndrome

Luz Dobbins

# What is Metabolic Syndrome?

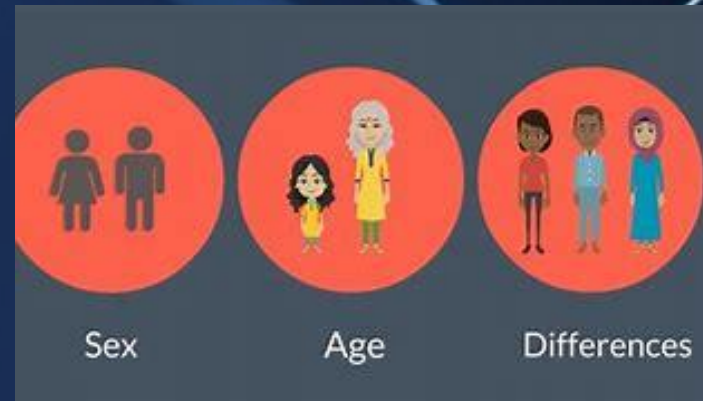
This is a cluster of conditions that can show a predisposition of diseases that can be managed but have not been cured, yet.

- Diabetes
- Heart Attack
- Stroke

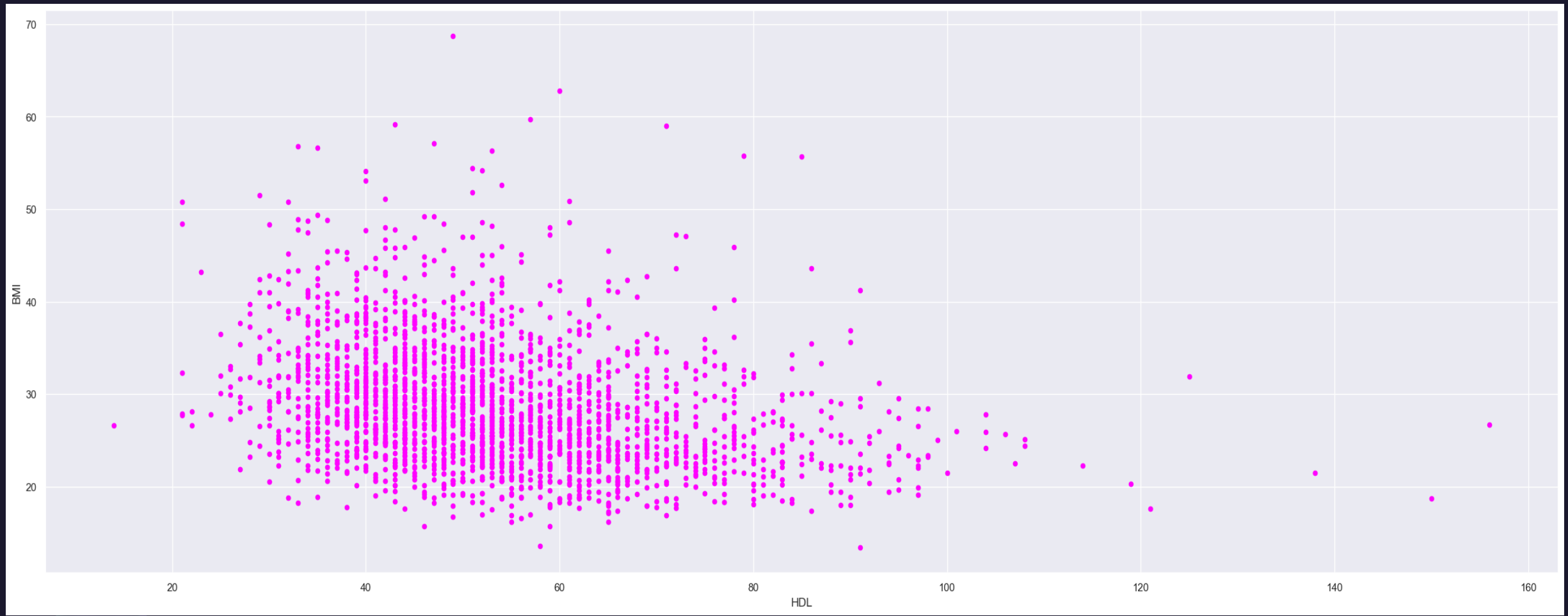


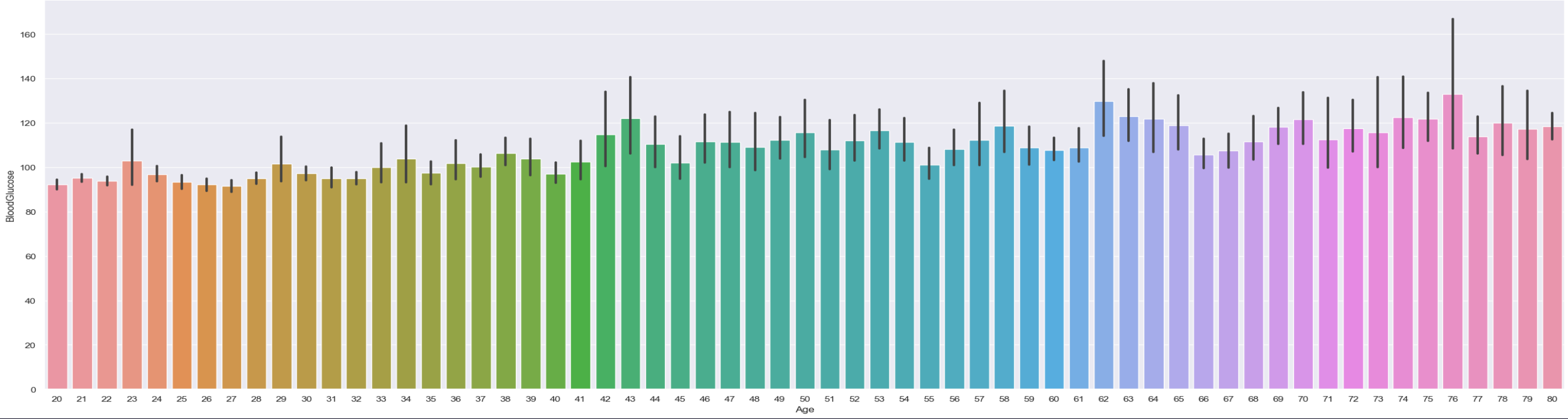
# Factors

- Marital Status
- Race
- Sex
- Age
- BMI
- Waist Circumference
- Lipid profile test
- Blood Glucose test



# BMI and HDL





# Blood Glucose by patient's age

Category	Fasting value	Post prandial / aka post meal	
	Minimum	Maximum	2 hours after meal
Normal	70 mg/dl	99 mg/dl	Less than 140 mg/dl
	4 mmol/l	6 mmol/l	Less than 7.8 mmol/l
Pre-diabetes	100 mg/dl	125 mg/dl	140-199 mg/dl
	6.1 mmol/l	6.9 mmol/l	7.8-11 mmol/l
Diabetes	More than 126 mg/dl		More than 200
	More than 7 mmol/l		More than 11.1 mmol/l

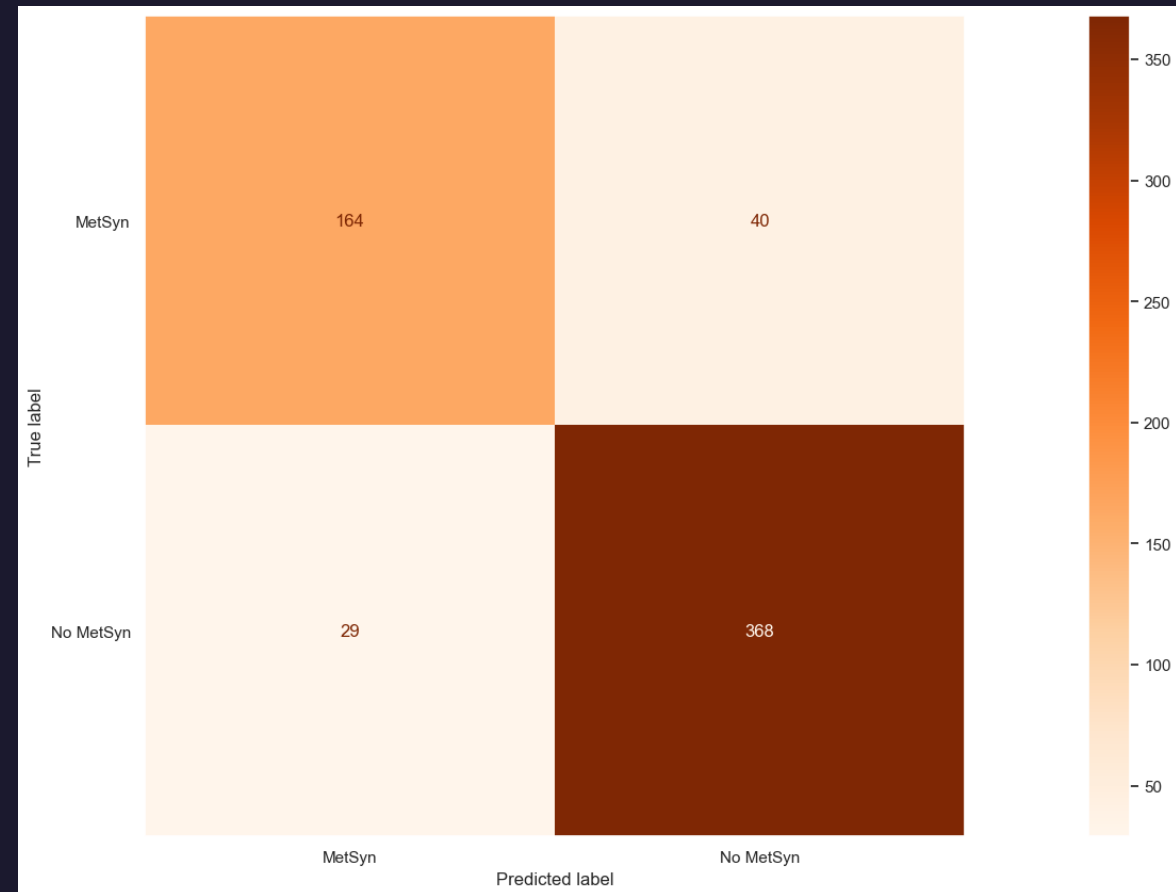


# XGBoost Classifier

The best model for this project was the eXtreme Gradient Boosting.

88% accuracy score

Confusion Matrix shows the best presentation of this dataset.



- This data will be essential to help doctors with diagnosis their patients with preventative care.
- This project will help reduce the amount of money hospitals use for patients that don't have insurance but need urgent care/surgeries.
- This can lead to a reduction in strain for hospital staff who see patients' preventable medical conditions.

With that being said....



The way to get  
started is to quit  
talking and  
begin doing.

Walt Disney







Thank You

Any Questions