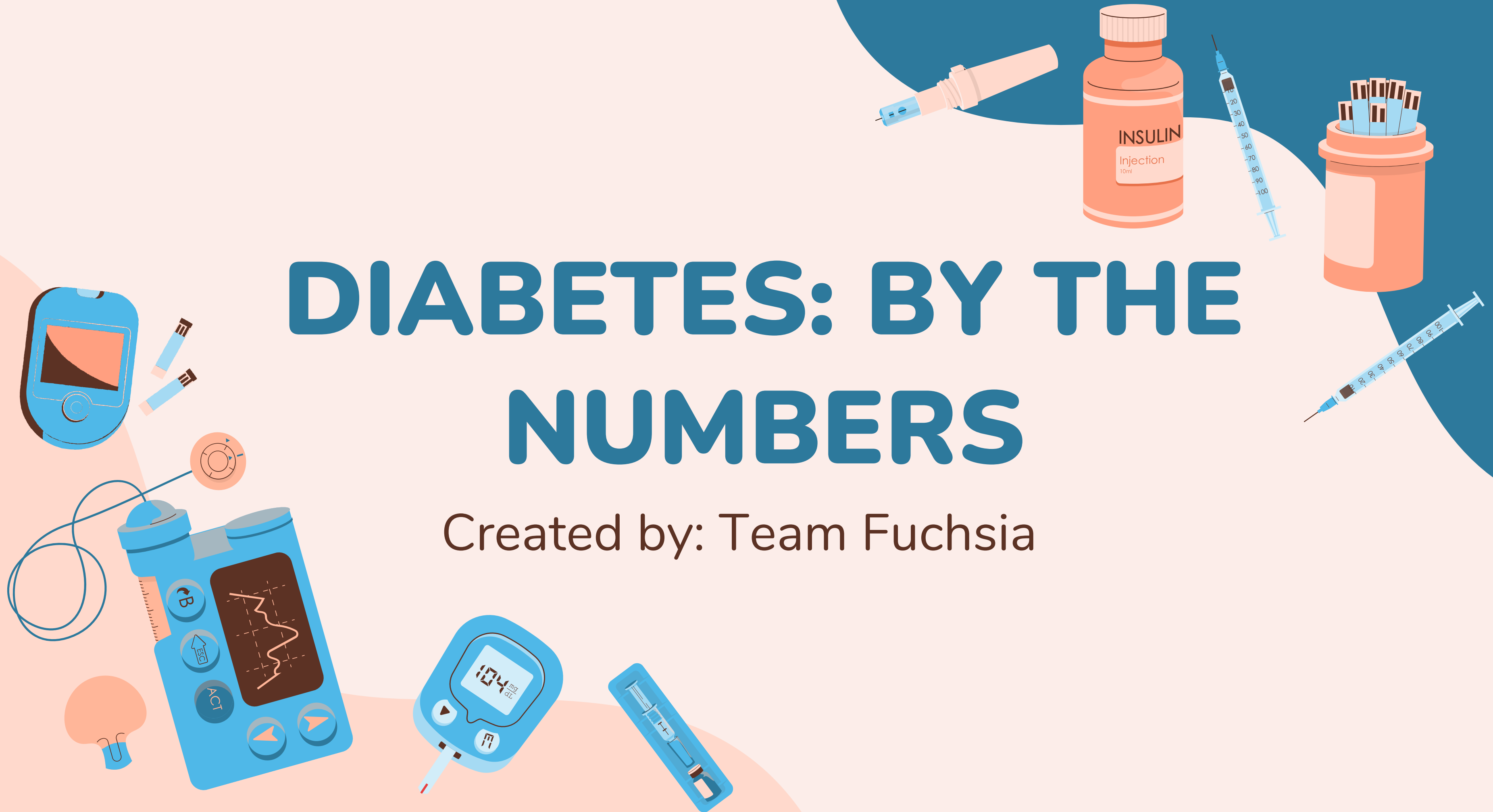# DIABETES: BY THE NUMBERS

Created by: Team Fuchsia

TODAY'S PLAN

- Provide statistical information about diabetes.
- Show relationships between health indicators and diabetes.
- View different visuals to give more insight into diabetes.

DATASET AND GITHUB REPOSITORY LINKS RESPECTIVELY ARE AS FOLLOWS:

- ·https://www.kaggle.com/datasets/alexteboul/diabetes-health-indicators-dataset

- ·https://github.com/sjg42/Project3.git

TEAM FUCHSIA

Steve Kennedy, Cole Valentyn, Leslie Trejo, Juliana Park, Kara Simone, Talita Urzeda, Rod Hughes, Lynn Orr, Samuel Gantman, Kelly Hendre

WHAT IS DIABETES

Diabetes is a chronic medical condition that affects how your body processes glucose, a type of sugar that serves as a primary source of energy for cells.

WHAT ARE THE DIFFERENT TYPES OF DIABETES?

→

Type 1

This occurs when the immune system attacks and destroys the cells in the pancreas that produce insulin, a hormone that regulates blood glucose levels. People with type 1 diabetes need to take insulin injections or use an insulin pump to manage their blood glucose levels.
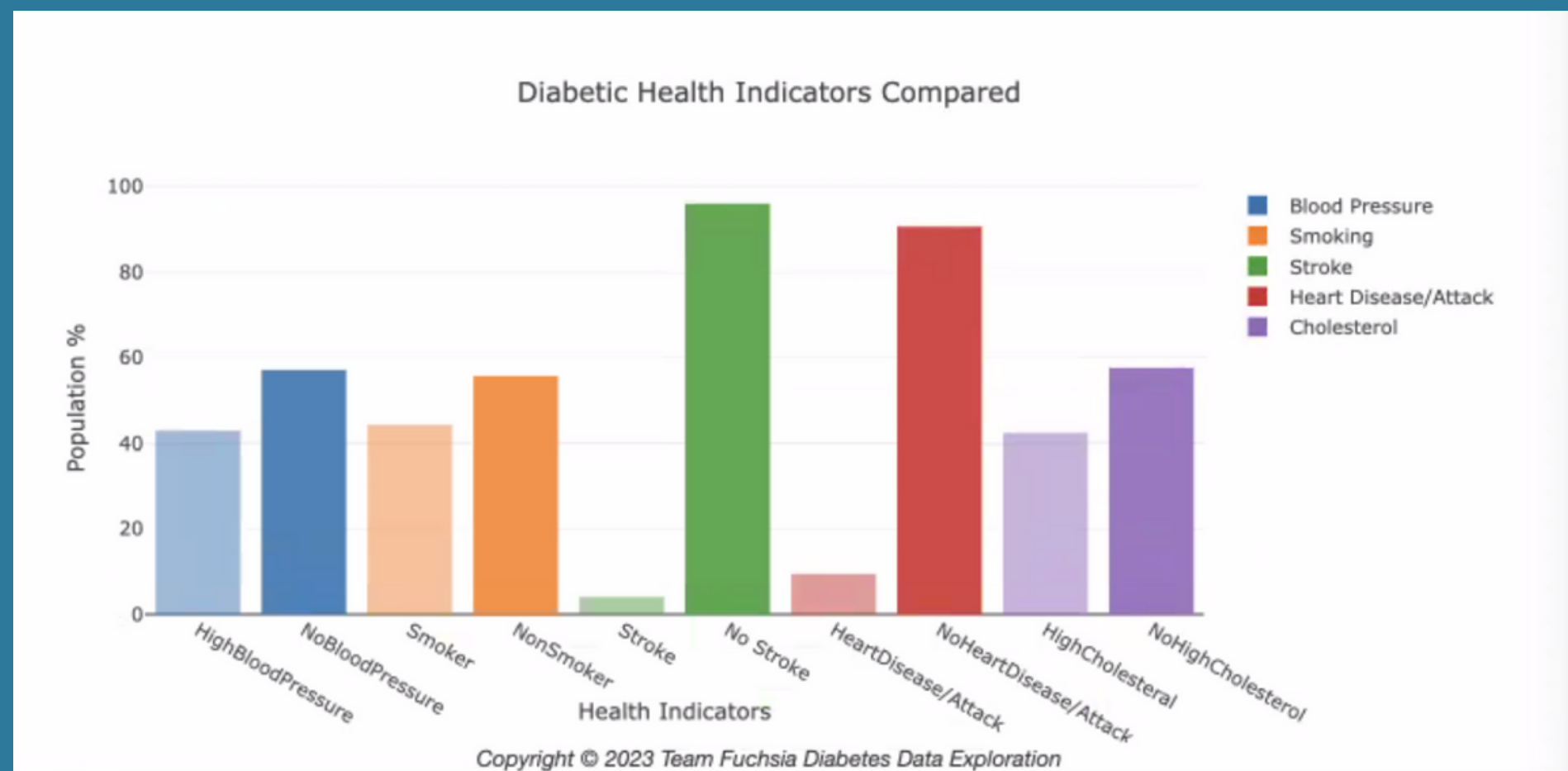
Type 2

This occurs when the body becomes resistant to insulin or doesn't produce enough insulin to meet the body's needs. Type 2 diabetes is often related to lifestyle factors such as obesity, poor diet, and lack of exercise. Treatment may involve lifestyle changes, medication, or insulin therapy.

- Data sample we used was from Kaggle with about 250,000 rows of diabetes data which looked at:
  - High Bp
  - High Cholesterol
  - BMI
  - Smoker
 - Stroke
  - Heart Disease
  - Phsical Activity
  - Ect.

	HighBP	HighChol	CholCheck	BMI	Smoker	Stroke	HeartDis	PhysActivity	Fruits	Veggies	HvyAlcoholConsump	AnyHealth	NoDocbc	GenHlth	MentHlth	PhysHlth	DiffWalk	Sex	Age
	1	1	1	40	1	0	0	0	0	1	0	1	0	5	18	15	1	0	9
	0	0	0	25	1	0	0	1	0	0	0	0	1	3	0	0	0	0	7
	1	1	1	28	0	0	0	0	1	0	0	1	1	5	30	30	1	0	9
	1	0	1	27	0	0	0	1	1	1	0	1	0	2	0	0	0	0	11
	1	1	1	24	0	0	0	1	1	1	0	1	0	2	3	0	0	0	11
	1	1	1	25	1	0	0	1	1	1	0	1	0	2	0	2	0	1	10
	1	0	1	30	1	0	0	0	0	0	0	1	0	3	0	14	0	0	9
	1	1	1	25	1	0	0	1	0	1	0	1	0	3	0	0	1	0	11
	1	1	1	30	1	0	1	0	1	1	0	1	0	5	30	30	1	0	9
	0	0	1	24	0	0	0	0	0	1	0	1	0	2	0	0	0	1	8
	0	0	1	25	1	0	0	1	1	1	0	1	0	3	0	0	0	1	13
	1	1	1	34	1	0	0	0	1	1	0	1	0	3	0	30	1	0	10
	0	0	1	26	1	0	0	0	0	1	0	1	0	3	0	15	0	0	7
	1	1	1	28	0	0	0	0	0	1	0	1	0	4	0	0	1	0	11
	0	1	1	33	1	1	0	1	0	1	0	1	1	4	30	28	0	0	4
	1	0	1	33	0	0	0	1	0	0	0	1	0	2	5	0	0	0	6
	1	1	1	21	0	0	0	1	1	1	0	1	0	3	0	0	0	0	10

- The objective of this chart is to allow people to compare their own health to common health indicators of the sample population.
- Blood pressure, smoking, stroke, heart disease, and cholesterol levels are commonly known indicators leading to a diabetes diagnosis.


Diabetic Health Indicators Compared

Population %

Blood Pressure
Smoking
Stroke
Heart Disease/Attack
Cholesterol

HighBloodPressure, NoBloodPressure, Smoker, NonSmoker, Stroke, No Stroke, HeartDisease/Attack, NoHeartDisease/Attack, HighCholesteral, NoHighCholesterol

Health Indicators

Copyright © 2023 Team Fuchsia Diabetes Data Exploration

- The bars indicate the percentage of the sample population per health indicators.

Percent of Population with Diabetes

13.93%
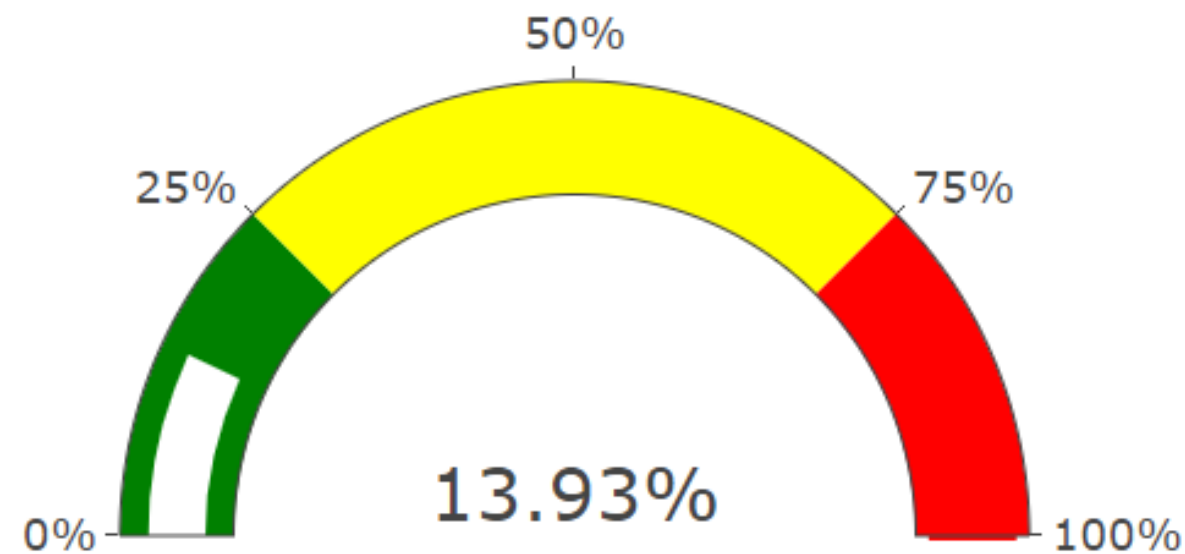
Percent of Population with HighBP

42.90%
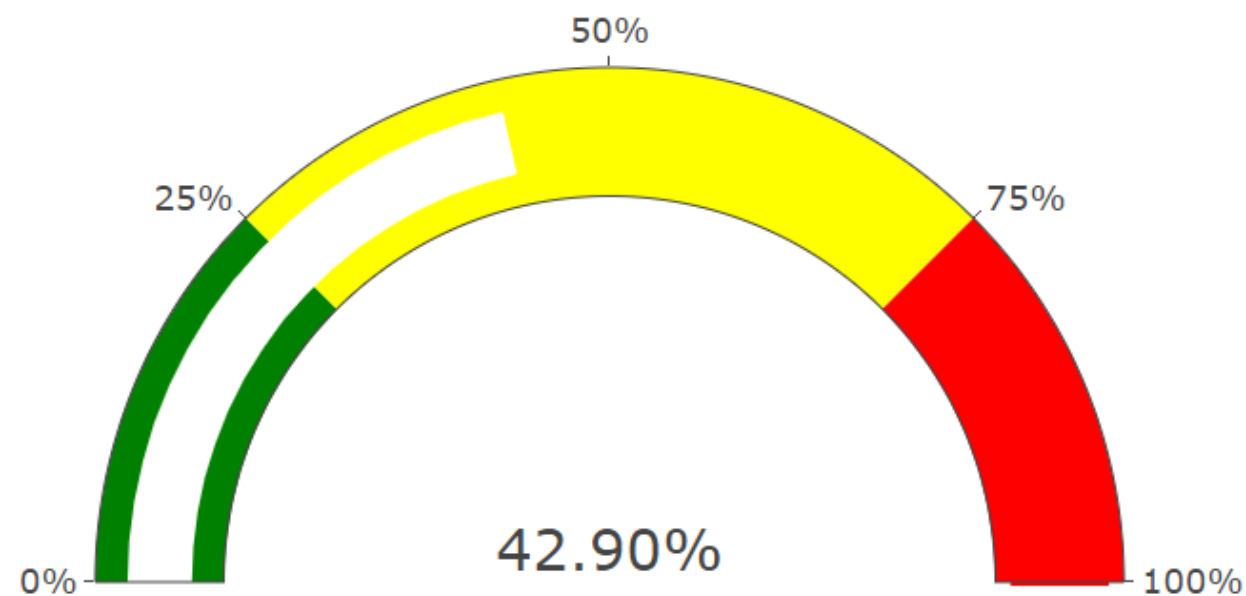
- To try and find other correlations we looked at different aspects of our data to see if there were any.
- One aspect was percent of population with Type 2 Diabetes
- Another aspect we looked at was the percent of the population with High BP

BMI Distribution by Diabetes Status
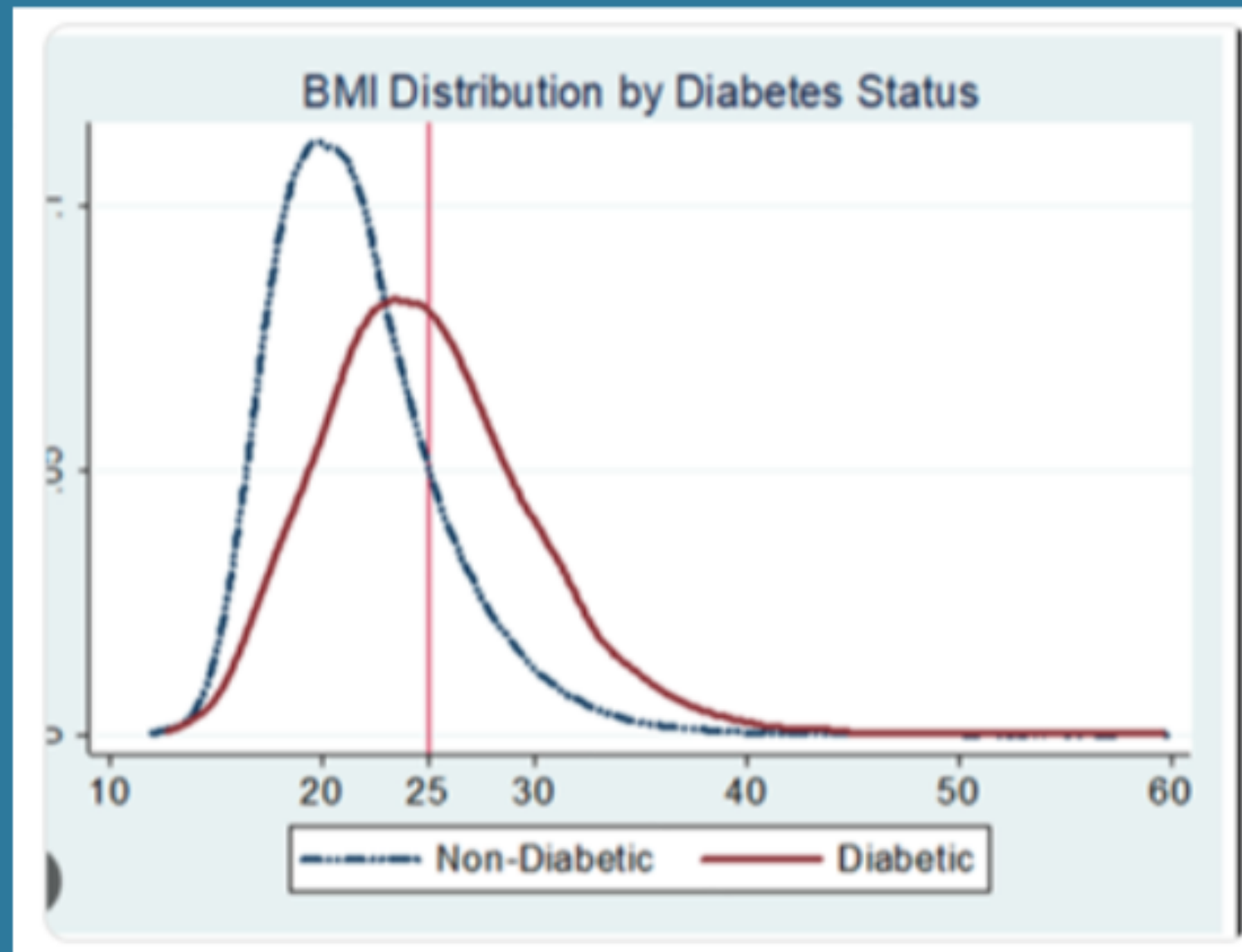
- This graph shows a comparison of the non-diabetic and diabetic populations in the dataset.
- The objective was to visualize the difference in the mean BMI's between the populations.
- This featured graph was not generated by our code but is a representation of what our code aims to visualize.

BMI Distribution by Diabetes Status
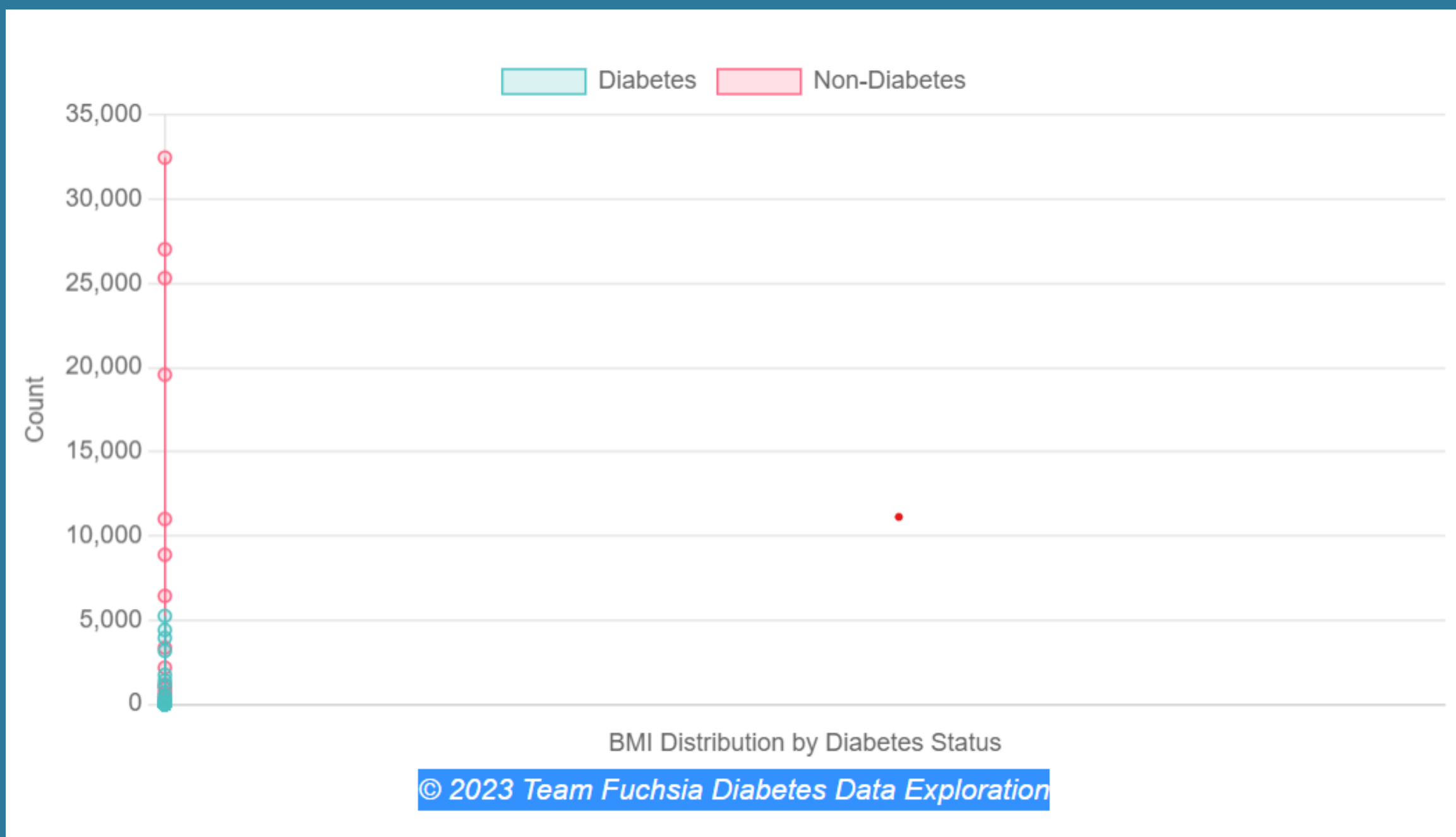
- And here is a look at our live site