Predictive Risks of Stroke

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According to the World Health Organization stroke is the 2nd leading cause of death globally, responsible for approximately 11% of total deaths

Risk Factors Considered:

- Age
- Hypertension
- Average Glucose Level
- BMI
- Stroke
- Gender
- Maritial Status
- Employment Type
- Residence Type
- Heart Disease

Previewing the Data

Using Spark SQL, Python, and DataBricks notebook, we conducted a comprehensive review and analysis of stroke prediction data. Our objective was to gain deeper insights into the patients within the dataset, as well as to explore the potential impact of clinical features on our predictive models.
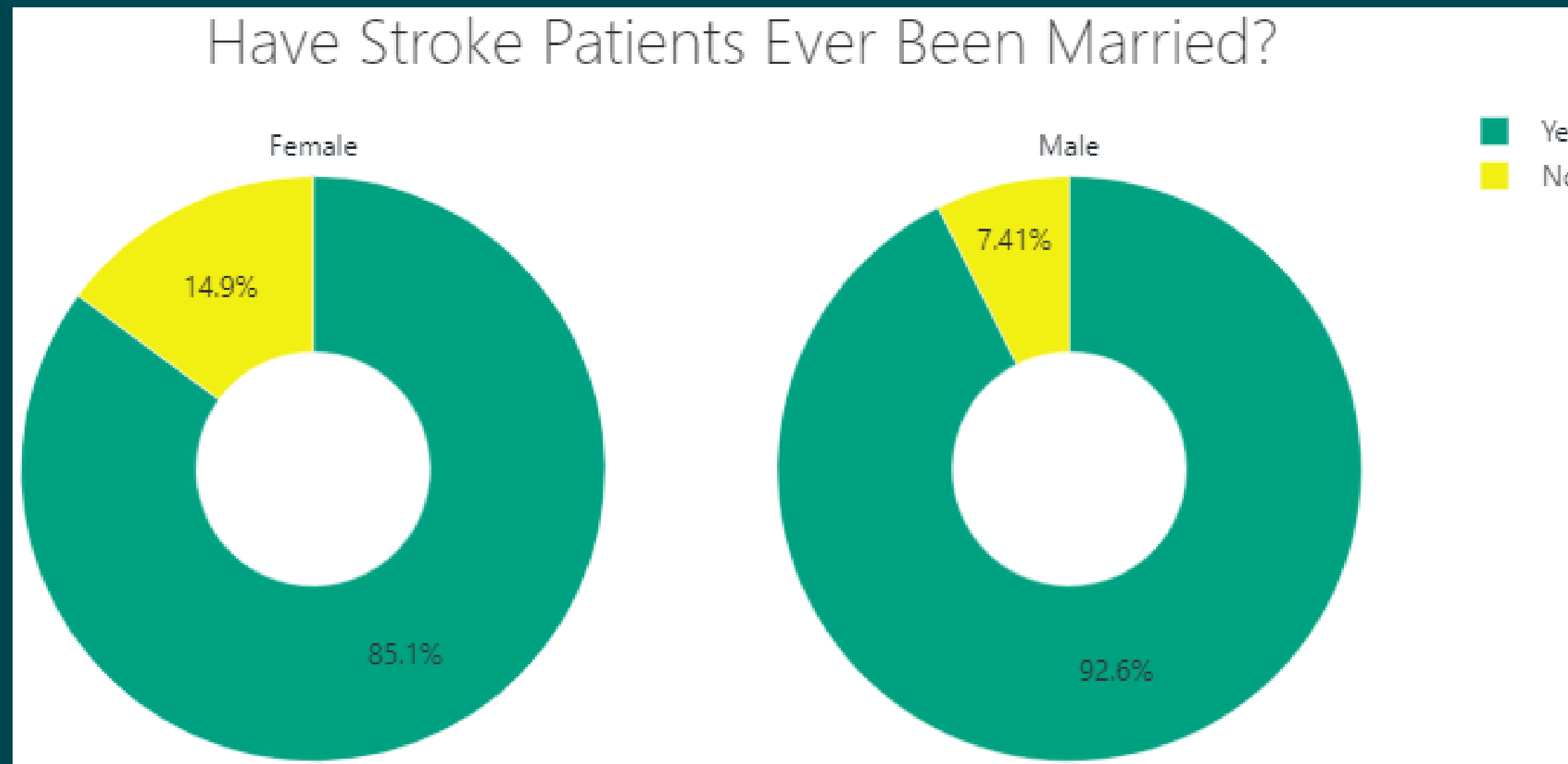
**Spark SQL**

Python

DataBricks

Visualizing Stroke & Predictive Factors

Based on the graph, a significantly larger proportion of stroke patients were found to be married, indicating a notable association between marital status and stroke incidence.

Have Stroke Patients Ever Been Married?

Visualizing Stroke & Predictive Factors

This analysis demonstrates that nearly 50% of stroke patients have either formerly smoked or currently smoke (112 out of 249). These findings emphasize the importance of considering both past and present smoking status when assessing stroke risk factors
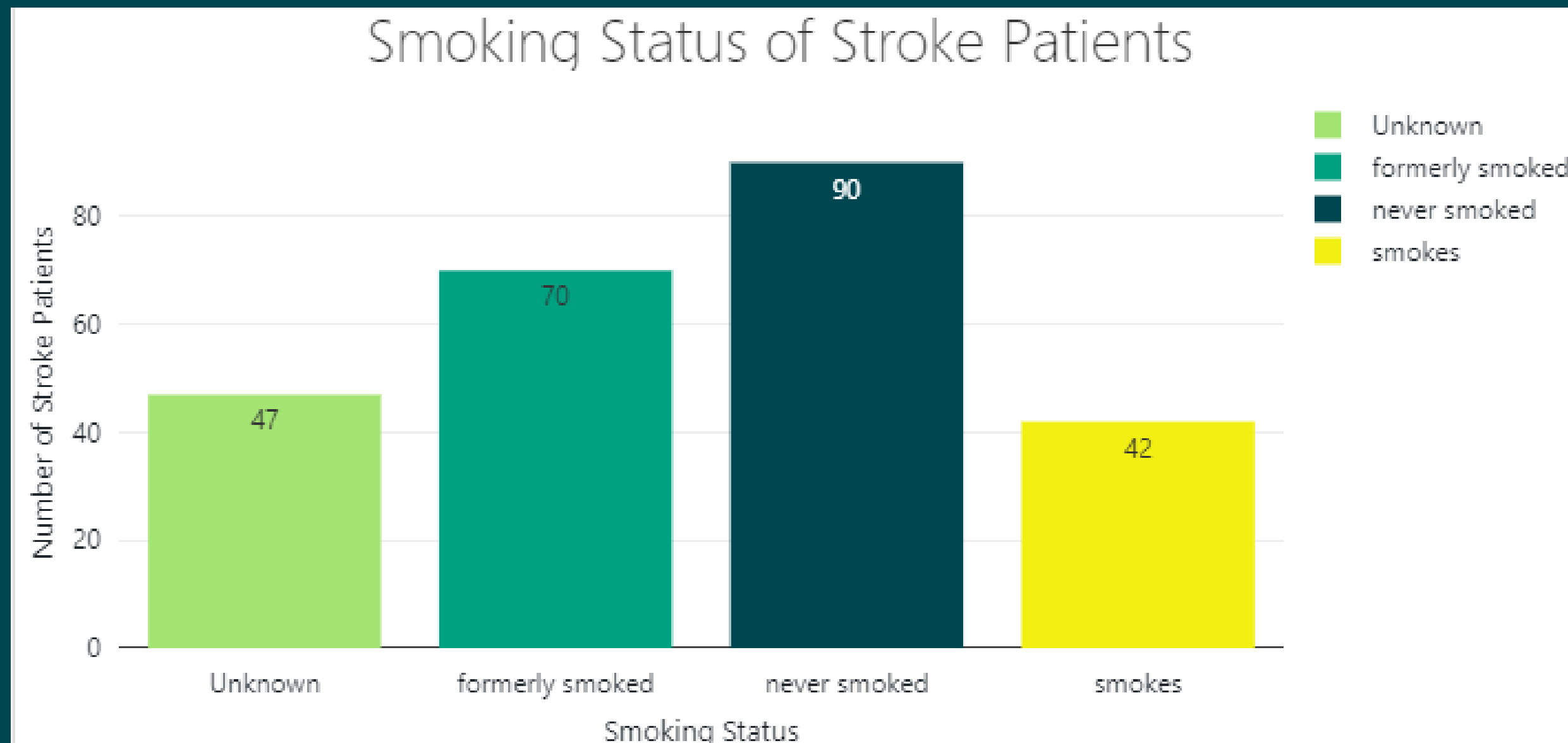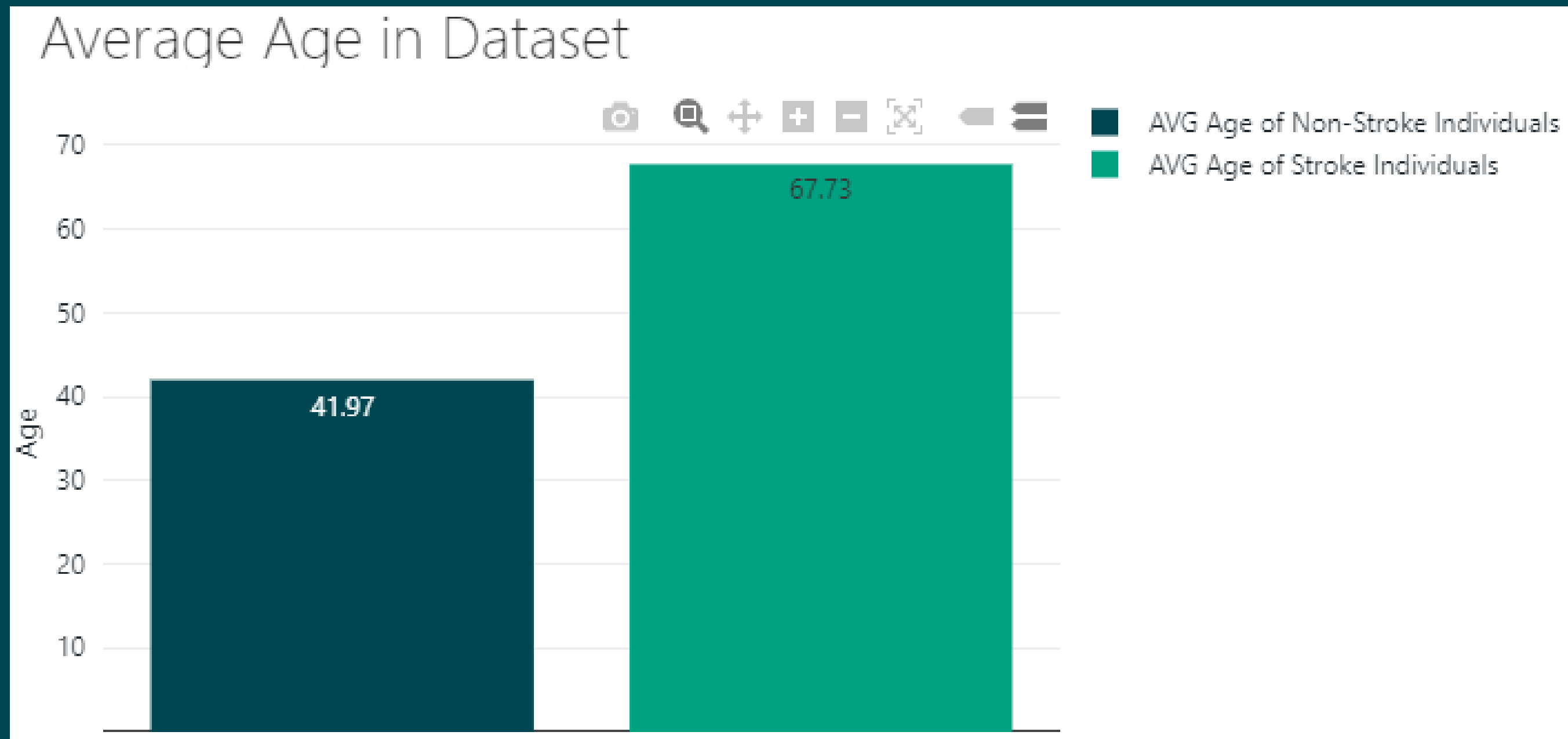
Visualizing Stroke & Predictive Factors

The data reveals that the most stroke patients lived in urban areas. This suggests a potential correlation between urban residence and stroke occurrence, indicating that urban environments may contribute to an increased risk of stroke among both males and females.

Residence of Stroke Patients by Sex
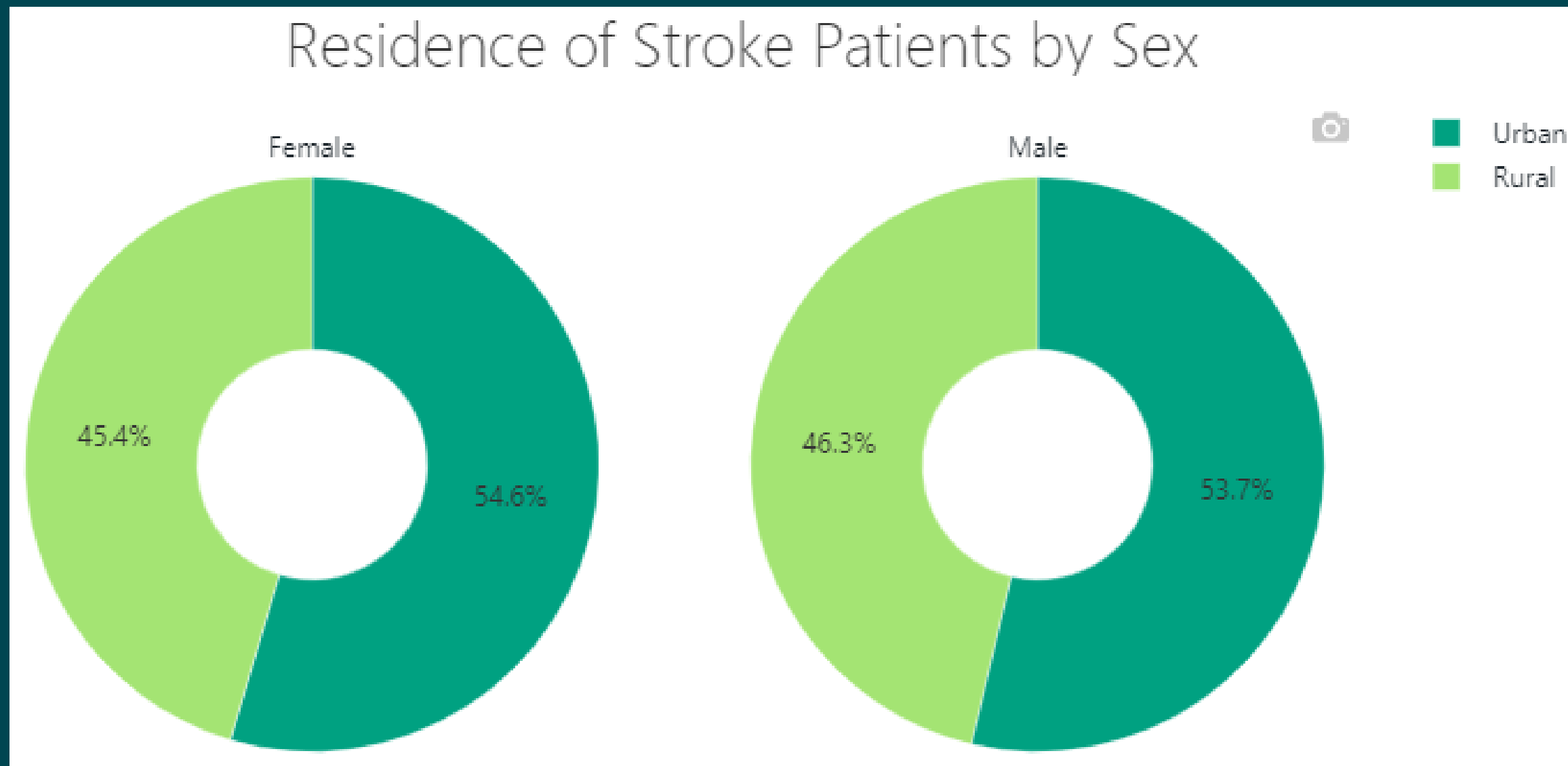
Visualizing Stroke & Predictive Factors

Within this dataset, we observed that the average age at which strokes occurred was 67 years old.

Average Age in Dataset

Visualizing Stroke & Predictive Factors

Average BMI in Stroke vs Non-Stroke Patients

Legend:
- Non-Stroke Patients
- Stroke Patients

Non-Stroke Patients: 28.82
Stroke Patients: 30.47

X-axis: Average BMI (5, 10, 15, 20, 25, 30)