Working with Dashboards

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Contents

- Creating a dashboard
- Dashboard components
- Formatting the visualizations
- Working with the filters
- Working with book-marks

Next Step

Step 7 – Multi-Variate Analysis

Multi-Variate Analysis

- To show multiple visualizations at one place, you need to create a dashboard

Plan your dashboard.

- According to our bivariate analysis Age, Hypertension, Heart Disease are the main causes of stroke.
- Lets create a background table to find out the highlights that will help us in creating the dashboard

Dashboard Background Table1

Age_high_risk	hypertension	heart_disease	Stroke_rate	Count of Patient_id
High Risk Age			0.00%	4
Low Risk Age			0.00%	8
Low Risk Age	0	1	0.00%	38
Low Risk Age	0	0	0.90%	3208
Low Risk Age	1	0	4.61%	152
High Risk Age	0	0	9.93%	1178
High Risk Age	1	0	15.41%	[illegible]
Low Risk Age	1	1	16.67%	6
High Risk Age	0	1	19.54%	174
High Risk Age	1	1	21.05%	57
Total			**4.76%**	**5104**

Stroke rate is high here and the count is also high. We need to highlight in the dashboard.

Dashboard Background Table1

Age_high_risk	hypertension	heart_disease	Residence_type	Stroke_rate	Count of Patient_id
High Risk Age			Rural	0.00%	1
High Risk Age			Urban	0.00%	3
Low Risk Age			Rural	0.00%	5
Low Risk Age			Urban	0.00%	3
Low Risk Age	0	1	Rural	0.00%	13
Low Risk Age	0	1	Urban	0.00%	25
Low Risk Age	1	1	Rural	0.00%	2
Low Risk Age	0	0	Rural	0.88%	1591
Low Risk Age	0	0	Urban	0.93%	1617
Low Risk Age	1	0	Rural	3.95%	76
Low Risk Age	1	0	Urban	5.26%	76
High Risk Age	0	0	Rural	9.20%	565
High Risk Age	0	0	Urban	10.60%	613
High Risk Age	1	0	Urban	15.11%	139
High Risk Age	1	0	Rural	15.71%	140
High Risk Age	1	1	Rural	16.67%	[illegible]
High Risk Age	0	1	Rural	17.05%	88
High Risk Age	0	1	Urban	22.09%	86
Low Risk Age	1	1	Urban	25.00%	4
High Risk Age	1	1	Urban	25.93%	27
Total				**4.76%**	**5104**

Stroke rate is high here but the count is less.

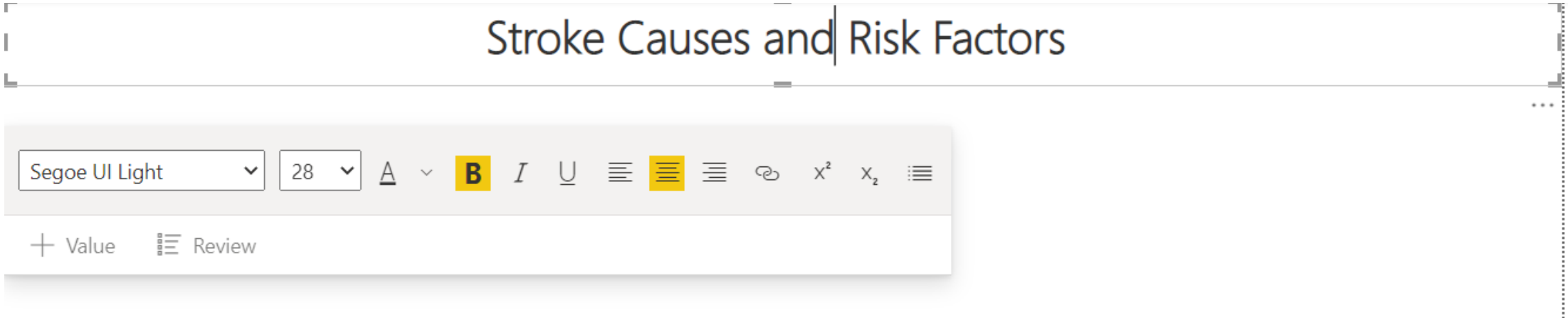
KPIs - Key Performance Indicators

1. Show the stroke rate – Either a pie chart or a gauge chart or a simple number
2. According to our bivariate analysis Age, Hypertension, Heart Disease are the main causes of stroke.
    1. Average Age
    2. Hypertension rate
    3. Heart Disease rate
3. Other important measures like BMI and Glucose level can also be displayed. Can be a box plot or violin plot by stroke category
4. Age, Hypertension interaction effect need to be analysed
5. Age, Heart disease interaction effect need to be analysed

Dashboard Creation process

Add a Title

- Insert >> Text Box >>Format text box >> Title on >> Text >> Heading type >> text Colour >Background Colour



Stroke Causes and Risk Factors

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Cards for stroke rate, heart disease rate, Hypertension rate

Stroke Causes and Risk Factors

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

We will use this space for filters

Stroke Causes and Risk Factors

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Critical KPI visuals related to high risk factors with high stroke rate

Stroke Causes and Risk Factors

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Continuous variables information. Either averages or box plots

Stroke Causes and Risk Factors

4.87%

Stroke_rate

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Stroke Causes and Risk Factors

Stroke Rate

4.87%

Select or drag fields to populate this visual

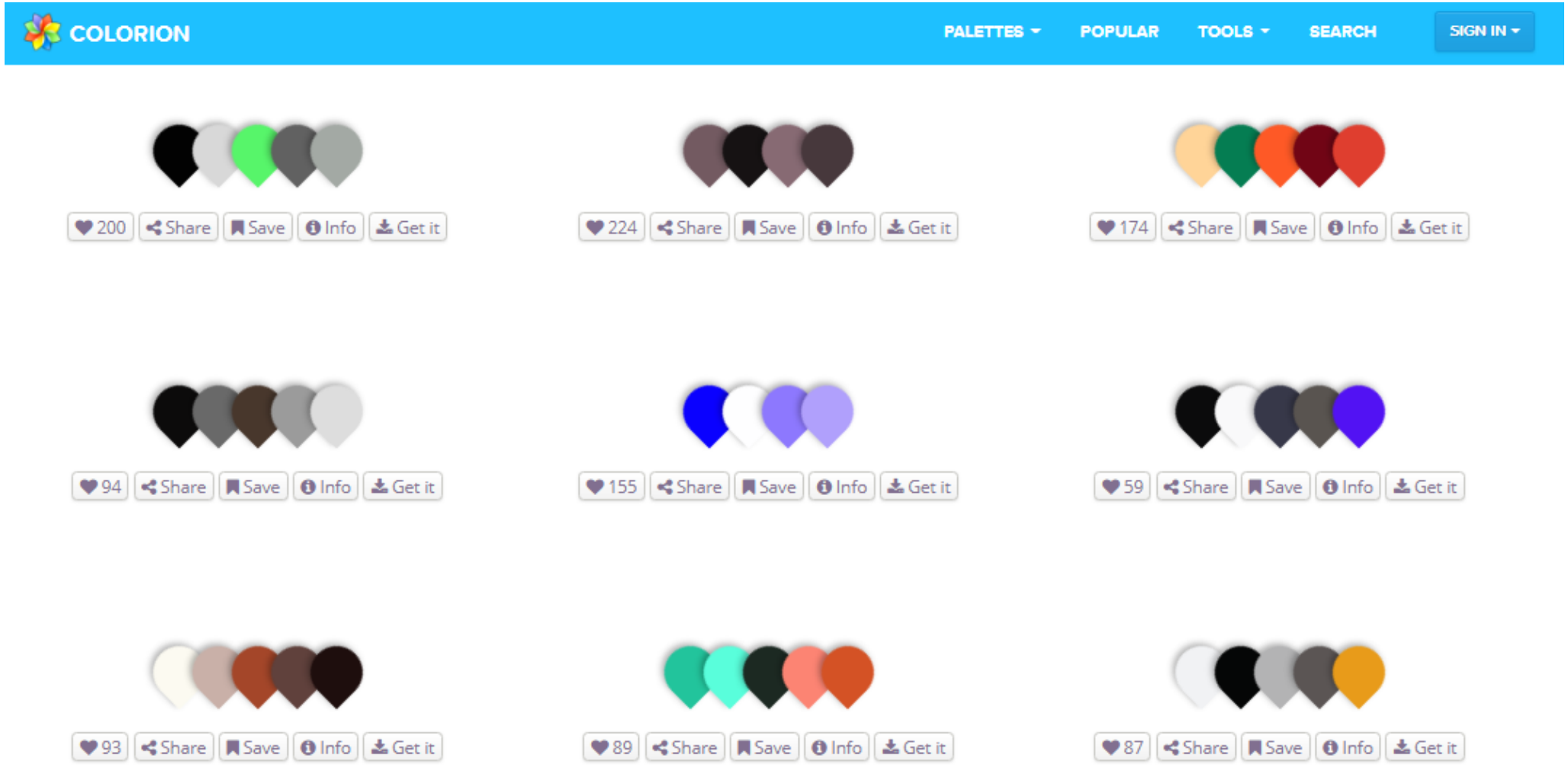
Select or drag fields to populate this visual

Select or drag fields to populate this visual

- Select the card>> Format your visual >> Category label off
- Select the card>> Format your visual >> General >>Title on >> Title Text (Stroke Rate) >> Font size 16 >> Text Colour Green >> BG colour >> Centre Alighted
- Select the card>> Format your visual >> General >>Effects >> Visual Border (on) >> Shadow on

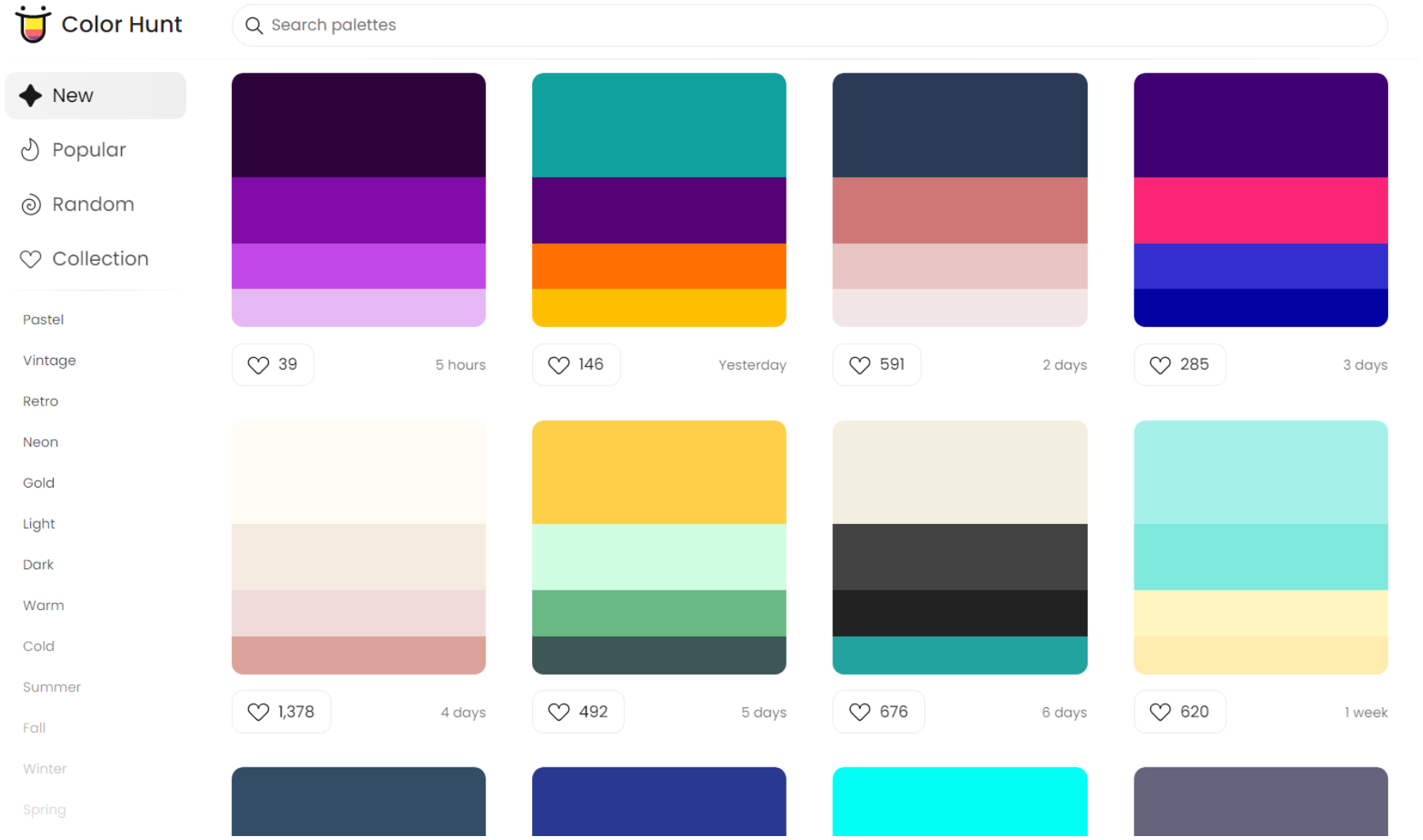
Colour palette ideas

- www.colorion.co



Colour palette ideas

- https://colorhunt.co/



Stroke Causes and Risk Factors

Stroke Rate

4.87%

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

- We need to display hypertension rate here.
- We need to calculate it using DAX formula similar to stroke rate
- Hypertension_rate = SUM(Risk_Factors_Table[hypertension])/count(Risk_Factors_Table[hypertension])

Stroke Causes and Risk Factors

Stroke Rate

4.87%

Select or drag fields to populate this visual

Select or drag fields to populate this visual

Select or drag fields to populate this visual

- Copy paste this card to save the formatting time.

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate
4.87%	5.39%

Select or drag fields to populate this visual

Select or drag fields to populate this visual

- Update the title

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%

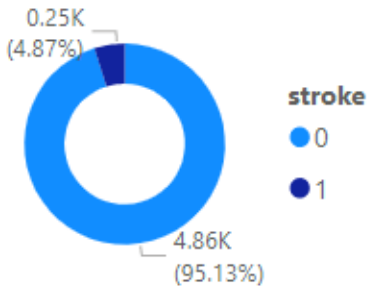
Select or drag fields to populate this visual

- Repeat the same Process

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%

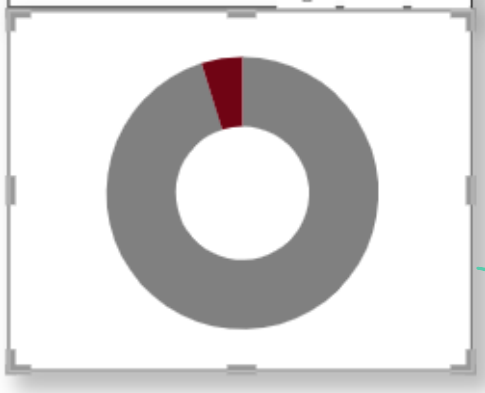
Count of id by stroke



- Donut Chart
- Legend >> Stroke
- Value >>Count of id

Stroke Causes and Risk Factors

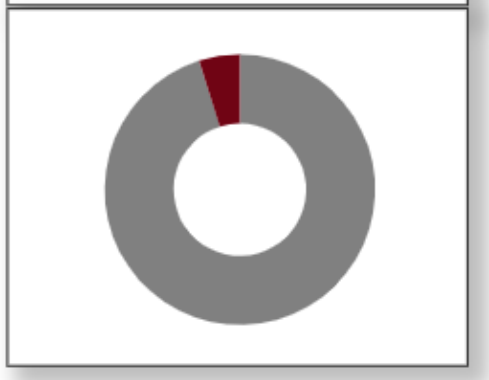
Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%



- Format >> Legend off >> Detailed labels off
- Format >.Visuals >> Slices >>Colours >>Spacing >.Inner Radius
- Format >> General >> Title off >>

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%



Filters for Age, heart Daises, Hypertension, BMI, Glucose level

Select or drag fields to populate this vis

Select or drag fields to populate this vis

Select or drag fields to populate this vis

Select or drag fields to populate this vis

Select or drag fields to populate this vis

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%

Age_high_risk

- [ ] High Risk Age
- [ ] Low Risk Age

Select or drag fields to populate this vis

Select or drag fields to populate this vis

Select or drag fields to populate this vis

Select or drag fields to populate this vis

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%

Age

High Risk Age	Low Risk Age

Click on filter>>Format >>Slicer Header off
>>Slicer settings >>Orientation >> Horizontal

General >> Title on > Title text > Font

Select or drag fields to populate this vis

Select or drag fields to populate this vis

Select or drag fields to populate this vis

Select or drag fields to populate this vis

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%

Same as Age

Age

High Risk Age	Low Risk Age

Heart Disease

(Blank)	0	1

Hypertension

(Blank)	0	1

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%

Need to drag the slicers separately again.

Age

High Risk Age	Low Risk Age

Heart Disease

(Blank)	0	1

Hypertension

(Blank)	0	1

BMI

10.30 — 97.60

Avg Glucose Level

0.00 — 271.74

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
21.05%	100.00%	100.00%

Play with slicers, observe the high and low stoke population segments

Age

High Risk Age | Low Risk Age

Heart Disease

0 | 1

Hypertension

0 | 1

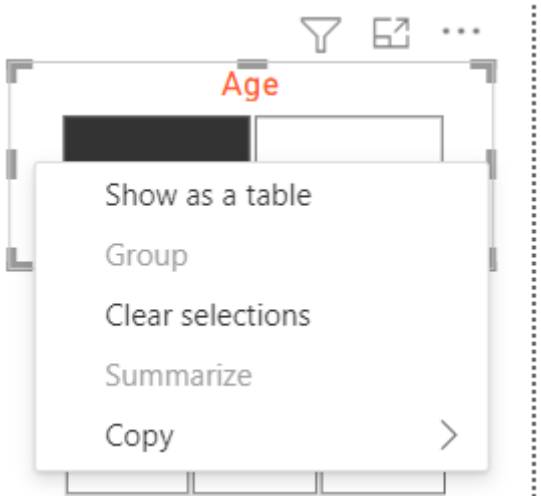
BMI

10.30 — 97.60

Avg Glucose Level

0.00 — 271.74

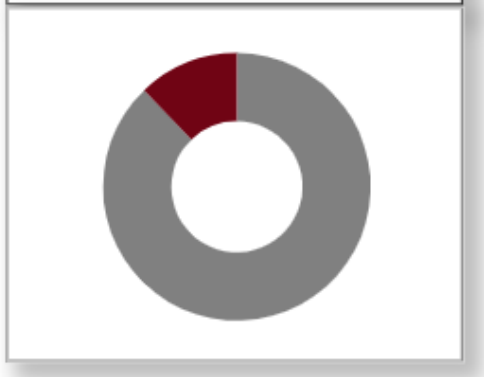
Clear selection for clearing the filters



Stroke Causes and Risk Factors

Stroke Rate

12.17%



Heart Disease Rate

13.68%

Hypertension Rate

19.91%

age	heart_disease	Stroke_rate
56	1	0.00%
57	0	10.23%
57	1	28.57%
58	0	9.38%
58	1	25.00%
59		0.00%
59	0	10.67%
59	1	0.00%
60	0	4.41%
60	1	25.00%
61	0	2.94%
61	1	50.00%
62	0	0.00%
62	1	0.00%
Total		**12.17%**

- Create a table with age, stroke rage, heart disease
- Do not summarise on Age

Age

High Risk Age | Low Risk Age

Heart Disease

(Blank) | 0 | 1

Hypertension

(Blank) | 0 | 1

BMI

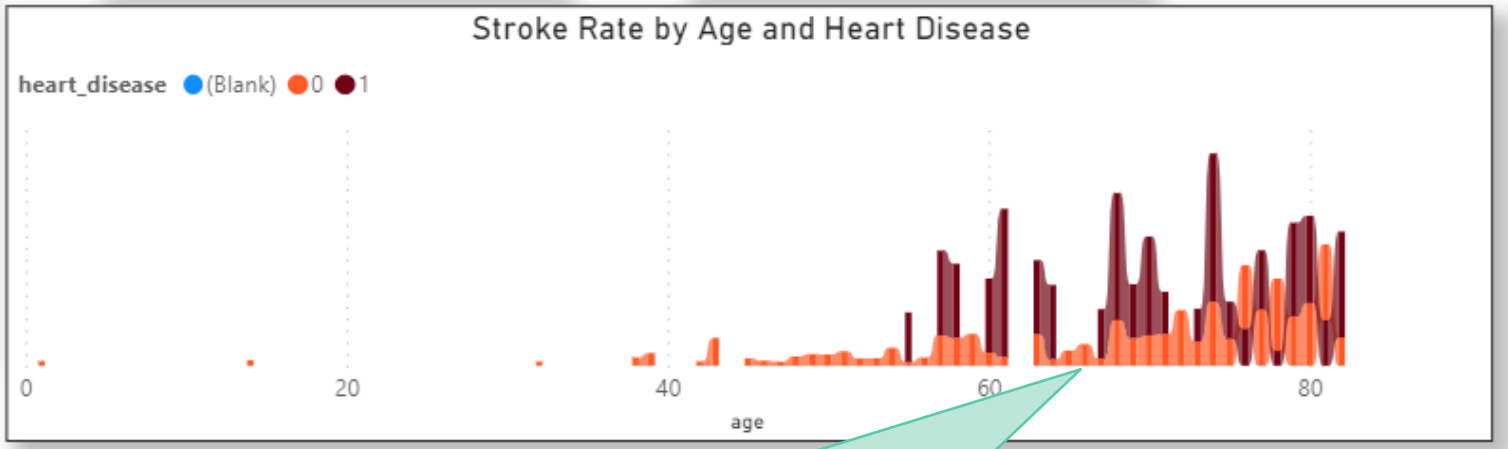
97.60

g Glucose Level

0.00 | 271.74

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%



Age

High Risk Age	Low Risk Age

Heart Disease

(Blank)	0	1

Hypertension

(Blank)	0	1

BMI

10.30 97.60

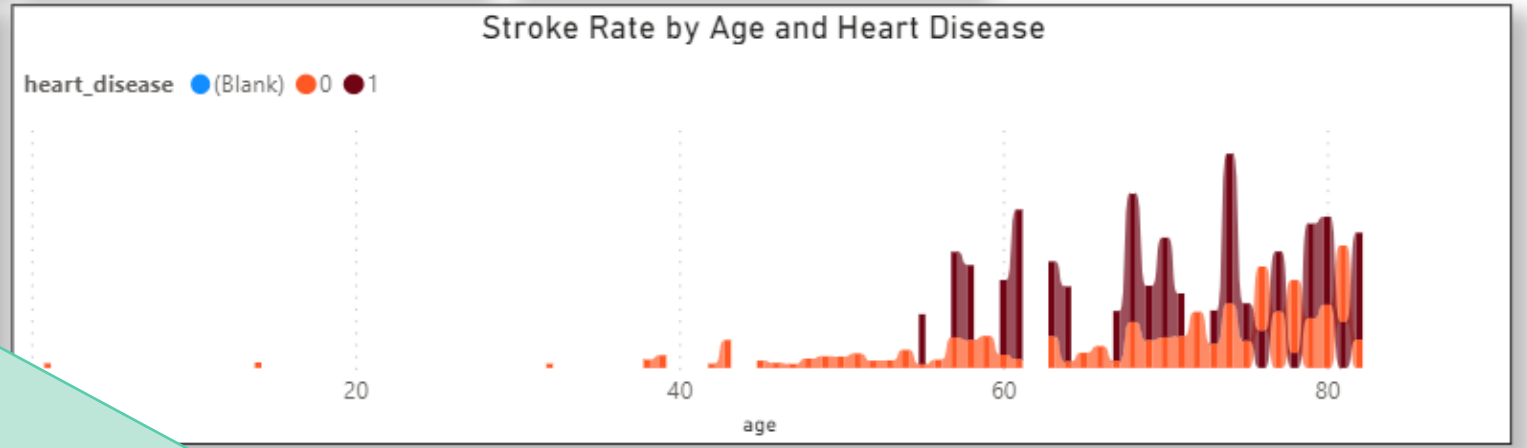
Avg Glucose Level

0.00 271.74

- Ribbon Chart
- X axis – Age, Y axis – Stroke, Legend is heart disease
- Visuals >> Ribbon >> Ribbon Colours

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%



Age

High Risk Age	Low Risk Age

Heart Disease

(Blank)	0	1

Hypertension

(Blank)	0	1

BMI

10.30 97.60

Avg Glucose Level

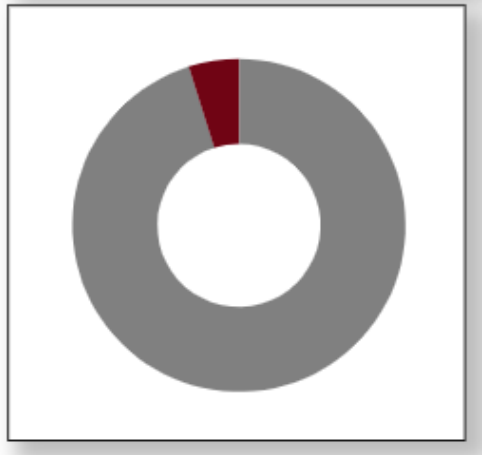
0.00 271.74

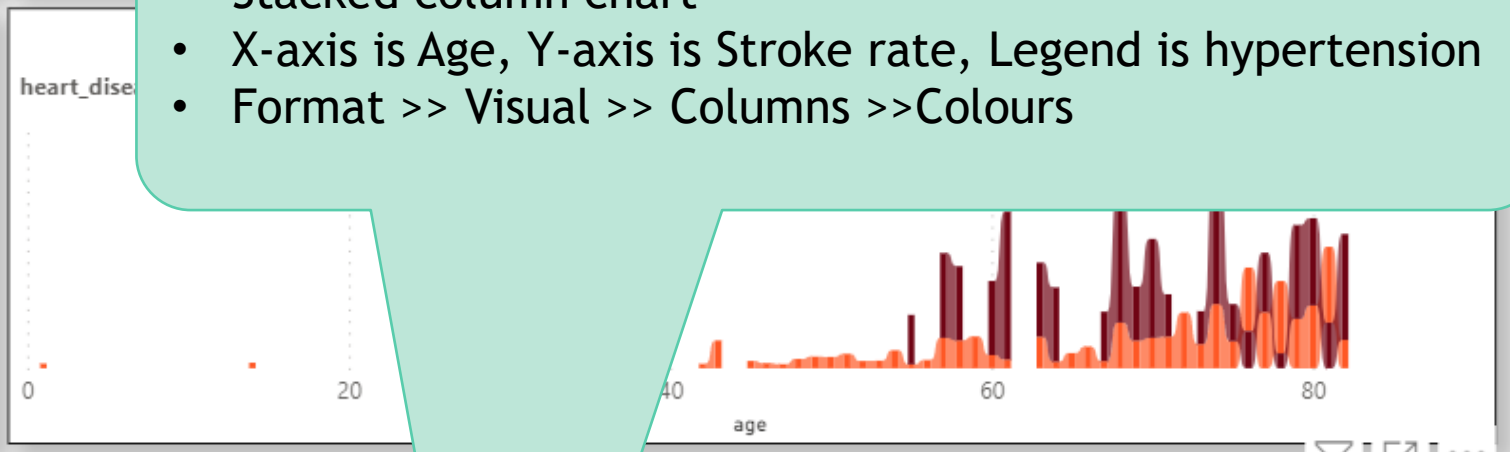
- A bit of rearrangement on the canvas

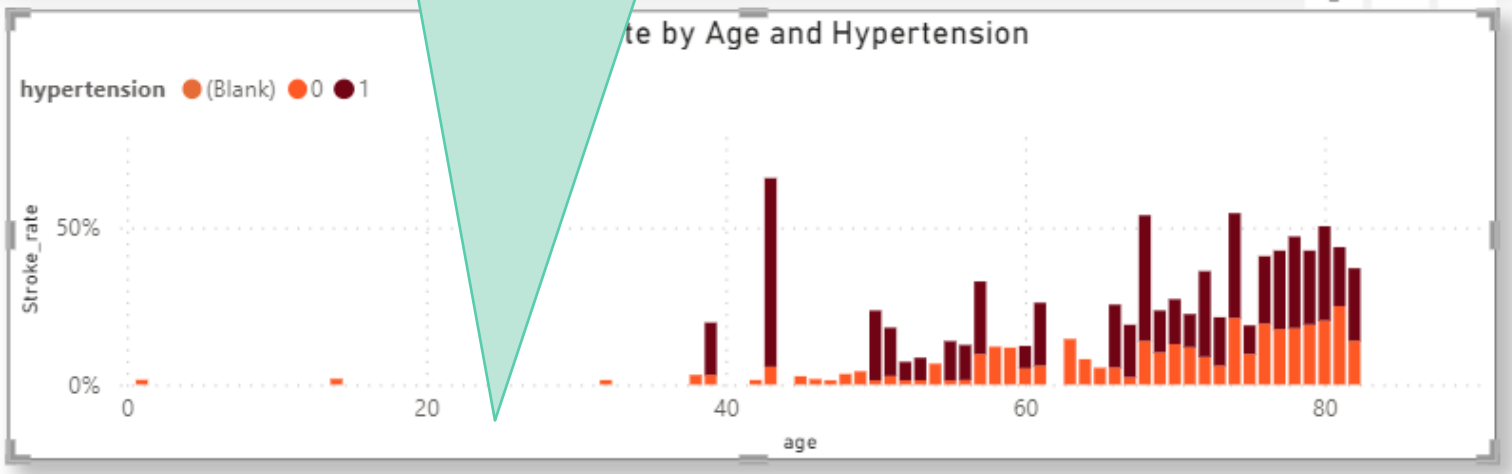
Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5	

- Stacked column chart
- X-axis is Age, Y-axis is Stroke rate, Legend is hypertension
- Format >> Visual >> Columns >>Colours







Age

High Risk Age	Low Risk Age

Heart Disease

(Blank)	0	1

Hypertension

(Blank)	0	1

BMI

10.30 97.60

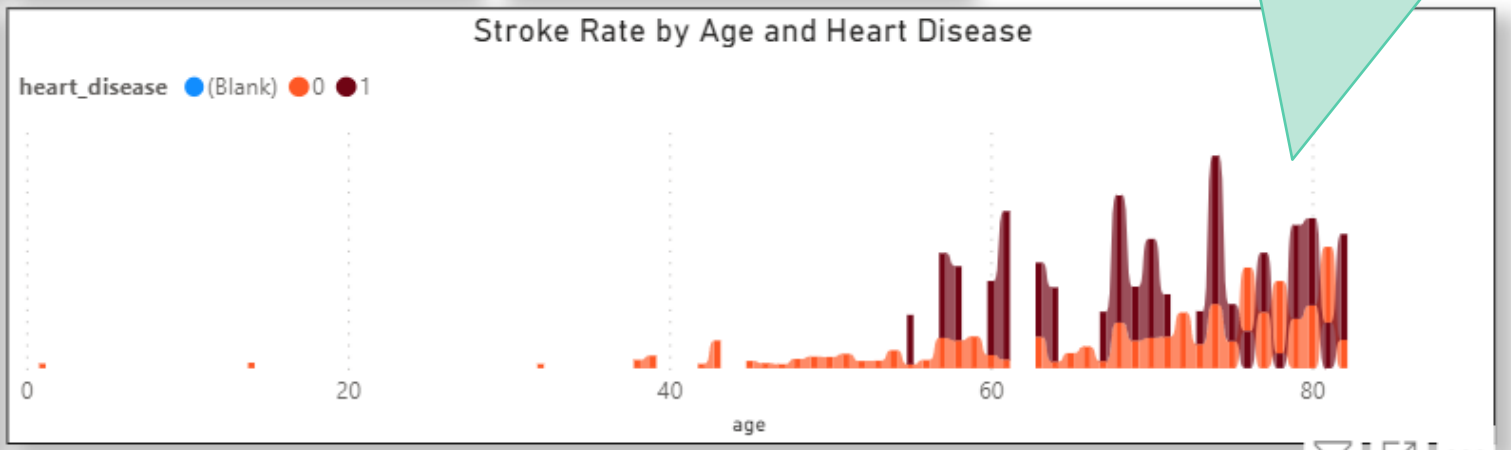
Avg Glucose Level

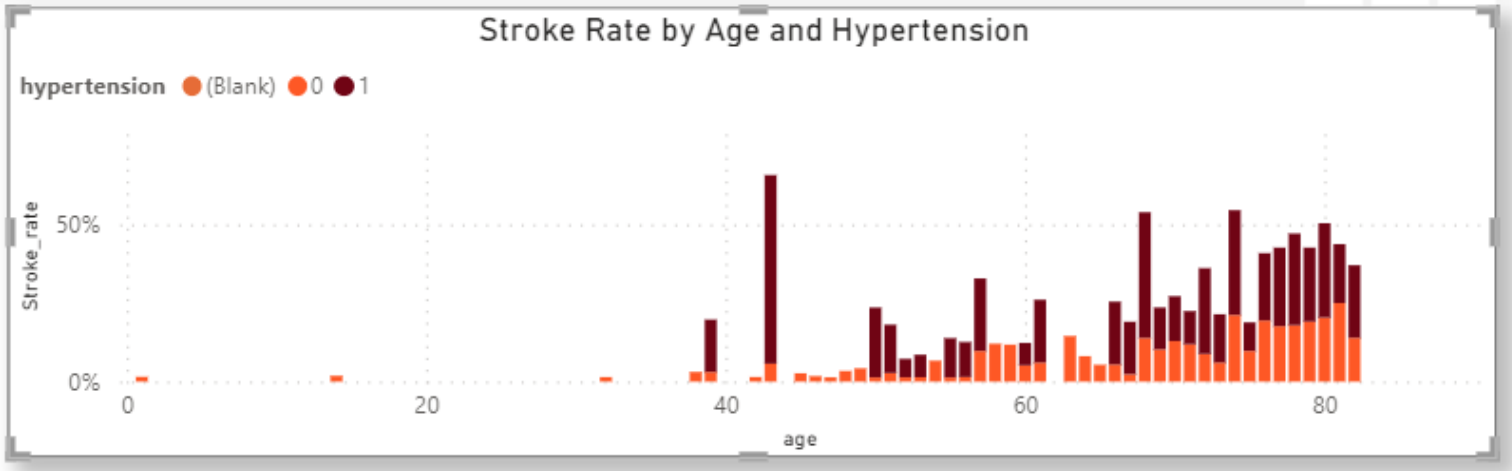
0.00 271.74

Stroke Causes and Risk Fac

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%

- What are your observations from these two charts





Heart Disease

(Blank)	0	1

Hypertension

(Blank)	0	1

BMI

10.30 97.60

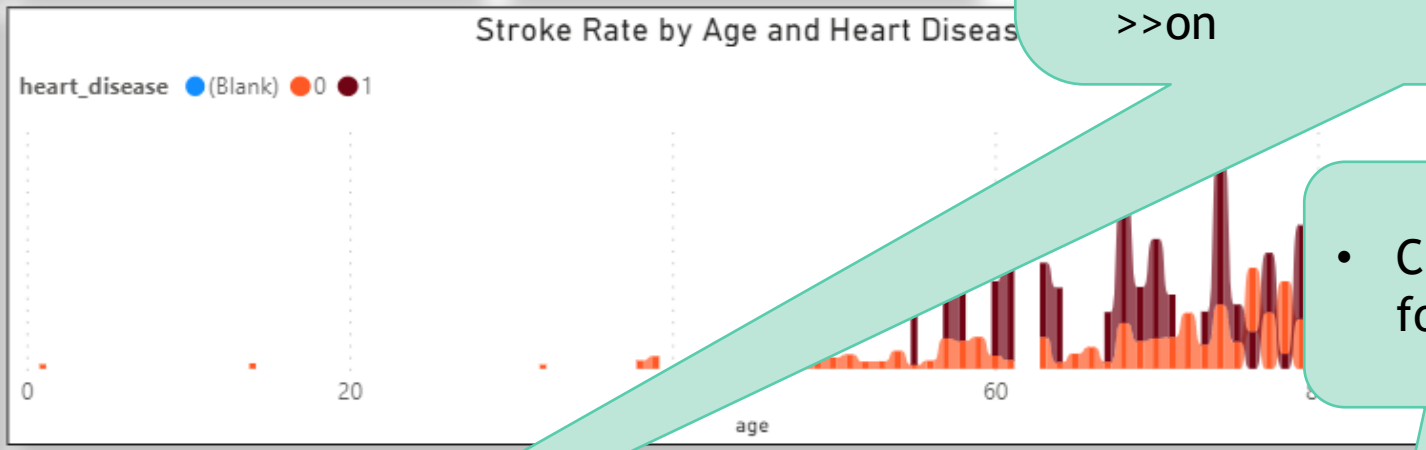
Avg Glucose Level

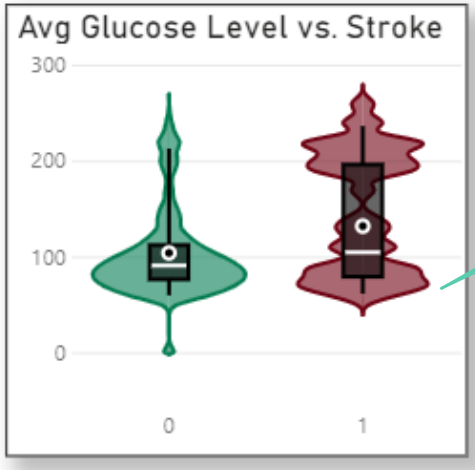
0.00 271.74

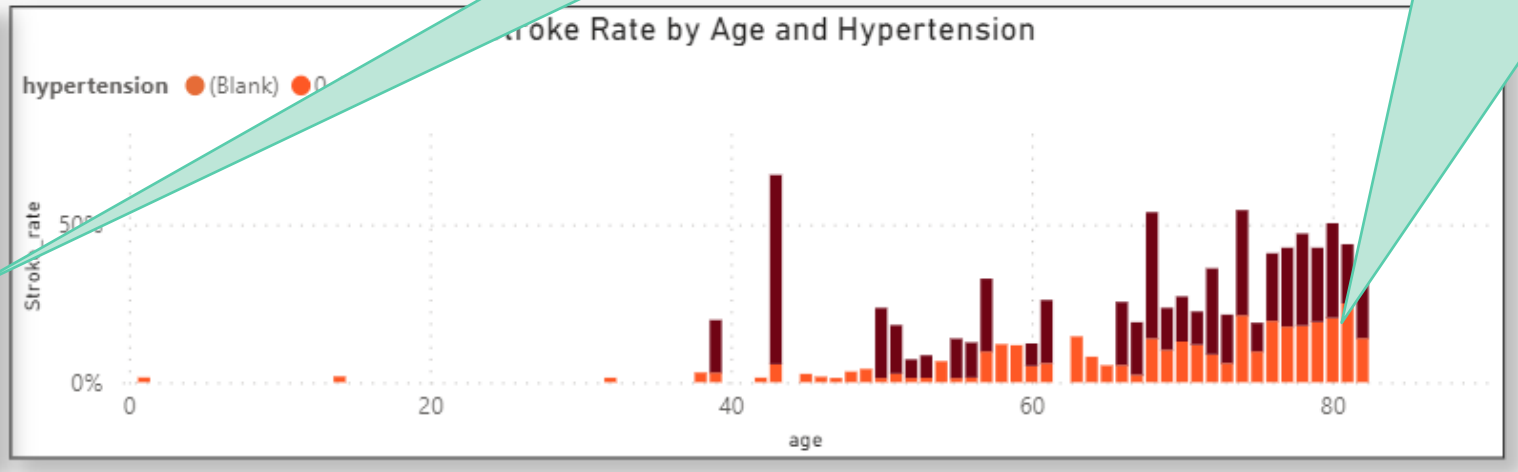
Stroke Causes and Risk F

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%

- Violin plot
- Sampling >>id >> Measure Avg glucose (Avg) >>Category >>Stroke
- Format >.title >>
- Visual >>Data Colours>>By category >>on







- Choose the maximum value for the X-axis scale as 80

BMI

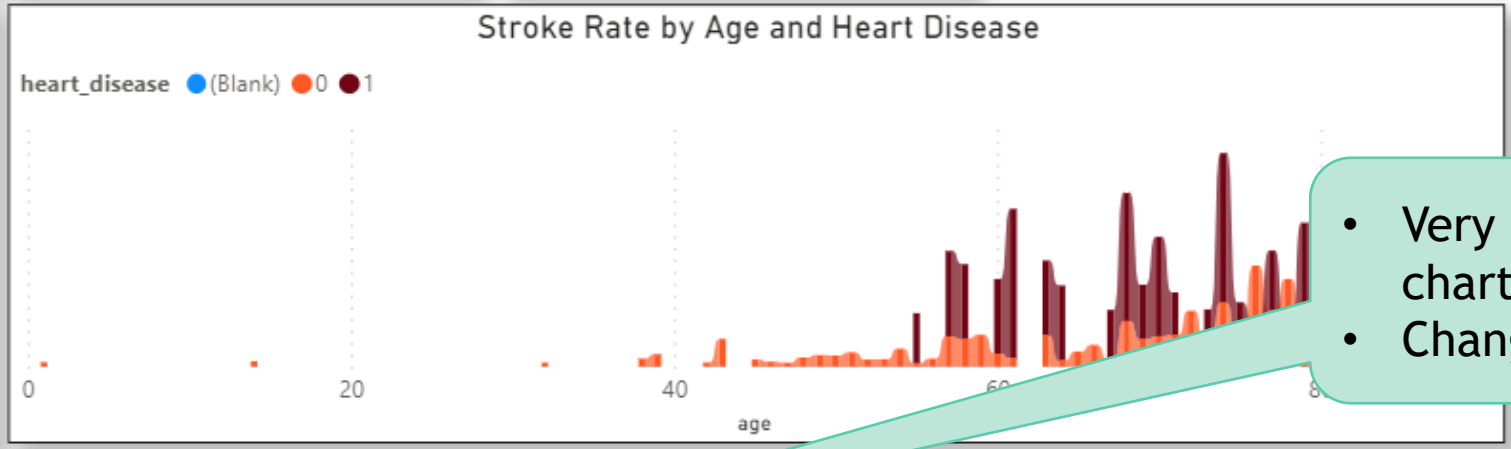
10.30 97.60

Avg Glucose Level

0.00 271.74

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%

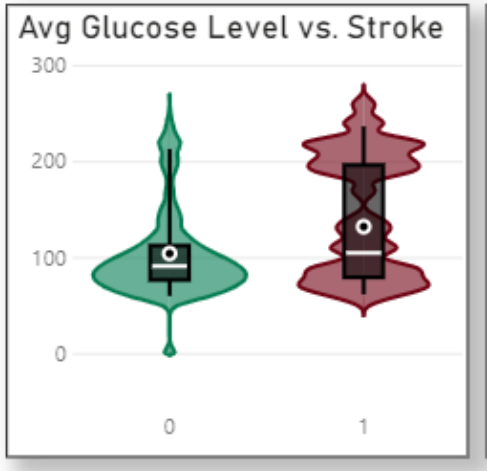


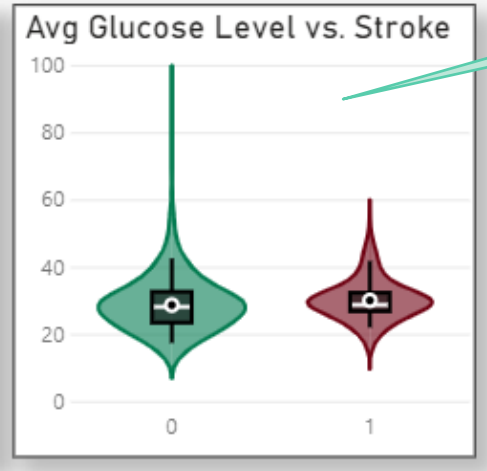
- Very similar to the previous chart
- Change the title and fields

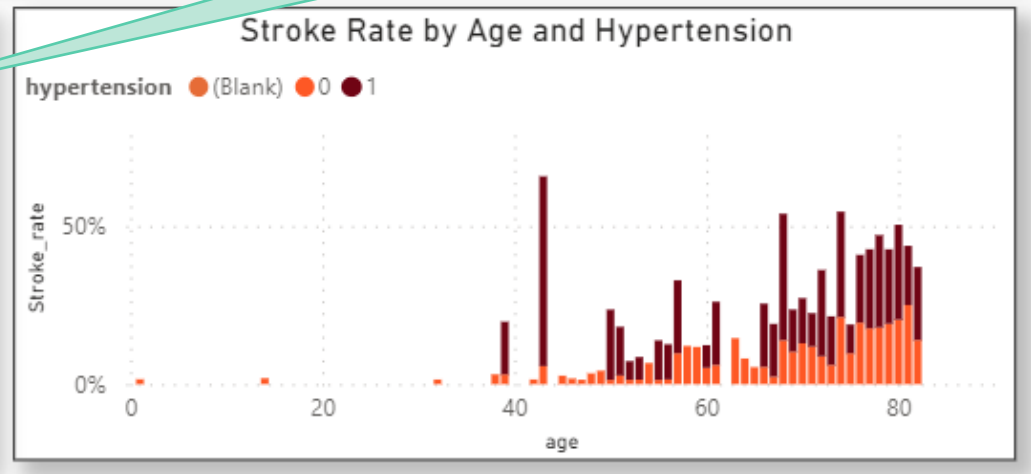
Age

High Risk Age | Low Risk Age

Heart Disease







BMI

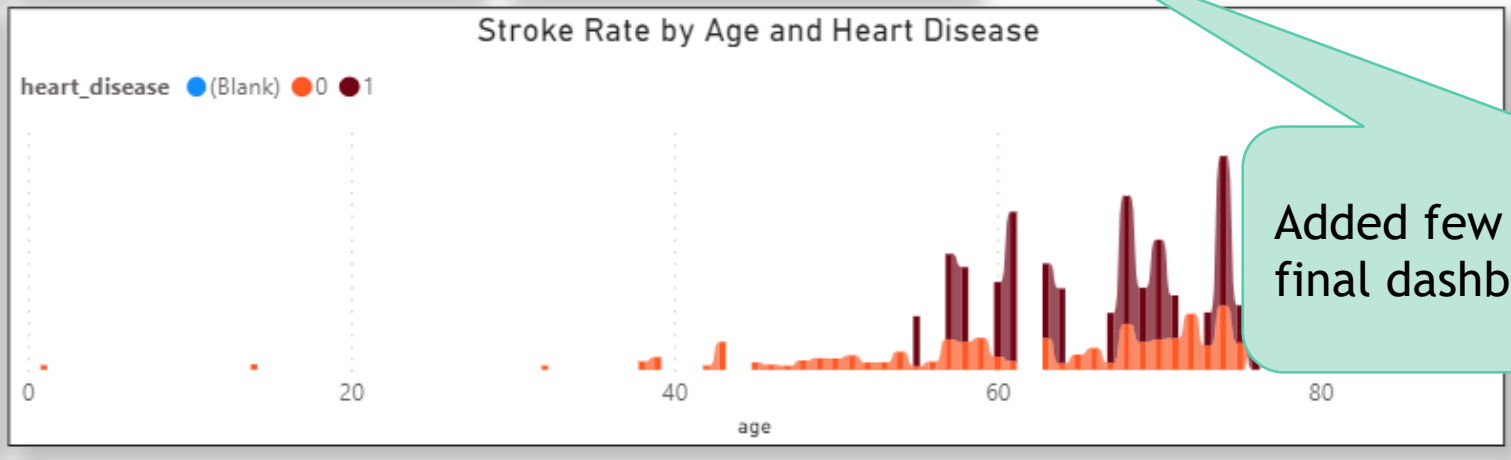
10.30 | 97.60

Avg Glucose Level

0.00 | 271.74

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate
4.87%	5.39%	9.75%



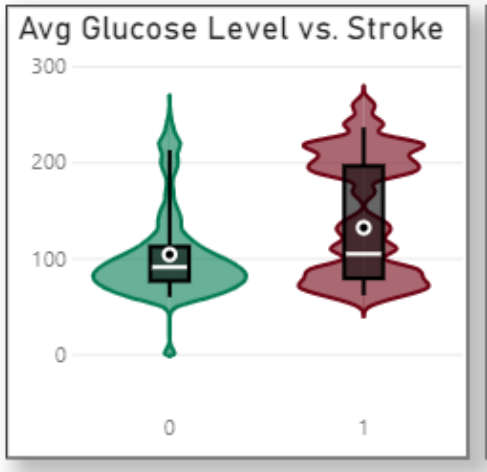
Added few more cards our final dashboard is ready

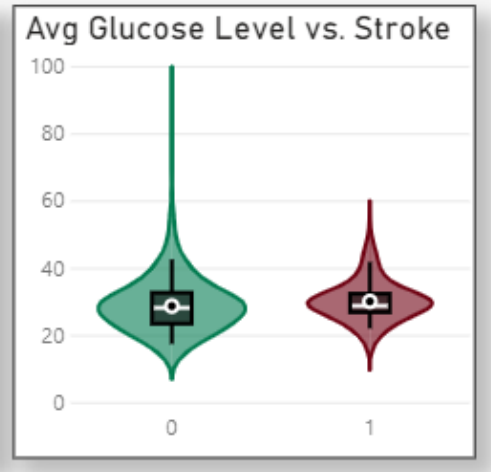
Age

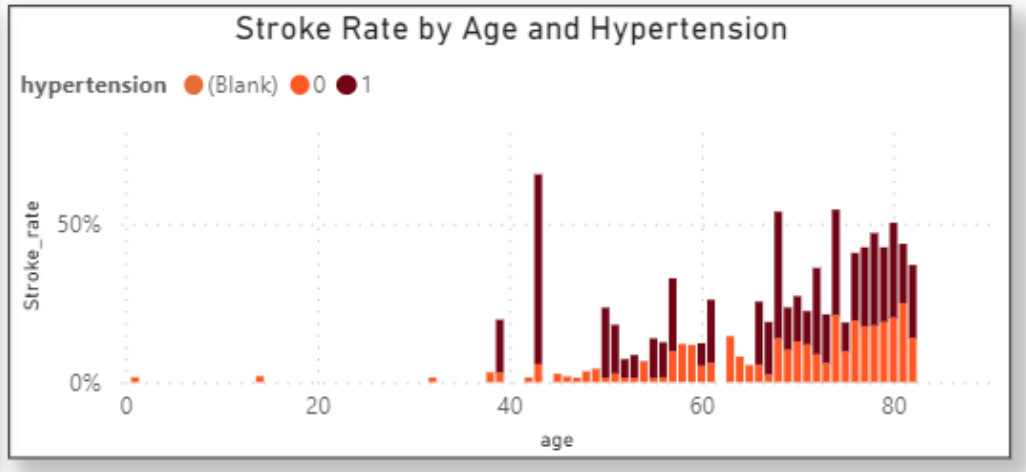
High Risk Age | Low Risk Age

Heart Disease

(Blank) | 0 | 1







BMI

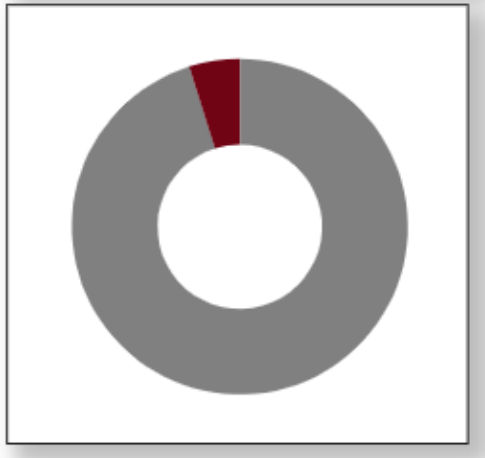
10.30 | 97.60

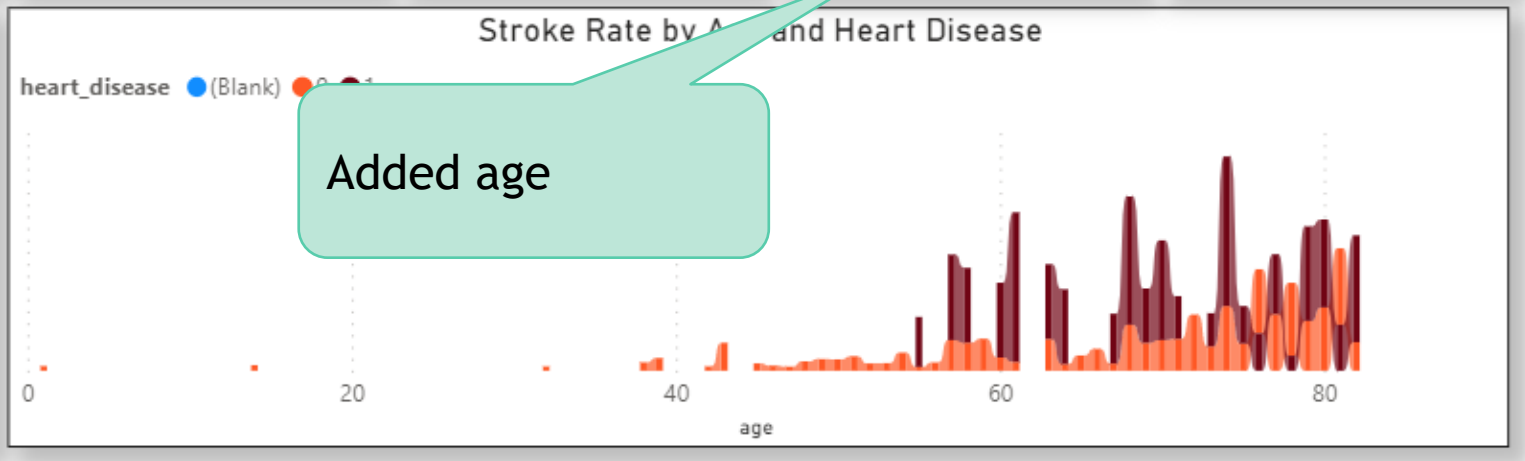
Avg Glucose Level

0.00 | 271.74

Stroke Causes and Risk Factors

Stroke Rate	Heart Disease Rate	Hypertension Rate	Average Age	Sample Size
4.87%	5.39%	9.75%	43.20	5110





Added age

Age

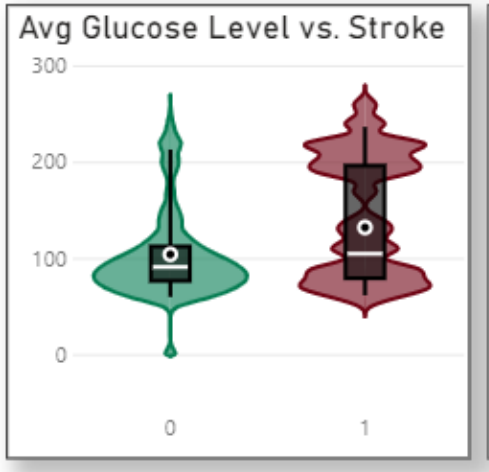
High Risk Age	Low Risk Age

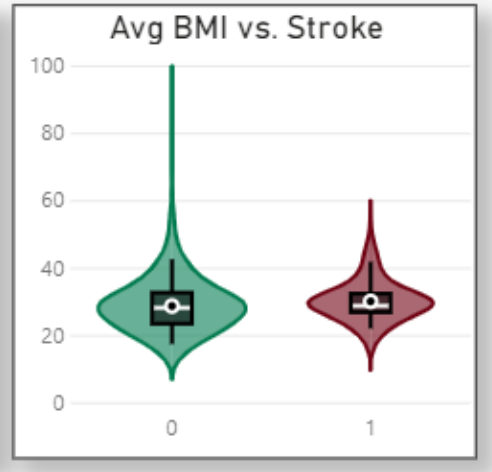
Heart Disease

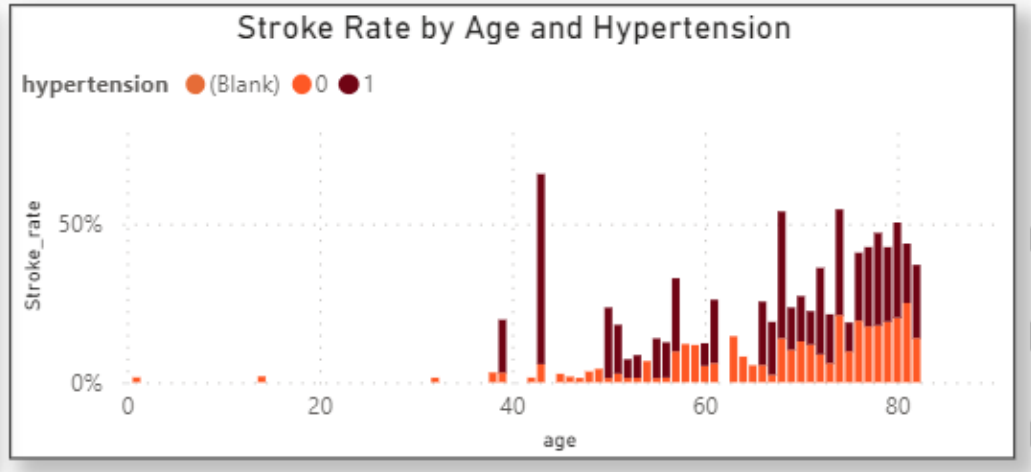
(Blank)	0	1

Hypertension

(Blank)	0	1







BMI

10.30	97.60

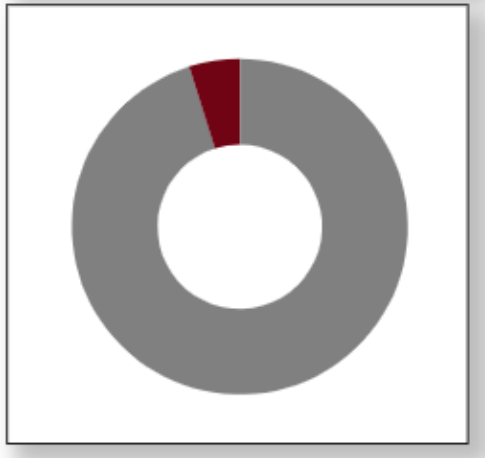
Avg Glucose Level

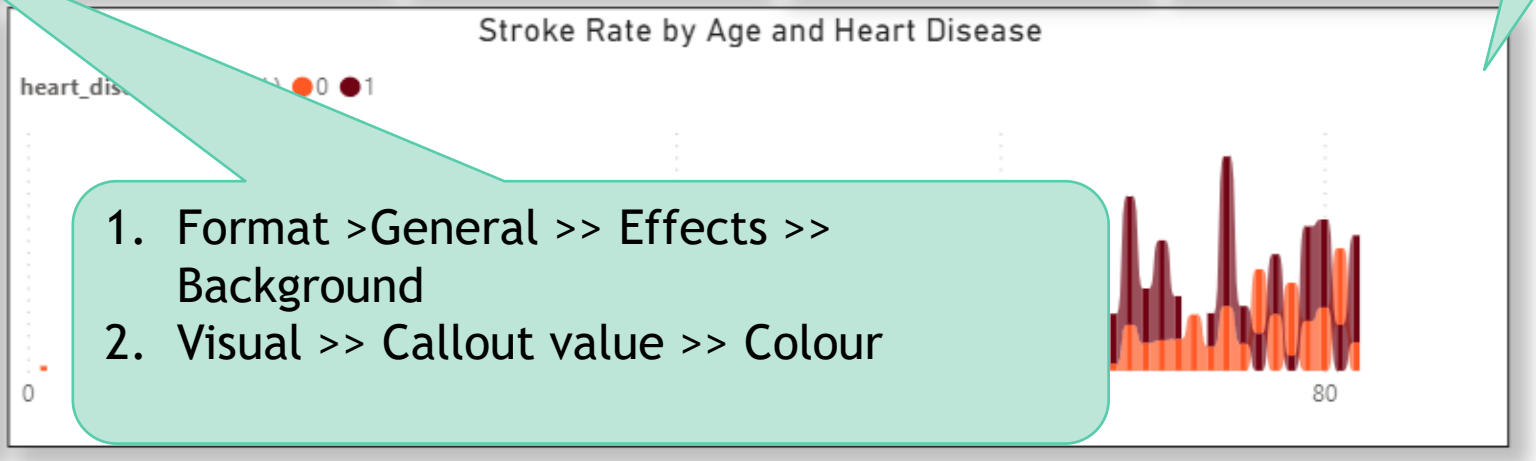
0.00	271.74

Stroke Causes and Risk Factors

Dashboard is ready

Stroke Rate	Heart Disease Rate	Hypertension Rate	Average Age	Sample Size
4.87%	5.39%	9.75%	43.20	5110





1. Format >General >> Effects >> Background
2. Visual >> Callout value >> Colour

Age

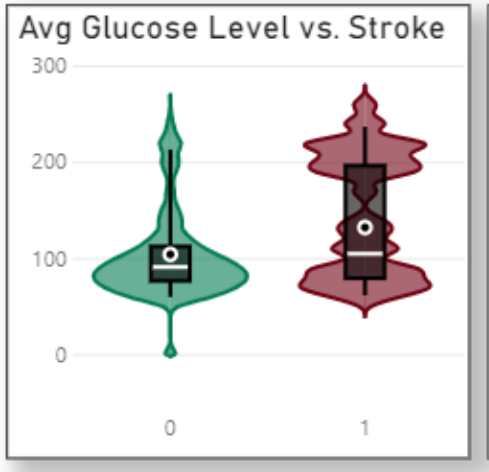
High Risk Age	Low Risk Age

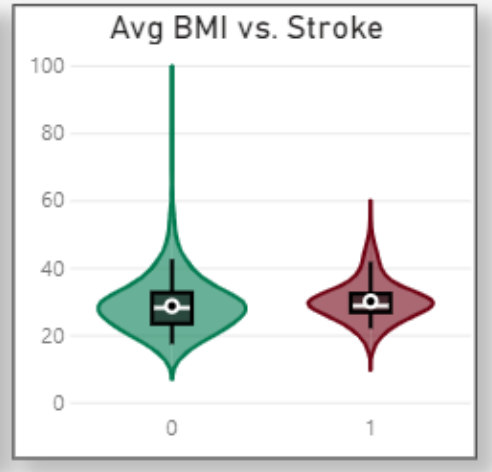
Heart Disease

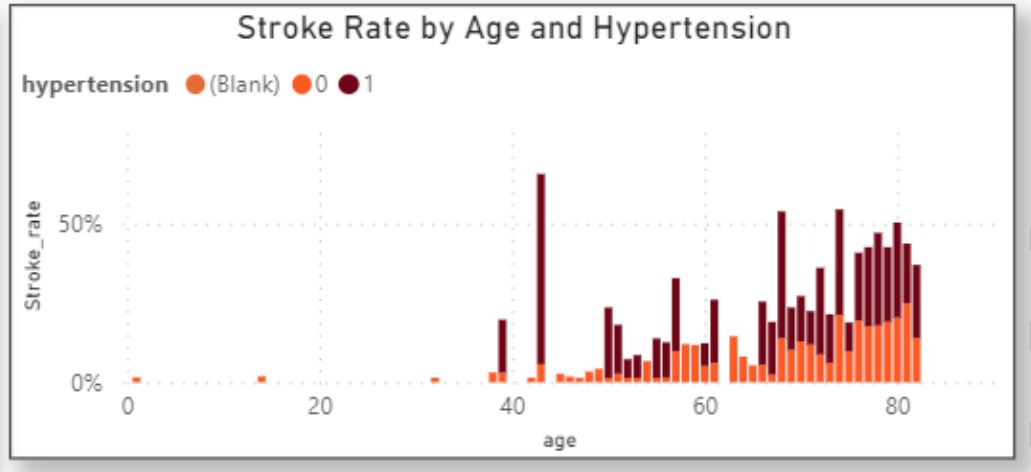
(Blank)	0	1

Hypertension

(Blank)	0	1







BMI

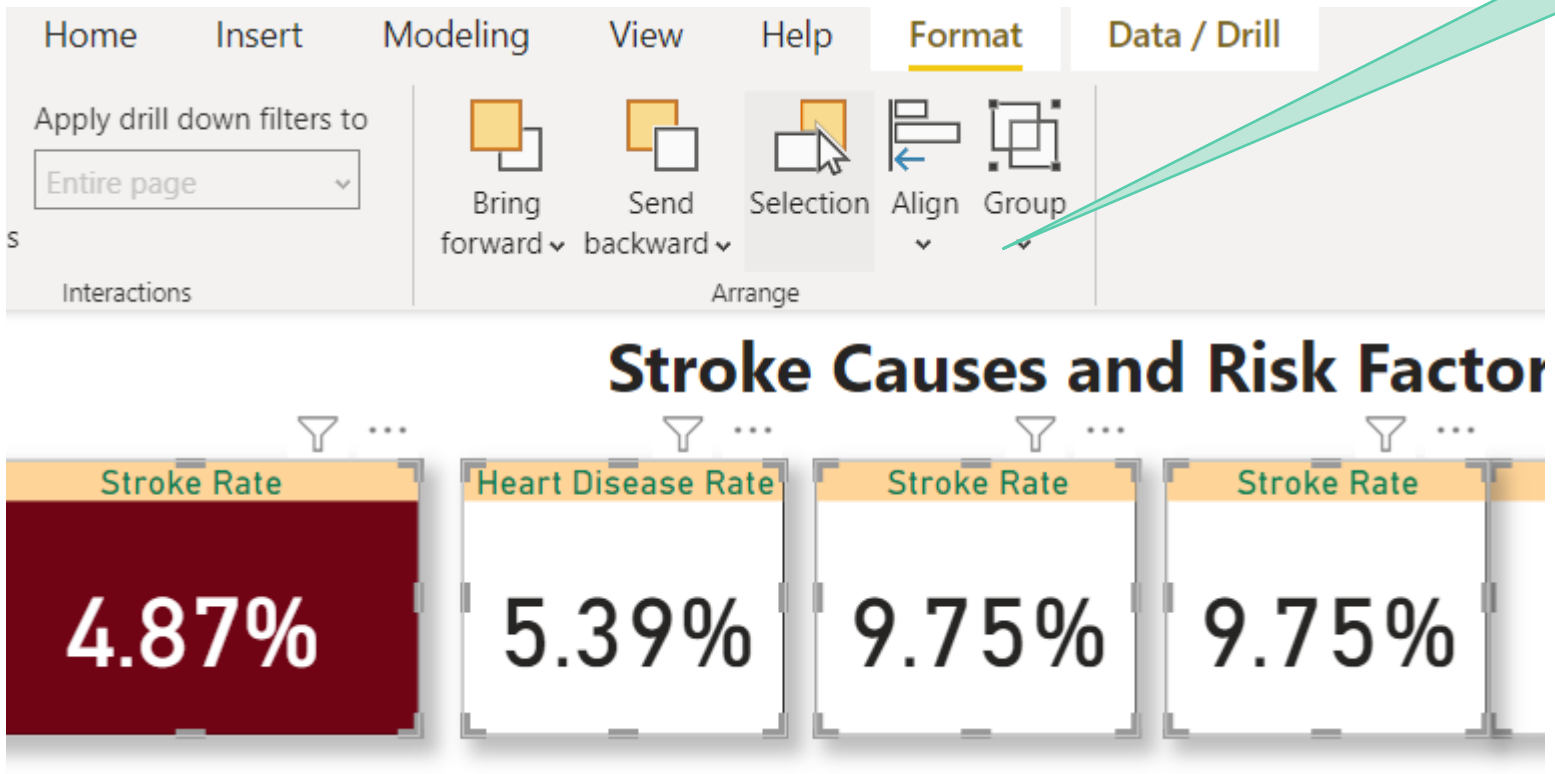
10.30	97.60

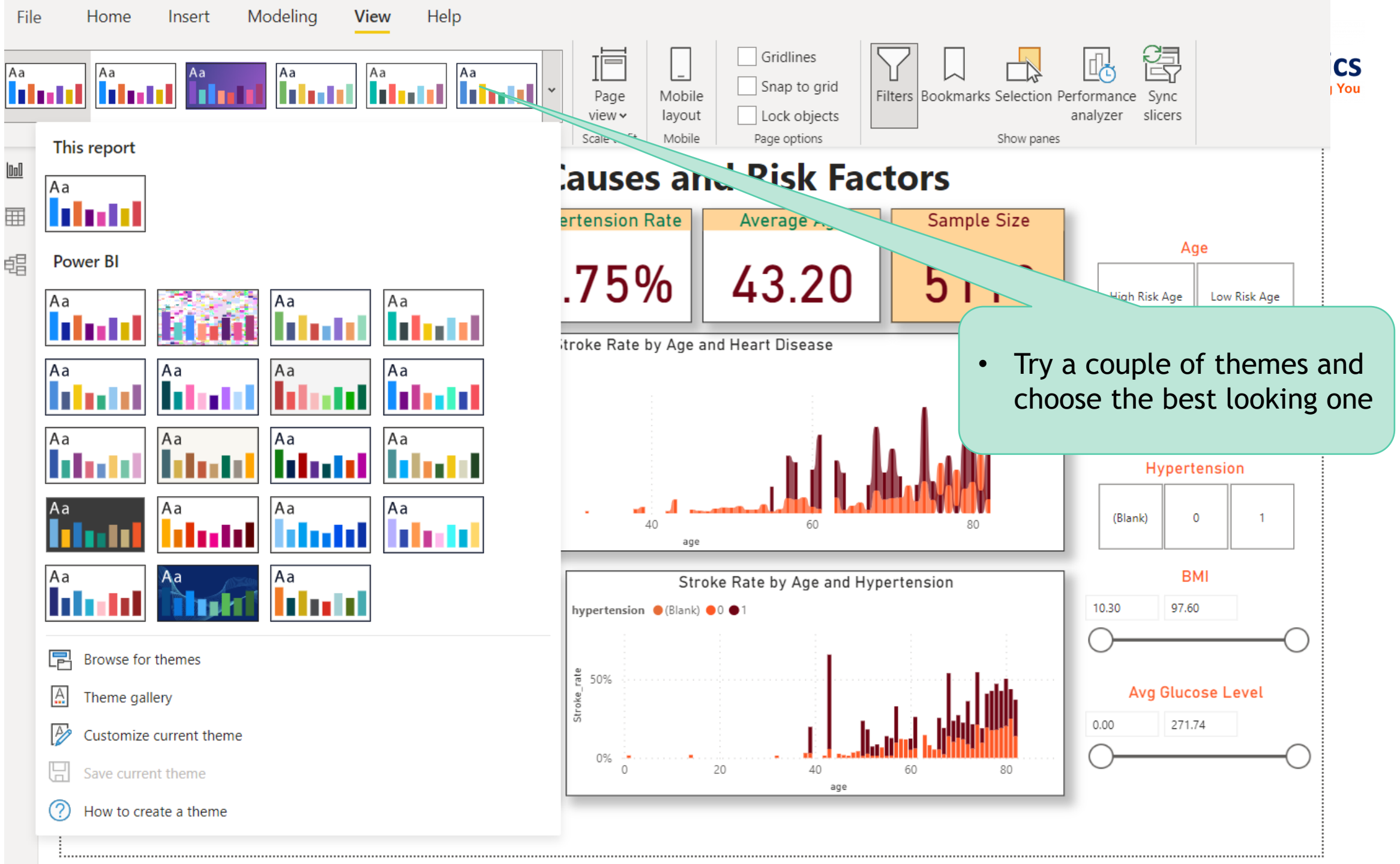
Avg Glucose Level

0.00	271.74

Alignment

PPT Like Alignment

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View
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Mobile layout
Gridlines
Snap to grid
Lock objects
Filters
Bookmarks
Selection
Performance analyzer
Sync slicers
Page options
Show panes
This report
Power BI
Browse for themes
Theme gallery
Customize current theme
Save current theme
How to create a theme
Causes and Risk Factors
Sample Size
Stroke Rate by Age and Heart Disease
age
Stroke Rate by Age and Hypertension
hypertension (Blank) 0 1
Stroke_rate
50%
0%
Age
High Risk Age
Low Risk Age
Hypertension
(Blank)
0
1
BMI
10.30
97.60
Avg Glucose Level
0.00
271.74
• Try a couple of themes and choose the best looking one

Insights

- Dashboard is ready, its time to display the interesting patterns and find the major risk factors that cause stroke.
- Lets try to play with filters and find the segments with very high percentage of stroke.

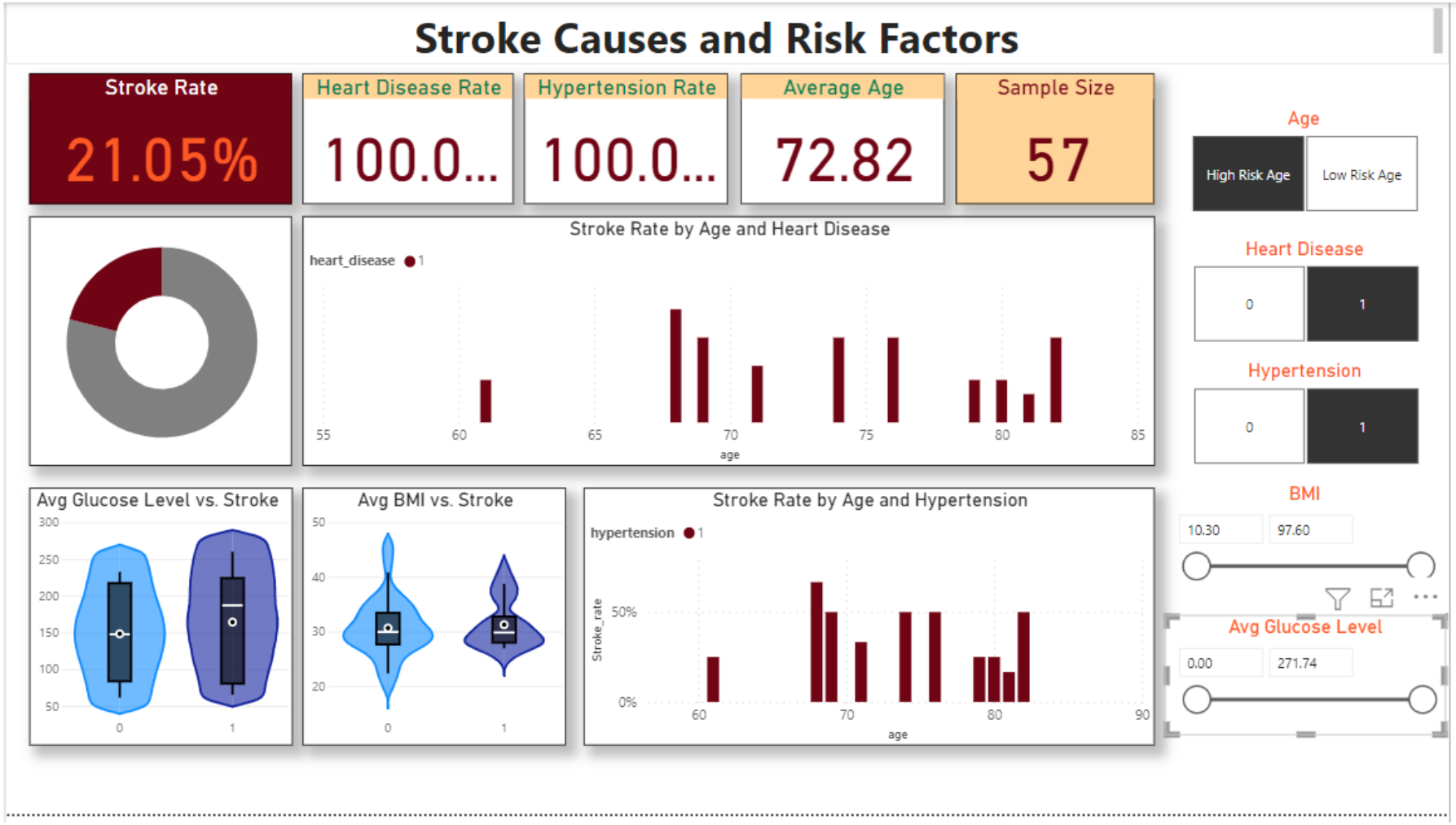
Stroke Case study

Step 8 –Insights Presentation

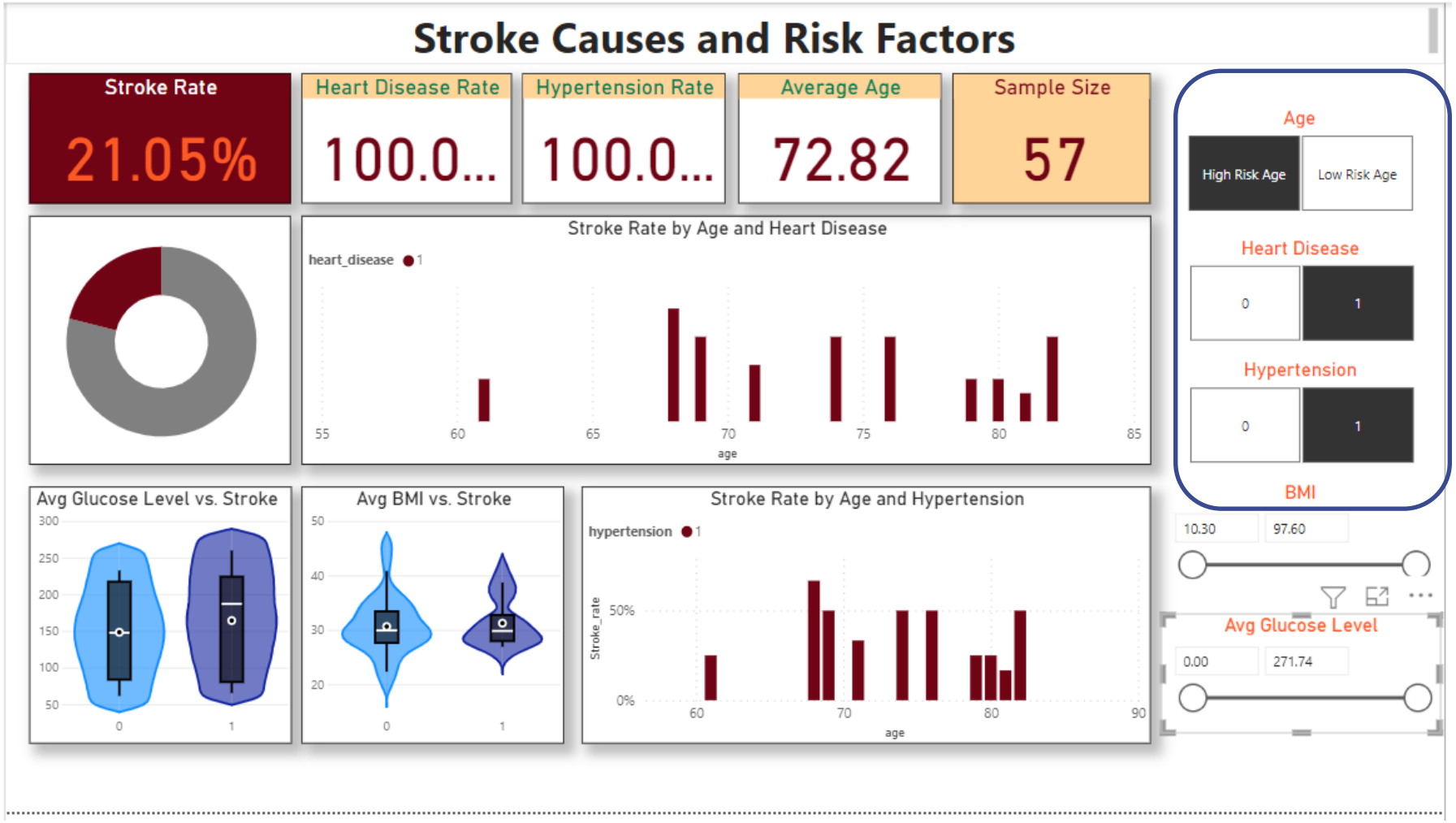
Concluding Remarks.

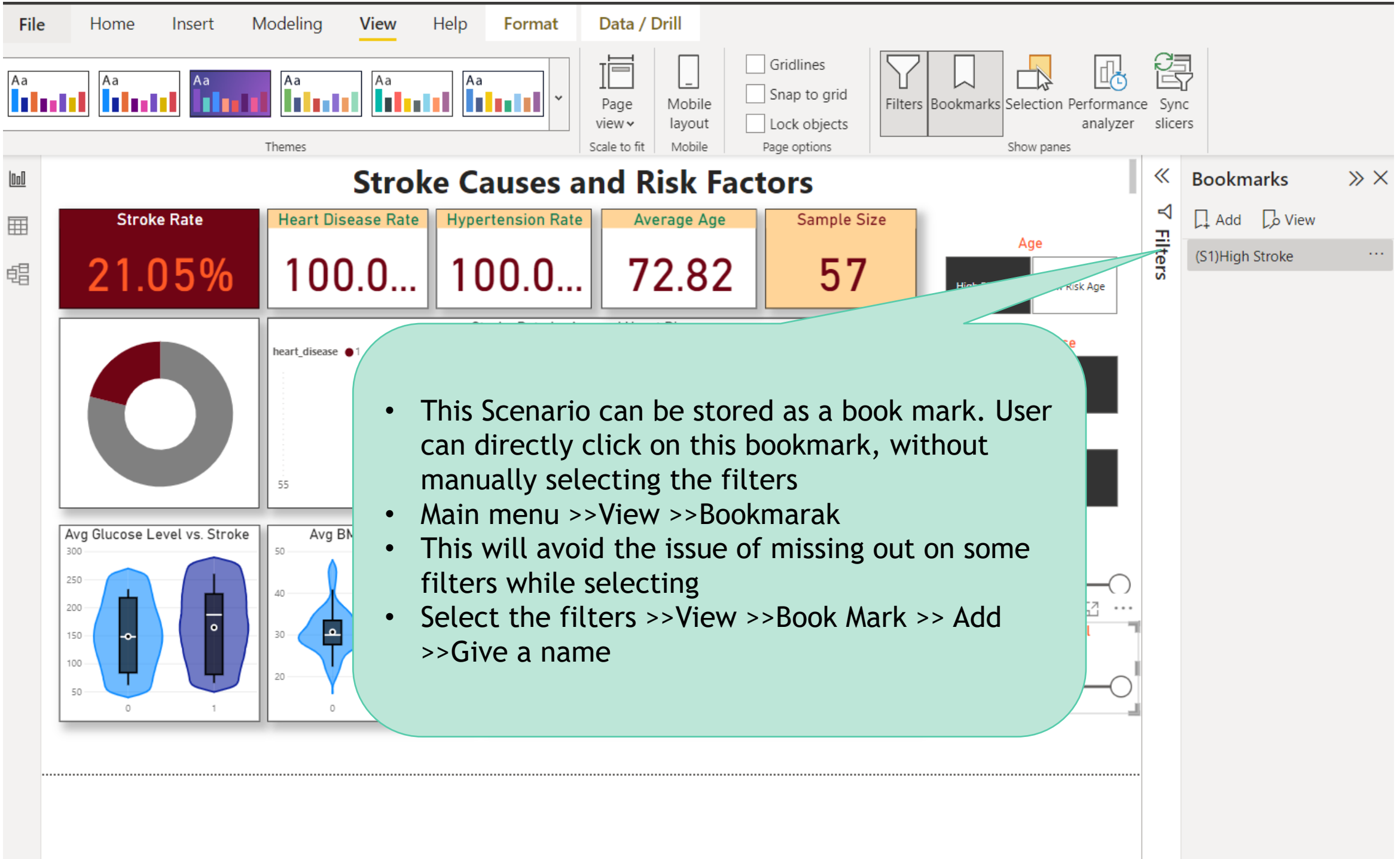
- What cases Stroke ?
- What are the main driving factors?

Scenario-1: High Stroke probability – Almost one out of five



Scenario-1: High Stroke probability – Almost one out of five

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Format
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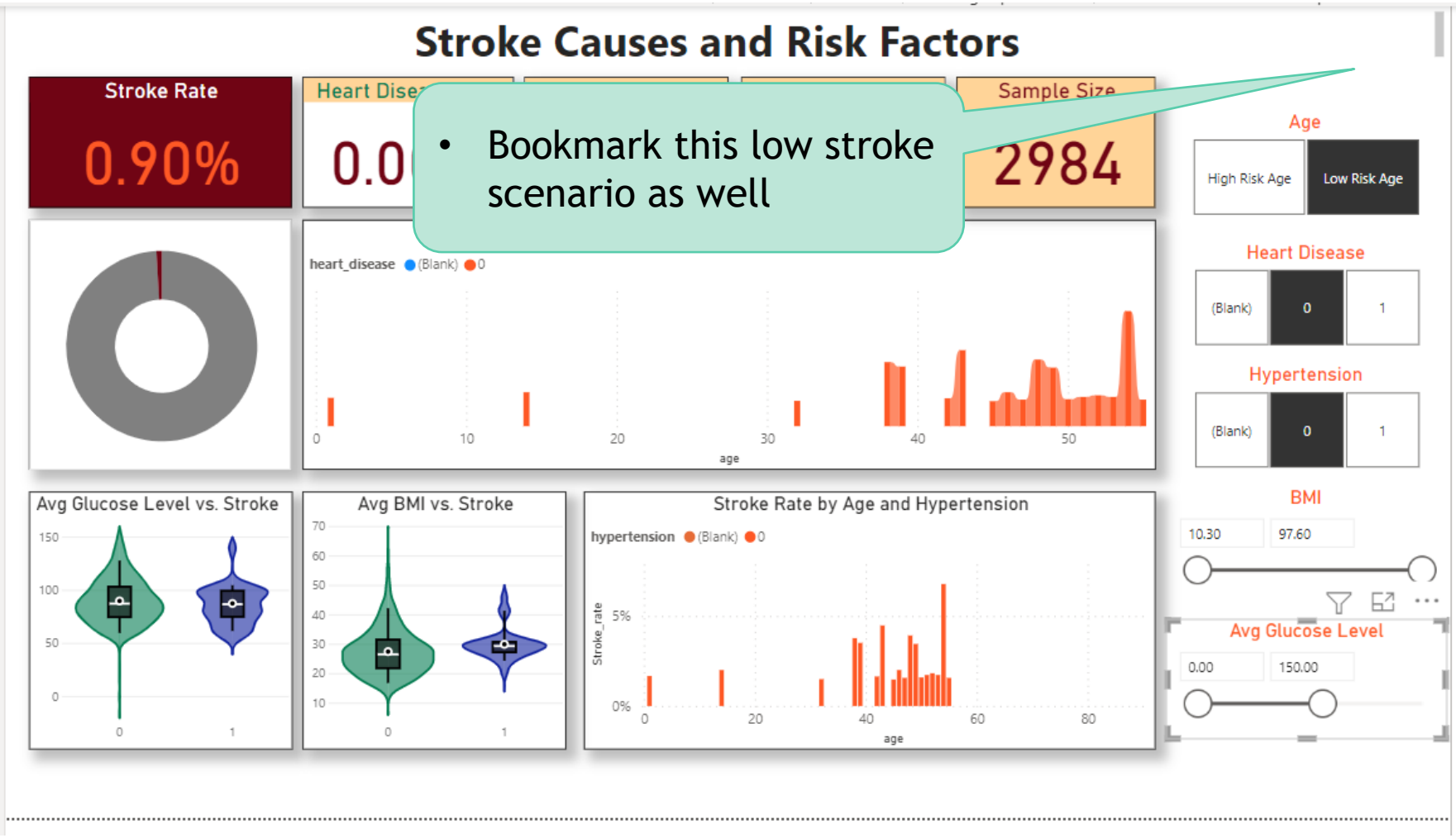
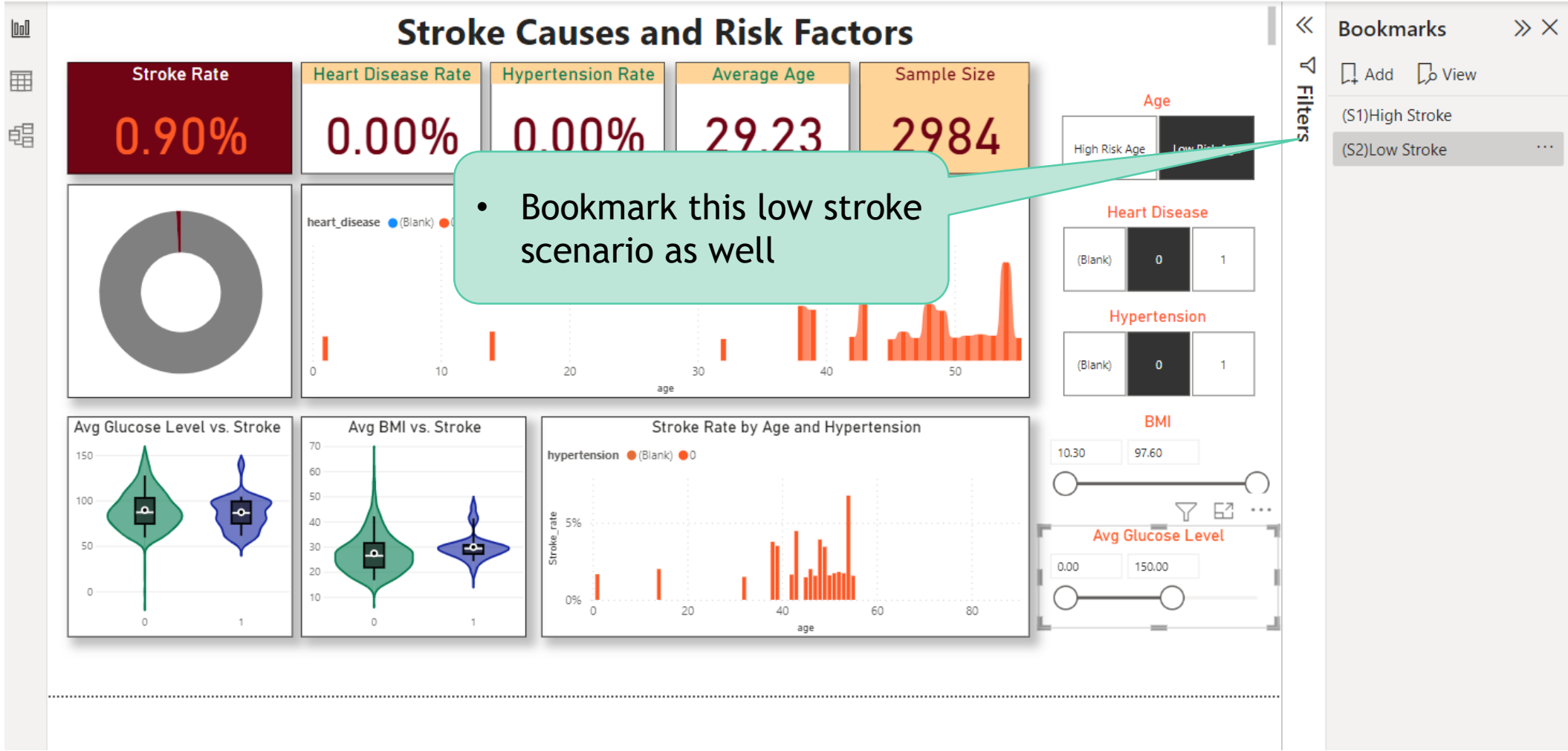
Themes
Page view
Scale to fit
Mobile layout
Mobile
Gridlines
Snap to grid
Lock objects
Page options
Filters
Bookmarks
Selection
Performance analyzer
Sync slicers
Show panes
Stroke Causes and Risk Factors
Stroke Rate
21.05%
Heart Disease Rate
100.0...
Hypertension Rate
100.0...
Average Age
72.82
Sample Size
57
Age
Risk Age
heart_disease
1
55
Avg Glucose Level vs. Stroke
300
250
200
150
100
50
0
1
Avg BM
50
40
30
20
0
Bookmarks
Add
View
(S1)High Stroke
Filters
• This Scenario can be stored as a book mark. User can directly click on this bookmark, without manually selecting the filters
• Main menu >>View >>Bookmarak
• This will avoid the issue of missing out on some filters while selecting
• Select the filters >>View >>Book Mark >> Add >>Give a name

Scenario-2: Low Stroke probability – Only one out of hundred



Scenario-2: Low Stroke probability – Only one out of hundred



Dashboard is ready to share

- We are done with the analysis
- Its time to share our dashboard with the clients.
- They may want to play around with these filters and find a couple of more insights.
- For example what is the average age of the patients who got affected with stroke?
- What is the impact of BMI on stroke
- Lets upload this dashboard onto server

Next Step

Step 9 – Sharing the insights with the stake holders