

## ADVANCED DATA VISUALIZATION EXPERIMENT 3

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BATCH: L

AIM:

Design Interactive Dashboard and storytelling using Power BI /Python Write observations for each chart.

DESCRIPTION WITH OUTPUT:

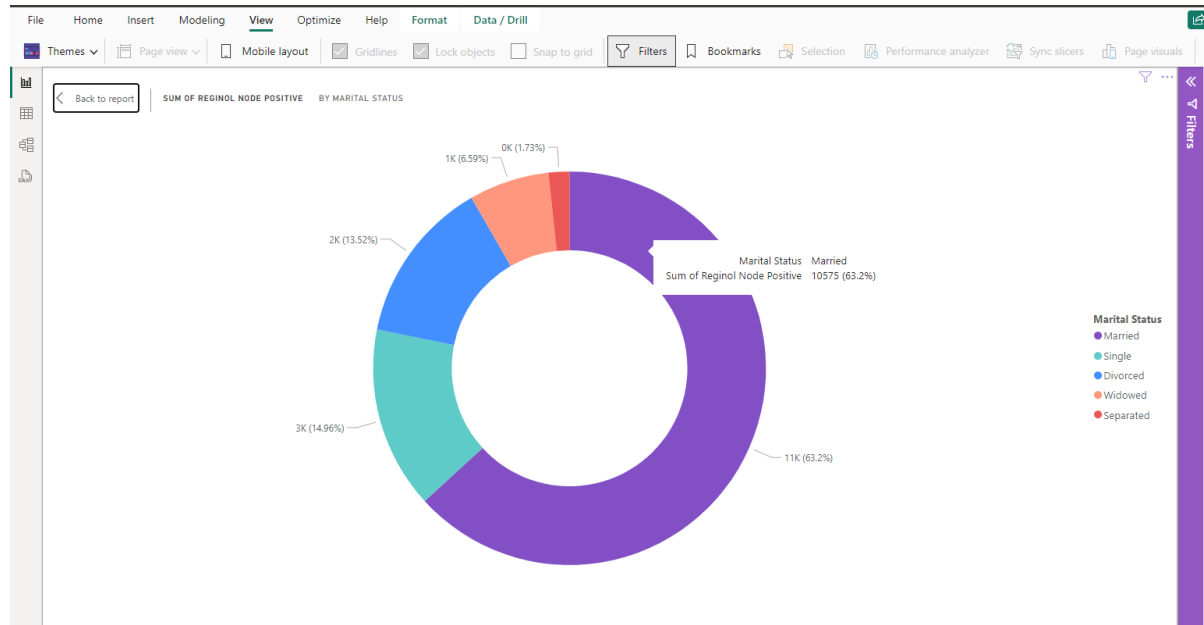
I have taken a Breast Cancer dataset with data for stage of cancer, the hormone levels, and information about the type of women it is affecting more.



DASHBOARD

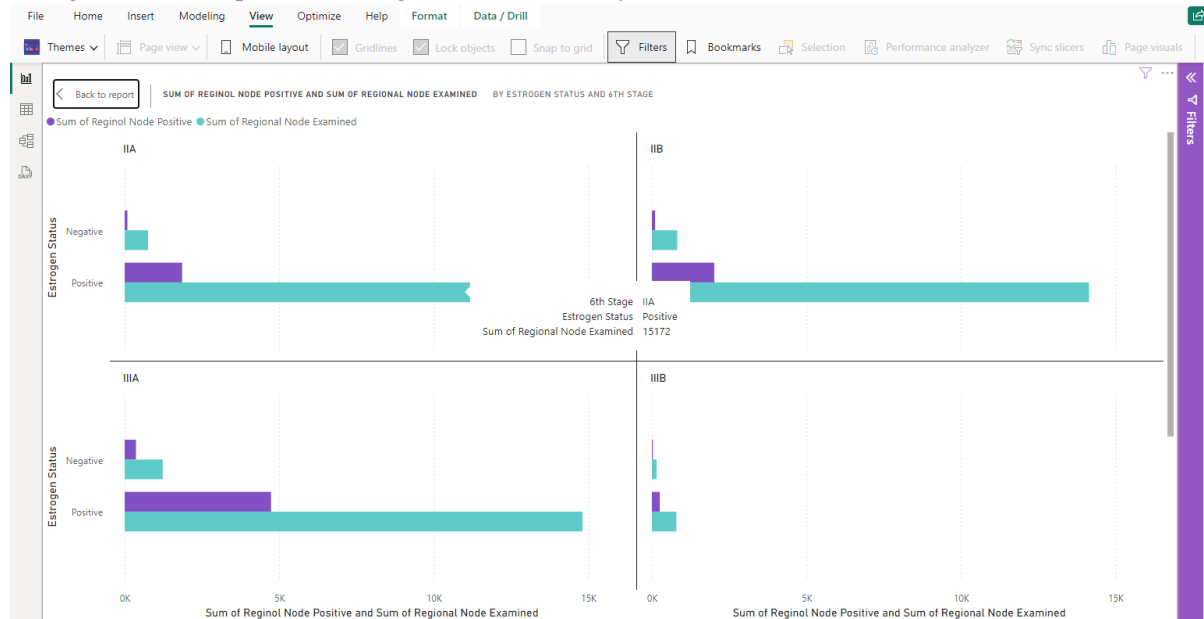
1. The first graph is a pie chart showing the count of regional node positives based on the marital status of women. It is seen that married women have the highest count of having

breast cancer which may need further analysis by studying the difference in hormones for married and single women.



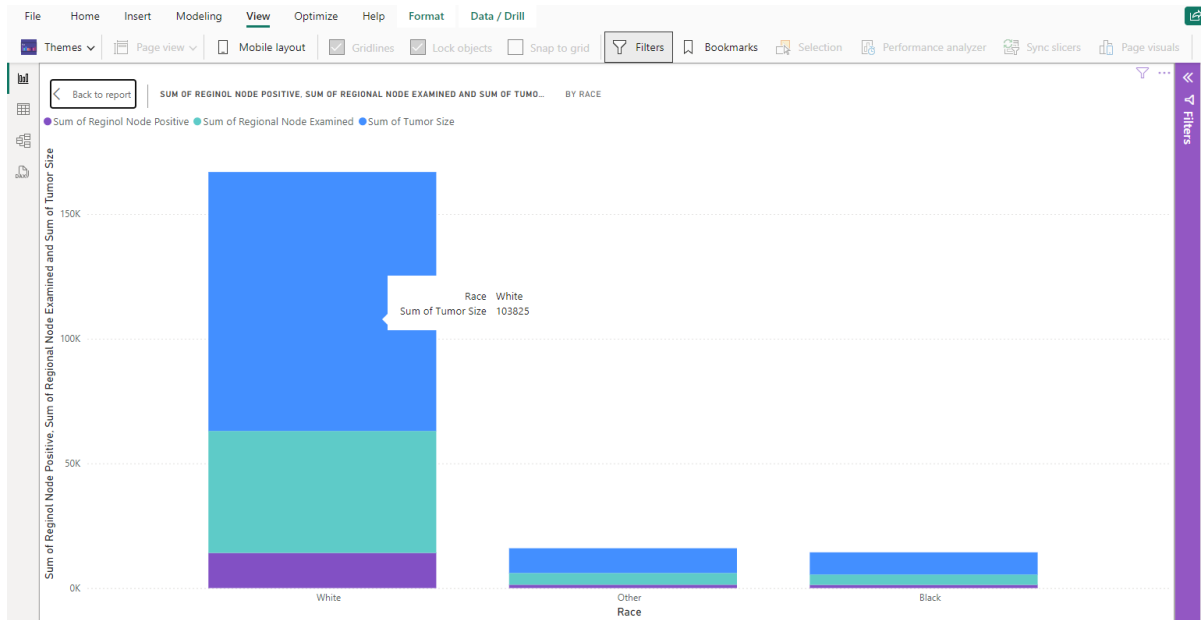
63.2% of the total women having high node levels were found to be married.

- The following stacked bar graph is grouped based on the stages of cancer . They show if the estrogen levels are positive or negative and how they relate to the node levels.



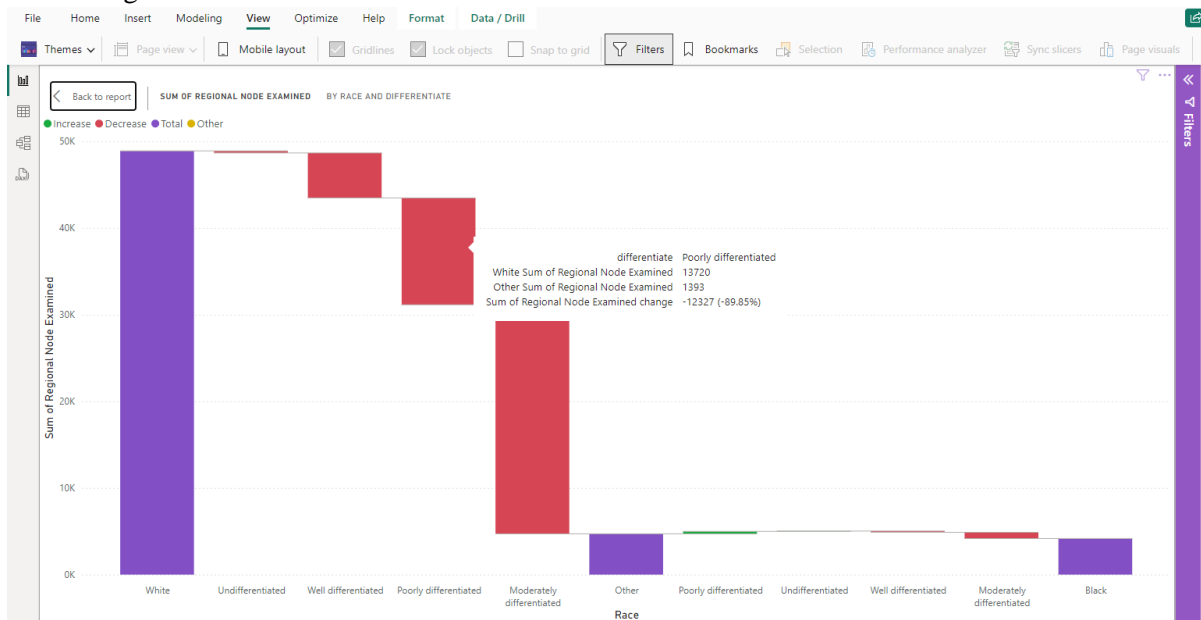
So most women have lower stage cancer. We can see that 15172 women were examined for the node levels as seen in green, and only 1680 of them had positive node levels suggesting cancer. We can see that women with higher estrogen are more prone to breast cancer.

- This graph shows a race wise segregation of women and showcases the tumor size and hormone levels.



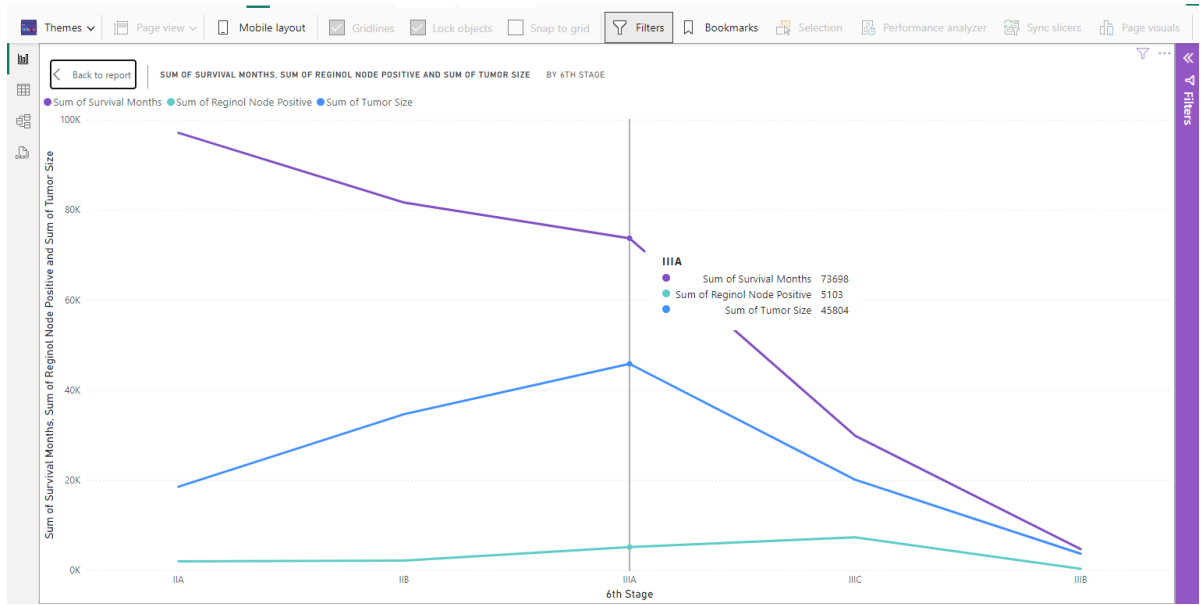
White people are the most prone to breast cancer and have recorded the highest tumor sizes. This can be studied further to find why.

- This chart can be used to analyze how race and differentiation levels are associated with the sum of regional nodes examined, helping to identify trends or disparities in data related to breast cancer stages.



The largest bar, in purple, corresponds to the "White" category with a significant positive contribution. Differentiation categories show red bars, representing a negative contribution or a reduction.

- This line graph shows the sum of survival months, sum of regional node positive, and sum of tumor size across different stages (IIA, IIB, IIIA, IIIC, IIIB).



The observation is that survival months tend to decrease as the stages progress, with a noticeable drop at stage IIIB.

- The table shows the count of people having positive and negative progesterone levels grouped by the stages of cancer.

6th Stage	Negative	Positive	Total
IIA	837	17664	18501
IIB	2020	32597	34617
IIIA	3244	42560	45804
IIIB	718	2921	3639
IIIC	2643	17422	20065
<b>Total</b>	<b>9462</b>	<b>113164</b>	<b>122626</b>

So we can conclude that women having positive progesterone levels are more prone to breast cancer especially IIB stage and should take more preventive care.

- The below funnel graph shows that out of all races, white women have examined themselves most for breast cancer check up and we can conclude that they have better access to healthcare.

