

ANALYZING CANCER DATA USING POWER BI - JASMINE

Requirement 1: Analyse the prevalence of gene mutations in cancer patients by age group in the UK

Gene mutations in cancer patients exhibit varied prevalence across varied age groups in the UK due to distinct genetic susceptibilities and cumulative environmental exposures. To analyze the current scenario, I have written DAX queries for calculating Gene mutation count and Gene Prevalence Status based on the varied age groups. The below insight will show the prevalence of gene mutations based on age -groups.

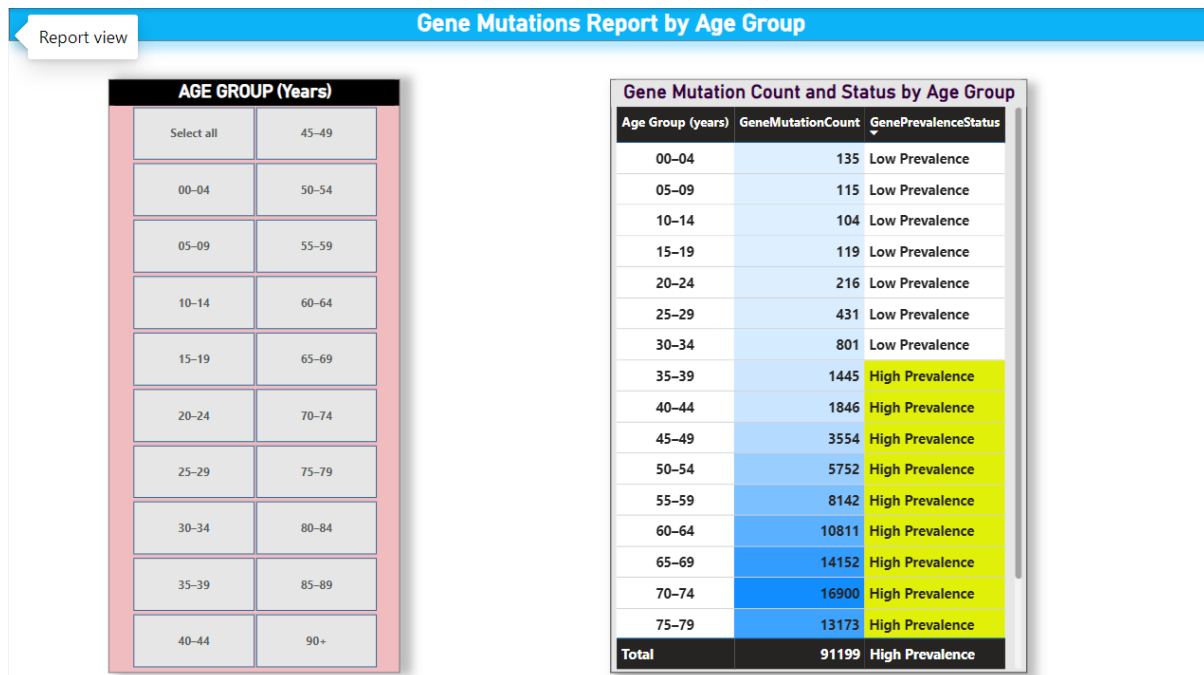


Fig. 1

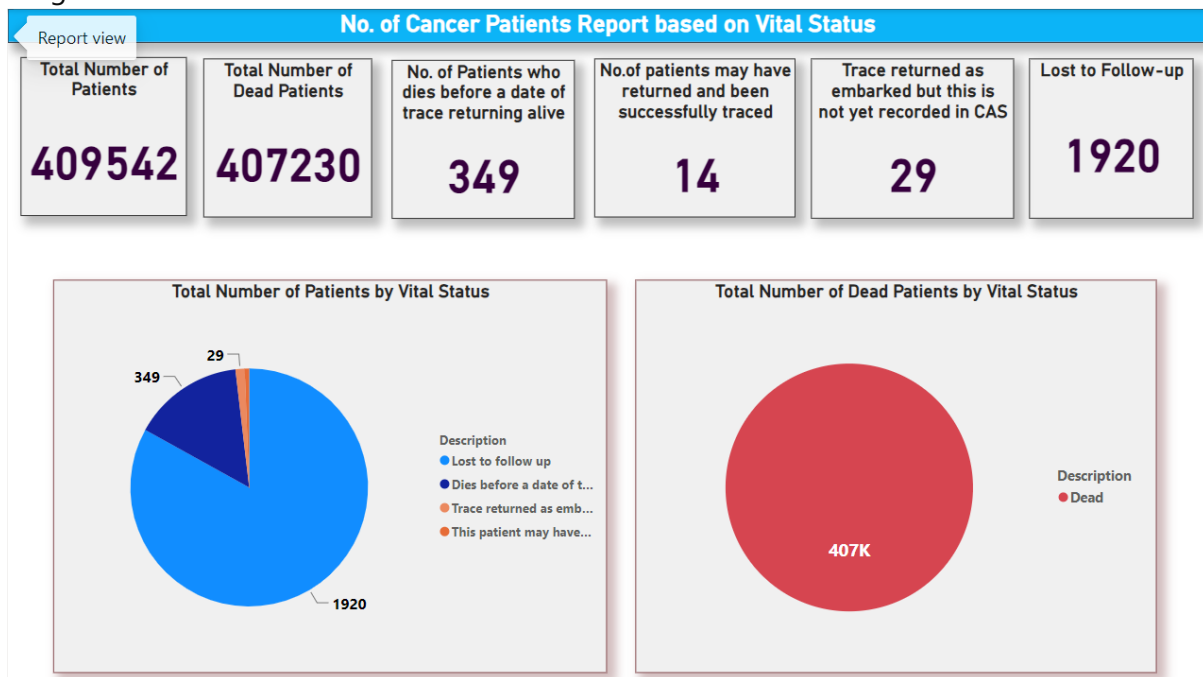
Requirement 2: Analyse the Number of Cancer patients by vital status from 2016 to 2019 for the UK

As per the requirement, an analysis of the count or distribution of cancer patients in the UK over the years 2016 to 2019 needs to be conducted. The patients must be categorized based on their vital status, i.e., dead or alive during that time frame, to examine and compare the number of cancer patients in the UK over this period.

To fulfil this requirement, I plotted a Pie chart and calculated the DAX queries for dead patients. However, I couldn't acquire the data for alive patients from 2016 to 2019. Therefore, instead of displaying the dead and alive patient data, I analysed and compared the count or distribution of cancer patients across five categories over the years 2016 to 2019.

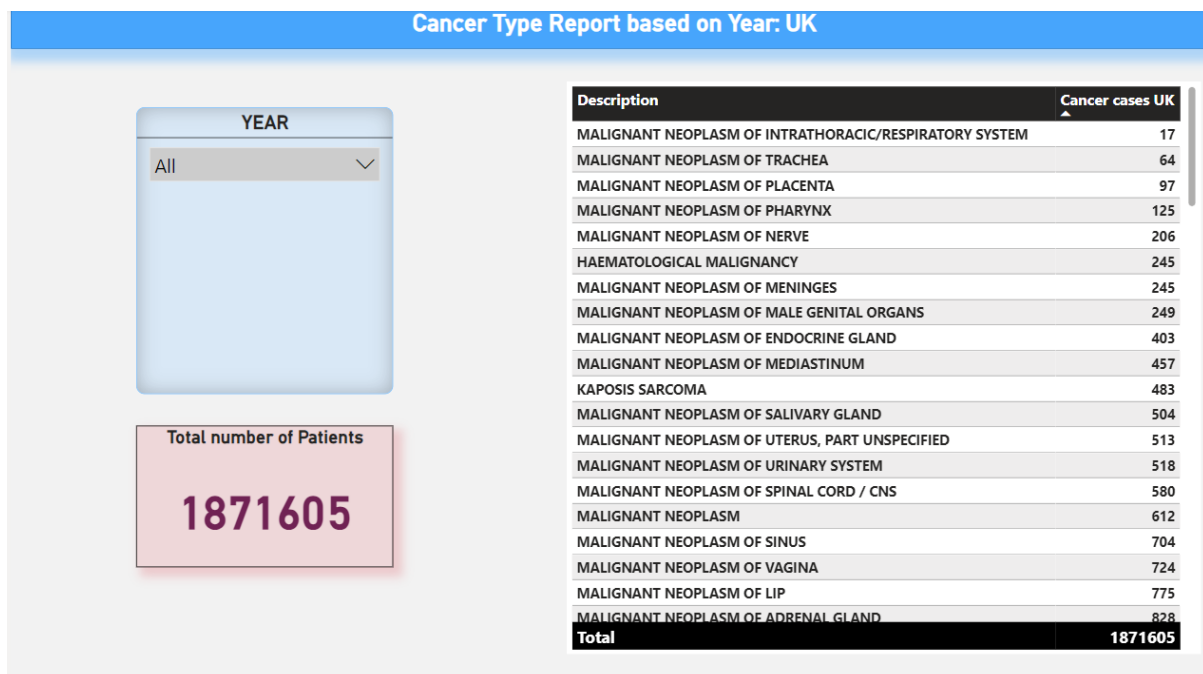
For instance, I considered data on cancer patients categorized by stages, types of treatment received, age groups, or other relevant factors. I counted the number of patients available for each category for which the data is present and plotted the pie chart, as shown in the below

insight.



Requirement 3: Analyze the number of patients for each cancer type, and add year as a filter in UK

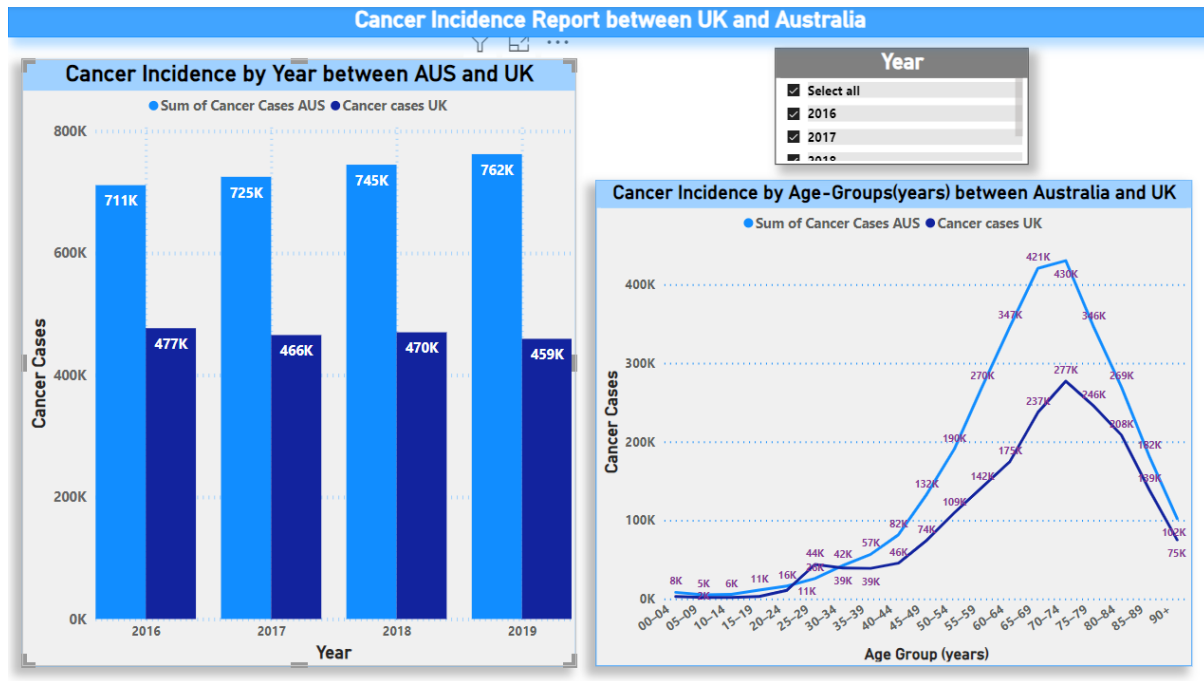
I analyzed the number of patients for each type of cancer and wrote a DAX query for Cancer Cases UK. Based on the cancer types, I gained the following insight. Additionally, I provided a year slicer that allows the user to select the year for which they want to view the data for the cancer types.



Requirement 4: Analyze and compare cancer incidence by year and age group between AUS and the UK

Cancer incidence rates between Australia (AUS) and the United Kingdom (UK) vary due to

factors like demographic differences, healthcare systems, and lifestyle factors. While both countries have seen an increase in cancer diagnoses over time, differences in age-specific rates and prevalent cancer types contribute to variations in overall incidence patterns. Comparing yearly trends and age-specific data aids in understanding these disparities and guiding targeted interventions for each population. Below is the insight to show this:



Requirement 5: Visualize the proportion of all ethnic groups among non-British male patients.

Visualizing the proportion of ethnic groups among non-British male patients involves creating a pie chart or bar graph that illustrates the percentage breakdown of various ethnicities within this specific patient group. This visual representation highlights the diversity of ethnic backgrounds among non-British male patients, aiding in understanding the distribution and representation of different ethnicities within this demographic subset, crucial for healthcare

planning and targeted interventions.

