

# **Analysis of Medical Insurance Expenses Using Demographic and Lifestyle Factors in Power BI**

**MUHAMMAD ANWAAR UR REHMAN**

**DATA SCIENCE**

**1338**

Count of age

**17.76M**

Sum of expenses

**13.27K**

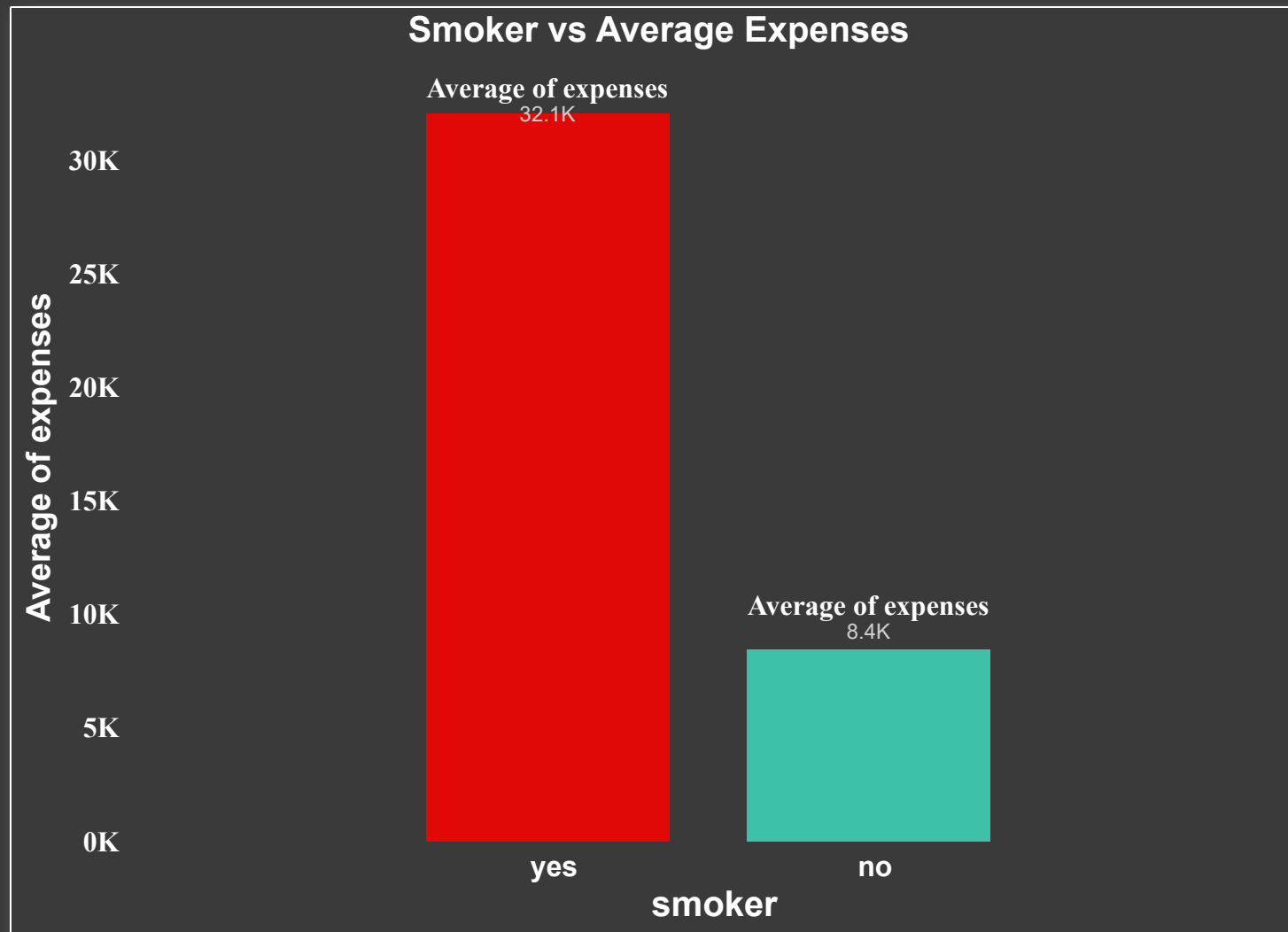
Average of expenses

**63.77K**

Max of expenses

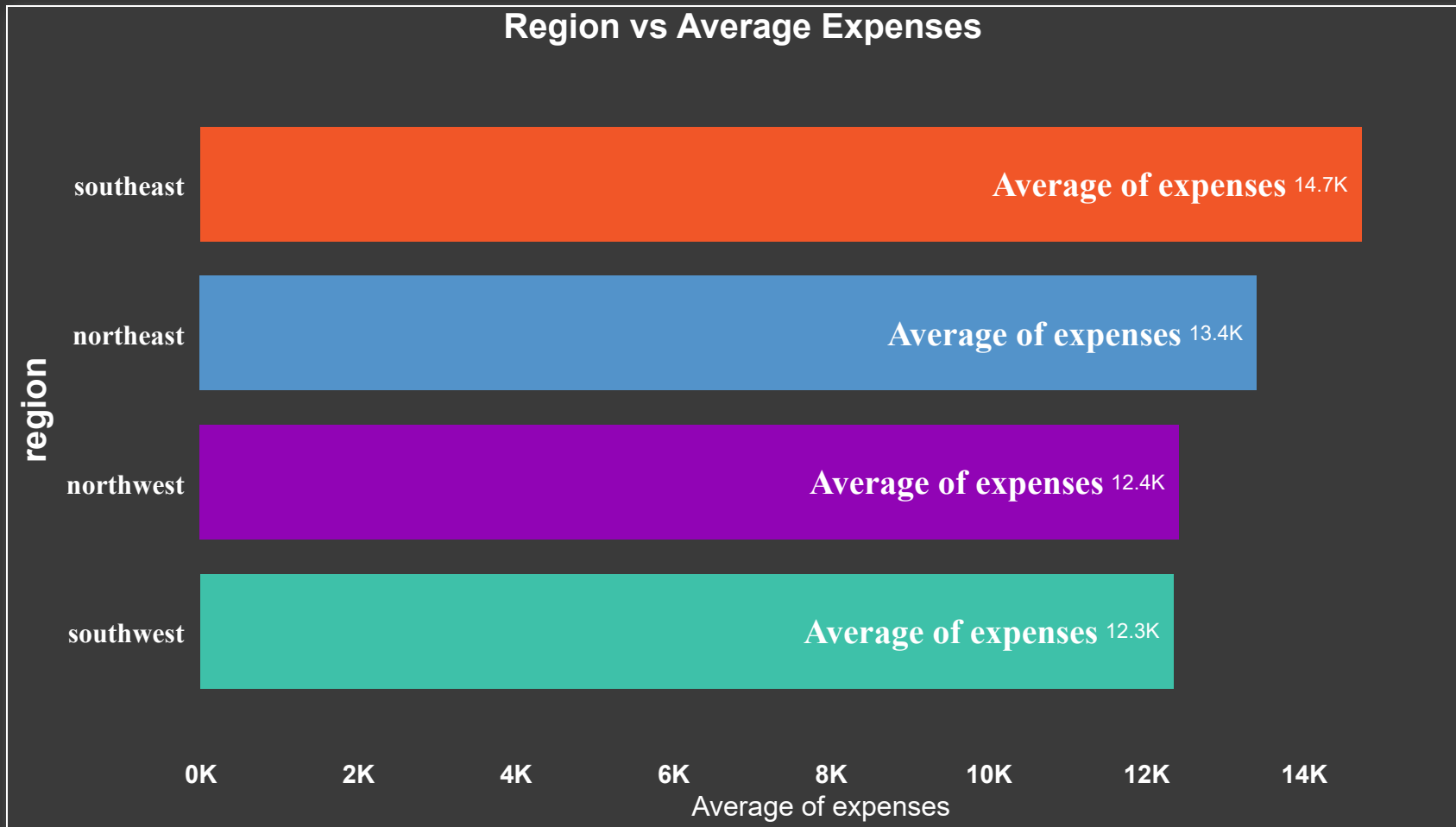
## SUMMARY

The dataset contains 1,338 policyholders with total medical expenses of 17.76 million, an average cost of 13.17 thousand per individual and a maximum recorded expense of 63.77 thousand.



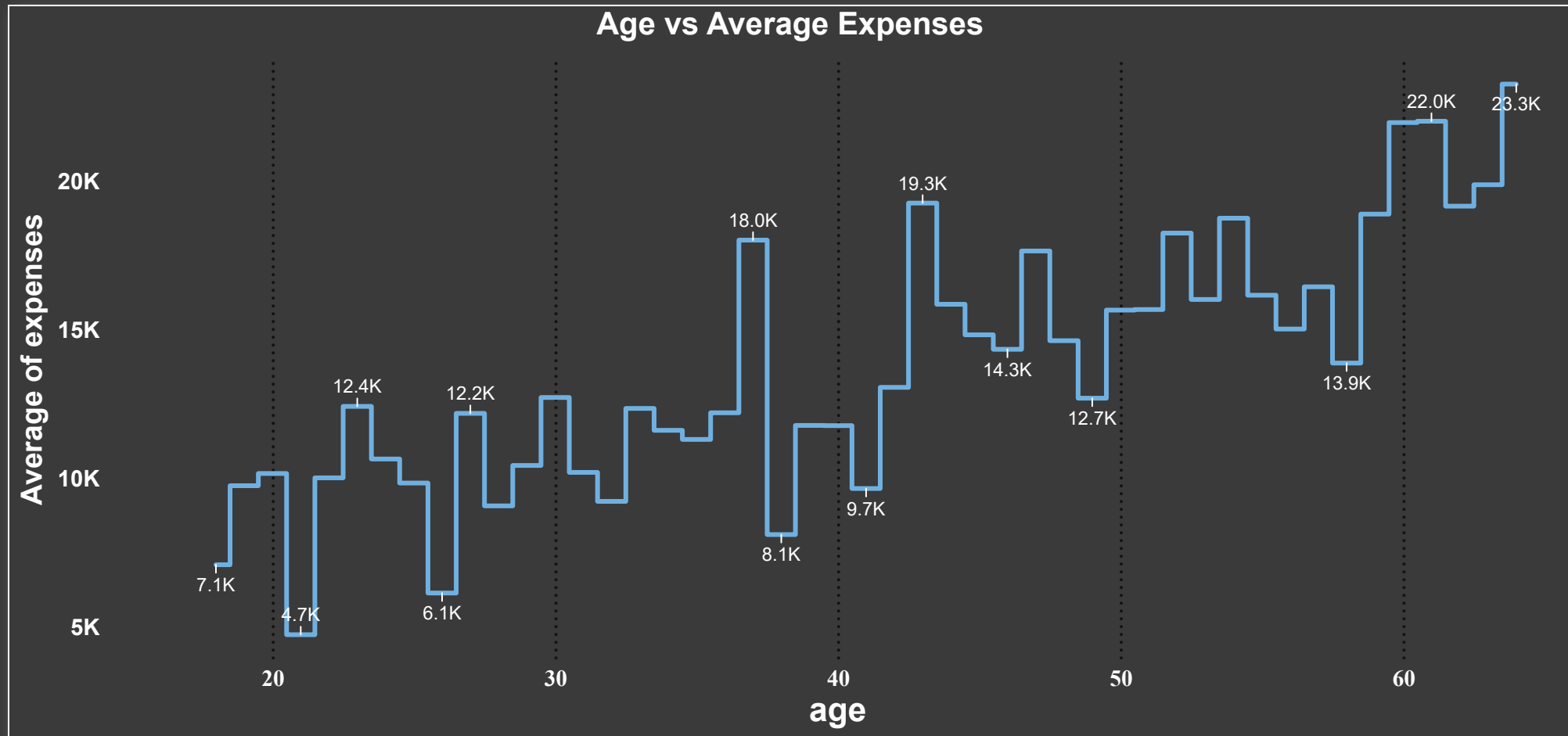
## SUMMARY

Smokers have significantly higher medical expenses compared to non-smokers, indicating smoking as a major risk factor.



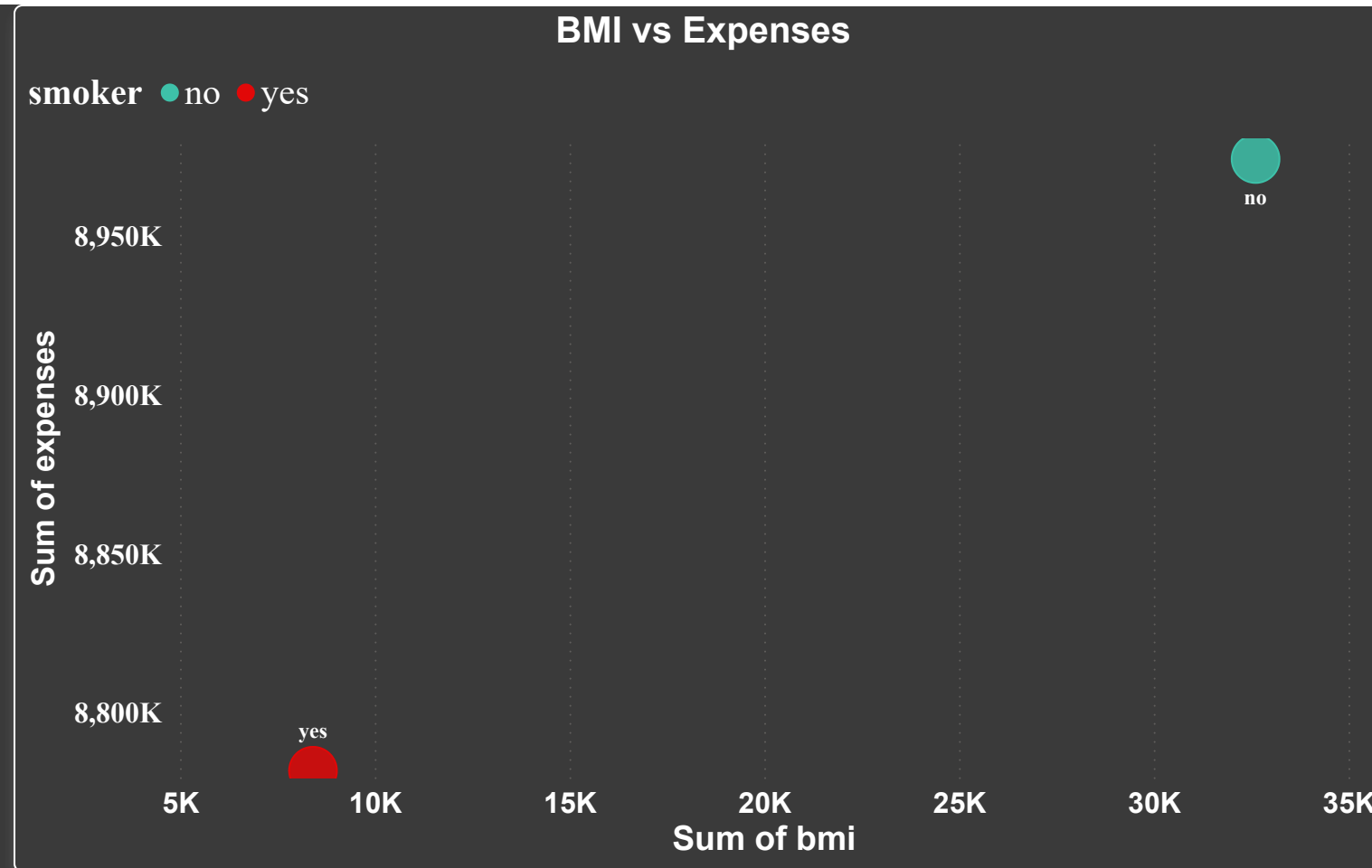
## SUMMARY

Medical expenses vary across regions, showing geographical differences in healthcare costs.



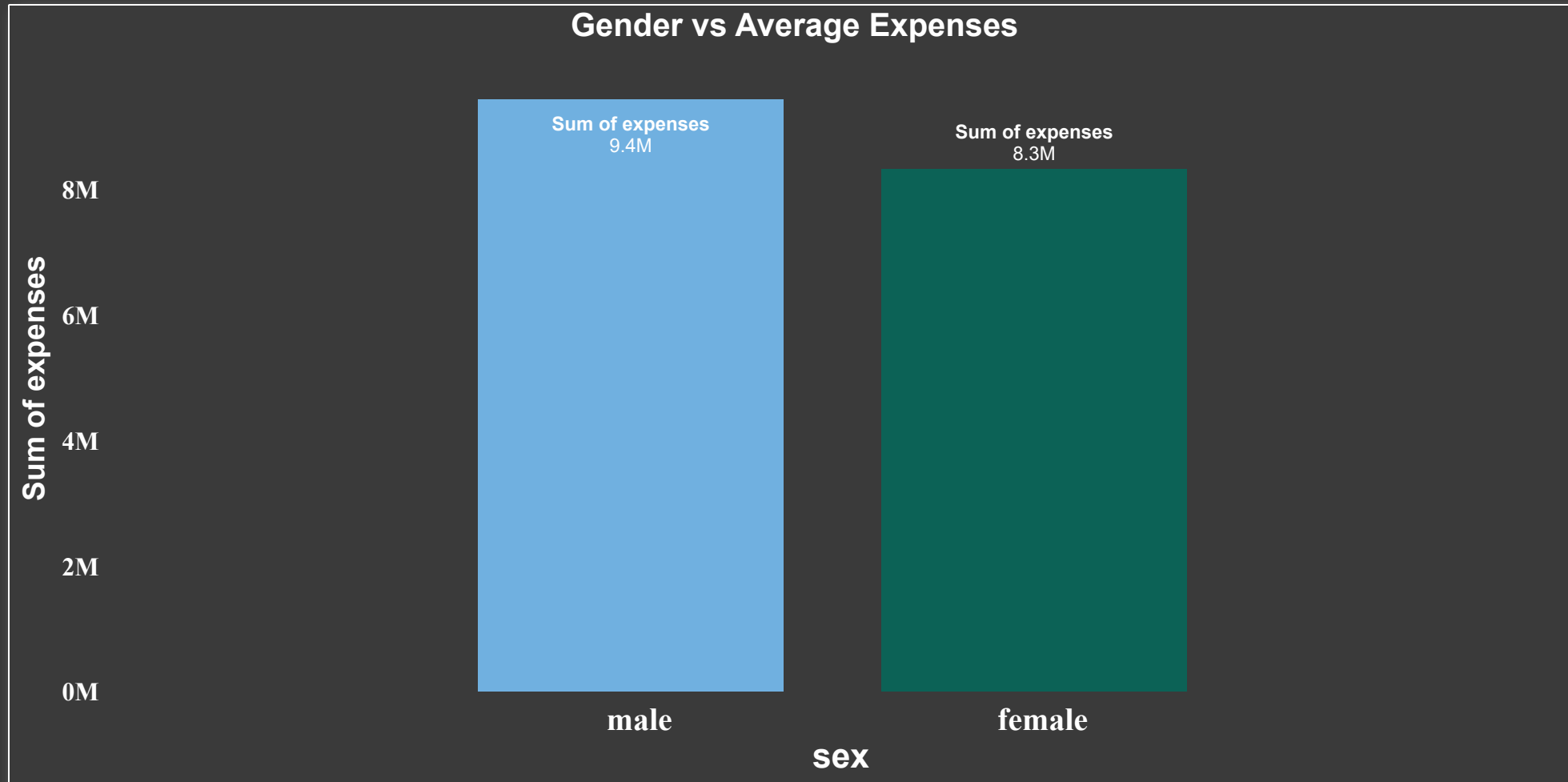
## SUMMARY

Medical expenses increase with age, indicating higher healthcare needs among older individuals.



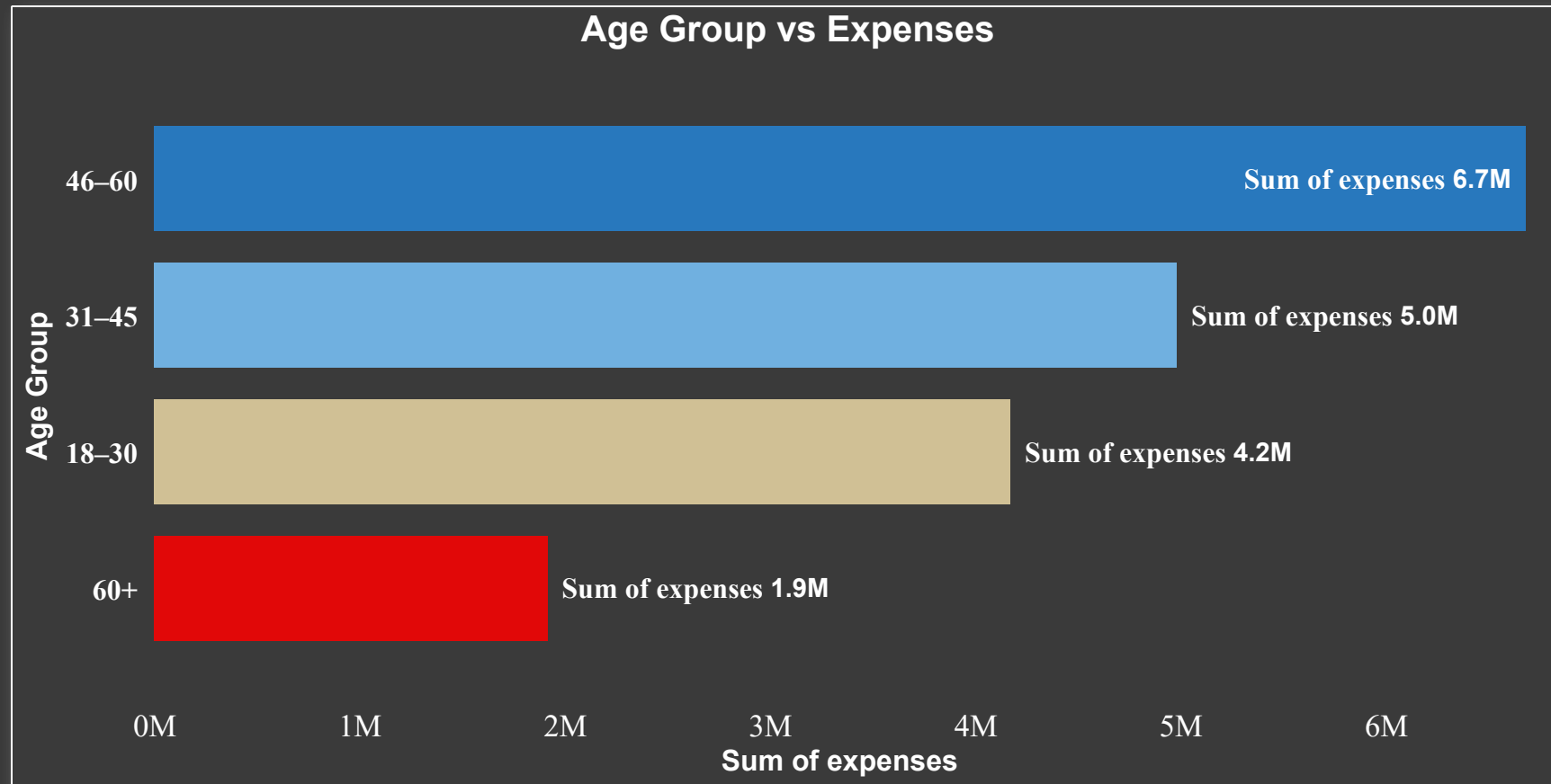
## SUMMARY

Individuals with higher BMI, especially smokers, tend to have increased medical expenses.



## SUMMARY

The difference in medical expenses between males and females is relatively small compared to lifestyle factors.



## SUMMARY

Older age groups show higher medical expenses, highlighting increased health risks with aging.



# Medical Insurance Expense Analysis Dashboard

## Interactive Healthcare Cost Intelligence System

region, sex, smoker, Age Group

northeast

northwest

southeast

southwest

1338

Count of age

17.76M

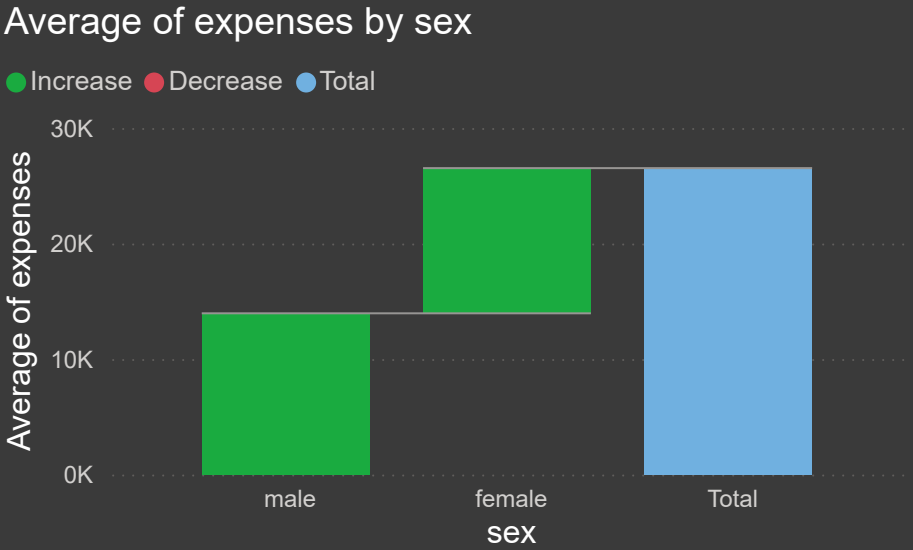
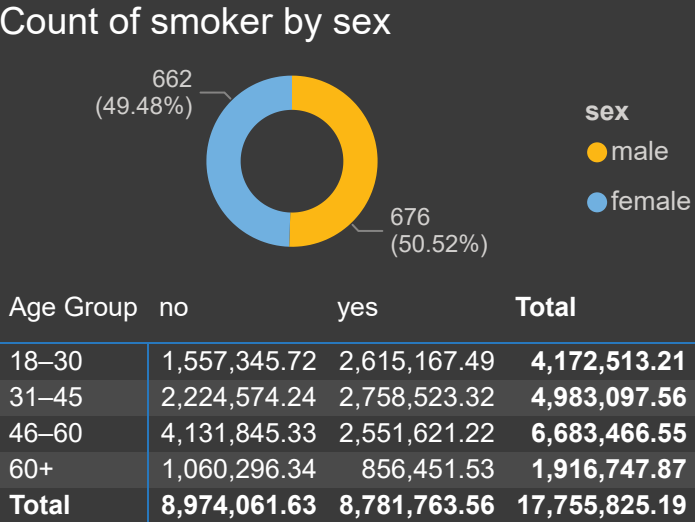
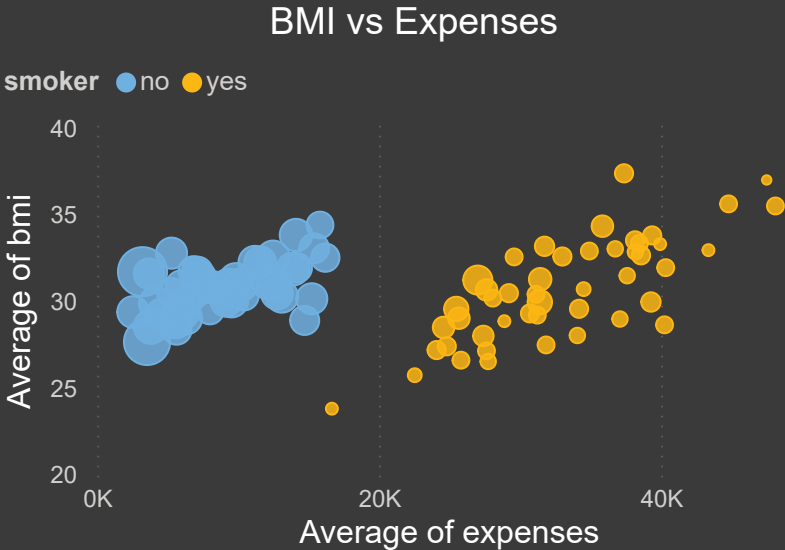
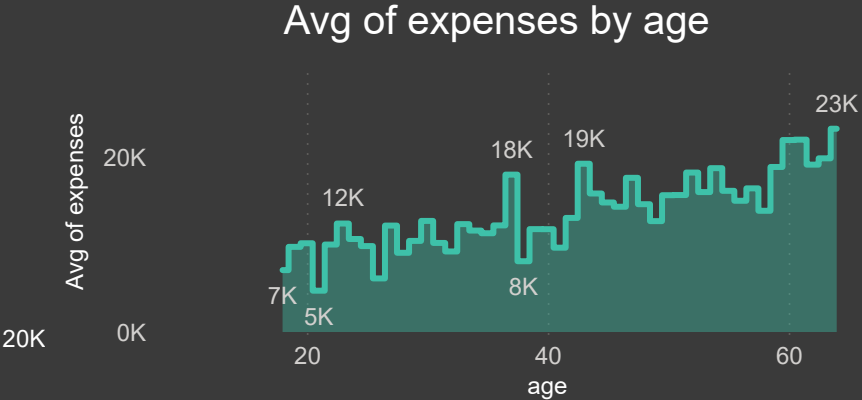
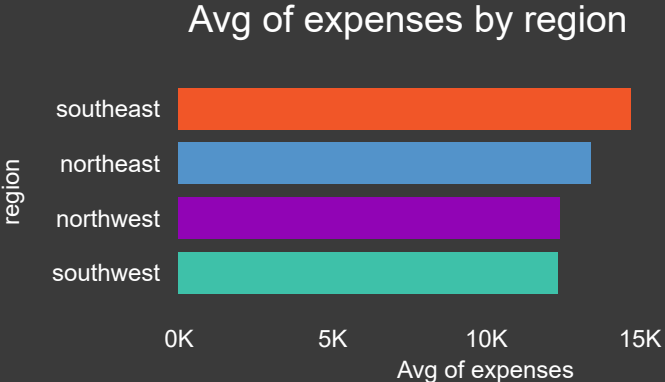
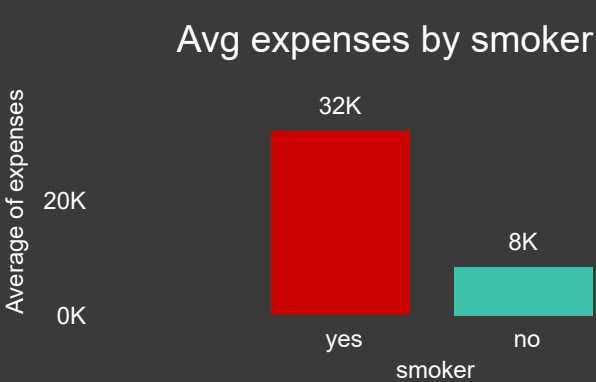
Sum of expenses

13.27K

Average of expenses

63.77K

Max of expenses



**The dashboard follows a multi-layer analytical architecture consisting of executive summary, risk analysis, and customer detail views. Advanced Power BI features were implemented to support interactive and data-driven healthcare decision making.**