

OUT OF POCKET HEALTH EXPENDITURE IN KARNATAKA

Introduction :

Healthcare expenditure results in better provision of health opportunities, strengthening human capital and improving productivity by contributing to economic performance and hence it is important to assess the health expenses in every country. Regardless of the major role or activity of the entity delivering or paying for the related health services, expenditures are defined in accordance with their primary or predominant objective of promoting health.

The primary goal of the analysis was to draw inferences on the non-communicable disease profile in Karnataka's healthcare system, including information on how these diseases are treated, the role of public and private facilities in delivering healthcare, and how much is spent on prescription drugs and doctor visits.

Objectives :

The objective of the study was to comprehend how the various income quintile groups were covering their overall out-of-pocket expenses as well as the relationship between wealth quintiles and reimbursement status. We also looked at the impact that various sociodemographic characteristics have on whether or not patients receive reimbursement. In order to determine whether spending in the rural and urban sectors was similar and whether private and public hospitals had different reimbursement and non-reimbursement rates, a comparison study was conducted. The main goals of the study were to determine whether medical prices for private and public hospitals are comparable and how the costs of the various medical expense components vary between private and public hospitals.

Methods :

Data and Variables :

The data used for this analysis is from the National Sample Survey Household Consumption Expenditure. Data was gathered in order to measure the population's exposure to some common non-communicable diseases. Data also includes the usage of both public and private health care, the cost incurred, various medication kinds regardless of how frequently they are used, the cost of treatment, and various ailments covered. This data has a focus on "out of pocket expenditure" as well as access to government-funded health insurance programmes.

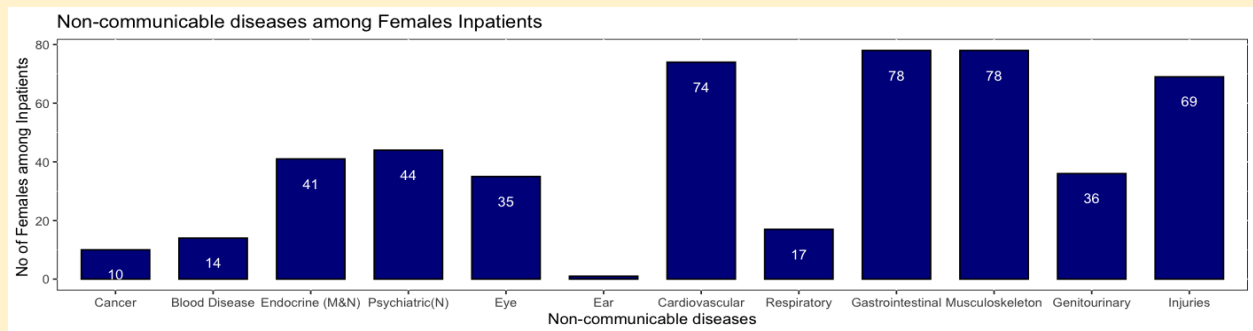
There were 91449 inpatients and 43219 outpatients in the study across India. Non-communicable diseases were diagnosed among 1.3% of inpatients and 1.5% of outpatients in Karnataka. Only 0.45% of the 666 outpatients received reimbursement, compared to 7.8% of the 1217 inpatients who received it.

To assess whether different socio-demographic factors are significant in determining whether a person should receive compensation or not, we conduct tests of associations. We performed the Chi square test to look for a correlation and based on the p value we conclude, while maintaining a significance level of 0.05. To determine whether the costs incurred in the private and public sectors differed from one another, a T-test was performed. To look for correlations between different wealth quintiles and the various factors influencing medical expenses, one way analysis of variance was used.

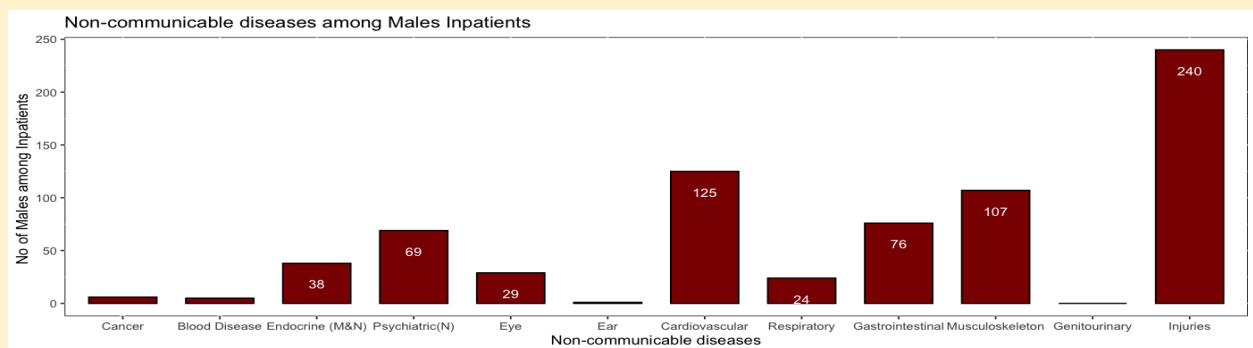
The last 365 days' value of medical expenses for inpatients include bed costs, doctor and surgeon fees, diagnostic tests, medications, and other medical costs such as attendant costs, physiotherapy, personal medical appliances, blood and oxygen cylinders. The medical costs for outpatients are the same as those for inpatients and include Ayush medicines, doctor and surgeon fees, additional medications, diagnostic tests, and other medical expenses. The total expense is made up of transportation costs, medical expenditures, and additional costs including registration fees, food, transportation for others, escort expenses, and lodging fees, if necessary.

Our study focused on non-communicable illnesses, such as cancer, blood disorders, endocrine, metabolic, nutritional, psychiatric, and neurological conditions. It also examines injuries and conditions of the eye, ear, cardiovascular, respiratory, gastrointestinal, musculoskeletal, and genitourinary systems among inpatients and outpatients. Diabetes, undernutrition, goiter, and other thyroid problems are among the endocrine, metabolic, and nutritional conditions (including obesity). Mental retardation and disorders, headaches, seizures, strokes, hemiplegia, and memory loss are all types of physiological and neurological ailments.

Graph 1 :



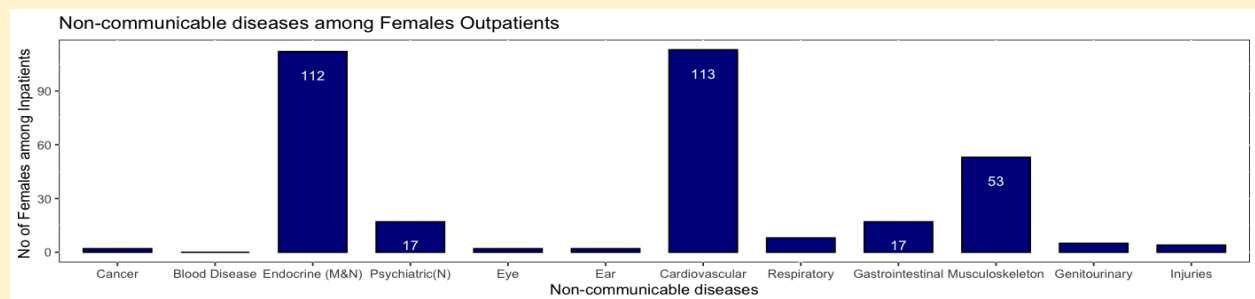
Graph 2 :



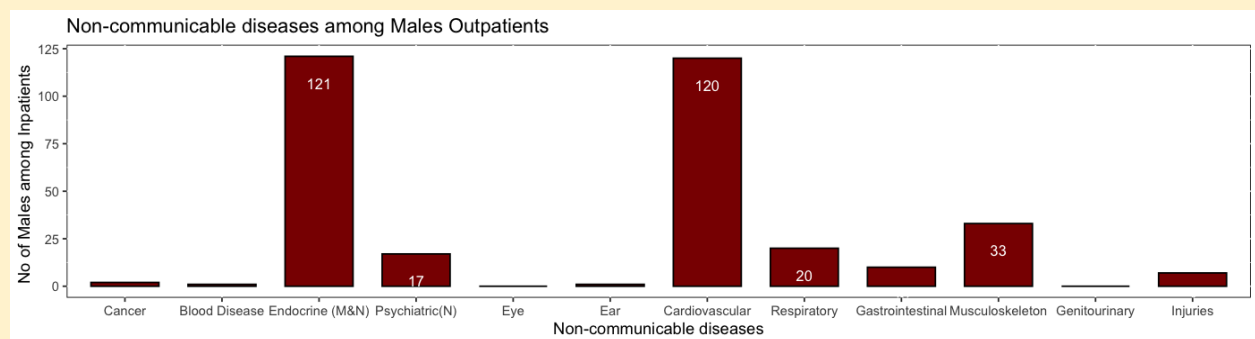
From Graph 1 and Graph 2 :

It is clear from the above graphs that both male and female inpatients suffer from cardiovascular, gastrointestinal and musculoskeletal non-communicable diseases in majority. However, for male inpatients there is an added feature of injuries being one of the major reasons for their admissions. The distribution is more or less uniform for female inpatients as compared to male inpatients.

Graph 3 :



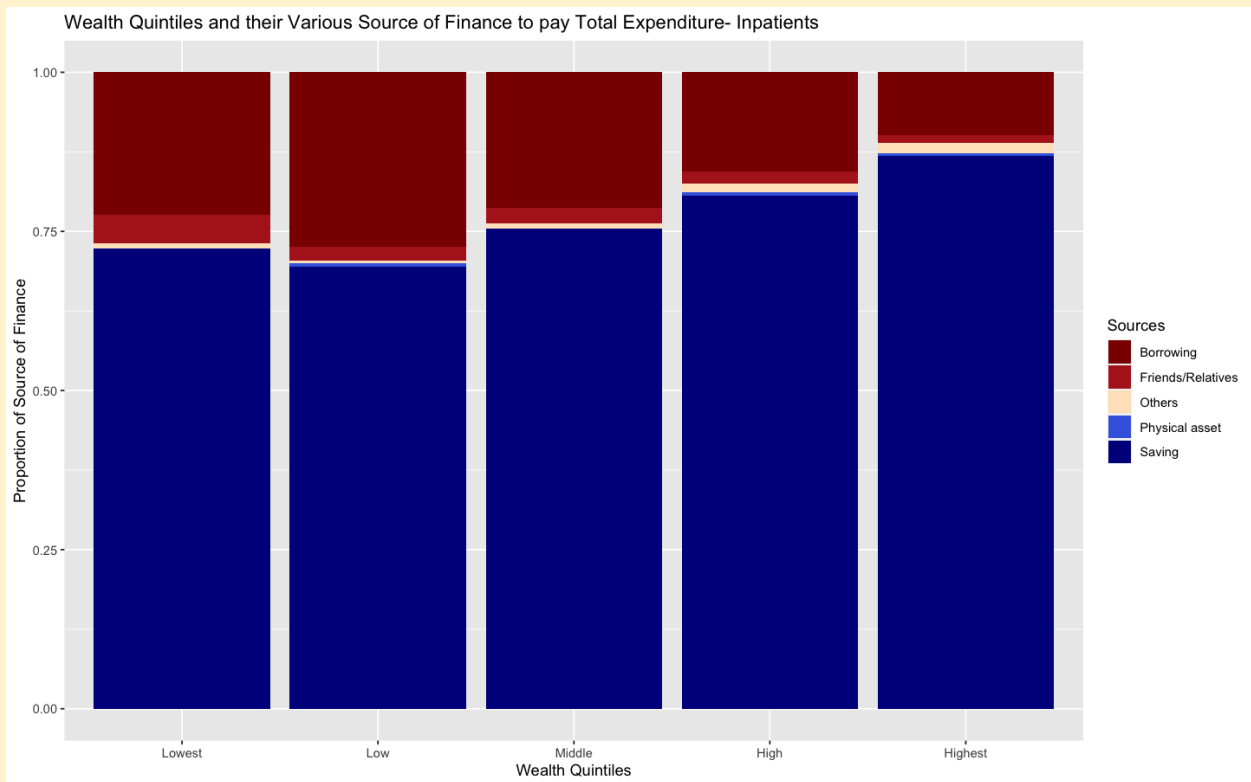
Graph 4:



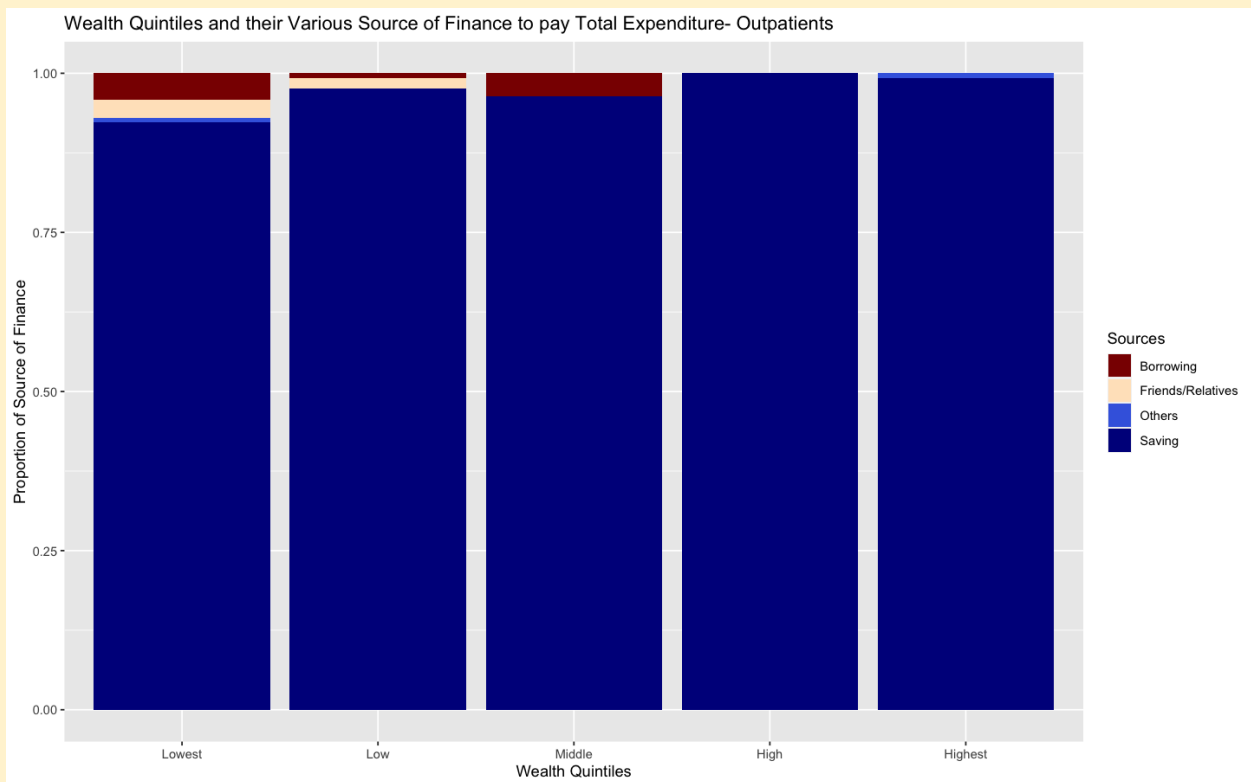
From Graph 3 and Graph 4 :

From the above two figures, representing the various non-communicable diseases with their respective outpatients strengths, it is evident that endocrine (M&N), cardiovascular and musculoskeletal diseases are the major reasons for their visits. It is almost identical for both male and female outpatients without any major exceptions.

Graph 5 :



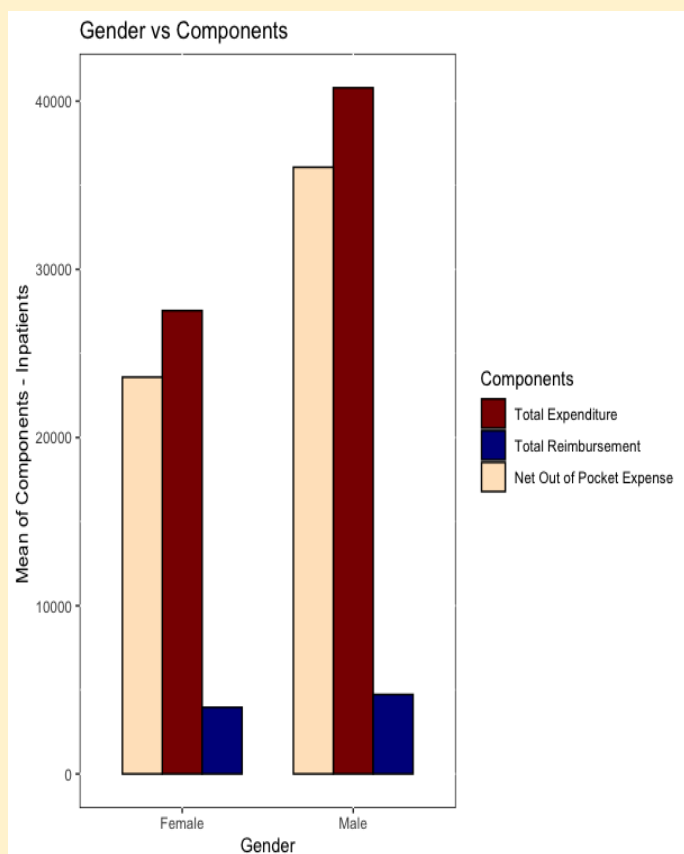
Graph 6 :



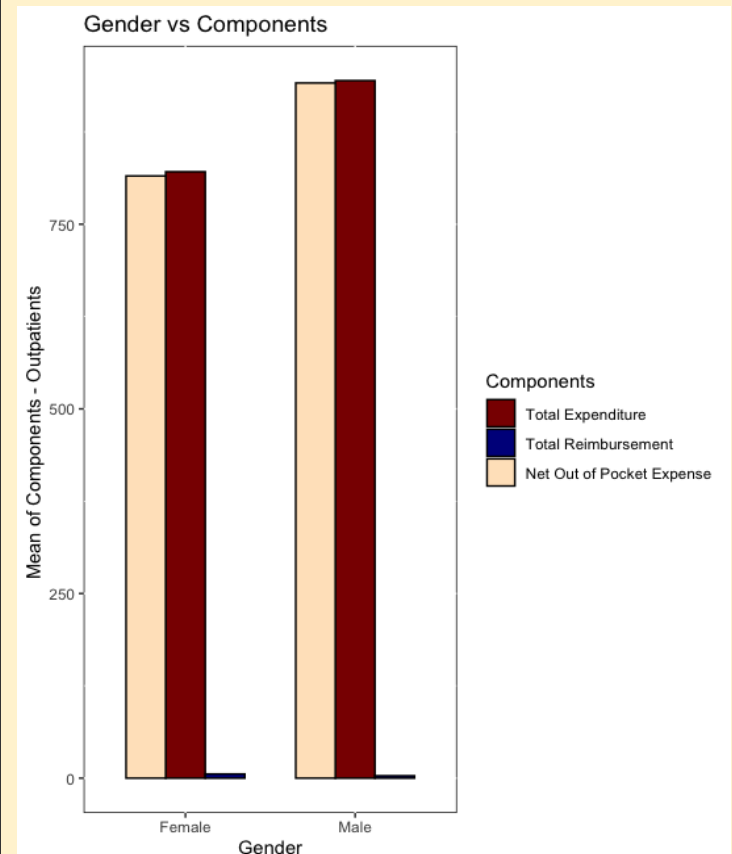
From Graph 5 and Graph 6 :

Let us compare the figures denoting the proportion of total expenditure sourcing for both inpatients and outpatients. It is evident that almost all of the expenditure sourcing in the case of outpatients was done through the patients' savings whereas, for inpatients, multiple other kinds of sources have been used sparsely such as borrowing, friends/relatives, etc. It is also notable that for outpatients, only the lower-end wealth quintiles resorted to any source other than savings.

Graph 7 :



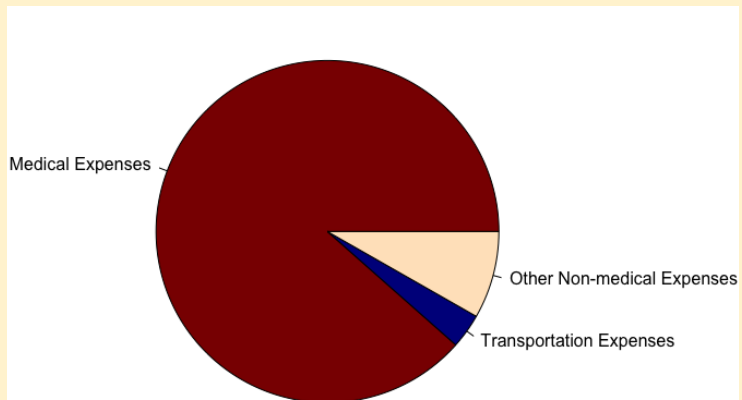
Graph 8 :



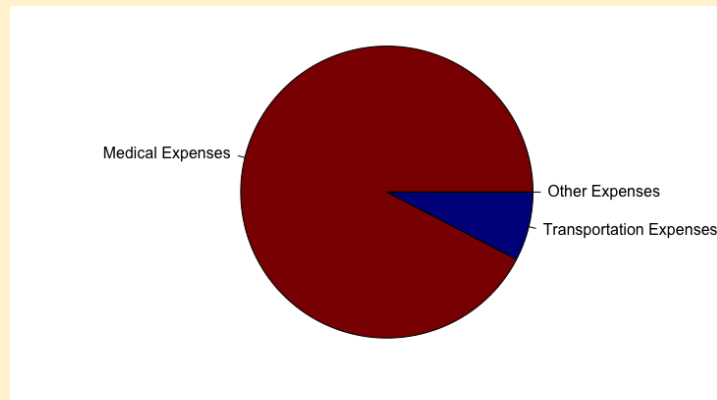
From Graph 7 and Graph 8 :

It is obvious that more male patients received more reimbursement than female patients, and that the number of male and female outpatients who received any reimbursement was quite low. This allows us to claim that the majority of outpatients cover their net out-of-pocket expenses

**Graph 9 :
Inpatients**



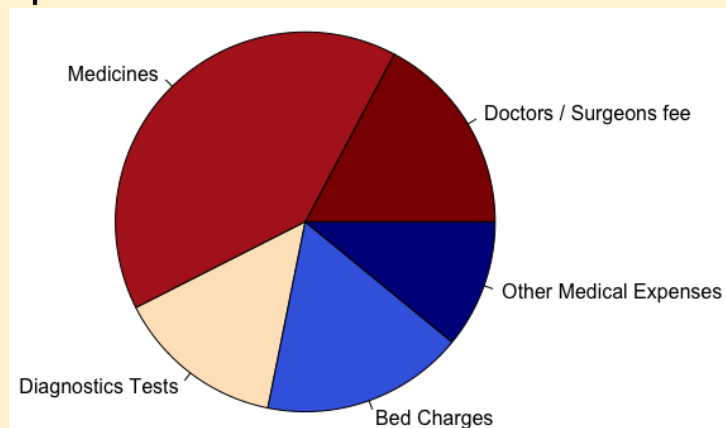
**Graph 10 :
Outpatients**



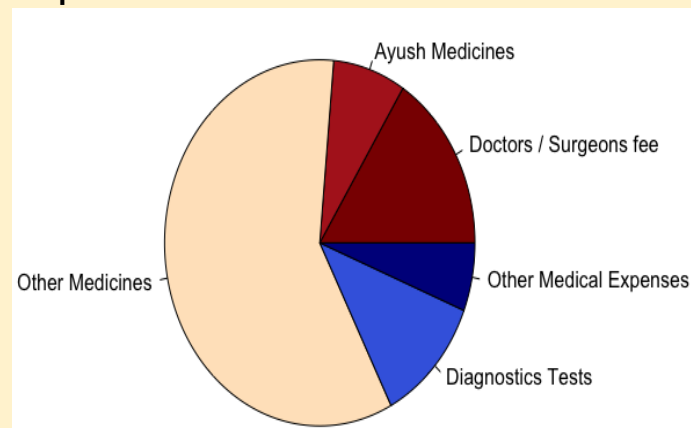
From Graph 9 and Graph 10 :

The above pie chart makes it clear that the overall cost for inpatients includes both medical and non-medical expenses as well as transportation costs, but the total cost for outpatients includes only medical and non-medical expenses with minimal transportation costs.

**Graph 11 :
Inpatients**



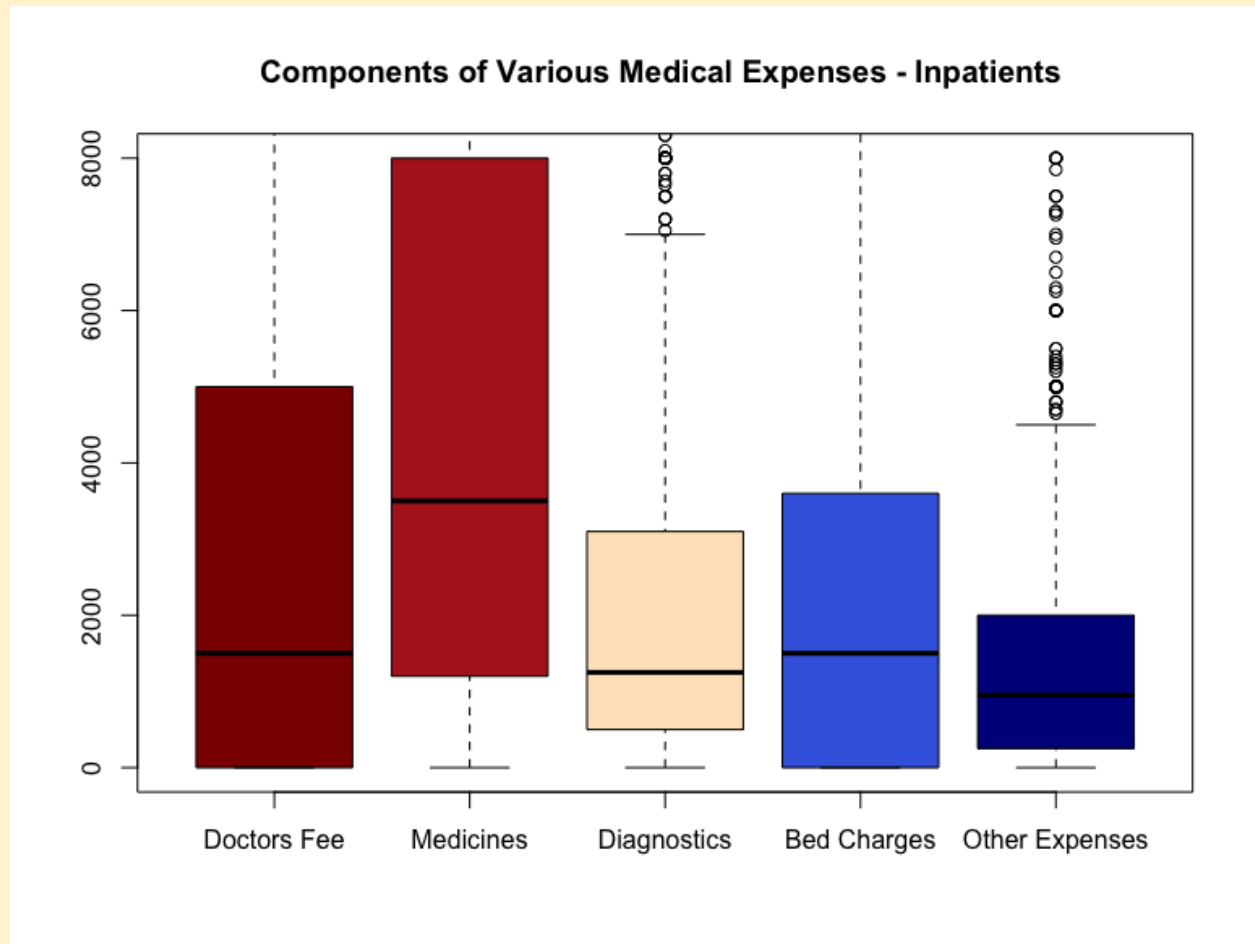
**Graph 12 :
Outpatients**



From Graph 11 and Graph 12 :

Medication costs and doctor fees make up a larger portion of overall spending for both inpatients and outpatients. The cost of an inpatient bed is very high.

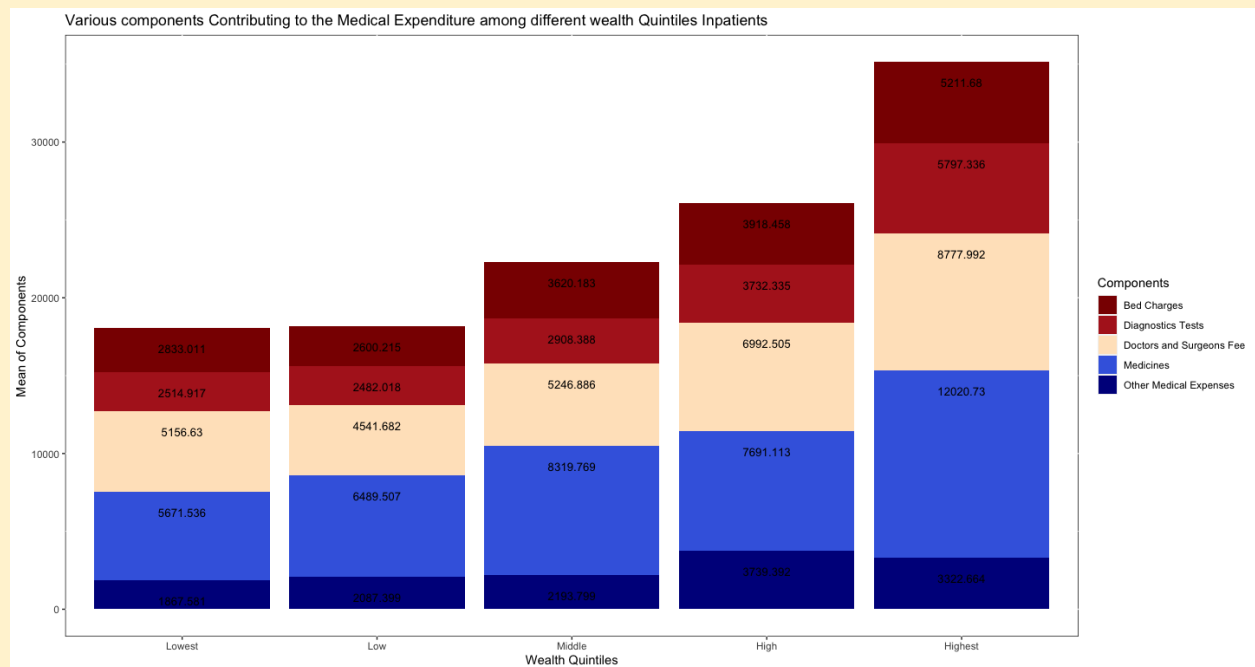
Graph 13 :



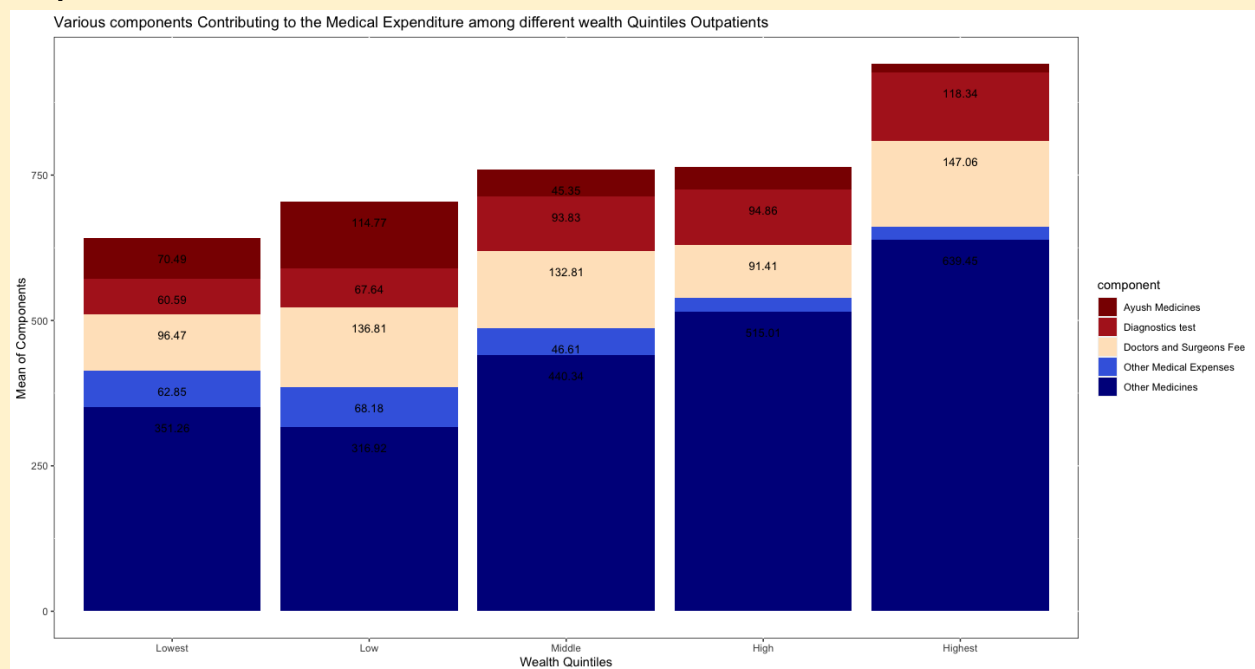
From Graph 13 :

It is obvious that the medical expenses incurred in the case of inpatients are higher due to the cost of medications and doctors' fees.

Graph 14:



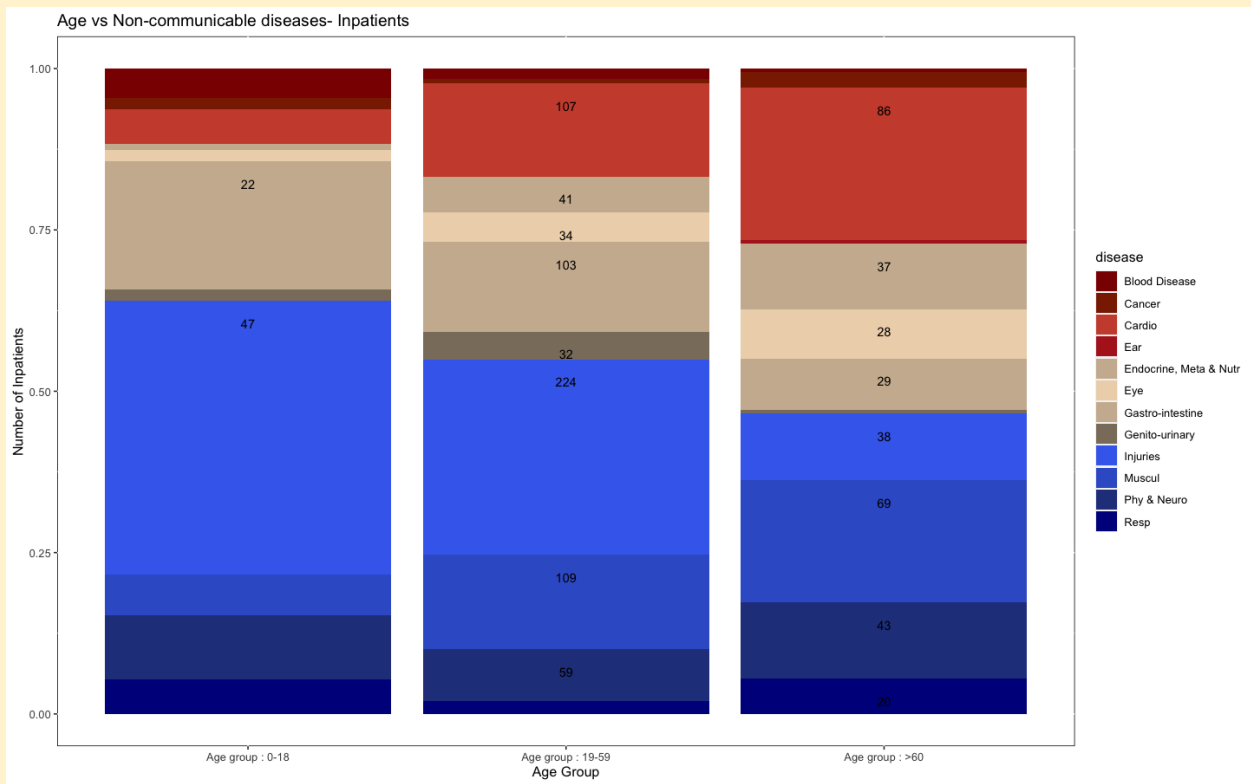
Graph 15 :



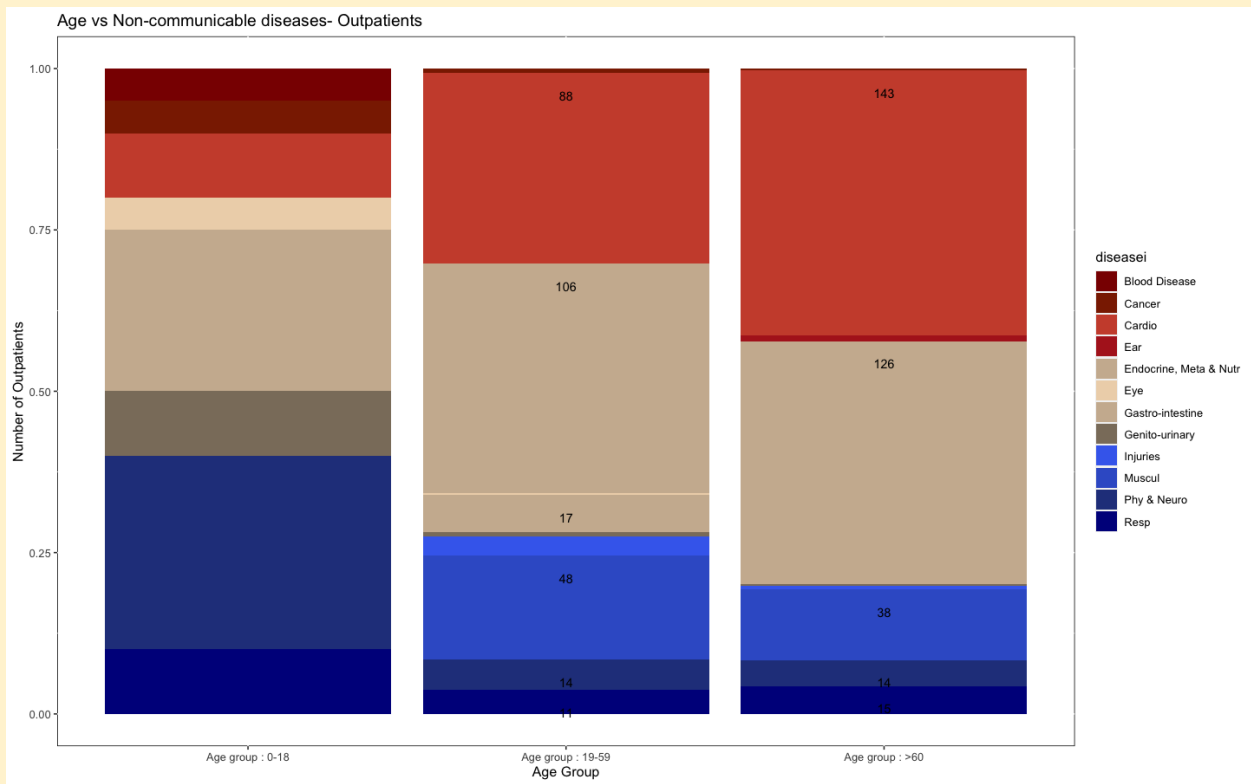
From Graph 14 and Graph 15 :

We can observe that medications account for a larger portion of total medical spending in all wealth quintiles. The highest income quintile's outpatients incur the fewest costs related to Ayush medications. Inpatient diagnostic test and bed costs are nearly identical among lower income quintiles, but doctor and hospital fees are comparably higher in higher income quintiles

Graph 16 :



Graph 17 :



From Graph 16 and Graph 17 :

Among Inpatients , Endocrine, metabolic, nutritional, and injury problems are more common in people aged 0 to 18. The largest rates of injuries, endocrine, metabolic, nutritional, and cardiovascular disorders are found among those aged 19 to 59. Cardiovascular disease and musculoskeletal conditions are more prevalent in inpatients over the age of 60. Regarding outpatients Musculoskeletal disorders and gastrointestinal conditions are more common in people ages 0 to 18. The largest rates of endocrine, metabolic, nutritional, and cardiovascular illnesses are in the age group of 19 to 59. Cardiovascular disorders are more common in outpatients over 60.

Results :

Patients who were between the ages of 19 and 59 earned the greatest reimbursement rates of any age group, although there was no significant relationship between age and reimbursement (non-reimbursement). Gender was not a factor in determining reimbursement (or non-reimbursement), and more male patients than female patients obtained reimbursement. Patients who were then married receive higher reimbursement than those who were not married, but there was no association between marital status and reimbursement (Non-reimbursement).

Social class was a factor in determining reimbursement, meaning there was a strong correlation between the two groups and more patients from other backward classes obtained compensation than from other social classes. Similarly , General education was a factor in reimbursement, meaning that there was a strong association between the two groups and that more educated patients were reimbursed than illiterate patients. Type of Medical Institution was also a determinant for Reimbursement (Non-reimbursement) ,that is there was an association between the two groups and Private Hospital inpatients received more reimbursement than any other Medical Institution.

Place of Residence was again a factor in determining whether or not a person was reimbursed, meaning that there was a correlation between the two groups and more urban residents were reimbursed than rural ones. There was an association between the two categories, that is patients who belong to the highest quintile of wealth received greater compensation, making wealth a determinant of reimbursement (or non-reimbursement). and lastly , Household type was a predictor for payment (or non-reimbursement). There was a correlation between the two groups, and patients who are self-employed in non-agricultural work received more compensation.

Conclusion :

The findings presented above can undoubtedly assist the government in developing new regulations that will increase reimbursement for patients in lower wealth quintiles relative to patients in wealthier quintiles. Illiterate patients rarely receive reimbursement due to a lack of education, and this group of people could benefit from education about various government laws and insurance. Since many patients with lesser incomes also rely on borrowing money from relatives and other sources, various programmes might be implemented to assist these patients in covering their medical and other costs.