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Research Article

An Analysis of Trend and Structural Shifts in the Health Expenditure of Assam

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Abstract: *Among the different expenditures incurred by the government, expenditure on health is crucial for social and economic improvement since a vital aspect of human development is health. The government's primary duty is to ensure that everyone has access to healthcare in an equitable manner. Given that healthcare spending is a major factor in the nation's overall development, it is vital to examine how much money underdeveloped states like Assam allocate to healthcare. The present study aims to analyse the trend of health expenditure incurred by the Assam Government for the last decade.*

Keywords: *Health Expenditure, Human Development.*

I. INTRODUCTION

One of the most important factors for the all-around development of a country is human resource development. It is a prerequisite for sustainable economic development, as economic development and human resources are mutually correlated. Health is one of the most important requirements for human development. Low levels of performance in health and education are known to be associated with low economic growth and widespread poverty. A population in good health is more productive, which in turn raises per capita income. In the case of India, the responsibility for providing equitable healthcare services lies with the state governments, as per the Constitution (Dutta, 2018). Since economic development is largely dependent on human capital, government spending on health care is crucial. An increased amount of spending on the health sector lowers the infant mortality rate, raises the literacy rate, and improves the per capita GDP and human development index (Bhowmick, 2020). Health expenditure refers to spending on medical supplies and services, including equipment and facility purchases.

The state of Assam, located in northeastern India, faces a range of healthcare challenges. With a population of about 3.66 crore and a population density of 398 persons per square kilometre, Assam needs to improve and invest more in healthcare resources and facilities. According to the Human Development Index Report 2023, Assam ranks 31st among the 36 Indian states. This indicates a low level of development in sectors like health and education. Examining the healthcare spending of underdeveloped states like Assam is vital, as it is a major factor in the state's overall growth. This study is therefore an attempt to analyse the health expenditure of Assam for the period 2013-2023.

II. LITERATURE REVIEW

The study of health expenditure has been analysed in different dynamics by writers. Sarma and Sharma (2014) found in their study that increasing spending on the social sector has a significant influence on the crude birth rate and crude death rate, but a negligible effect on the infant mortality rate in Assam. In another study on the Assam economy for the time period 1990-2010, Dutta (2018) found that the state's health spending was growing at a substantially slower rate than the GSDP. Whereas Thakuria (2020) analysed Assam's health status using a variety of metrics, including life expectancy, sex ratio, birth rate, and infant death rate. In the national context, Bhowmick (2020) examines the short and long-run causalities among health expenditure of India, GDP per capita, and human resource development. Singh and Singh (2021) examined the trend and pattern of India's health sector expenditure. Different studies have examined health sector expenditure in the Assam economy from various perspectives. However, the current study will focus on the analysis of health expenditure of Assam for the last decade, starting from 2013-14, after the implementation of the National Rural Health Mission in 2013, to 2022-23.

III. DATA SOURCE AND METHODOLOGY

This study is based entirely on secondary sources of data. Data has been sourced from the Reserve Bank of India's data sources and the EPW Research Foundation. The period of study spans from 2013-14 to 2022-23, covering a period of 10 years. The variables taken here are health expenditure as a share of total expenditure and health expenditure as a share of GSDP. The variables have been taken for constant prices. Simple ratios, average and percentage are used to analyse the trend of the

variables. The Bai-Perron Multiple Structural Break Test is used to check for any structural break points in the total health expenditure of Assam. Time series data from 1990-91 to 2023-24 are used for this analysis.

IV.RESULTS AND DISCUSSION

The term 'Health Expenditure' encompasses the financial resources allocated by the Indian Government to state and territorial governments, as well as the funds these governments allocate for health service providers. Here, health expenditure includes all expenses made by the government sector on healthcare, excluding private health expenditure. Assam has instituted various programs to improve healthcare delivery and accessibility. The National Rural Health Mission, established in 2005, was later subsumed by the National Health Mission. The Ministry of Health and Family Welfare implemented the NHM, which was introduced in 2013, and it includes the urban areas also. Since then, the state government has been focusing more on the health sector.

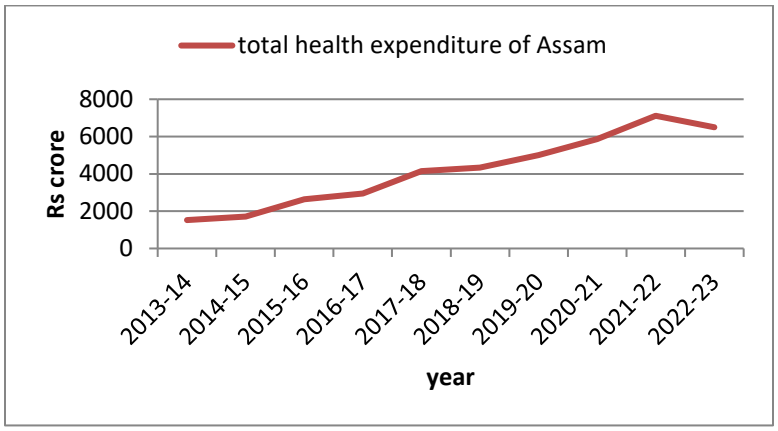

Figure 1. Total Health Expenditure of Assam

Total health expenditure of Assam in current prices has shown a steady increase over the years, as evident from Figure 1. The National Health Mission (NHM) was launched in 2013, and the Ministry of Health and Family Welfare was in Charge of implementing it. The state's health expenditure drastically changed from 2015-16 and recorded a high level. From 2014-15 to 2016-17, there has been a huge increase of more than 50 percent in the health expenditure of the state. This increase may be due to the launch of Atal Amrit Abhiyan in 2016, which was initially allocated Rs. 45 crores. This policy impacted 3241 beneficiaries in the first stage of its allocation. Later, the state's health expenditure increased in the year 2021-22 due to the COVID-19 pandemic. There was an annual growth of 21 percent in that year from the previous year.

As a share of the total expenditure of Assam, health expenditure had never exceeded 8 percent in the study period. The highest share of health expenditure in total expenditure was 7.59 per cent in the year 2020-21. This spike in health expenditure as a percentage of total expenditure was mainly due to expenses incurred during the COVID-19 pandemic. Both revenue and capital expenditure in the health sector increased in that period. In the year 2015-16, the state exhibited a sharp increase in health expenditure, which was 6.6 percent of total expenditure from 3.9 percent in the previous year.

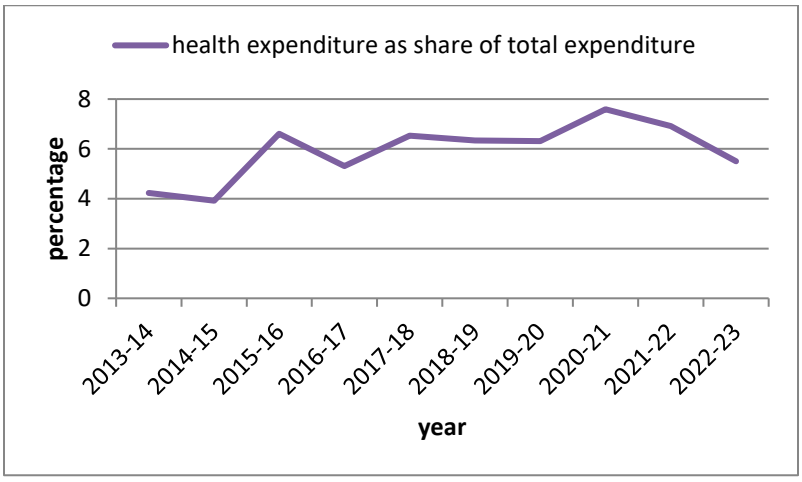

Figure 2. Health Expenditure of Assam as a Share of Total Expenditure

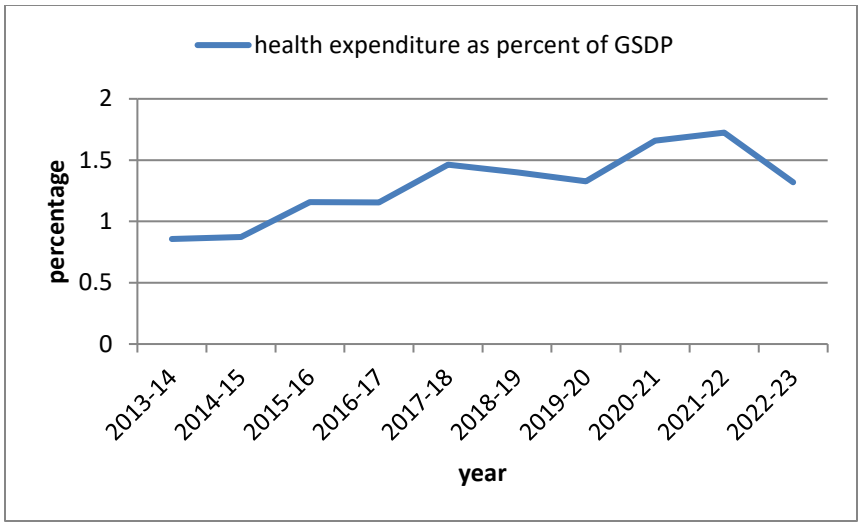

Figure 3. Health Expenditure of Assam as a Percentage of GSDP

Health expenditure as a share of GDP shows the proportion of the economy's total output allocated to health-related products and services. The share of the state's health expenditure in GSDP has been poor for the entire study period. This share was always below 2% of the state's GDP.

The time series data on total government health expenditure have been used to identify any structural breaks. Bai-Perron multiple structural break test has been used, which is capable of determining multiple structural breaks present in time series data endogenously.

Table 1. Result of Bai-Perron Multiple Structural Break Test

Variable	No of Break	Break Years
Total government health expenditure	2	2008-09 and 2016-17

Source: *Author's own calculation using Eviews 10*

The result reveals the presence of two structural breaks in the time series, one in 2008-09 and another in 2016-17. In 2008, the 108 Mrityunjoy Emergency Response Services, a public-private partnership, was introduced in Assam's health sector. They offer free integrated emergency medical, police, and fire support through a toll-free number and specialized ambulances. The state government's total health expenditure increased from Rs 563.04 crores in 2006-07 to Rs 767.63 crores in 2008-09, exhibiting an annual growth rate of 36.34 percent annual growth rate. The Atal Amrit Abhiyan, a major health assurance program that offers low-income households cashless care for serious illnesses, was introduced in Assam's health sector in 2016. Total health expenditure increased by 40 per cent in 2016-17 compared to the previous year.

V. CONCLUSION

Over the years, the state's health sector has seen improvements with the introduction of various health policies and schemes. The analysis reveals a steady increase in health expenditure during the study period, accompanied by several significant spikes, notably marked by major policy changes, including the Atal Amrit Abhiyan in 2016 and the COVID-19 pandemic-induced rise in health expenditure during 2021-22. However, the average share of health expenditure in the state's GDP has remained less than 2%. There is still much to be done to improve the overall health sector of the state and provide it to the maximum number of people. The share of health expenditure in total expenditure needs to be increased, both in the revenue and capital accounts, to ensure improved efficiency in expenditure disbursement. This is crucial for improving Assam's ranking in the Human Development Index, which treats investment in health not simply as a welfare measure but as an essential element of economic growth and productivity.

VI. REFERENCES

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