



Impact of Income Disparities on Healthcare Accessibility in Rural Assam: A Comprehensive Study of Major Health Challenges.

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ABSTRACT:

As nations around the world work toward having all-inclusive healthcare systems, it is now crucial to investigate how income inequality affects health outcomes. To clarify the mechanisms by which economic disparities contribute to unequal access, utilization, and health outcomes, this study examines the complex relationships between income inequality and healthcare. In this study, the complex dynamics underlying the relationship between income levels and health disparities are investigated through a review of literature. Understanding the importance of this relationship, the abstract makes the case that reducing income inequality is essential to attaining health equity and developing a strong, inclusive healthcare system. Assam is a North-Eastern state which lacks medical infrastructure and medical staff, which is a matter of concern. This paper will try to study the impact of income disparity on healthcare accessibility in Assam. This paper will be based on secondary sources of data and the nature of the research will be explanatory.

Introduction:

Assam, a state in northeastern India, faces significant challenges in healthcare accessibility due to income disparities. The patients in rural areas, particularly the tribal communities, experience greater difficulty accessing quality healthcare services due to poor accessibility, social disconnection, inconvenient timing, longer waiting times in government healthcare facilities, and poor economic conditions. This leads to unequal healthcare outcomes and limited access to healthcare services, exacerbating the existing disparities in health between different socioeconomic groups. These disparities are further magnified in tribal communities due to their reliance on hunting and gathering and primitive agricultural practices, which result in limitations in socioeconomic behaviours and cultural practices that hinder the development of healthcare services tailored to their specific needs (Kumar & Das, 2021).

In a study conducted by George A. Kaplan, income had a direct correlation with survival rates and health problems, such as anaemia, arthritis, and diabetes, that are more prevalent among lower socioeconomic groups. The study found that lower-income patients were three times more likely to develop heart disease than

participants who had higher incomes (Kaplan et. al, 1987).

Furthermore, a study on financial inclusion in Assam revealed that the degree of financial inclusion in the state is lower than the national average, with wide variation among districts in terms of availability, accessibility, and use of financial services (Kazi, 2023). Healthcare inequity describes the substantial differences between specific population groups that vary between race, gender, income, geographic location, etc. Based on previous medical studies relating to healthcare inequity, research has indicated that those who are at the bottom of the socioeconomic ladder often face worse health outcomes than those at the top due to socioeconomic impediments.

Significance of the study:

Unequal access to healthcare services is often a result of income disparities in a country. Researching this element contributes to the identification and remediation of health equity gaps, guaranteeing that everyone, regardless of financial situation, has equal access to essential healthcare resources. Public health planning requires an understanding of the relationship between healthcare accessibility and income levels. With the goal



of lowering health disparities and enhancing overall healthcare outcomes, policymakers can create targeted interventions and policies by utilizing the thorough analysis of socioeconomic factors.

This study is essential because it adds to the body of knowledge presently available about health disparities, particularly in the context of Assam. The results of this study can help shape targeted interventions and policy changes to establish a more equitable healthcare system in the area by illuminating the complex interactions between healthcare access and income disparities. It is imperative that these issues be addressed to advance social justice, enhance health outcomes, and encourage general well-being among Assamese citizens of diverse backgrounds. By examining how income disparities affect healthcare accessibility, this study tackles a crucial component of health equity. Through illuminating these discrepancies, the research advances the more general objective of attaining social justice in healthcare.

Objectives:

The main objectives of this study are:

- 1) To study the impact of income disparity on health accessibility in Assam.
- 2) To discuss the major health issues faced by the economically backward section of rural people in Assam.

Methodology:

This study is based on secondary sources and explanatory in nature.

Discussion:

Impact of income disparity on health accessibility in Assam:

Income disparity is the term used to describe the unequal distribution of income among individuals or households within a specific population, region, or society. It is a metric that highlights the wealth gap between the wealthier and less wealthy members of a community by showing the variations in income levels or earnings between individuals. The difference in income between the highest and lowest earners is often expressed as a ratio or percentage. According to the World Bank, the amount that income is dispersed unevenly within a nation is known as income disparity. It quantifies how far an economy's income (or, occasionally, consumption

expenditure) distribution from perfectly equal distribution among its citizens or households deviates from that benchmark. According to Joseph Stiglitz being unequal is a Choice. The collective economic policies of the last thirty years, including the laws we have chosen to enact, the methods by which we have enforced them, and the policies we have pursued, have all served to increase inequality. Like in many other places, income inequality in Assam is a complicated problem with many facets that need to be carefully considered. Northeastern Indian state of Assam is home to a variety of urban and rural areas, ethnic groups, and economic pursuits, making for a varied socioeconomic environment.

Health is one of the most important factors of economic growth of a country. For most of the developed countries it is a common goal to improve the health status of the population (WHO, 2000). The ease with which people or communities can quickly and affordably access medical services, such as therapeutic, rehabilitative, diagnostic, and preventive care, is referred to as healthcare accessibility. It includes a variety of elements that affect an individual's capacity to obtain the medical care they require at the appropriate time. Accessibility is a crucial aspect of the quality of healthcare and is frequently seen as a necessary element of a functional healthcare system. Economic analysis of healthcare accessibility frequently looks at market structures, supply and demand dynamics, and the role of government intervention. Various variables are considered that affect people's capacity to effectively access healthcare services. From the supply side, the accessibility of healthcare services, considering the quantity and layout of healthcare facilities, the workforce's capacity, and the infrastructure that supports the provision of medical care. Enough supply is necessary to guarantee that the public can physically access healthcare services. From the demand side the capacity and inclination of individuals to seek medical attention. Analyzing variables like income brackets, insurance coverage, and out-of-pocket expenses is required for this. When people decide how much money to spend on healthcare versus other products and services, economic factors are considered. Therefore, the higher income earner people can easily access better healthcare facilities than those with lower income. They may have the money to pay for out-of-pocket costs and can afford health insurance, which frequently covers a wider range of medical services.



Higher-income individuals might have easier access to screenings, early detection programs, and preventive care, which could improve the way their illnesses are managed. Individuals with lower incomes may experience delayed detection of health issues due to limited access to preventive services, which could result in more expensive and severe treatments down the road. Affluent individuals frequently live in areas with better infrastructure and healthcare facilities, which facilitates easier access to medical care. Inadequate healthcare resources, such as a lack of healthcare facilities and professionals, may present difficulties for residents of lower-income communities. Healthcare accessibility and income inequality are related aspects of larger social and economic inequality. The impact of income disparities must be considered in healthcare accessibility initiatives, as enhancing access to services is not only a matter of affordability but also a critical component of promoting health equity and the general well-being of society. Strategies to lower income inequality and improve healthcare accessibility for all must be developed, with communities, policymakers, and healthcare providers playing major roles.

There are 33 districts in Assam and 86% of the population live in rural areas and the remaining 14% live in the urban areas (according to 2011 census). Comparatively speaking to India in 2021, the percentage distribution of the rural areas of Assam the Sub-Centres, Public Healthcare Centers, Community Health Centers, Sub-Divisional Hospitals, and District Hospitals was 2.9%, 3.2%, 3.3%, 1.09%, and 3.25%, respectively (Rural Health Statistics, 2021-22, Ministry of Health & Family Welfare). It indicates the poor status of the healthcare sector in Assam which needs to be taken care of by the government. Assam is well-known for having a variety of topographical features, such as plains, hills, forests, and the Brahmaputra River. Assam's geographic location has a big impact on how accessible healthcare is in the state. Assam is traversed by the Brahmaputra River, one of the world's principal rivers. Transportation and connectivity are hampered by the riverine topography, particularly during the monsoon season when flooding is frequent. This may have an impact on where it is possible to access healthcare services, especially in rural and isolated areas. Assam is a hilly state with extensive forests, particularly in its northern and southern regions. In remote and tribal areas, these

geographic characteristics may make it difficult for people to receive healthcare. Building infrastructure, especially road access, is essential to guaranteeing that residents of these areas can access healthcare facilities. Assam is bordered by Bangladesh and Bhutan. Healthcare dynamics, such as those pertaining to migration, cross-border healthcare access, and the requirement for healthcare infrastructure near border areas, may be impacted by one's proximity to international borders. Malnutrition is a serious issue, especially for young people and expectant mothers living in underdeveloped areas. Poverty, ignorance, and restricted access to wholesome food are factors in this health disparity. It is crucial to concentrate on infrastructure development, transportation networks, and the equitable distribution of healthcare facilities to improve healthcare accessibility in Assam. This involves tackling the difficulties brought about by the varied geographic terrain to guarantee that healthcare services are available to all segments of the populace, regardless of where they may be.

The major health issues faced by the economically backward section of people in Assam:

The economically backward people of Assam who are poor face a wide range of health issues that are a result of the complex interactions between socioeconomic variables, access to healthcare, and environmental factors. Comprehending these concerns is essential for formulating focused interventions and policies meant to enhance the health results of marginalized communities. The major health challenges faced by them are discussed below:

Infectious Conditions and General Health:

Vector-Borne Diseases: Japanese encephalitis, dengue fever, and malaria are among the vector-borne illnesses that are more common in economically disadvantaged areas. Water stagnation and inadequate sanitation are two factors that lead to the spread of disease vectors.

Limited Vaccination Access: If vaccination rates are too low, avoidable disease outbreaks may result. Vaccination efforts can be hindered by obstacles like lack of awareness and remoteness from medical facilities.

Cancer: Cancer is one of the deadliest diseases which takes the life of millions in the world. Assam is one of the leading states in cancer cases in India where 39,000



new cases are reported in the North-East region and Assam alone contributed 29,000 cases in 2020. In rural areas of Assam also, the rate of cancer cases is very significant. The habit of chewing of Betelnut and gutkha, Use of Tobacco, Smoking bidi and cigarette is major reasons for cancer in Assam. Moreover, in various parts of Assam, Arsenic is found in the water which is a contributor to the cancer cases in Assam.

Non-Communicable Diseases (NCDs):

Growing Prevalence of NCDs: Unhealthy lifestyle decisions brought on by economic hardships frequently lead to the rise in the prevalence of non-communicable diseases like diabetes and hypertension. Inadequate healthcare infrastructure could make early detection and treatment more difficult. NCDs are a significant public health concern in India, as they accounted for 65% of all fatalities in 2019. Assam is among the states in India where non-communicable diseases are prevalent. The National Programme for Prevention and Control of Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) estimates that 1.2 million cases of NCDs, or 4.5% of the state's total population, occurred in Assam in 2019. Males (5.7%) had a higher prevalence of NCDs than females (3.8%), and urban residents (5.4%) had a higher prevalence than rural residents (3.6%). In Assam, the most prevalent NCDs were stroke (0.2 million cases), coronary heart disease (0.4 million cases), diabetes (0.6 million cases), and hypertension (1.8 million cases). As per the National Family Health Survey IV, approximately 29.8% of children under the age of five in Assam have underweight health profiles. Additionally, approximately 25.7% of women have a body mass index (BMI) below normal, and 35.7% of children between the ages of 6 and 59 months are anemic.

Waterborne diseases: Assam is a region of heavy rainfall, and it has various rivers and tributaries which contribute to its vulnerability to waterborne diseases. Diarrhea is one of the waterborne diseases which is the result of contaminated water sources because of inadequate sewage disposal and poor sanitation. It is a very common disease which prevails not only in rural areas but also in urban areas. One of the major waterborne diseases in the rural areas of Assam are caused by Pathogens include viruses like Rotavirus, bacteria like Salmonella, Escherichia coli, and parasites like Giardia and Cryptosporidium. Typhoid fever is a very common

waterborne disease in the rural areas of Assam which is caused by the poor sanitation facilities and hygiene issues.

Mosquito-borne diseases: Due to abundant water bodies and tropical climates, Assam is prone to various mosquito-borne diseases. There are some of these kinds of diseases which are discussed below:

Malaria: In Assam, malaria is a common disease spread by mosquitoes particularly in the rural areas. The Plasmodium parasite, which causes malaria in humans, is spread by the Anopheles mosquito, especially the Anopheles minimus and fluviatilis species. However, the case of Malaria is dropping due to the various measures taken by Assam Government and awareness among the population.

Dangue: The Aedes Aegypti mosquito is the culprit behind dengue fever. This species of mosquito is active during the day and breeds in still water. Assam also experiences dengue outbreaks, which causes fever, excruciating joint pain, and occasionally hemorrhagic fever in the rural areas also.

Japanese Encephalitis (JE): The Culex mosquito is the vector of transmission for this viral illness. There have been reports of JE outbreaks in Assam, one of the Indian states where the disease can cause serious neurological consequences. Japanese encephalitis (JE), a vector-borne illness, killed 94 people in Assam in 2018, 161 in 2019, 51 in 2020, 40 in 2021, and 96 in 2022. In Assam, 2145 JE cases in total were reported during that time.

Some socioeconomic barriers to prevent health challenges in rural areas in Assam:

Obstacles to the Effective Management of Chronic Diseases: Obtaining and affording medication, as well as scheduling routine medical examinations, are major obstacles in the rural areas of Assam.

Stigma and Low Awareness: Stigma surrounding mental health issues frequently prevents people from seeking help. The problems that distressed people face are made worse by a lack of knowledge and mental health resources. It is one of the main problems that hinders in solving health issues in the rural areas in Assam.

Psychosocial Stressors: In economically backward communities of rural areas in Assam, mental health issues are exacerbated by social injustices, economic hardships, and environmental stressors.



Superstition: Like many other parts of the world, Assam boasts a diverse cultural fabric comprising a range of customs and beliefs, including superstitions. Superstitions can differ greatly amongst Assamese communities and are frequently the result of cultural, historical, or religious influences. It's crucial to remember that superstitions are arbitrary and subject to change. Due to this the villagers do not have faith on the modern healthcare system and they prefer the traditional treatment.

Conclusion:

There is a mutually beneficial relationship between poverty and health. When it comes to hard work, sound health is very necessary. An assessment of the health status can be made using important indicators like infant mortality, crude birth rate, crude death rate, life expectancy, and nutritional status. The availability of health care facilities in a region is dependent upon the health care delivery system, or the infrastructure and health care institutions that are present in the region and primarily depend on the people who are involved in the system. There are disparities in health outcomes because of the growing gap in healthcare access caused by the stark differences in income levels. People in rural Assam have a harder time affording high-quality healthcare due to limited financial resources, which increases the burden of avoidable diseases. This situation highlights the urgent need for community-based initiatives, policy reforms, and targeted interventions to close the gap in healthcare access based on income. To guarantee equitable access to healthcare services in rural Assam, a comprehensive strategy that tackles the cost of healthcare as well as focuses on enhancing infrastructure, awareness, and preventive measures is necessary. Ignoring these problems could lead to a vicious cycle of poor health, further marginalizing populations that are already at risk and impeding the region's overall development. Thus, it is essential that government agencies, nonprofits, and the public work

together to develop a healthcare system that is more open and accessible to all rural Assamese citizens.

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