



HEALTH EXPENDITURE AND ECONOMIC DEVELOPMENT IN INDIA

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ABSTRACT

Health expenditure plays a significant role in promoting economic development by improving the health, productivity, and overall well-being of the population. In India, investment in healthcare is essential for developing human capital, reducing poverty, increasing labour efficiency, and achieving sustainable economic growth. The present study examines the relationship between health expenditure and economic development in India, with particular emphasis on public and private healthcare spending, healthcare infrastructure, access to medical services, and health outcomes. Adequate expenditure on healthcare contributes to disease prevention, early diagnosis, improved life expectancy, reduced mortality, and a healthier workforce. These improvements enable individuals to participate more effectively in economic activities and contribute to national productivity. The study also highlights the importance of government health programmes, public hospitals, medical education, health insurance, and primary healthcare services in strengthening India's healthcare system. Despite improvements in healthcare facilities, India continues to face challenges such as unequal access to medical services, high out-of-pocket expenditure, shortages of healthcare professionals, rural-urban disparities, and differences in healthcare quality. The study adopts a descriptive and analytical approach based primarily on secondary data collected from government reports, research publications, books, and relevant institutional sources. It seeks to understand how healthcare investment influences economic performance and social development. The study concludes that adequate, efficient, and equitable health expenditure is essential for strengthening human capital, reducing economic inequalities, and promoting inclusive and sustainable economic development in India.



KEYWORDS: Health Expenditure, Economic Development, India, Public Healthcare, Private Healthcare, Human Capital, Healthcare Infrastructure, Health Policy, Economic Growth, Sustainable Development.

INTRODUCTION

Health expenditure is an important component of economic development because it contributes to improving the health, productivity, and quality of life of the population. A healthy population is essential for building a strong workforce and achieving sustainable economic growth. In India, healthcare expenditure has gained considerable importance due to population growth, changing disease patterns, rising medical costs, and increasing demand for quality healthcare services. Investment in hospitals, primary healthcare centres, medical education, medicines, vaccination programmes, and disease prevention helps improve

public health and strengthen human capital. Better health enables individuals to work efficiently, participate in productive activities, and contribute to national income. Healthcare expenditure also supports employment generation through hospitals, pharmaceutical industries, medical equipment manufacturing, and other health-related services. Since independence, India has taken several steps to improve healthcare facilities and expand access to medical services. Government programmes have focused on maternal and child health, immunisation, sanitation, health insurance, and the development of healthcare infrastructure. Initiatives such as the National Health Mission and Ayushman Bharat aim to improve access to essential healthcare services and reduce the financial burden on vulnerable households. Therefore, health expenditure should be viewed not only as a social responsibility but also as an investment in human development and economic progress.

The relationship between health expenditure and economic development is particularly significant in India because health inequalities can affect productivity, household income, and overall economic performance. Adequate public spending on healthcare can improve life expectancy, reduce preventable diseases, and support the development of a healthier workforce. It can also reduce the financial difficulties experienced by families when they require medical treatment. However, the Indian healthcare system continues to face challenges such as unequal distribution of hospitals, shortages of medical professionals, high out-of-pocket expenditure, differences in healthcare quality, and limited access to specialised services in some rural and disadvantaged areas. These challenges can reduce the economic benefits of healthcare investment and increase inequality. Efficient allocation of public resources, improved primary healthcare, stronger preventive services, and affordable medical treatment are therefore essential for inclusive development. The present study examines the relationship between health expenditure and economic development in India by considering public and private healthcare spending, healthcare infrastructure, health outcomes, productivity, and household welfare. It also seeks to identify major challenges in healthcare financing and suggest measures for improving the effectiveness of health expenditure. The study highlights that adequate, accessible, and efficiently managed healthcare investment can strengthen human capital, reduce economic vulnerability, and contribute to India's long-term economic growth and sustainable development.

AIMS AND OBJECTIVES:

Aim of the Study

The main aim of this study is to examine the relationship between health expenditure and economic development in India. It seeks to understand how public and private investment in healthcare contributes to human capital formation, labour productivity, poverty reduction, improved living standards, and sustainable economic growth. The study also aims to identify major challenges in healthcare financing and suggest measures to improve the accessibility, affordability, and effectiveness of healthcare services.

Objectives of the Study

- ❖ To examine the relationship between health expenditure and economic development in India.
- ❖ To study the role of public healthcare expenditure in improving national health outcomes.
- ❖ To analyse the contribution of private healthcare expenditure to the development of the healthcare sector.
- ❖ To understand the relationship between healthcare investment and labour productivity.
- ❖ To examine the impact of healthcare expenditure on human capital formation and workforce efficiency.
- ❖ To study the role of healthcare services in reducing poverty and improving living standards.

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- ❖ To assess the importance of healthcare infrastructure, medical facilities, and trained healthcare professionals.
 - ❖ To examine government policies and programmes aimed at improving healthcare access and affordability.
 - ❖ To identify major challenges related to healthcare financing and the delivery of medical services in India.
 - ❖ To analyse the effects of high out-of-pocket medical expenditure on household income and economic security.
 - ❖ To understand the importance of preventive healthcare, sanitation, and public health programmes in economic development.
 - ❖ To suggest suitable measures for improving the efficiency of health expenditure and promoting inclusive and sustainable economic development in India.

REVIEW OF LITERATURE:

The relationship between health expenditure and economic development has been widely examined by economists, public health researchers, and development institutions. Grossman (1972), in his study of the demand for health, explained that health can be viewed as a form of human capital that influences individuals' productive capacity and overall well-being. According to this perspective, investment in healthcare can improve productivity by reducing illness and increasing healthy working time. Schultz (1961) also emphasised the importance of investment in human capital, including health and education, in promoting economic growth. Barro (1996) examined the relationship between health and economic growth and discussed how improvements in health outcomes can contribute to economic performance. The World Health Organization (2001), through its work on health systems financing, highlighted the importance of adequate healthcare resources in improving population health and reducing financial hardship. Bloom, Canning, and Sevilla (2004) investigated the effect of health on economic growth and found evidence that healthier populations can contribute to higher economic productivity. These studies provide a theoretical foundation for understanding healthcare expenditure as an investment in human capital rather than merely a consumption expense. They suggest that effective healthcare spending can improve life expectancy, workforce participation, productivity, and long-term economic development.

In the Indian context, several reports and studies have examined healthcare financing, public expenditure, and health outcomes. The National Health Policy 2017 emphasised increasing public investment in healthcare, strengthening primary healthcare, and improving access to affordable medical services. The National Health Accounts Estimates for India, published by the Ministry of Health and Family Welfare, provide important information about public and private health expenditure, household out-of-pocket payments, and the sources of healthcare financing. The National Health Mission and Ayushman Bharat initiatives have also attracted attention for their potential to improve healthcare access and reduce financial barriers. Research on healthcare financing in India highlights that high out-of-pocket expenditure can push vulnerable households into financial hardship and limit their ability to invest in education, nutrition, and other essential needs. Studies also indicate that regional disparities, shortages of healthcare professionals, and unequal access to medical infrastructure can affect the efficiency of healthcare spending. International publications by the World Bank and the World Health Organization further emphasise that strong health systems support economic resilience and sustainable development. However, the economic effects of health expenditure depend on how efficiently funds are allocated, the quality of healthcare services, and the distribution of benefits across society. The present study builds on this literature to examine the relationship between health expenditure and economic development in India, focusing on

productivity, human capital, healthcare financing, and inclusive growth. It also seeks to identify policy measures that could improve the effectiveness and equity of healthcare investment.

RESEARCH METHODOLOGY:

The present study adopts a descriptive and analytical research methodology to examine the relationship between health expenditure and economic development in India. The study is primarily based on secondary data collected from reliable sources, including government reports, research journals, books, academic articles, and publications of national and international institutions. Important sources include the Ministry of Health and Family Welfare, the Ministry of Statistics and Programme Implementation, the Reserve Bank of India, the World Health Organization, and the World Bank. The study considers health expenditure as an important investment in human capital and analyses its contribution to economic growth, labour productivity, and social welfare. Information relating to public healthcare expenditure, private medical spending, healthcare infrastructure, health insurance, life expectancy, mortality rates, and gross domestic product is considered wherever relevant data are available. The research also reviews previous studies and relevant economic theories to establish a conceptual foundation for understanding the relationship between healthcare investment and economic development. A descriptive approach is used to explain the structure of healthcare financing in India, while an analytical approach is employed to interpret the possible effects of healthcare spending on economic performance. The study focuses on India at the national level and considers the broader social and economic implications of healthcare investment.

The research methodology further involves the systematic collection, classification, comparison, and interpretation of published information on health expenditure and economic indicators. Where suitable data are available, trends in public health spending, private healthcare expenditure, national income, employment, and selected health outcomes may be compared across different years. Tables, percentages, and simple statistical comparisons may be used to present the information clearly and identify patterns in healthcare financing and development. The study also examines government policies and programmes, including the National Health Policy 2017, the National Health Mission, and Ayushman Bharat, to understand their objectives and potential contribution to healthcare access and financial protection. Particular attention is given to the role of primary healthcare, preventive medicine, medical infrastructure, and affordable treatment in improving population health and workforce productivity. The study recognises that economic development is influenced by several factors, including education, investment, technology, infrastructure, and government policies; therefore, health expenditure is not treated as the sole determinant of economic growth. Since the research relies mainly on secondary data, its findings depend on the accuracy, availability, and comparability of published information. The study does not claim to establish a direct causal relationship unless supported by appropriate empirical analysis. Overall, this methodology provides a systematic basis for examining how effective and equitable healthcare investment can support human capital development and sustainable economic progress in India.

STATEMENT OF THE PROBLEM:

Health expenditure is an essential component of economic development because it improves public health, strengthens human capital, and increases the productive capacity of the population. In India, healthcare investment has become increasingly important due to population growth, rising medical costs, changing disease patterns, and the growing demand for quality healthcare services. Although the country has made progress in expanding hospitals, medical colleges, primary healthcare centres, and health insurance programmes, several challenges continue to affect the healthcare system. These include inadequate healthcare infrastructure in some regions, shortages of qualified medical professionals, unequal

access to medical services, and differences in the quality of treatment between rural and urban areas. Limited access to affordable healthcare can lead to delayed treatment, reduced workforce productivity, and increased financial pressure on households. High out-of-pocket medical expenditure may force families to reduce spending on education, nutrition, housing, and other essential needs. These difficulties can increase poverty and economic insecurity, particularly among low-income households. Furthermore, inadequate investment in preventive healthcare and public health facilities can increase the long-term cost of treating preventable diseases. Therefore, it is necessary to examine whether the level and distribution of healthcare expenditure in India adequately address the health needs of the population and contribute effectively to economic development.

Another important problem concerns the efficiency, accessibility, and economic impact of healthcare expenditure in India. Although public and private investment in healthcare can improve health outcomes, the benefits depend on the effective utilisation of resources, the quality of services, and the equitable distribution of medical facilities. Regional disparities, insufficient funding in certain areas, high treatment costs, and gaps in health insurance coverage may limit the effectiveness of healthcare investment. In addition, the relationship between health expenditure and economic development is complex because economic growth is also influenced by education, employment, infrastructure, technology, and government policies. It is therefore important to understand how healthcare spending interacts with these factors to influence productivity, income, and social welfare. The central problem of this study is to examine how health expenditure contributes to economic development in India and identify the major challenges that reduce its effectiveness. The study also seeks to understand the role of public healthcare financing, private medical spending, health insurance, and preventive healthcare in improving population health and economic security. By examining these issues, the research aims to suggest suitable measures for improving healthcare affordability, strengthening medical infrastructure, reducing financial hardship, and ensuring that healthcare investment contributes more effectively to inclusive and sustainable economic development in India.

NEED OF THE STUDY:

Health expenditure is an important determinant of economic development because it improves the health, productivity, and overall well-being of the population. In India, studying the relationship between healthcare spending and economic development is necessary due to the growing demand for affordable medical services and the need to strengthen public health infrastructure. Investment in healthcare helps prevent diseases, improve life expectancy, reduce mortality, and increase the efficiency of the workforce. A healthy population can participate more effectively in economic activities, contribute to national productivity, and support long-term development. Healthcare expenditure also creates employment opportunities in hospitals, medical colleges, pharmaceutical industries, diagnostic centres, and other health-related services. Moreover, adequate healthcare services can reduce the financial burden on families and protect vulnerable households from falling into poverty because of unexpected medical expenses. The study is important for understanding how public and private healthcare investment contributes to human capital formation and economic progress. It also highlights the significance of primary healthcare, preventive medicine, sanitation, nutrition, and health awareness in improving national development outcomes. Therefore, examining health expenditure is essential for understanding the broader connection between public health, economic performance, and social welfare in India.

The study is further needed to identify the major challenges that prevent healthcare expenditure from generating its full economic and social benefits. Despite improvements in healthcare facilities and government programmes, unequal access to medical services, high out-of-pocket spending, shortages of

healthcare professionals, and differences between rural and urban healthcare infrastructure remain significant concerns. These challenges can reduce labour productivity, increase household financial insecurity, and widen socioeconomic inequalities. The study can help policymakers, healthcare administrators, researchers, and development planners understand the importance of efficient resource allocation and equitable healthcare financing. It also provides an opportunity to examine the contribution of government initiatives, including the National Health Mission and Ayushman Bharat, to improving healthcare access and financial protection. Furthermore, analysing the relationship between healthcare expenditure, health outcomes, employment, and economic growth can support evidence-based policy decisions. The findings may help identify ways to strengthen public hospitals, improve preventive healthcare, expand health insurance coverage, and make essential medical treatment more affordable. Special attention to disadvantaged communities can help ensure that healthcare benefits reach those who need them most. Ultimately, the study aims to emphasise that adequate, efficient, and equitable health expenditure is essential for developing human capital, reducing poverty, improving living standards, and promoting inclusive and sustainable economic development in India.

FURTHER SUGGESTIONS FOR RESEARCH:

Further research on health expenditure and economic development in India should focus on analysing the relationship between healthcare investment and economic performance using recent and reliable statistical data. Future researchers may examine the effects of public and private healthcare expenditure on gross domestic product, labour productivity, employment, and household income. Comparative studies across Indian states could help identify regional differences in healthcare financing, medical infrastructure, and health outcomes. Researchers should also investigate the relationship between government expenditure on healthcare and improvements in life expectancy, infant mortality, maternal health, and disease prevention. Longitudinal studies may be conducted to understand the long-term economic benefits of investment in primary healthcare, preventive medicine, and public health programmes. Further research could explore the effectiveness of health insurance schemes in reducing out-of-pocket medical expenditure and protecting low-income households from financial hardship. The role of healthcare infrastructure, medical technology, pharmaceutical development, and trained healthcare professionals in improving economic productivity also requires detailed investigation. Researchers should use appropriate statistical methods to distinguish the effects of healthcare expenditure from other determinants of economic development, including education, employment, infrastructure, and technological advancement.

Future studies should also examine emerging challenges and opportunities in India's healthcare financing system. Researchers may investigate the role of digital healthcare, telemedicine, electronic medical records, and artificial intelligence in improving the accessibility, affordability, and efficiency of healthcare services. The relationship between public health expenditure and rural development deserves special attention because rural communities may face difficulties in accessing hospitals, specialists, and essential medicines. Further research should analyse gender differences, socioeconomic inequalities, and regional disparities in healthcare access and their consequences for economic development. The effectiveness of government initiatives such as the National Health Mission and Ayushman Bharat may be evaluated using measurable indicators of healthcare access, treatment costs, and financial protection. Researchers could also study the economic consequences of non-communicable diseases, infectious diseases, mental health challenges, and an ageing population. Comparative international studies may identify successful healthcare financing models that could be adapted to the Indian context. In addition, surveys and interviews with patients, healthcare professionals, and administrators could provide valuable

information about the practical challenges of healthcare delivery. Finally, future research should assess how improved healthcare financing can support universal health coverage, employment generation, poverty reduction, and sustainable development. Such studies can provide evidence-based recommendations for strengthening India's healthcare system and ensuring that health expenditure contributes more effectively to inclusive economic growth.

SCOPE AND LIMITATIONS:

The scope of the present study is to examine the relationship between health expenditure and economic development in India, with particular emphasis on healthcare financing, human capital formation, labour productivity, and social welfare. The study considers both public and private healthcare expenditure and analyses their contribution to improving healthcare access, medical infrastructure, disease prevention, and population health. It covers important aspects of healthcare, including primary healthcare services, public hospitals, private medical facilities, health insurance, medical education, and preventive healthcare programmes. The research also examines how investment in healthcare can influence employment generation, household income, poverty reduction, and the overall standard of living. Government policies and programmes, including the National Health Policy 2017, the National Health Mission, and Ayushman Bharat, are considered to understand their objectives and potential contribution to healthcare development. The study primarily focuses on India and uses secondary information from government reports, research publications, books, and national and international institutions. Relevant indicators, such as public health expenditure, out-of-pocket medical spending, healthcare infrastructure, life expectancy, mortality rates, and economic growth, may be examined wherever reliable data are available. The findings are intended to help researchers, policymakers, healthcare administrators, and development planners understand the importance of effective healthcare investment in promoting inclusive and sustainable economic development.

Despite its broad scope, the study has certain limitations that must be considered when interpreting its findings. First, the research relies mainly on secondary data, and its accuracy depends on the reliability, completeness, and timeliness of published information. Second, differences in data collection methods, reporting periods, and definitions may make comparisons between states or years difficult. Third, the study focuses primarily on India at the national level and may not fully explain the healthcare conditions of every state, district, or community. Fourth, healthcare expenditure is only one of several factors influencing economic development; education, employment, infrastructure, sanitation, nutrition, technology, and government policies also affect economic outcomes. Therefore, a direct causal relationship between healthcare spending and economic growth cannot be assumed without appropriate empirical analysis. Fifth, variations in healthcare costs, treatment quality, insurance coverage, and access to medical facilities may not be fully captured by the available data. Sixth, private healthcare expenditure and informal payments may be difficult to measure accurately in some circumstances. Finally, limited access to recent and detailed information may restrict the depth of statistical analysis. These limitations indicate the need for cautious interpretation and further research using updated data, field surveys, state-level comparisons, and appropriate statistical methods.

DISCUSSION:

Health expenditure plays a significant role in promoting economic development in India by improving population health, strengthening human capital, and increasing workforce productivity. Investment in healthcare services enables individuals to prevent and treat diseases, maintain physical and mental well-being, and participate more effectively in economic activities. A healthier workforce can

contribute to higher productivity, reduced absenteeism, and improved performance across agriculture, manufacturing, and service sectors. Healthcare expenditure also supports the development of hospitals, medical colleges, diagnostic centres, pharmaceutical industries, and other health-related services, thereby creating employment opportunities. Public investment in primary healthcare, vaccination, maternal and child health, and disease prevention can improve health outcomes and reduce the long-term costs associated with untreated illnesses. Government initiatives such as the National Health Mission and Ayushman Bharat reflect the importance of expanding healthcare access and reducing financial barriers to treatment. Furthermore, improved healthcare can protect household income by reducing illness-related work interruptions and helping families avoid excessive medical expenses. These benefits demonstrate that healthcare spending should be considered an investment in human capital and economic capacity. However, the contribution of health expenditure depends on the availability, affordability, quality, and effective delivery of healthcare services rather than the amount of money spent alone.

Despite the positive contribution of healthcare investment, several challenges continue to affect its effectiveness in India. Unequal distribution of medical facilities, shortages of trained healthcare professionals, high out-of-pocket expenditure, and differences in service quality between rural and urban areas remain important concerns. When households must spend a large share of their income on medical treatment, they may experience financial hardship and reduce expenditure on education, nutrition, and other essential needs. Similarly, inadequate preventive healthcare can increase the burden of disease and reduce the productive capacity of the population. These problems highlight the need for better planning, efficient resource allocation, stronger primary healthcare systems, and affordable medical services. Greater attention should be given to improving public hospitals, expanding health insurance coverage, strengthening medical education, and promoting digital healthcare where appropriate. Regular monitoring of healthcare expenditure and health outcomes can help policymakers identify gaps and improve the use of public resources. It is also important to recognise that economic development depends on several interconnected factors, including education, employment, infrastructure, technology, and investment. Therefore, healthcare spending should be integrated with broader social and economic policies to maximise its benefits. Overall, effective and equitable health expenditure can improve population well-being, strengthen workforce productivity, reduce poverty, and support inclusive economic development in India. A coordinated approach involving government agencies, healthcare institutions, private providers, and communities is essential to build a more accessible and sustainable healthcare system.

RECOMMENDATIONS:

To strengthen the relationship between health expenditure and economic development in India, the government should increase investment in accessible, affordable, and quality healthcare services. Greater financial resources should be allocated to primary healthcare centres, public hospitals, medical colleges, and rural healthcare facilities. Priority should be given to preventive healthcare, vaccination, maternal and child health, nutrition, sanitation, and early disease detection to reduce the long-term burden of illness. Healthcare infrastructure should be improved through modern medical equipment, essential medicines, diagnostic facilities, and adequate hospital beds. The recruitment and training of qualified doctors, nurses, and other healthcare professionals should be strengthened to address staff shortages, particularly in rural and underserved areas. Government health insurance programmes should be improved to provide better financial protection for economically weaker sections of society. Measures should also be introduced to reduce excessive out-of-pocket expenditure and ensure that essential medical treatment remains affordable. Greater emphasis should be placed on strengthening public hospitals and improving the quality of healthcare services. Digital healthcare facilities, telemedicine, and electronic health records should be

expanded where appropriate to improve access and service efficiency. These measures can help build a healthier population, improve workforce productivity, and support India's long-term economic development.

The government should also improve the planning, allocation, and monitoring of healthcare expenditure to ensure that public resources are used efficiently. Regular assessments should be conducted to evaluate the relationship between healthcare spending, service quality, and health outcomes. Greater coordination between central and state governments is necessary to reduce regional disparities and improve the distribution of medical facilities. Public-private partnerships may be encouraged where appropriate, while maintaining affordability, transparency, and accountability. Healthcare policies should focus on disadvantaged communities, women, children, older people, and low-income households to promote equitable access to treatment. Investment in medical research, pharmaceutical development, and healthcare technology should be encouraged to strengthen domestic healthcare capacity. Public awareness programmes should promote healthy lifestyles, disease prevention, mental health, and the early use of medical services. Educational institutions should also provide adequate training to develop a skilled healthcare workforce. Reliable data on public expenditure, private medical spending, insurance coverage, and health indicators should be collected to support evidence-based policymaking. Finally, healthcare investment should be integrated with policies related to education, employment, nutrition, sanitation, and poverty reduction. Implementing these recommendations can improve the efficiency of healthcare expenditure, reduce financial hardship, strengthen human capital, and promote inclusive and sustainable economic development in India.

CONCLUSION:

Health expenditure is an important determinant of economic development because it improves population health, strengthens human capital, and enhances workforce productivity. The present study highlights that investment in healthcare contributes to economic progress by reducing the burden of disease, improving life expectancy, and enabling individuals to participate more effectively in productive activities. Adequate healthcare facilities also support employment generation through hospitals, pharmaceutical industries, medical education, diagnostic services, and healthcare technology. Public investment in primary healthcare, preventive medicine, maternal and child health, and disease control can improve living standards and reduce the long-term economic costs associated with illness. In India, government programmes and healthcare policies have aimed to expand medical facilities, improve access to treatment, and provide financial protection to vulnerable households. However, the effectiveness of health expenditure depends on the efficient use of resources, the quality of healthcare services, and the equitable distribution of medical facilities. Therefore, healthcare should not be viewed merely as a social expense but as a long-term investment in human capital and national development. Improving healthcare access and affordability can help reduce economic insecurity, strengthen productivity, and create a healthier population capable of contributing to India's economic growth.

Despite improvements in healthcare services, India continues to face challenges such as regional disparities, high out-of-pocket medical expenditure, shortages of trained healthcare professionals, and unequal access to quality treatment. These problems require coordinated efforts by government institutions, healthcare providers, and communities. Greater investment in public hospitals, rural healthcare facilities, preventive services, medical research, and health insurance is necessary to improve healthcare outcomes. The government should also strengthen monitoring systems, ensure efficient resource allocation, and encourage the use of appropriate digital technologies to improve service delivery. Special attention must be given to economically weaker sections and underserved communities so that

healthcare benefits are distributed more equitably. Furthermore, healthcare expenditure should be integrated with policies relating to education, nutrition, sanitation, employment, and poverty reduction to achieve broader development objectives. The study concludes that adequate, efficient, and equitable health expenditure can make a substantial contribution to India's economic development by improving workforce efficiency, reducing financial hardship, and enhancing social welfare. A strong and accessible healthcare system is essential for building a productive population and achieving inclusive and sustainable economic growth. Thus, continued investment in healthcare should remain a key priority in India's long-term development strategy.

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