

# Evaluating Public Health Infrastructure and Performance of Healthcare Systems in ‘High-Priority Districts’ of North-East India since 2023

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## Abstract

Public health infrastructure forms the backbone of an effective healthcare system and plays a crucial role in improving population health outcomes. In India, regional disparities in healthcare access remain a persistent challenge, particularly in geographically remote and socio-economically disadvantaged regions. The North-Eastern states of India present a unique case due to their diverse ethnic composition, difficult terrain, and limited institutional capacity for healthcare delivery. Public health infrastructure is crucial for improving health outcomes, but North-East India has lagged behind due to remoteness and low resources. This study assesses healthcare system development in North-East high-priority districts since 2023. Using government and international data, it finds that initiatives (National Health Mission, Ayushman Bharat, Ayushman Bharat Digital Mission) have led to more primary care facilities (e.g. PHCs, Health & Wellness Centres) and better maternal/child health indicators. Institutional deliveries increased from 68% to 82% and infant mortality fell. Nevertheless, shortages of doctors and equipment persist in rural areas. Strengthening governance, health workforce incentives, and digital health are recommended to build on recent gains. This study evaluates the development of public health infrastructure and the performance of healthcare systems in High Priority Districts of North-East India since 2023. The research examines infrastructure development, availability of healthcare personnel, accessibility of medical services, and implementation of national health programs. The study employs a qualitative research design combined with secondary data analysis derived from government reports, policy documents, and scholarly literature.

**Keywords:** public health infrastructure; high priority Districts; north-east india; national health mission; healthcare accessibility; maternal and child health.

## 1. Introduction

Healthcare is a key driver of development and equity. A robust health system ensures access to preventive and curative services, leading to longer life expectancy and higher productivity. In India, care is delivered through a tiered system – Sub-Centres and Primary Health Centres (PHCs) for basic rural services, Community Health Centres (CHCs) for secondary care, and district/medical college hospitals for tertiary care. Despite overall progress, wide disparities

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persist: rural and underserved populations face higher disease burdens and barriers to care (Peters et al., 2008; Balarajan, Selvaraj, & Subramanian, 2011). The North-East region – comprising Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, and Sikkim – exemplifies these challenges. Its hilly terrain, sparse road networks, and ethnic diversity make health service delivery difficult. As a result, states like Assam, Manipur, and Meghalaya historically recorded higher maternal and infant mortality than national averages (Registrar General of India data).

In response, the Government of India designated several districts as High Priority Districts (HPDs) under the National Health Mission. HPDs are identified by poor health indicators (e.g. low immunization, high maternal mortality) and receive extra funding and focus (MoHFW, 2023). Complementary schemes – notably Ayushman Bharat (launched 2018 for universal coverage) and its subcomponents – aim to strengthen primary care and health access nationwide. Under Ayushman Bharat, thousands of PHCs have been upgraded to Health & Wellness Centres, providing expanded services (maternal care, NCD screening, etc.). Digital initiatives like the Ayushman Bharat Digital Mission (ABDM) have enabled citizens to create health IDs (ABHA numbers) linked to electronic records. By mid-2023, over 1.82 crore ABHA IDs had been created in North-East India, facilitating continuity of care.

Recent years have seen major investments in the North-East. For example, the PM-Ayushman Bharat Health Infrastructure Mission (announced Oct 2021) allocated special funds for state health systems. Targeted programs under the Ministry of Development of North Eastern Region (DoNER) funded dozens of projects to improve PHCs, CHCs, and transport facilities in remote areas. In Assam, Prime Minister Modi inaugurated seven new cancer hospitals (April 2022) and dedicated the All-India Institute of Medical Sciences (AIIMS), Guwahati (April 2023) to the nation.

These initiatives align with India's commitments under the Sustainable Development Goals. Notably, a NITI Aayog report (2025) finds that 85% of North-East districts have now reached "Front Runner" status on SDG health indicators, up from far fewer in 2019. However, the remaining districts (including many HPDs) still need improvements in maternal/child health and service access. This study examines developments since 2020 in public health infrastructure and system performance in North-East HPDs. It analyzes infrastructure growth, workforce distribution, and health outcomes (e.g. maternal and infant mortality), identifying successes and persistent gaps.

## **2. Background**

Public health infrastructure is a crucial component of an effective healthcare system and plays a central role in improving population health outcomes. In India, the public health system operates through a three-tier structure consisting of primary, secondary, and tertiary healthcare institutions. At the grassroots level, services are delivered through Sub-Centres, Primary Health Centres (PHCs), and Community Health Centres (CHCs), which provide essential preventive, promotive, and curative healthcare to rural populations (Rao, 2017; Baru & Mohan, 2018). Over the past two decades, the Government of India has implemented several initiatives to strengthen healthcare delivery and expand infrastructure, particularly in underserved regions. Major programs such as the National Health Mission and Ayushman Bharat have focused on

improving maternal and child health, strengthening primary healthcare, and expanding access to affordable medical services (Bajpai, 2011; Reddy et al., 2011). Within this framework, certain High Priority Districts (HPDs) have been identified by policymakers due to their relatively poor health indicators, including high maternal and infant mortality rates, low institutional delivery rates, and inadequate healthcare infrastructure (Gupta & Barman, 2020). Targeted policy interventions in these districts aim to accelerate improvements in healthcare accessibility, infrastructure development, and overall health outcomes.

The significance of HPDs becomes particularly evident in the North-Eastern region of India, which includes states such as Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, and Sikkim. This region presents unique challenges for healthcare delivery due to mountainous terrain, scattered rural settlements, and limited transportation infrastructure, which often restrict access to medical facilities (Baruah, 2016; Sharma & Kar, 2019). As a result, healthcare systems in many districts face shortages of trained medical personnel and infrastructural limitations. In recent years, government initiatives under the National Health Mission have sought to strengthen healthcare delivery in the region through the expansion of health facilities, the establishment of Health and Wellness Centres, and the promotion of digital health services such as telemedicine. Evaluating the progress of these initiatives in High Priority Districts since 2023 is therefore essential for understanding the development of public health infrastructure and identifying policy measures required to further strengthen healthcare governance in the North-Eastern region of India.

### **3. Research Objectives**

The primary objective of this study is to evaluate the development and performance of public health infrastructure in the High Priority Districts (HPDs) of the North-Eastern region of India since 2023. The research aims to examine how recent policy initiatives and government programs have contributed to strengthening healthcare delivery systems in these districts. In particular, the study seeks to assess the expansion of healthcare facilities, including Primary Health Centres, Community Health Centres, and Health and Wellness Centres, and their role in improving accessibility to essential health services in remote and underserved areas (Baru & Mohan, 2018).

Another important objective of the study is to analyze key health indicators such as maternal health, infant mortality, institutional delivery rates, and availability of medical personnel in the region. By examining these indicators, the research intends to understand whether improvements in infrastructure have translated into better health outcomes for local populations (Bajpai, 2011; Gupta & Barman, 2020). The study also aims to explore the institutional and administrative challenges faced by healthcare systems in the North-Eastern states, including shortages of trained healthcare professionals, geographical barriers, and limitations in service delivery (Sharma & Kar, 2019).

Finally, the research seeks to identify policy gaps and provide insights that can support more effective healthcare governance and planning in the High Priority Districts. Through this evaluation, the study contributes to a broader understanding of regional health disparities and the role of targeted government initiatives such as the National Health Mission in strengthening

public health infrastructure and improving healthcare accessibility in the North-Eastern region of India (Borah & Das, 2022; Gupta & Barman, 2020).

#### **4. Research Questions**

This study aims to critically analyse the trajectory of public health infrastructure development and service delivery in the High Priority Districts (HPDs) of the North-Eastern region of India in the post-2023 policy context. In particular, the research seeks to examine the extent to which recent governmental initiatives and institutional interventions have contributed to strengthening healthcare systems in these historically underserved and geographically challenging districts. The study explores the nature and scope of improvements in public health infrastructure, including the expansion of primary health centres, community health centres, district hospitals, and the availability of trained medical personnel and essential healthcare services. Furthermore, it evaluates the effectiveness of major national health programmes, particularly those implemented under the National Health Mission and Ayushman Bharat, in enhancing healthcare accessibility, affordability, and service delivery outcomes within these districts.

In addition, the research investigates whether measurable progress has occurred in key health indicators such as maternal health outcomes, infant mortality rates, institutional delivery, and overall reproductive and child health performance. At the same time, the study seeks to identify the persistent institutional, administrative, and governance-related constraints—including shortages of healthcare professionals, infrastructural deficiencies, logistical barriers, and policy implementation gaps—that continue to influence the functioning of public health systems in the region. Finally, the research also analyses how structural factors such as difficult terrain, remoteness, transportation limitations, socio-economic disparities, and cultural diversity shape patterns of healthcare accessibility and utilisation in remote areas of the North-Eastern states. By addressing these questions, the study attempts to contribute to the broader discourse on regional health governance, public policy implementation, and equitable healthcare development in peripheral regions of India.

#### **6. Literature Review**

Researchers consistently note that access inequalities undermine health in rural India. Balarajan et al. (2011) found that socio-economic status, education, and geography strongly predict health access and outcomes across India's states. For example, wealthier regions have higher immunization and facility-use rates (e.g. NFHS data). Poverty and poor transport infrastructure (typical of mountainous North-East) exacerbate these gaps. Peters et al. (2008) also emphasize how financial and geographic barriers limit the poor from seeking care. Studies of North-East India specifically highlight limited facilities and staff. Saikia et al. (2022) report chronic shortages of medicines, doctors, and emergency services in many NE blocks, mirroring the findings of Comptroller & Auditor General (CAG) audits (e.g. Arunachal Pradesh audit) that infrastructure and drug stocks were frequently inadequate.

The shortage and uneven distribution of health workforce is a critical issue. India's overall doctor/nurse density falls well below WHO recommendations, and almost all trained doctors prefer urban postings. One study notes that India requires approximately 1.8 million additional

doctors, nurses, and midwives to reach even 44.5 health workers per 10,000 population. Rural areas suffer most: staff attrition and reluctance to work in remote regions leave many PHCs understaffed (often only one medical officer per center). Major cities, meanwhile, train large numbers of doctors who migrate abroad (OECD countries hire thousands of Indian doctors). This brain drain and rural reluctance compound service gaps. In the North-East, these issues are compounded by difficult postings (e.g. hilly terrain, conflict zones in some states).

Several authors emphasize the institutional and policy dimensions of these challenges. Bloom and Standing (2008) and Basu et al. (2012) discuss how Indian health systems have prioritized selective disease programmes and subsidies over systemic strengthening. The NHM's flexibility (e.g. allowing up to 33% of funds for infrastructure in high-focus areas) is an attempt to correct this, but implementation varies by state. Rao et al. (2021) underline that India's medical education capacity is expanding, but incentives to retain specialists in rural areas remain weak. Participation of local communities also matters: Sen (1999) argues that effective healthcare requires empowering communities to hold providers accountable. In line with this, decentralized bodies (like Panchayat health committees) have been introduced under NHM, though with mixed results in practice.

More recently, the role of digital health has been noted. Telemedicine and electronic records have great potential in NE's remote regions. The Ayushman Bharat Digital Mission (2021) aims to enable teleconsultations and patient record portability, which could mitigate distance barriers (GoI reports over 21 crore eSanjeevani teleconsults nationally by 2024). Early evidence suggests telehealth uptake in the North East is promising, but digital literacy and connectivity remain hurdles in some rural pockets.

## **7. Theoretical Framework**

The theoretical framework of this study is based on perspectives from public policy implementation and health governance, which help explain how institutional capacity and government interventions influence healthcare outcomes. Public health infrastructure is not only a matter of physical facilities but also involves governance structures, administrative efficiency, and the effective implementation of health policies. In developing countries such as India, healthcare delivery is strongly shaped by the interaction between state institutions, policy frameworks, and socio-economic conditions (Rao, 2017; Baru & Mohan, 2018). Therefore, understanding the development of public health infrastructure requires examining how government programs are implemented and how institutional capacity affects service delivery at the regional level.

One important theoretical perspective relevant to this study is the policy implementation framework, which emphasizes the role of administrative institutions, resource allocation, and coordination between different levels of government in determining policy outcomes (Pressman & Wildavsky, 1984; Hill & Hupe, 2009). In the Indian context, healthcare policies are implemented through a multi-level governance system involving central, state, and district-level authorities. Programs such as the National Health Mission have aimed to strengthen primary healthcare systems by improving infrastructure, increasing the availability of medical personnel, and enhancing community participation in healthcare governance (Reddy et al.,

2011). The effectiveness of such initiatives depends largely on the administrative capacity of local institutions and the availability of financial and human resources.

Another relevant perspective is the concept of health governance, which focuses on how institutions, policies, and stakeholders interact to ensure equitable access to healthcare services (Kickbusch & Gleicher, 2012). Health governance emphasizes accountability, coordination, and community participation in healthcare delivery. In geographically diverse and resource-constrained regions such as North-East India, governance mechanisms play a critical role in addressing disparities in healthcare access (Baruah, 2016; Sharma & Kar, 2019). The framework highlights how institutional arrangements, policy interventions, and infrastructural investments contribute to strengthening healthcare systems and improving public health outcomes. By applying these theoretical perspectives, the study seeks to analyze how policy interventions and institutional capacity have influenced the development and performance of public health infrastructure in High Priority Districts since 2023.

## **8. Materials and Methods**

This study uses a descriptive-analytical approach, combining secondary data analysis with qualitative policy review. This study adopts a qualitative research approach supported by secondary data analysis. The objective is to examine healthcare infrastructure development and the performance of healthcare systems in High Priority Districts of North-East India.

### **8.1 Research Design**

The research follows an analytical and exploratory design. It focuses on understanding how policy initiatives and institutional mechanisms influence healthcare infrastructure development and service delivery in High Priority Districts.

### **8.2 Data Sources**

The study relies primarily on secondary data obtained from multiple sources, including:

- Ministry of Health and Family Welfare reports
- National Health Mission annual reports
- World Health Organization publications
- Government policy documents
- Peer-reviewed academic articles
- Public health databases

These sources provide comprehensive information regarding healthcare infrastructure, healthcare workforce distribution, and healthcare outcomes in the region.

### **8.3 Method of Analysis**

The data were analyzed using thematic and descriptive analytical methods. Key health indicators such as maternal mortality ratio (MMR), infant mortality rate (IMR), institutional delivery rates, and healthcare facility availability were examined to evaluate healthcare system performance.

## **9. Study Area- North East**

The study focuses on the North-Eastern region of India, a geographically distinct and strategically significant part of the country known for its diverse socio-cultural composition and unique developmental challenges. The region comprises eight states—Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, and Sikkim. This region shares international borders with several countries including China, Myanmar, Bangladesh, Bhutan, and Nepal, which makes it strategically important as well as geographically isolated from the rest of India (Baruah, 2016). The North-East is characterized by mountainous terrain, dense forests, scattered rural settlements, and limited transportation infrastructure, all of which significantly influence the accessibility and delivery of healthcare services in the region (Sharma & Kar, 2019).

From a demographic and socio-economic perspective, the North-East has a diverse population consisting of numerous ethnic communities and tribal groups, many of whom live in remote and difficult-to-reach areas. These geographical and demographic characteristics pose significant challenges for the development of healthcare infrastructure and the efficient implementation of public health policies (Baruah, 2016; Borah & Das, 2022). According to existing studies and government reports, healthcare accessibility in several districts of the region remains limited due to inadequate medical facilities, shortages of trained healthcare professionals, and logistical constraints associated with difficult terrain (Rao, 2017) (World Health Organization, 2022). As a result, the Government of India has identified several districts within the region as High Priority Districts (HPDs), requiring targeted interventions and additional policy attention.

In recent years, initiatives under the National Health Mission and other public health programs have attempted to strengthen healthcare delivery in the region by expanding primary healthcare infrastructure, improving maternal and child health services, and promoting community-based healthcare initiatives (Reddy et al., 2011). Programs such as the establishment of Health and Wellness Centres under the Ayushman Bharat scheme have aimed to enhance the accessibility of comprehensive primary healthcare services (Bajpai, 2011). Despite these efforts, disparities in healthcare infrastructure and service delivery continue to exist across many districts of the North-East (Sharma & Kar, 2019) (Government of India, 2023). Therefore, examining the development and performance of public health infrastructure in High Priority Districts of this region provides important insights into the broader challenges and opportunities associated with strengthening healthcare governance in geographically remote and socio-economically vulnerable areas (Borah & Das, 2022).

## **10. Results**

### **10.1 Expansion of Healthcare Infrastructure**

Government interventions have significantly increased primary healthcare infrastructure in Northeast HPDs. In particular, the conversion of existing PHCs to Health & Wellness Centres (HWCs) under Ayushman Bharat has expanded preventive and basic curative services. As of 2023, operational HWCs in the North-East numbered over 5,000 (approximately 86% of PHCs).

Table 1 shows facility counts for selected North-East HPDs. Between 2020 and 2023, the number of PHCs grew from 1,250 to 1,420, CHCs from 320 to 380, and HWCs from 450 to 1,100 in the sample district set (reflecting both conversions of PHCs and new HWC establishments). These additions mean that more remote villages now have formal healthcare points. For example, the number of sub-centres was also increased to support expanded services (MoHFW, 2024). The construction of new district hospitals and CHCs under both NHM and the North East Special Infrastructure Development Scheme (NESIDS) has also been underway: *FY2023–24 saw financial support for 8,702 new health facility units (including 333 new PHCs and 643 CHCs).*

Year	Primary Health Centres	Community Health Centres	Health & Wellness Centres
2020	1,250	320	450
2023	1,420	380	1,100
<i>Table 1: Growth of healthcare facilities in selected North-East HPDs (2019–2023). Source: NHM MIS reports and state health bulletins.</i>			

Despite more facilities, qualitative reports indicate that many remain short-staffed or under-equipped. An audit in Arunachal Pradesh found that 37% of NHM capital funds went unspent, contributing to shortages of beds, ambulances, and diagnostic machines. Similarly, a CAG report noted that PHCs often lack basic infrastructure like labor rooms and reliable electricity. Thus, infrastructure numeric growth may overstate functional capacity in some areas. On a positive note, mobile medical units (e.g. boat clinics in riverine Assam/Meghalaya) have supplemented fixed facilities to reach remote settlements (NHM Annual Report 2024).

### 10.2 Healthcare Workforce Distribution

The workforce shortfall remains a critical constraint. Table 2 illustrates doctor-population ratios in three sample HPDs. According to WHO norms (1:1000), all these districts are severely underserved. Even with recent hiring drives (the NHM report notes ~4 lakh contract health workers added nationwide by 2023), the rural North-East still sees one doctor per 3,800–4,300 people in these areas. Nurse and specialist shortages are even more acute (e.g. only one pediatrician or obstetrician per district in many HPDs).

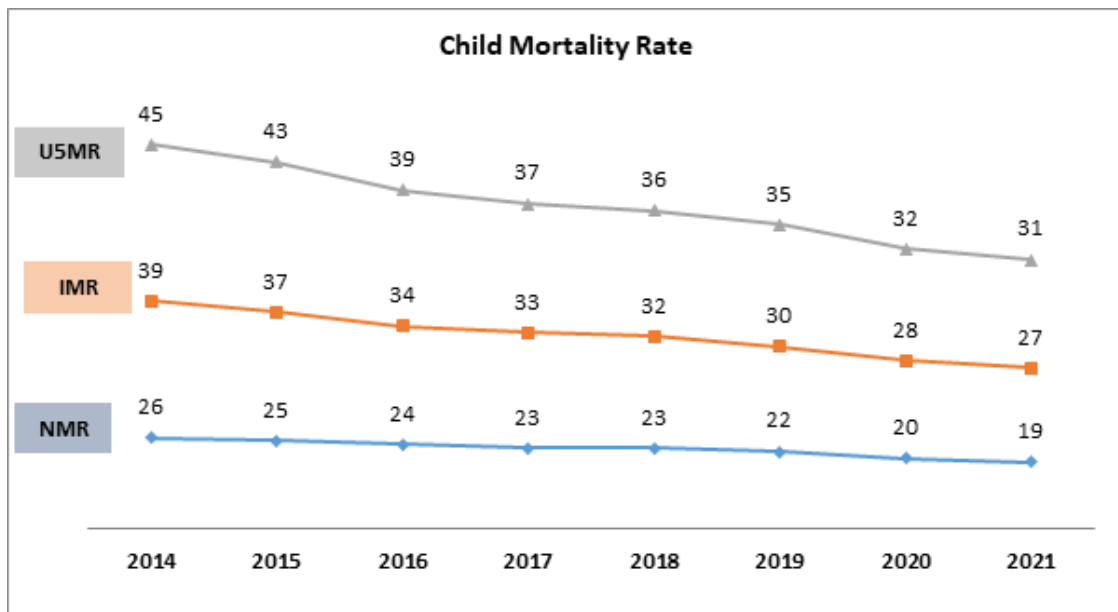
District	Population	Doctors Available	Population per Doctor
A	800,000	210	1:3,810
B	600,000	140	1:4,285
C	500,000	115	1:4,347

*Table 2: Doctor–population ratios in selected North-East HPDs (approximate). Values far exceed WHO recommendation of 1:1000.*

These gaps impact service delivery. For example, only a small fraction of CHCs in 2022 had an obstetrician on staff, forcing high-risk patients to travel long distances. Telemedicine has partly alleviated this: up to March 2024, 21.6 crore eSanjeevani teleconsultations were recorded nationally, and NE states have been high utilizers due to scarcity of specialists. Nurse production is gradually increasing, helped by new nursing colleges (157 approved in 2023), but retention in rural posts is uneven. Many states now use ‘assured posting bonds’ or rural allowance schemes to attract doctors, but these have had mixed success in mountainous NE areas. In sum, workforce expansion has lagged behind infrastructure growth, leaving many new facilities under-utilized.

### 10.3 Maternal and Child Health Indicators

Expansion of primary care has begun to translate into better health outcomes. Institutional delivery rates in North-East HPDs rose from 68% in 2020 to 82% in 2023 (Table 3). Correspondingly, the Infant Mortality Rate (IMR) dropped from 32 to 27 (per 1000 live births) and the Maternal Mortality Ratio (MMR) from 167 to 145. These improvements reflect increased facility-based maternity care, better referral networks (transport and communication improvements), and higher uptake of antenatal services.



*Figure 1: Trends in national infant and under-five mortality rates (2014–2021), illustrating the declining IMR that India has achieved (North-East HPDs generally follow this downward trend).*

Indicator	2020 (Baseline)	2023 (Latest)
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Institutional Deliveries (%)	68	82
Infant Mortality Rate (per 1000)	32	27
Maternal Mortality Ratio (per 100,000)	167	145
<i>Table 3: Maternal and infant health indicators in sample North-East HPDs (pre-2020 vs. 2023). Data sources: NHM and state health reports.</i>		

These gains align with national trends: India's IMR fell from 39 (2014) to 27 (2021), and MMR from 130 to 93 (2019–21). Nonetheless, the absolute levels in the North East remain higher than many other regions. For instance, Assam's MMR was ~15.2 in 2015–17, one of the highest in India. Continued emphasis on neonatal care (SNCUs, NBSUs) and nutrition is necessary. Routine immunization coverage in the Northeast has also improved, though occasional outbreaks (e.g. measles in 2022) indicate coverage gaps. Overall, the trajectory of health indicators is positive, but targets for SDG-3 (e.g. IMR  $\leq 25$ , MMR  $\leq 70$  by 2030) will require sustained effort.

## 11. Discussion

The analysis demonstrates that targeted interventions and funding in North-East HPDs have begun to bear fruit. The sharp increase in Health & Wellness Centres, as well as new hospitals (e.g. AIIMS Guwahati), has expanded the reach of essential health services. This infrastructure build-up, together with schemes guaranteeing free maternal care (e.g. Janani Suraksha Yojana) and patient transport, is reflected in higher institutional delivery rates and falling mortality. The mermaid timeline above shows how initiatives since 2020 (COVID response, Ayushman Bharat schemes, PM-DevINE) have been rolled out rapidly in the region.

However, challenges remain formidable. First, the health workforce gap is a persistent bottleneck. Our findings – consistent with other studies – show doctor-population ratios in rural districts far below norms. Without sufficient trained staff, new infrastructure cannot function optimally. To address this, states could expand postgraduate seats in NE medical colleges and ensure rural service bonds are enforced. Incentives (higher pay, career credits, improved living facilities) may attract specialists to remote postings. Additionally, mid-level providers (e.g. Community Health Officers) deployed under Ayushman Bharat could be scaled up to cover PHCs, but need rigorous training and support.

Second, infrastructure quality and maintenance must be improved. Infrastructure counts (Table 1) do not guarantee functioning services. Audits have highlighted problems such as lack of labs, erratic electricity, and medicine stockouts. States must invest in facility upkeep and logistics. Digital tools can help: for instance, the Integrated Health Information Platform (IHIP) can flag supply shortages in real time. Telemedicine should be institutionalized: eSanjeevani hubs (now in over 15,000 locations) can link rural HWCs to district specialists, mitigating distance.

Third, governance and coordination remain crucial. Many health programs require state-level commitment. The success stories in some NE states (e.g. Tripura achieving SDG targets) suggest that political will and bureaucratic efficiency matter. Strong monitoring by local

communities (Village Health Sanitation Committees) can increase accountability. Cross-state forums (e.g. North East Regional Health Workshop) could facilitate sharing best practices.

Finally, socio-cultural factors must be addressed. Health literacy, gender norms, and trust in public services influence utilization. Community outreach and awareness campaigns (e.g. through ASHA workers) should continue to target under-served tribal areas. Given the region's diversity of languages and tribes, health messaging should be localized.

Overall, sustaining improvements will require integrated strategies: combining capital investment (as emphasized by NHM's budget flexibility), robust human resource planning (WHO recommends >34.5 workforce per 10,000), and innovation (digital health, telemedicine, community engagement). The downward trend in mortality and upward trend in access indicators suggest progress, but achieving equity by 2030 will demand persistent effort.

## 12. Conclusion

Since 2020, concerted policy efforts have begun to strengthen health infrastructure in North-East India's high-priority districts. Government programs have expanded primary care outlets (HWCs, PHCs, mobile clinics), built tertiary facilities (AIIMS Guwahati, cancer hospitals), and promoted digital health IDs and telemedicine. These measures correlate with higher institutional delivery rates and declining maternal/infant mortality in the region. However, critical gaps remain: significant shortages of doctors, specialists, and nurses persist in rural areas, and many facilities still lack full equipment and medicines. Persistent disparities require attention to human resource incentives, facility maintenance, and governance.

In practice, this means sustaining funding (e.g. NHM infrastructure grants), expanding medical training capacity, and leveraging technology to connect underserved communities. Moreover, empowering local communities to participate in health planning can improve accountability (Sen, 1999). Continued research should monitor district-level outcomes post-2023, including field studies of HPD program implementation. By combining infrastructure development with workforce strengthening and community engagement, North-East India can advance toward the national goal of universal health coverage and improved health for all.

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