

BARRIERS TO IMPLEMENTATION AND UTILIZATION OF E-SANJEEVANI: EVALUATING INDIA'S FLAGSHIP TELEMEDICINE PROGRAM

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Under the Supervision and Guidance of

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CERTIFICATE

This is to certify that Ashmin Pattanaik in partial fulfillment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur has successfully completed his internship at IIHMR University, Jaipur during Mar 10 – May 31, 2025.

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CERTIFICATE

This is to certify that dissertation titled " **BARRIERS TO IMPLEMENTATION AND UTILIZATION OF E-SANJEEVANI: EVALUATING INDIA'S FLAGSHIP TELEMEDICINE PROGRAM** " is a record of the research work undertaken by Ashmin Pattanaik in a partial fulfilment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and ^{his} her approach to the research study has been sincere, scientific and analytical.


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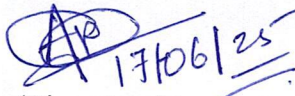
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DECLARATION BY STUDENT

I hereby declare that this dissertation titled **“Barriers to Implementation and Utilization of E-Sanjeevani: Evaluating India’s Flagship Telemedicine Program”** is the Bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.


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Abstract:

E-Sanjeevani, developed by the Ministry of Health and Family Welfare (MoHFW), represents India's flagship telemedicine initiative aimed at delivering equitable and accessible digital healthcare services. Operating through two primary models—E-Sanjeevani OPD (patient-to-doctor) and AB-HWC (doctor-to-doctor)—the platform has recorded over 340 million consultations by 2025, including significant outreach to women and senior citizens. Despite this success, the adoption of E-Sanjeevani remains uneven across states, primarily due to infrastructural and systemic barriers.

This study employs a descriptive, cross-sectional design using secondary data from MoHFW dashboards, national reports, and peer-reviewed literature. Through thematic and comparative analysis, it identifies five major domains of barriers: inadequate digital infrastructure, insufficient training and human resources, technological disruptions, socio-cultural and language-related gaps, and the disconnection between teleconsultation and allied services. States like Andhra Pradesh and Tamil Nadu demonstrate effective implementation through real-time monitoring, digital training, and community engagement, offering valuable insights for underperforming regions.

The research underscores the need for a decentralized, state-specific approach to enhance adoption. Recommendations include investments in infrastructure, digital literacy programs, seamless integration with labs and pharmacies, and multilingual awareness campaigns tailored to rural and tribal populations. The study contributes to policy discourse by highlighting scalable best practices and proposing actionable strategies for inclusive digital healthcare.

Keywords:

E-Sanjeevani, telemedicine, digital health, healthcare access, implementation barriers, India, rural health, policy, Ayushman Bharat, public health innovation

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A special thanks to my peers and friends who offered suggestions, shared resources, and encouraged me during various stages of the project. I am equally grateful to my family for their unconditional support, patience, and motivation.

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Abbreviation	Full Form
AB-HWC	Ayushman Bharat - Health and Wellness Centre
C-DAC	Centre for Development of Advanced Computing
COVID	Coronavirus Disease
EHR	Electronic Health Record
eSanjeevani OPD	Outpatient Department Module of eSanjeevani
IEC	Information, Education and Communication
MoHFW	Ministry of Health and Family Welfare
NDHM	National Digital Health Mission
NHM	National Health Mission
NCBI	National Center for Biotechnology Information
OPD	Outpatient Department
UHC	Universal Health Coverage
UHI	Unified Health Interface
WHO	World Health Organization

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CHAPTER:1-INTRODUCTION

Digital transformation in healthcare has gained considerable momentum in India, especially after the COVID-19 pandemic. One such significant initiative is E-Sanjeevani, a national telemedicine platform developed by the Ministry of Health and Family Welfare (MoHFW) to provide equitable and accessible healthcare services. The platform offers two primary modes:

- E-Sanjeevani OPD (patient-to-doctor)
- E-Sanjeevani AB-HWC (doctor-to-doctor consultations)

both of which aim *to bridge the urban-rural healthcare divide and reduce dependency on tertiary hospitals*. Despite its success in achieving over 10 crore consultations by 2023, the utilization of E-Sanjeevani remains uneven across Indian states (MoHFW, 2023). Some states like Tamil Nadu, Uttar Pradesh, and Andhra Pradesh show high adoption rates, while others lag. Several implementation and adoption barriers such as lack of digital infrastructure, inadequate training of frontline workers, connectivity issues, low public awareness, and administrative delays have been identified as significant challenges in scaling this telemedicine model uniformly. This study seeks to explore these barriers systematically through secondary data sources and literature review, to provide strategic insights for improving the platform's reach and efficiency.

1.1 Vision

E-Sanjeevani is a pioneering telemedicine initiative by the Government of India, designed to deliver equitable and accessible healthcare services, particularly in rural and remote regions. Developed by the Centre for Development of Advanced Computing (C-DAC), Mohali, the platform supports the vision of the National Digital Health Mission (NDHM) and aims to reduce the urban-rural healthcare gap by leveraging digital technology. Launched under the Ministry of Health and Family Welfare (MoHFW), E-Sanjeevani operates through two major verticals: E-Sanjeevani AB-HWC, which facilitates doctor-to-doctor consultation through Health and Wellness Centres, and E-Sanjeevani OPD, which enables direct doctor-to-patient.

consultation. These systems provide real-time audio-video consultations and e-prescriptions, thus strengthening primary healthcare delivery and promoting digital inclusion.

The platform gained remarkable momentum during the COVID-19 pandemic, when physical access to hospitals was restricted. It provided continuity of care during lockdowns, reaching a milestone of over 100 million consultations by 2023. The success of e-Sanjeevani has demonstrated the scalability and sustainability of telemedicine in India's public health infrastructure.

1.2 Evolution

Over time, E-Sanjeevani has evolved into a more integrated system, incorporating features

like electronic health records (EHRs), online queue management, multilingual interfaces, and data analytics to improve service quality. It aligns with the broader vision of Digital India and Ayushman Bharat, focusing on affordability, accessibility, and continuity of care.

Moving forward, the mission is to expand e-Sanjeevani to cover all districts, ensure interoperability with other health systems, and train health workers in digital tools. The platform represents a critical step toward achieving Universal Health Coverage (UHC) in India.

CHAPTER:2-Literature Review

The advancement of digital healthcare services in India has accelerated significantly in recent years, particularly due to the constraints brought on by the COVID-19 pandemic. Among the most impactful innovations is **E-Sanjeevani**, a national telemedicine platform launched by the Ministry of Health and Family Welfare (MoHFW). Designed to bridge the urban-rural healthcare gap, it offers two primary services: doctor-to-patient

consultations through **E- Sanjeevani OPD**, and doctor-to-doctor consultations via **E-Sanjeevani AB-HWC**.

Despite crossing over 100 million consultations by 2023, the usage of E-Sanjeevani is inconsistent across states. Regions like Andhra Pradesh, Tamil Nadu, and Uttar Pradesh have demonstrated high adoption rates, while others lag significantly. This disparity highlights a range of challenges that go beyond technology and infrastructure.

S.No.	Authors	Study location	Sample size	Sample technique	Salient feature
1	Suhas et al. (2022/23) – “A Pathbreaking Telemedicine Initiative”	Across India (33,297 spokes, 2,991 hubs)	16 million consultations (nationwide cumulative)	Government rollout (stratified by states/hubs)	Demonstrates hub-and-spoke model, scale across 35 states, free real-time video OPDs; highlights pandemic utility, digital divide, training gaps
2	Jacob et al., 2024	Kalaburagi, Karnataka	400 patients	Systematic random sampling	Assessed user satisfaction, accessibility issues in rural areas.
3	Pediatric dermatology using e-Sanjeevani 2.0	North India	961 children	Hub-and-spoke referral via HWCs	Cross-sectional design; improves access, bridges specialist care gap in pediatrics
4	Reimagining India’s National Telemedicine Service (2024)	National sample (co-author practice & platform data)	276 millions consultations	Mixed-method public health evaluation	Critiques triage, referral, training; proposes policy enhancements for universal coverage and UHC
5	Sharma et al. (2023)	Rural area for uttarakhand	300 respondent	Convenience sampling	Identified digital illiteracy and tech barriers in e-Sanjeevani usage.
6	Joseph et al. (2023)	Andhra Pradesh	250 consultations	Random sampling	Studied reduction in patient wait time and doctor-patient satisfaction.
7	Taniya Jacob et al. (2024)	Rural Kalaburagi, Karnataka	75 HWCs	Multistage sampling	100% implementation at subcenters, PHCs faced barriers: specialist availability, network issues.
8	Vashisht KR, Sahu P et al. (2025)	Resource - Limited North India	961 children	Cross sectional	Pediatric dermatology consultations; high provider

					satisfaction; most cases managed without referral.
10	Rath et al., 2022	Odisha	120 Users	Stratified sampling	Focused on tribal acceptance and cultural adaptability of e-Sanjeevani.
11	“Utilization of outpatient eSanjeevani...” (2020)	Himachal Pradesh tertiary hospital	206 Consultations	Cross sectional	Evaluated demographics, case types and usage during early pandemic phase.
12	Parvathi Malladra Parameshwara ppa & Jeby Jose (2023)	Nandigudi village, Karnataka	273 residents	Systematic Samplong	Found low awareness (2.2%) but high willingness (~56%) to use e-Sanjeevani; unfamiliarity cited
13.	Siddharth Jain, Shreya Arora et al. (2024)	Remote Ladakh	Pilot study	Pilot intervention	Super-specialty teleconsults via hub-spoke; feasibility in remote regions demonstrated.

“ Fig 2.1- Table of Literature of review”

Despite these obstacles, top-performing states offer a blueprint for success. Andhra Pradesh, for example, has introduced over 8,000 Village Health Clinics with teleconsultation capability and uses real-time dashboards to monitor performance. Tamil Nadu and Karnataka have made notable progress through consistent training of healthcare professionals. West Bengal’s community awareness initiatives have also helped normalize digital healthcare practices. These examples suggest that strategic investment in infrastructure, training, and public gement can significantly enhance telemedicine adoption across India.

Chapter -3: Methodology

This research follows a descriptive and cross-sectional approach, utilizing only secondary data to investigate the barriers in the implementation and utilization of the E-Sanjeevani telemedicine platform across India. Instead of collecting primary data, the study relies on a structured review of credible documents, reports, and scholarly literature available in the public domain.

The main sources of data include:

- Utilization and performance dashboards published by the Ministry of Health and Family Welfare (MoHFW)
- State-level implementation reports under the National Health Mission (NHM)
- Evaluation studies and strategic documents from policy institutions like NITI Aayog and international bodies such as WHO
- Peer-reviewed academic articles focusing on digital health systems in India
- Media coverage and case-based journalistic reports reflecting ground-level challenges in digital health access

To extract meaningful patterns from the data, a narrative literature review technique has been adopted. The identified barriers are organized under broad thematic areas: digital infrastructure, human resources, administrative efficiency, technological readiness, and socio- cultural dynamics. This thematic framework enables a clearer understanding of how different types of challenges affect implementation outcomes.

A comparative lens is applied by examining performance trends of both high-

performing and low-performing states. This comparative analysis helps in identifying gaps, learning from best practices, and suggesting strategies that are adaptable across various regional contexts.

Data Analysis Strategy

- Thematic Analysis: To categorize the types of challenges (e.g., infrastructural, technical, behavioral).

- **Descriptive Statistics:** Based on official state-wise data to assess usage volume and performance.
- **Trend Mapping:** To track growth and fluctuations in platform usage across different time periods.
- **Policy Review:** To identify governance and administrative hurdles affecting scale and sustainability.

This research approach is well-suited for understanding systemic issues in a large-scale

public health intervention without involving direct human participation, making it ethically sound and policy-relevant.

3.1 Research Questions

This study focuses on answering the following research questions:

- What are the key implementation barriers affecting the performance of e-Sanjeevani across different states?
- How do infrastructural, administrative, and behavioural factors influence the platform's utilization?
- What lessons can be learned from the high-performing states to improve adoption in underperforming regions?

3.2 Objectives of the Study

The study is guided by the following objectives:

- To understand the **vision and evolution** of e-Sanjeevani under the **Ayushman Bharat Digital Mission**.
- To identify key **technological, infrastructural, human resource, and administrative challenges** hindering its implementation.

- To evaluate the **state-wise performance** of e-Sanjeevani using secondary data from official dashboards and reports.
- To provide actionable **recommendations** for enhancing adoption and effectiveness in low-performing regions.

3.3 Study design

- This study adopts a **descriptive and cross-sectional design** relying exclusively on **secondary data** and document analysis. The data sources include:
 - The design purposive sampling with 18 sample size.
- **E-Sanjeevani usage dashboards** by MoHFW
- **State reports** from the National Health Mission (NHM)
- **Evaluation and policy documents** from MoHFW, NITI Aayog, and WHO
- **Peer-reviewed journal articles** related to digital health in India
- **Media articles and reports** highlighting challenges in public healthcare digitization.
 - The research will use a **narrative literature review approach** to group the challenges under broad themes such as infrastructure, human resources, technology, administration, and socio-cultural issues. The performance and challenges of high-performing states will be compared with those of underperforming ones to draw insights and policy-level suggestions.

3.3 Ethical Considerations

This study does not involve direct human participants. As it is based entirely on secondary and publicly available data, ethical clearance is not required. However, academic integrity will be maintained by properly citing all sources and references.

4.4 Implications of the Study

The findings from this research will have multiple policy and practical

implications. They can assist government authorities, program managers, and digital health policymakers in:

- Identifying and addressing state-specific challenges.

- Developing targeted interventions to improve adoption.
- Ensuring equitable access to teleconsultation services.
- Strengthening digital health infrastructure as part of the broader Ayushman Bharat Digital Mission.

CHAPTER:4-RESULT

The evaluation of E-Sanjeevani's implementation across Indian states reveals notable disparities in telemedicine adoption and usage. As of May 2025, the platform has facilitated over **340 million consultations**, with **57% female beneficiaries** and **12% senior citizens**, signifying a considerable reach among traditionally underserved groups. However, the level of adoption remains highly uneven across regions.

4.1 Current scenario: -

As of May 2025, E-Sanjeevani, India's flagship telemedicine platform developed by the Ministry of Health and Family Welfare, has delivered over 340million, from them 5 lakh consultation for the day consultations since its launch in 2019 from them 57 percent are woman beneficiary and 12 percent are senior citizens (MoHFW, 2024). It functions through two key modules:

- *E-Sanjeevani OPD (patient-to-doctor consultations)*
- *E-Sanjeevani AB-HWC (a hub-an has provided to d-spoke model connecting Health and Wellness Centres with medical specialists).*

Recent upgrades in eSanjeevani 2.0, including follow-up features, enhanced EHR, and

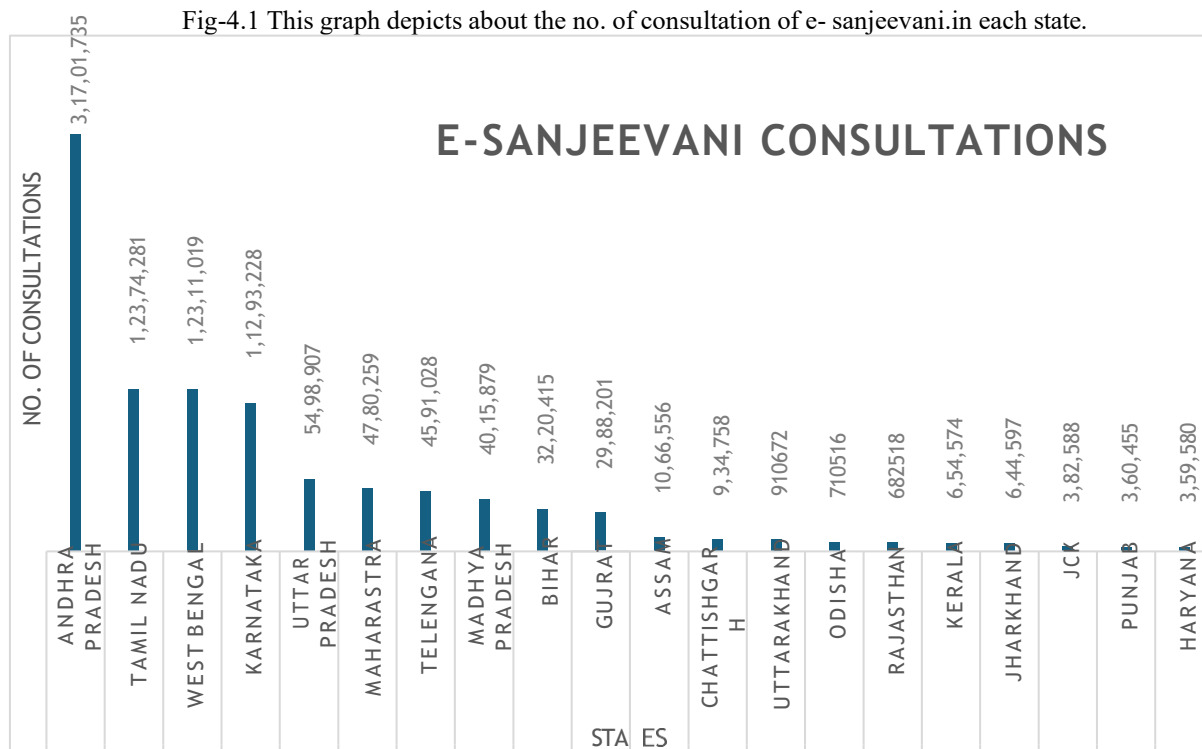
interstate doctor availability, aim to strengthen care continuity. It is also being integrated with the Unified Health Interface (UHI) as part of the Ayushman Bharat Digital Mission to improve access through various health apps (Columbia CSD, 2023).

Yet, gaps persist—especially in rural areas, where only 9% of the population have accessed telemedicine due to internet limitations, low digital literacy, and trust issues (NCBI, 2023). States like Andhra Pradesh, Tamil Nadu, and Uttar

Pradesh have emerged as top performers, accounting for a large share of national consultations, while others struggle with adoption due to infrastructure and manpower challenges.

To better understand regional performance and the variability in implementation, the following table presents the Top 20 States in eSanjeevani Consultations, their cumulative consultation figures (as per the MoHFW eSanjeevani Dashboard, 2024), key challenges faced in enhancing teleconsultation uptake, and recommendations to address these issues and promote equitable access across the country

Fig-4.1 This graph depicts about the no. of consultation of e- sanjeevani.in in each state.



Rank	State	Total consultations	Key challenges
1	Andhra Pradesh	31,701,735	High workload for doctors, lack of motivation.
2	Tamil Nadu	12,374,281	Shortage of specialists and tech disruptions.
3	West Bengal	12,311,019	Digital illiteracy in remote areas
4	Karnataka	11,293,228	Poor internet access in rural zones.
5	Uttar Pradesh	5,498,907	Lack of awareness in village.
6	Maharashtra	4,780,259	Limited number of doctors opting for teleconsultation.
7.	Telengana	4,591,028	Insufficient training, occasional system errors
8	Madhya Pradesh	4,015,879	Frontline health workers undertrained

9	Bihar	3,220,415	Low trust in virtual consultation.
10	Gujrat	2,988,201	Lack of infrastructure in remote district
11	Assam	1,066,556	Regional language gaps and access issues.

12	Chhattisgarh	934,758	Poor access in tribal belts.
13	Uttarakhand	910672	Difficult terrain limits real-time access
14	Odisha	710516	Uneven adoption across districts
15	Rajasthan	682518	Resistance from older populations
16	Kerala	654,574	Periodic service disruptions
17.	Jharkhand	644,597	Low digital skills among healthcare staff
18.	J&K	382,588	Terrain and weather impact connectivity
19.	Punjab	360,455	Limited engagement in certain blocks
20	Haryana	359,580	Shortage of medical staff trained for virtual care

Fig 4.1 List of state with their no. teleconsultations

4.2 Challenges

The implementation of E-Sanjeevani, India's national telemedicine platform, has been a

significant step towards improving healthcare access, especially in rural and remote areas.

However, despite its potential, the platform faces several challenges that impact its effectiveness and reach across the country. One of the foremost challenges is the limited

digital infrastructure in many regions. Rural and tribal areas in states like Odisha, Jharkhand,

Rajasthan, and Himachal Pradesh suffer from poor internet connectivity, lack of access to digital devices, and irregular power supply. These infrastructural gaps prevent smooth and reliable teleconsultations, making it difficult for many patients to benefit from the service.

For instance, a study conducted by Joseph et al. (2023) in Odisha revealed that many tribal areas had limited access to the internet and digital literacy, which hampered the adoption of telemedicine services.

In addition to infrastructural issues, a shortage of trained human resources poses a major hurdle. Many frontline healthcare workers, including doctors and paramedics, have inadequate training on using the E-Sanjeevani platform effectively. This is compounded by frequent staff turnover and a lack of continuous technical support. In Karnataka, Jacob T. et al. (2024) found that over half of the surveyed Health and Wellness Centres did not have online doctors available regularly, leading to significant service gaps. Without sufficient skilled personnel, the telemedicine service cannot function optimally, reducing patient trust and engagement.

Another significant challenge is the low level of digital literacy and awareness among both patients and healthcare providers. Many people, particularly the elderly, women, and those in remote villages, are unfamiliar or uncomfortable with digital technology, smartphones, or virtual consultations. This leads to a reluctance to use telemedicine platforms like eSanjeevani. For example, Sharma et al. (2023) reported that nearly 76% of the rural population in Himachal Pradesh were unaware of telemedicine services, and many lacked basic digital skills to navigate the system. This lack of awareness is a barrier to widespread acceptance and use of the platform.

Cultural and language barriers also affect the implementation of eSanjeevani. Since many consultations are conducted in Hindi or English, patients who speak regional languages or dialects find it difficult to communicate effectively. This linguistic gap is more pronounced in states with diverse linguistic groups like Rajasthan, Odisha, and the North-East. Moreover, cultural unfamiliarity with virtual healthcare and mistrust in digital platforms further reduce adoption in some communities.

Technical issues such as app crashes, server downtime, and difficulties in uploading electronic health records are frequently reported across various states, disrupting smooth service delivery. These glitches reduce user confidence in the platform and discourage repeated use.

Another limitation is the inadequate integration of teleconsultation with lab and pharmacy services. Many patients receive prescriptions during online consultations but struggle to access corresponding lab tests or medicines locally due to poor coordination between telemedicine services and local health infrastructure. In Karnataka, 41.5% of surveyed centres reported a lack of availability of essential medicines and lab facilities after teleconsultation, as found by Jacob T. et al. (2024).

Gender and accessibility disparities also hinder E-Sanjeevani's full potential. Women and elderly patients, particularly in conservative rural areas like Rajasthan and Bihar, often face restricted access to digital devices or rely on male family members for help, limiting their ability to seek teleconsultations independently. Research conducted in Balotra, Rajasthan (PMC, 2023) highlighted that many women lacked access or confidence to use the telemedicine platform.

Finally, improper triaging and over-referral to specialist doctors create additional problems, overwhelming tertiary care centres and reducing service efficiency. In Jharkhand, a survey of providers revealed th

at many cases were referred unnecessarily, due to insufficient initial screening and lack of clear guidelines, resulting in bottlenecks and delays (Population Medicine Journal, 2024).

CHAPTER:5-Discussion

To enhance the efficiency of low-performing states in implementing E-Sanjeevani, it is essential to draw practical lessons from the top five performing states—Andhra Pradesh, Karnataka, Tamil Nadu, West Bengal, and Maharashtra. These states have adopted a comprehensive approach that combines infrastructural upgrades, strategic training, administrative integration, and community engagement. For instance, Andhra Pradesh, ranked first nationally, has developed over 8,000 Village Health Clinics with teleconsultation capabilities and implemented real-time dashboards for performance tracking, which has significantly improved service delivery and responsiveness (The New Indian Express, 2023). Low-performing states can emulate this by strengthening their digital infrastructure,

particularly in rural areas where internet connectivity and power reliability remain major bottlenecks.

Karnataka and Tamil Nadu have invested in ongoing training and digital literacy for

healthcare providers, leading to increased adoption and reduced technical

barriers (Rath et al., 2022). In contrast, states such as Jharkhand and

Chhattisgarh report that inadequate training

remains a key issue (Intelehealth, 2023). Hence, implementing structured, state-

supported training programs is critical. Similarly, integrating E-Sanjeevani with

ongoing health

initiatives, as done in Tamil Nadu through convergence with the Ayushman

Bharat Digital Mission, can help create a seamless and trusted patient journey,

thereby boosting utilization rates (Joseph et al., 2023).

Community awareness has also played a pivotal role. West Bengal's engagement campaigns have helped normalize telemedicine among its population, something that lagging states can replicate through IEC (Information, Education, Communication) activities tailored to local languages and cultural contexts (Livemint, 2022). Moreover, consistent monitoring, such as Andhra Pradesh's use of data analytics, allows for real-time issue resolution and continuous improvement. Thus, adopting a data-driven approach in low-performing states can support more agile and effective implementation.

An in-depth comparative analysis of E-Sanjeevani implementation reveals considerable variation in performance among Indian states. Andhra Pradesh has emerged as the top performer, delivering over **31 million consultations** by deploying **8,000 telemedicine-enabled Village Health Clinics** and utilizing real-time data dashboards to monitor service outcomes (The New Indian Express, 2023). Conversely, Jharkhand has reported only **644,000 consultations**, primarily due to a lack of digital competency among health workers and limited technical support infrastructure (Intelehealth, 2023).

States such as **Tamil Nadu** and **Karnataka** have enhanced system adoption through dedicated digital training for providers and seamless integration with the Ayushman Bharat Digital Mission (Rath et al., 2022; Joseph et al., 2023). **West Bengal's** success in surpassing **12 million consultations** is partly credited to consistent public engagement and health education campaigns tailored to local communities (Livemint, 2022).

Despite these advancements, access to telemedicine in rural India remains limited,

with only

9% of rural users engaging with such services, hindered by low connectivity, poor digital literacy, and mistrust (Joseph et al., 2023). Additionally, over **41% of Karnataka's HWCs**

face service continuity issues due to missing links with diagnostic labs and pharmacies (Jacob et al., 2024). Bridging these systemic gaps demands tailored infrastructure, multilingual tools, and targeted training.

Chapter6:Recommendation

- **Infrastructure Upgrades:** States like Jharkhand and Chhattisgarh must prioritize investments in reliable internet access, solar-powered HWCs, and mobile-based platforms for remote districts.

- **Capacity Building:** Structured, state-funded digital literacy programs should target both frontline workers and patients. Training modules must include regional languages and hands-on mobile tech usage.
- **Integration with Services:** Link E-Sanjeevani consultations with diagnostics, pharmacies (via Jan Aushadhi Kendras), and referrals to strengthen continuity of care.
- **Localized IEC Campaigns:** Adopt West Bengal’s model of hyperlocal awareness drives using radio, village meetings, and women SHGs to normalize teleconsultation.
- **Real-Time Monitoring:** Replicate Andhra Pradesh’s dashboard system for transparent performance tracking and issue resolution at district levels.

CHAPTER:6-Conclusion

E-Sanjeevani stands as a landmark initiative in India’s journey towards equitable digital healthcare delivery. Its rapid expansion and impressive outreach—over 340 million consultations as of 2025—highlight its potential to transform healthcare access, especially for underserved populations. However, this potential remains unevenly realized due to persistent implementation barriers.

The study finds that while states like Andhra Pradesh, Tamil Nadu, and West Bengal have made significant strides through proactive digital infrastructure development, staff training, and community engagement, several other states continue to struggle due to poor connectivity, lack of trained personnel, low digital literacy, and socio-cultural

resistance. In particular, rural and tribal populations face compounded challenges that prevent them from fully benefiting from telemedicine services.

It is evident that the success of E-Sanjeevani depends not only on technological readiness but also on administrative efficiency, policy support, and user trust.

Addressing these

multifaceted barriers will require a combination of strategies: improved infrastructure in remote areas, continuous capacity building of healthcare workers, robust digital literacy campaigns, and localized awareness efforts tailored to diverse cultural contexts.

Furthermore, integrating E-Sanjeevani with other healthcare services—such as diagnostics,

pharmacies, and referrals—will be essential for providing end-to-end digital health solutions.

The experience of high-performing states offers valuable lessons that, if adapted strategically, can help lagging regions catch up and ensure a more uniform impact nationwide.

Ultimately, the continued evolution and equitable expansion of E-Sanjeevani is not just a technological ambition, but a public health necessity in achieving Universal Health Coverage in India. A targeted, inclusive, and data-driven approach will be vital in unlocking the full promise of this flagship digital health platform.

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