

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



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Introduction

- India has witnessed a significant acceleration in digital healthcare initiatives post-COVID-19. One of the flagship programs spearheading this transformation is **E-Sanjeevani**, a national telemedicine platform launched by the **Ministry of Health and Family Welfare (MoHFW)**.

About E-Sanjeevani:

It's a telemedicine service aims to make healthcare more **equitable and accessible**, especially for rural populations. It operates in two modes:

- **E-Sanjeevani OPD** – Patient-to-doctor teleconsultations
- **E-Sanjeevani AB-HWC** – Doctor-to-doctor consultations for primary health support

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Research question:

- 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?

Objective:

- 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.

Methodology:



This study adopts a **descriptive and cross-sectional design** relying exclusively on **secondary data** and document analysis.



Sample size : sample size is 20.

Challenges

- **Inadequate Digital Infrastructure**
- Poor internet, limited device access, and irregular power in rural/tribal areas
- *E.g., Odisha, Jharkhand, Rajasthan, Himachal Pradesh*
- **Shortage of Trained Healthcare Staff**
- Lack of training on E-Sanjeevani use; frequent staff turnover
- Limited technical support and doctor availability
- *Over 50% of HWCs in Karnataka lacked regular online doctors*
- **Low Digital Literacy and Awareness**
- Many patients (especially elderly, women) unfamiliar with technology
- *76% rural population in Himachal Pradesh unaware of telemedicine*
- **Cultural and Linguistic Barriers**
- Language mismatch in multilingual states (e.g., Rajasthan, Odisha, North-East)
- Mistrust and cultural unfamiliarity with virtual care
- **Technical Challenges**
- Frequent app crashes, server downtime, and issues uploading EHRs
- **Poor Integration with Health Services**
- Prescriptions not backed by accessible diagnostics/pharmacy services
- *41.5% of Karnataka centres lacked essential follow-up services*
- **Gender and Accessibility Inequities**
- Women and elderly face restricted device access and dependency on others
- *PMC study (2023) in Balotra, Rajasthan: women lacked access/confidence*
- **Inefficient Triage and Over-Referral**
- Unclear referral protocols leading to unnecessary specialist cases
- *Overburdening of tertiary centres in Jharkhand*

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

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.

Discussion

- High-performing states demonstrate that success stems from integrated digital infrastructure, ongoing provider training, and strong administrative oversight. Community-driven IEC campaigns, like in West Bengal, have normalized telemedicine use and built public trust.
- In contrast, low-performing states suffer from inadequate technical capacity, poor internet access, and fragmented service linkages. Rural participation remains critically low, with just 9% engagement due to digital illiteracy and infrastructure bottlenecks.
- Scaling E-Sanjeevani requires adaptive, state-specific models that replicate proven best practices while addressing local challenges.

Conclusion

- E-Sanjeevani exemplifies India's progress toward equitable digital healthcare, with over **340 million consultations** showcasing its transformative potential. However, disparities in implementation—especially in rural and tribal areas—highlight the need for targeted interventions.
- States like **Andhra Pradesh, Tamil Nadu, and West Bengal** demonstrate that success hinges on **robust infrastructure, staff training, community engagement, and policy support**. To bridge the gap, India must adopt a **multi-pronged strategy**:
 - Enhance digital infrastructure in underserved areas
 - Build continuous capacity among healthcare providers
 - Launch culturally sensitive digital literacy and awareness campaigns
 - Integrate E-Sanjeevani with diagnostics, pharmacies, and referral services

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Thank you