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CASE STUDY · MARLUC SYNOPSIS

eSanjeevani AI clinical decision support

IMPLEMENTED 2023 ONWARDS · GOVERNMENT AND PUBLIC SERVICES · INDIA · BAND D · CLAIMED ONLY

VERSION 1.0 · PUBLISHED 16 NOVEMBER 2026 · UPDATED 16 NOVEMBER 2026 · FACTS CHECKED 16 NOVEMBER 2026

India's national telemedicine service added an AI clinical decision support system that structures symptoms at the spoke and suggests possible diagnoses to the hub doctor. The ministry reports 282 million consultations with standardised data capture; a 2026 provider survey found high acceptance but did not measure accuracy.

ABOUT THIS SYNOPSIS

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NOTICE WORDING LAST UPDATED 16 NOVEMBER 2026

AT A GLANCE

AI used: Machine-learning clinical decision support: structured symptom capture and suggested differential diagnoses.

Implemented: 2023 onwards. Grade: band D, Task support, Claimed only.

Headline result, as reported: 282 million eSanjeevani consultations benefited from standardised data capture, April 2023 to November 2025, by the ministry's account

1 · The case

The facts, as reported by the 5 sources listed at the end. Where a source is silent, the field says "Not reported".

Organisation

Ministry of Health and Family Welfare, Government of India (eSanjeevani). India's national telemedicine service, run by the Ministry of Health and Family Welfare and developed by the Centre for Development of Advanced Computing (C-DAC). Most use is assisted: a health worker at a primary care spoke connects the patient to a doctor at a hub. Canvas block: 4. Operations and process. Also 6. Data and technology, 5. People and skills.

Business challenge

The challenge. In the assisted model, much of the clinical information gathering falls to non-physician spoke workers, and incomplete or unstructured patient data can slow doctors and affect consultation quality, per the preprint and Wadhwani AI.

How it was addressed. The ministry integrated an AI clinical decision support system (CDSS) into eSanjeevani. Spoke workers complete a structured, branching chief-complaint form; a gradient-boosted classifier trained on past consultations then shows the hub clinician up to three probable diagnoses, by the developers' description. The ministry says the system streamlines complaint entry and gives AI-based differential diagnosis recommendations. [1] [2] [3] [4] [5]

Who implemented it

Centre for Development of Advanced Computing (C-DAC), Mohali (University or research lab): Developed and engineers the eSanjeevani platform.
Wadhwani AI (University or research lab): Technical partner presenting the CDSS as its solution and co-authoring the provider survey.
In-house (In-house): Ministry of Health and Family Welfare: owns the service and describes the CDSS as a ministry-developed AI solution.

Technology (SEAM pillar E)

SEAM types: T8 Predictive / ML models. Deployment: Not reported. Vendors and products: eSanjeevani Clinical Decision Support System (CDSS).

Where it was built in: Built into eSanjeevani's assisted teleconsultation: a branching complaint form at the spoke, then up to three probable diagnoses shown to the hub clinician.

What changed

Before: free-text complaint entry at the spoke. After: a structured symptom form at the spoke and AI-suggested diagnoses for the hub doctor, who still makes the diagnosis. In the July 2025 survey, 72.6% of hub respondents judged suggestions matched or appropriate, and 91.8% of spoke respondents found the symptom summary clear. [1] [2] [3] [4] [5]

What it cost

Not reported

What it saved

Not reported. The ministry reports reach: 282 million consultations with standardised data capture and 12 million aided by AI-recommended diagnoses. [1] [2] [3] [4] [5]

Governance and control

The ministry says AI deployments follow MeitY AI governance guidelines, ICMR ethical guidelines and the Digital Personal Data Protection Act 2023. The hub clinician makes the diagnosis. The provider survey received ethics approval from an ICMR committee. Accountable owner for the CDSS and accuracy monitoring: Not reported.

S2 · Accountable owner · Not reported
The ministry describes the CDSS as its own AI solution; a named owner is not reported. [1]

A1 · Safe use · Claimed
The ministry says its AI deployments adhere to MeitY AI governance guidelines, ICMR ethical guidelines and data protection law. [1]

A2 · Human in the loop · Claimed
The hub clinician reviews the AI-generated differential and makes the diagnosis, per the developers' description. [4]

A3 · Monitoring and assurance · Claimed
A programme feedback survey of 852 providers was run in July 2025; its authors say it does not measure diagnostic accuracy. [4]

A4 · Vendor AI · Not reported
Wadhwani AI provides technical support to the ministry; vendor terms are not reported. [1] [5]

A5 · Agent controls · Not reported
No agents described.

A6 · Standards and regulation · Claimed
The ministry cites MeitY AI governance guidelines, ICMR guidelines, the IT Act 2000 and the Digital Personal Data Protection Act 2023. [1]

What worked, what did not, what is unproven

WORKED

– Reach: 282 million consultations with structured data capture, by the ministry's account.

– High stated acceptance: 85.3% of hub respondents intended to keep using the tools and 75.3% of spoke respondents were satisfied.

– Most hub respondents judged suggestions matched or appropriate.

DID NOT

– 58.9% of hub respondents regularly reviewed the suggested diagnoses.

– 7.9% of hub respondents found suggestions mostly inappropriate and 11.1% said suggestions were mostly not generated.

– Freezing was the most common hub complaint, and only about half of spoke workers and fewer than half of hub clinicians reported any training.

UNPROVEN

– Diagnostic accuracy in live use: the survey authors state that provider reports do not measure it.

– Effect on consultation time, referrals or patient outcomes.

– What the 12 million 'aided by AI-recommended diagnoses' figure measures.

Timeline

Mar 2023 CDSS functions added to eSanjeevani's assisted workflow, per the provider survey preprint [4]

Jul 2025 National programme feedback survey of hub and spoke providers [4]

Dec 2025 Minister tells the Lok Sabha that 282 million consultations have benefited from CDSS data capture [1]

Feb 2026 Government briefing says 12 million patients were aided by AI-recommended diagnoses [2]

Sept 2026 eSanjeevani passes 50 crore consultations; the AI-enabled system wins a National e-Governance Gold Award [3]

2 · Grade and SEAM assessment

MarLuc's opinion, made on the evidence above. How cases are graded: marluc.co.uk/case-studies/how-we-rate

Level of change and impact

Claimed: Not applicable. Grade: D, Task support. Proof: Claimed only. Level of change: Task support.

Task support (Level 1, band D). Doctors keep the diagnosis; the AI suggests possibilities and structures symptom entry at very large scale.

Graded D: hub doctors still diagnose and prescribe, with AI suggestions as support, and spoke workers enter symptoms through a structured form. Effects on diagnostic accuracy, time or outcomes are not measured in sources opened.

The SEAM view and lessons learnt

The system splits one consultation across two roles: the AI eases the hub doctor's reasoning while adding form-filling at the spoke. Hub clinicians' acceptance tracked the perceived quality of AI suggestions more than technical problems, per the survey authors. For larger organisations, judge decision support on the experience of each role and on audited accuracy, not on usage counts.

1. Audit AI suggestions against final diagnoses, not only usage.
2. Train every role that touches the tool, including data entry staff.
3. Report clearly what a headline usage figure counts.

Evidence

Score 1 of 4. Self-reported: ministry statements and a government briefing; a non-peer-reviewed survey preprint co-authored by the technical partner, ICMR and C-DAC.

Evaluation method. Self-reported programme figures plus a cross-sectional provider feedback survey (July 2025); no accuracy or outcome evaluation.

Sources disagree. The ministry dates CDSS integration to April 2023; the preprint says CDSS functions were added from March 2023. Wadhwani AI's CDSS page displays a figure of 178 million+ without saying what it counts, against the ministry's 282 million.

Status. Ongoing: in national use; the preprint recommends log-based and audit-based measures for the next evaluation cycle.

3 · Original sources

Read these in full. To challenge a fact or a grade, use the contact form at marluc.co.uk or the link on https://marluc.co.uk/case-studies/esanjeevani-ai-clinical-decision-support

[1] Press Information Bureau, Ministry of Health and Family Welfare: written reply in the Lok Sabha on AI in healthcare (5 December 2025)
https://www.pib.gov.in/PressReleasePage.aspx?PRID=2199422&reg=3&lang=2

[2] Press Information Bureau: Transforming healthcare delivery through artificial intelligence (13 February 2026)
https://static.pib.gov.in/WriteReadData/specificdocs/documents/2026/feb/doc2026213788701.pdf

[3] Indian Masterminds: eSanjeevani records 50 crore teleconsultations as government expands AI and specialist care (October 2026)
https://indianmasterminds.com/news/esanjeevani-50-crore-teleconsultations-ai-specialist-care-239767/

[4] medRxiv preprint: Provider experiences with AI clinical decision support in eSanjeevani (Bhagat and colleagues, 2026)
https://www.medrxiv.org/content/10.64898/2026.10.12.26365316v1.full

[5] Wadhwani AI: CDSS programme page
https://www.wadhwaniai.org/impact/healthcare-solutions/cdss/

Version 1.0 · Published 16 November 2026 · Updated 16 November 2026 · Facts checked against sources 16 November 2026 · Downloaded 27 November 2026. This PDF may be out of date: the latest version, and a way to report an error or a better source, is at https://marluc.co.uk/case-studies/esanjeevani-ai-clinical-decision-support

VERSION HISTORY

v1.0 16 November 2026 First published