

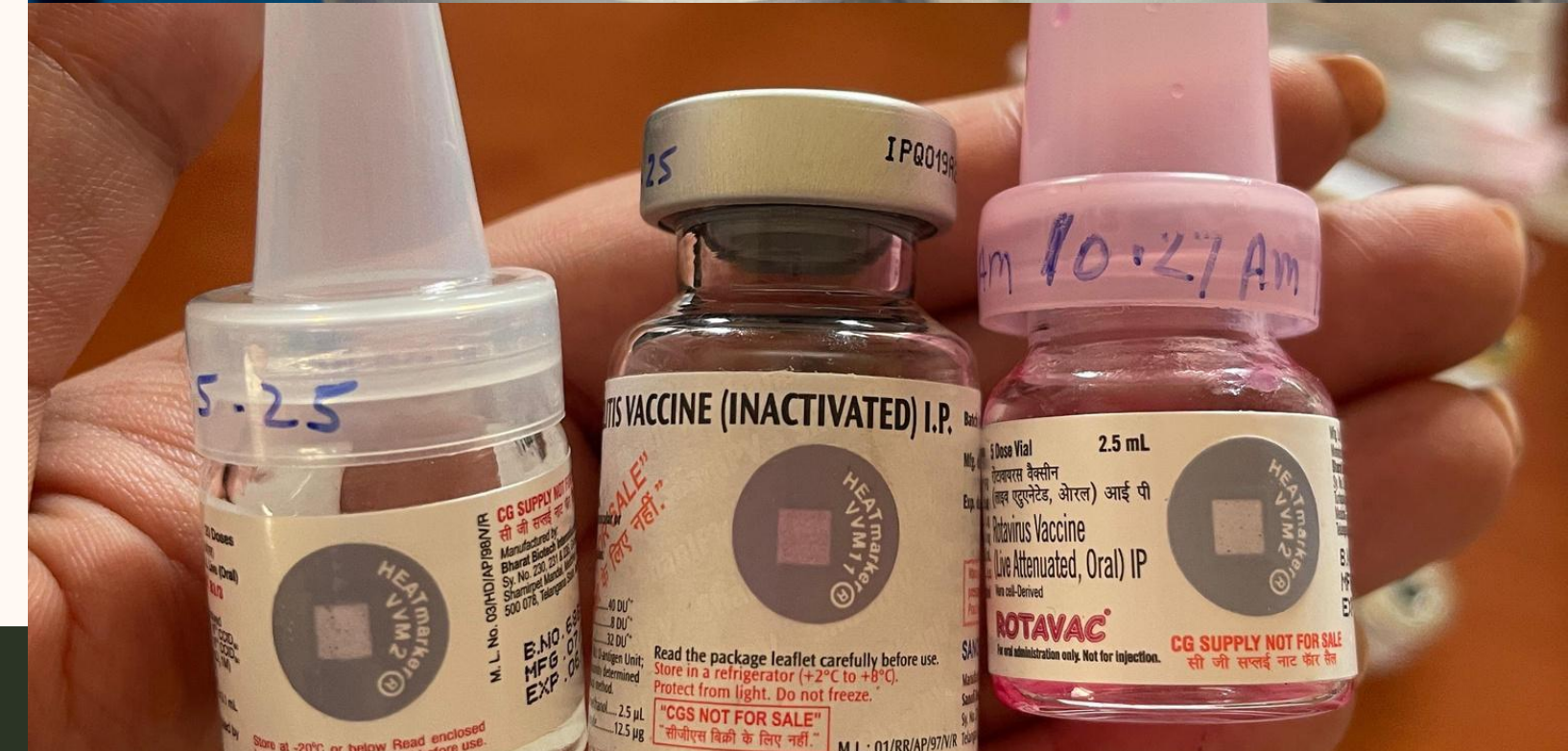
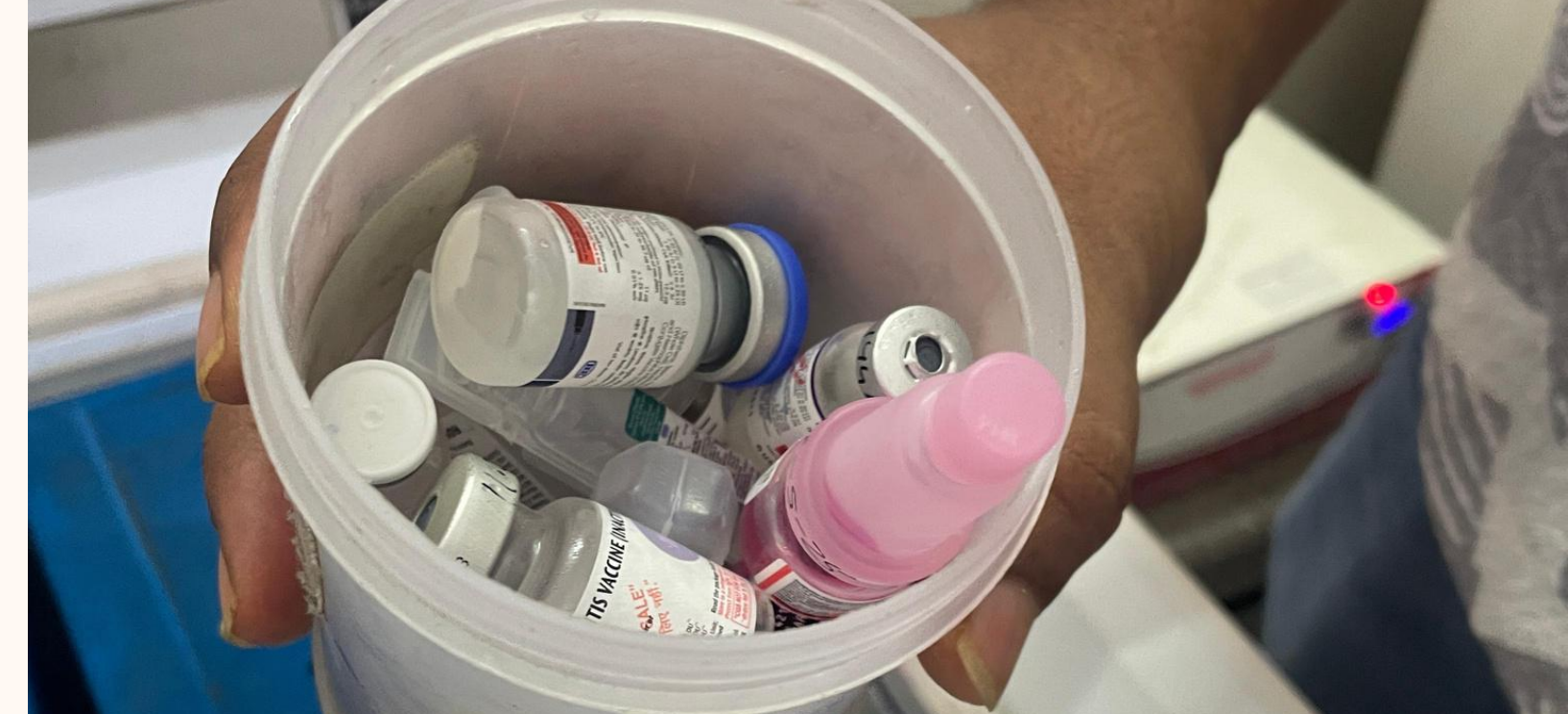
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***UNDERSTANDING THE IMPACT OF 'STRUCTURED
MONITORING' AND 'SUPPORTIVE SUPERVISION'
THROUGH THE 'ANAND DIWAS' INITIATIVE ON COLD
CHAIN MANAGEMENT AND IMMUNIZATION OUTCOMES
IN MADHYA PRADESH***

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ABSTRACT

- The potency and efficacy of vaccines in public health depend significantly on effective cold chain management.
- Despite India's expanding immunization coverage, gaps in vaccine storage, monitoring, and equipment maintenance remain challenges, especially in resource-constrained settings.
- In response, Madhya Pradesh introduced the 'Anand Diwas' initiative in October 2022 as an innovative, state-led strategy for structured monthly monitoring and supportive supervision of cold chain points, aiming to improve vaccine logistics, reduce equipment breakdown, and strengthen immunization delivery.



ABOUT 'ANAND DIWAS'

- It was introduced as an innovative approach, in which first working day of every month is designated for comprehensive supportive supervision.
- All the cold chain facilities in the state are visited and the observations are recorded in various formats in the Supportive Supervision 2.0 App developed by Ministry of Health and Family Welfare.
- Various health cadres are involved, and state, regional and district level facilities are visited by them. Officials fill out Sub DVS, DVS, RVS and SVS forms using the app.
- The visits are tracked by using the raw data files from NCCMIS portal and then data is analysed at state level.
- Findings are used to share feedbacks within the district teams so that they can track improvements and challenges can be addressed effectively. A multi-level monitoring system is formed that drives continuous improvements in the cold chain management.
- Month wise comparative findings are also discussed and shared at all levels of healthcare. This initiative helped improved supportive supervision dramatically, as reflected in 263 percent rise in FY 24-25, compared to just 17 percent in FY 19-20, 41 percent in FY 20-21 and 39 percent FY 21-22.

RATIONALE

- Gaps in the vaccine management highlighted by Effective Vaccine Management assessment, 2022.
- Low and irregular monitoring of Cold Chain Points.
- There is a paucity of data on the theme of how supportive supervision influences the vaccine cold chain management practices of service providers and vaccine handlers.

OBJECTIVES

- To understand the implementation process and structure of the Anand Diwas initiative at cold chain points.
- To explore the perceived impact of structured monthly monitoring on cold chain infrastructure, equipment maintenance, and vaccine storage practices.
- To understand how Anand Diwas has influenced vaccination quality from the perspective of frontline health workers.
- To identify enablers and barriers in the operationalization of the initiative across different facility contexts

METHODOLOGY

- **Research design:** Qualitative descriptive research method
- **Study Setting:** Phanda Block, Bhopal region, Madhya Pradesh.
- **Study Population:** Government cold chain and immunization personnel directly involved in vaccine logistics and service delivery.
- **Inclusion Criteria:** Cold chain handlers, technicians, MOICs, DIOs, ANMs, storekeepers and support staff who have participated in Anand Diwas activities.
- **Exclusion Criteria:** Health personnel not involved in cold chain monitoring or Anand Diwas.
- **Study Tools:** Key Informant Interview (KII) checklists, observation checklists, document review tools based on WHO EVM and NCCVMRC guidelines.
- **Duration Of Study:** May 2025 (1 month)

METHODOLOGY

- **Sample Size:**
 1. Four cold chain points
 2. One State Vaccination Store
 3. One District Vaccination Store
 4. Four Anganwadi Centres
 5. and related health personnel across Bhopal region.
- **Sampling Technique:** Purposive sampling was used to select the active sites of cold chain and participants, emphasising those information-rich cases most relevant to the study.
- **Data Collection Procedure:**
 1. ·In-depth interviews with state and district officials, VCCHs, MOICs, ANMs, and development partners.
 2. ·Field observation of immunization sessions and cold chain practices.
 3. ·Documentary review of Anand Diwas checklists, visit reports, temperature logbooks, and factsheets.
- **Data Analysis:** Thematic Analysis was done

RESULT

6 Themes emerged:

T₁ Pre Anand Diwas Implementation challenges

T₂ Design and Implementation of Anand diwas

T₃ Supportive Supervision practices.

T₄ Frontline workers knowledge assessment and experiences

T₅ Post-Anand Diwas Changes

T₆ Challenmges

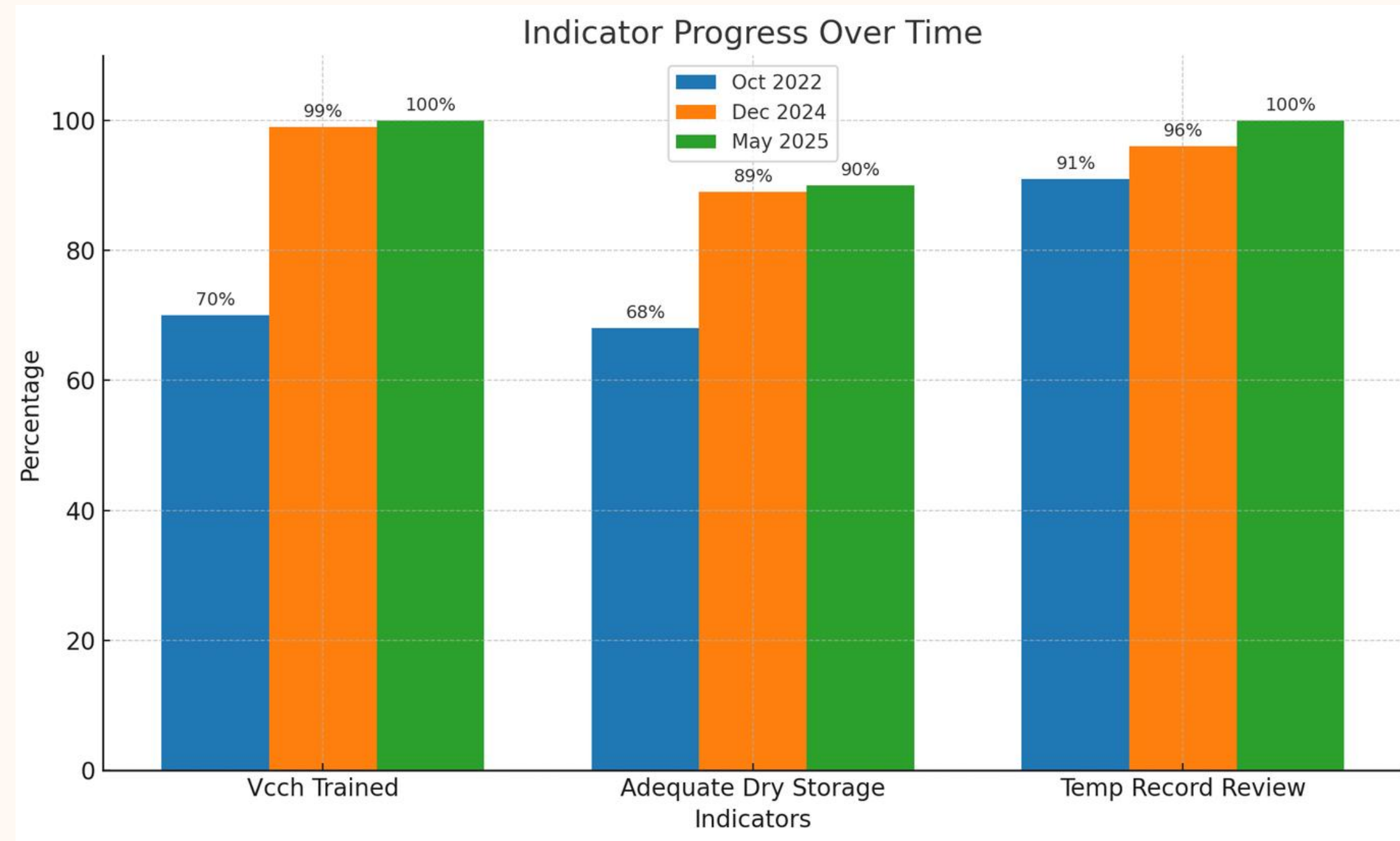


RESULT

- The findings revealed significant improvements in cold chain functioning post-Anand Diwas, including better equipment maintenance, continuous temperature logging, storage practices, and adherence to SOPs. Structured supervision created a routine culture of accountability and team-based monitoring.
- Staff showed enhanced technical knowledge, clearer role definitions, and more proactive problem-solving behaviours.
- However, the initiative faced challenges such as limited digital reporting due to technical issues since the past few months, insufficient infrastructure (e.g. cooling systems), and lack of public awareness. Monitoring data discrepancies and an absence of impact evaluation mechanisms were also noted.

RESULT

- Cold Chain Equipment Sickness rate reduced from 2.6% to 0.6%.
- Improved vaccine safety and utilization.
- Enhanced data quality and accountability.
- Better identification of issues and timely intervention.
- Targeted review mechanism.



CONCLUSION

- The Anand Diwas initiative emerged as a zero-cost, scalable model for strengthening cold chain systems and immunization quality through structured, supportive supervision and team-based monitoring.
- To sustain and replicate its success, the study recommends enhanced digital integration, structured feedback loops for maintenance, community engagement, and formal program evaluation.
- Madhya Pradesh's experience offers valuable insights for other states aiming to fortify their immunization logistics.





RECOMMENDATION

1. The present system of filling the forms of the monitoring app (developed by the GOI), by the supportive supervision team, on the Anand Divas, can be further improved. The final check-lists (100 point) submitted by them, can be collated to generate gaps, and action points. The system for follow-up on action taken on gaps identified, should be strengthened.
2. It is recommended to develop a two-way feedback loop for registering complaints related to maintenance of Cold Chain equipment. And a reference number/unique ID should be generated and received to both the maintenance partner (AOV International Limited) and the technician who registers the complaint. This will help in continuous tracking of the status of complaint registered and the duration it takes to resolve the issue. It will also play an important role in removing any discrepancies occurring at any stage of maintenance.
3. The supply system of Rotavirus vaccine needs to be reviewed thoroughly, as the supply of vaccine in VVM stage II (as happening presently), could impact the vaccine's potency.
4. CCM Recording and tracking needs to be made more robust to ensure sustainability.

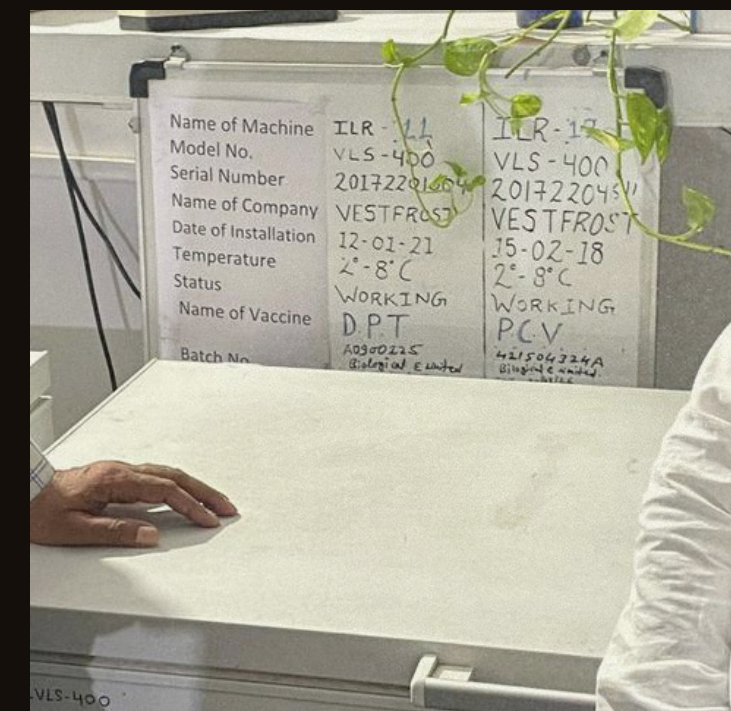
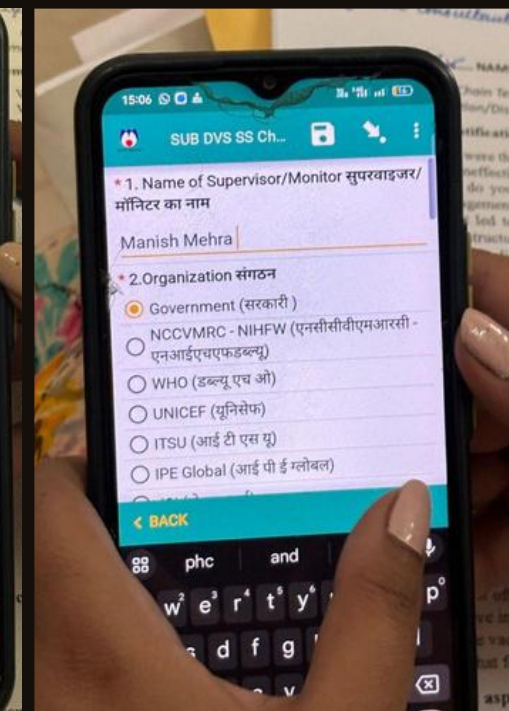
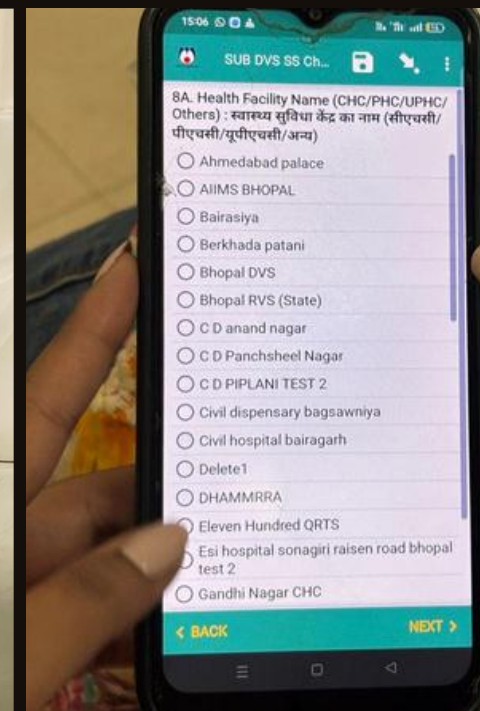
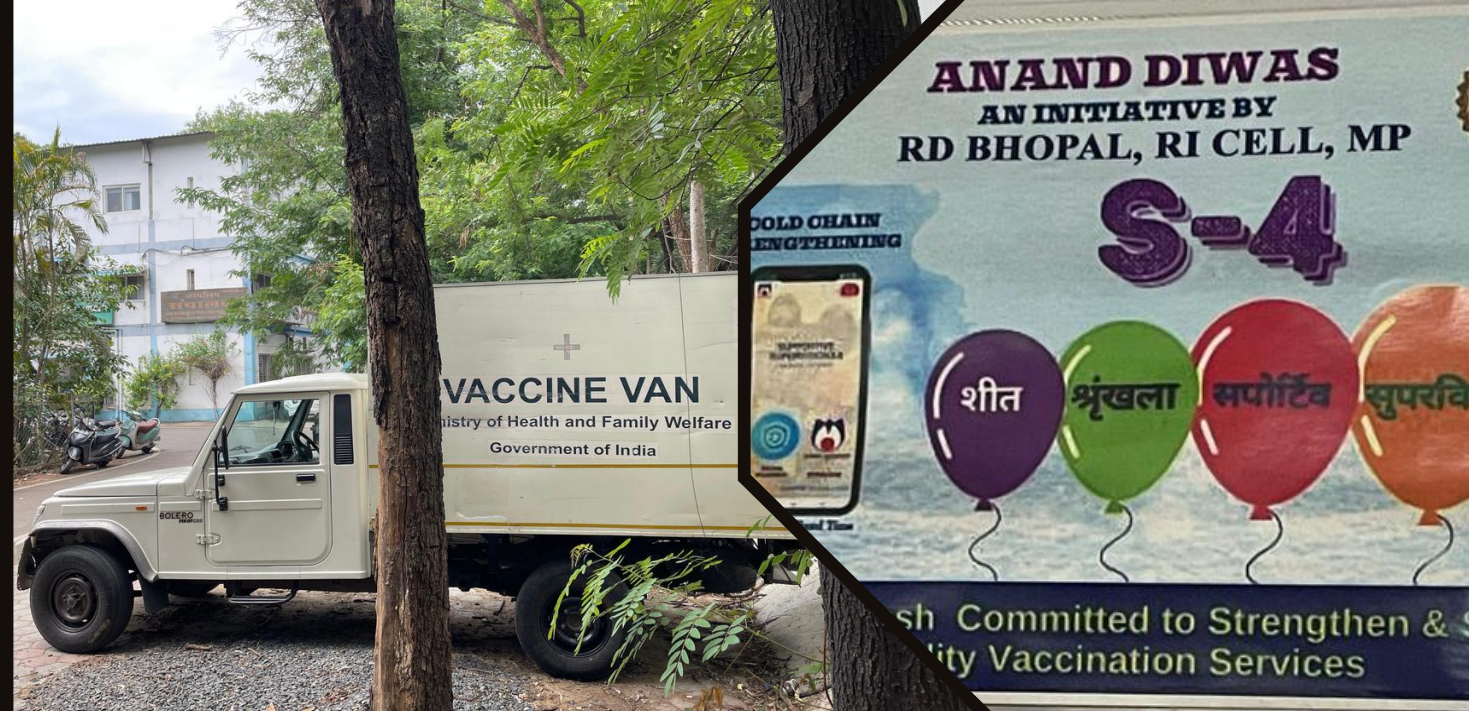


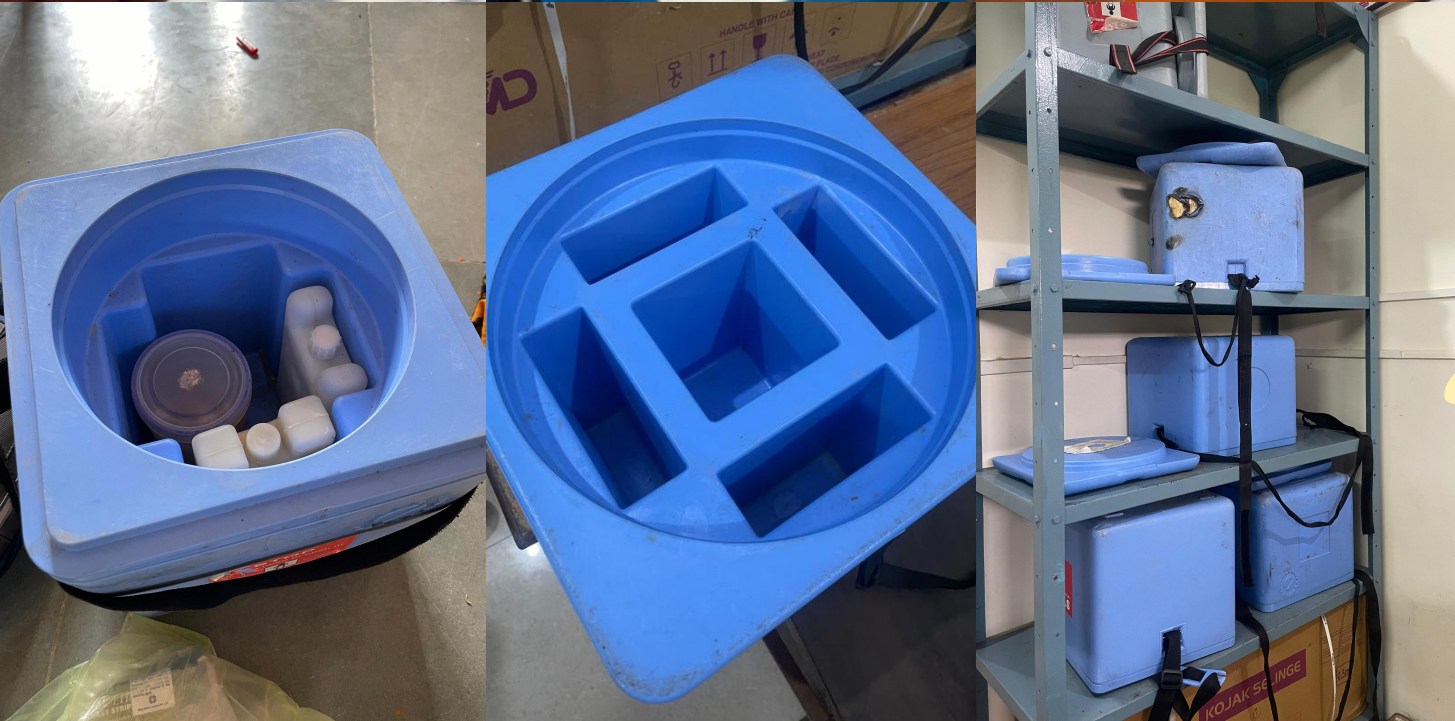
RECOMMENDATION

5. VCCH/ ANMs/ASHAs need to be re-trained for clear reading of VVM 2 and to check, similar sensitive VVMs, to make sure before use, that the vaccine is in usable condition. Otherwise, it needs to be discarded.
6. Maintaining the cold chain is zero fault protocol, therefore all the VCCH/ANMs/ASHAs should be thoroughly trained for usage of ice packs even at session sites to ensure vaccine potency and delivery of high-quality vaccine avoiding vaccine wastage.
7. As per guidelines, non-working parts of CCE can only be replaced by original brand's part. It is suggested that in case existing CCE models being used are out of making and no original parts are available in market, it should be allowed to use spare parts from generic models and bring the CCE back to use immediately. This will reduce the response time for maintenance, extra expenditures on Branded parts, and any penalties on maintenance partners due to exceeding response time. The present system, and its loopholes need to be reviewed thoroughly.

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Thank You

