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ORIGINAL ARTICLE

TRANSFORMING IMMUNIZATION SERVICES THROUGH U-WIN IMPLEMENTATION - TAMIL NADU'S DIGITAL LEAP FORWARD

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ABSTRACT

INTRODUCTION : The Universal Immunization Programme (UIP) in India aims to protect new-borns and pregnant women by administering vaccines against 12 Vaccine Preventable Diseases (VPDs). Tamil Nadu has excelled in immunization performance, achieving over 98% coverage, translating to approximately 1.4 crore vaccine doses administered annually. The Fully Immunized (FI) coverage for 2023-24 is reported at 98%, supported by the National Family Health Survey (NFHS) Round 5, which shows an improvement to 90.4%.

To enhance immunization tracking and management, the U-WIN platform was launched in January 2023, integrating successful features from the Co-WIN system used during the COVID-19 vaccination drive. U-WIN focuses on individualized tracking of beneficiaries' vaccination statuses, digitization of session planning, real-time updates on immunization record and generation of e-Vaccination certificate.

In Tamil Nadu the U-WIN platform was piloted in Dindigul and Erode on January 27, 2023, following extensive training from January 20-27. By August 1, 2023 U-WIN was successfully rolled out across Tamil Nadu, with significant training conducted for around 17,000 health personnel. However, challenges persist, including reluctance to input data, inconsistent scheduling of vaccination sessions, and delays in delivery outcome reporting.

Tamil Nadu has implemented a comprehensive strategy to improve the performance of the UWIN portal, enhancing digital tracking and immunization coverage. Key initiatives include regular performance reviews, refresher and scenario-based training for health workers, technical support for data entry, head-count surveys for accurate beneficiary registration, and expansion of vaccination sessions through Health and Wellness Centres. As a result, significant improvements were achieved in pregnant women registration, infant registration, and birth dose vaccination. Infrastructure and session site creation exceeded targets. Going forward, the introduction of a digital micro-plan with geo-tagging and enhanced supervisory tools aims to further optimize immunization services statewide.

Henceforth, U-WIN platform will be the platform for real time immunization recording and reporting and eVIN platform will oversee vaccine Stock and Cold Chain Management. API linkage between PICME and U-WIN is prioritized to reduce data entry for health workers, allowing more focus on community health.

KEYWORDS : UWIN, digital tracking

INTRODUCTION

Immunization programme in India was introduced in 1978 as Expanded Programme of Immunization (EPI). The program gained momentum in 1985 and was expanded as Universal Immunization Programme (UIP). UIP is one of the largest public health programmes targeting close of 2.67 crore newborns and 2.9 crore pregnant women annually (1). It is one of the most cost-effective public health interventions and largely responsible for reduction of Vaccine Preventable under-5mortality rate.

Immunization in Tamil Nadu:

In Tamil Nadu, under the UIP, 11 Vaccines are being provided against the 12 Vaccine Preventable Diseases (VPDs) for all children and pregnant mothers which includes Tuberculosis, Diphtheria, Pertussis, Hepatitis B, Hemophilus Influenza, Tetanus, Poliomyelitis, Measles, Rubella, Rota Virus, Pneumococcal and Japanese Encephalitis (in 14 selected endemic districts).[2]

Annually, around 10 lakhs pregnant women, 9.16 lakhs children/ infants are being covered under this UIP programme in Tamil Nadu[3] and the state stands out as one of the few states in India with exemplary immunization performance, showcasing a steadfast commitment to

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public health. Our dedicated public health staff have made remarkable strides in immunization coverage, consistently achieving over 98% across the state.[3] This outstanding effort translates to an average of 1.4 crore vaccine doses administered each year, safeguarding the health of our communities.

As per Sustainable Development Goals (SDG) India index 2023-24, published on 15.07.2024, Tamil Nadu has achieved 12th position with a composite score of 77 points in SDG 3 - Good health and wellbeing.[4]

Further, according to the Tamil Nadu Health Management Information System (TNHMIS), the Fully Immunized (FI) coverage for the year 2023-24 stands at an impressive 98%. This achievement is further supported by the National Family Health Survey (NFHS) Round 5, published in 2021, which confirms an overall improvement in the state's Full Immunization Coverage, now at 90.4%.[5] Table 1 shows the comparison of immunization performance as per TNHMIS 2023-24 and NFHS-5 survey.

Table 1: Immunization performance as per TNHMIS 2023-24 and NFHS -5 survey

Vaccines	TNHMIS 2023-24 (April to March)	NFHS-5 (2019-20)
BCG	95%	97.6%
OPV 3	98%	91.5%
Pentavalent 3	98%	94.8%
MR 1st dose	100%	95.8%
Fully Immunized	98%	90.4%

While the Tamil Nadu Health Management Information System (TNHMIS) and Integrated Health Information Platform effectively collect data on vaccination coverage, both have notable limitations. They do not generate the line list of beneficiaries, or provide due lists for vaccinators. These shortcomings can lead to decreased reliability of the data, hindering the ability to track individual vaccination statuses and follow up effectively.

Evolution of UWIN:

COVID-19 pandemic emerged in late 2019 spread worldwide rapidly evoked unprecedented response leading to an accelerated use of new technologies including newer vaccine technologies.[6] Apart from being a vaccine powerhouse, India made a technological stride when it launched the indigenously developed software application called CoWIN.[7] Co-WIN (Winning over COVID-19), the digital backbone of India's COVID-19 vaccination program, was implemented to facilitate the planning, execution, monitoring, and evaluation of the national vaccination drive. This scalable IT platform served as a comprehensive solution for COVID-19 vaccination across the entire country, featuring both citizen and administrator interfaces.

The Co-WIN platform proved to be all-inclusive and provided an end-to-end solution for the entire public health system, from vaccinators to national-level officials.[8] Due to the high commitment and support from each state and union territory, Co-WIN enabled the seamless launch and rapid implementation of the world's largest COVID-19 vaccination campaign.

From Co-WIN to U-WIN:

Harvesting the benefits of Co-WIN, Public Health department of Tamil Nadu Government requested the Government of India to replicate the Co-WIN platform for Routine Immunization monitoring (RI) (Annexure). Incidentally in September 2022, Government of India, informed that the government was planning to repurpose digital health platforms Arogya Setu and Co-WIN, adding that Co-WIN would be used for carrying out the 12 essential vaccination programs under the Universal Immunization Programme. The key features and information from the Co-WIN implementation were set to be leveraged for UWIN, which included aspects such as the registration and vaccination of each pregnant woman, registration of Pregnancy outcome and birth including Still birth, the administration of birth doses for newborns, and subsequent vaccination events.[9]

Electronic Vaccine Intelligence Network (eVIN) platform supports the Government of India's Universal Immunization Programme by delivering real-time information on vaccine stocks, flows, and storage temperatures at cold chain points across states and union territories. Leveraging these 2 pillars eVIN and Co-WIN, the 3rd pillar UWIN was launched by MoHFW. in January 2023.[10]

Benefits of UWIN:

UWIN aims to provide individualized tracking of beneficiaries' vaccination statuses digitization of session planning, and real-time updates on vaccination status from the last mile of service delivery by the vaccinator. It was introduced in a phased manner to capture data on immunization services, ensuring a smooth rollout and allowing for mid-course corrections during implementation. This initiative built upon the lessons learned from Co-WIN, further enhancing the efficiency and effectiveness of immunization programs across the country.

Features of UWIN:

U-WIN acts as a single source of information for immunization services, updating vaccination status, delivery outcome, planning of RI sessions and reports like antigen-wise coverage, etc.

There will be digital registrations of all pregnant women and newborns for individualized tracking for vaccination, reminders for upcoming doses and follow-up of dropouts. Healthcare workers and programme managers will be able to generate real-time data of routine immunization sessions and vaccination coverage for better planning and vaccine distribution.[11]

All Pregnant women can self-register on U-WIN vaccination platform to create onetime registration. If already registered on CoWIN, need to use same mobile number to access U-WIN wherein woman can tag herself as Pregnant women and new registration of child can also be done using existing guardian's account. Registration can be also done through walk-in/on-site mode at nearest vaccination centre. Registered New-borns & Children can also have an ABHA based on their parent's Aadhaar Number.

The beneficiary can search nearby vaccination center using State/District filter in order to get vaccination at desired center. The beneficiary can take online appointment for desired vaccination session & vaccination center as per his/her choice. All vaccines are available at all sessions. Each vaccine dose is administered to an identifiable individual only, after due verification.

Digital vaccination record of all pregnant women & children gets created real time. Beneficiary will get digital acknowledgement for vaccination every time dose would be administered and receive digital e-Vaccination certificate. Beneficiary can download & save the certificate in mobile phone applications which would be easily available for future use.

Beneficiaries will get text SMS notifications and reminders with next due dates of their subsequent vaccination. Adherence will be further strengthened with minimum dose interval between two doses through U-WIN system.

With digitalization of vaccination system, vaccination services can be availed " Anywhere " in the country at scheduled vaccination sessions. UWIN has been integrated with SAFEVAC for reporting any Adverse Events Following Immunization (AEFI). UWIN produces a comprehensive line list of beneficiaries and provides due lists for vaccinators, enhancing the tracking of individual vaccination statuses and facilitating timely follow-ups.

UWIN Implementation in India:

U-WIN was implemented in a phased manner.

1. Pilot phase:

UWIN was launched on 11th January 2023 by Secretary, Health and Family Welfare Department, Government of India, (MoHFW). All modules including the Admin Module, Session Planning Module, Vaccinator Module, Delivery Module, Mobiliser Module, and Self-Registration Module were tested. Based on inputs from the states, 65 pilot districts were identified, with 32 districts in urban settings and 33 districts primarily in rural areas. Virtual training to Pilot districts was done by the National team on 16thJanuary.

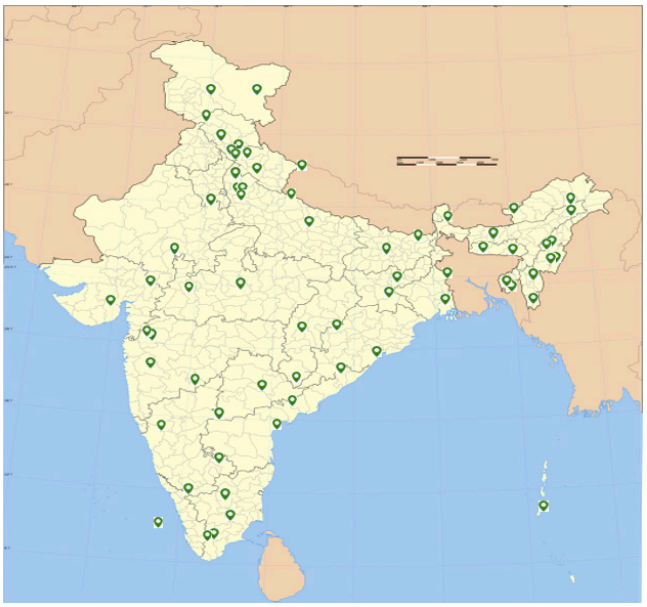

Figure1: UWIN implementation in the selected districts in India for pilot phase

UWIN Implementation in India:

1. Pilot phase:

Under U-WIN, mapping of health facilities in pilot districts was carried out, utilizing the Local Government (LG) Directory and LG codes. Districts, sub-districts, and villages/wards were created accordingly. The system automatically generated sub-districts and villages/wards, tagging non-LGD blocks, villages, and urban local bodies to their respective health service delivery structures (health blocks/health villages).

Pilot launch of U-WIN platform were carried out in two districts Dindigul and Erode on 27th January 2023 by Director of Public Health & Preventive Medicine, Joint Director (Immunisation), District Health Officers and UNDP Team.

State level, district level and block trainings were conducted prior to the launch of UWIN from 20th January 2023 to 27th January 2023 for pilot districts.

Picture 1: Pilot launch of U-WIN platform in two districts Dindigul and Erode (2023)

UWIN Up Scaling in India:

The platform was scaled up nationwide, with Nagaland being the first state to conduct a training program on the subject. Nationwide Rollout of U-WIN Portal for Tracking Routine Immunizations were planned.

Picture 2: Participants during the training of trainers on nationwide scale-up of U-WIN, Kohima, Nagaland (2023)

Upscaling in Tamil Nadu:

A State level sensitization workshop on U-WIN platform for Deputy Director of Health Services, City Health Officers was conducted in two batches at Chennai from 27th June 2023 to 1st July 2023 for 134 participants (Annexure 6).

Picture 3: State level sensitization workshop of U-WIN platform at Chennai (2023)

Regional workshops were held at Regional Training Institutes, with a total of 206 participants.

Picture 4: Regional workshop on U-WIN platform at HFWTC and Salem HDMI (2023)

Further, District level and Block level trainings were conducted in the month of July, 2023 with 2,871 and 16,463 participants respectively.

Picture 5: District level training on UWIN platform held at Salem (2023)

The UWIN digital platform underwent a significant expansion, reaching all districts of Tamil Nadu by August 1, 2023. This strategic rollout aimed to enhance the state's immunization efforts by providing a comprehensive system for tracking vaccination coverage and ensuring efficient data management.

Key Issues and Challenges identified during the implementation phase:

Reluctance to Input Data into the UWIN Portal remained a major challenge, as VHNs and UHNs often hesitated due to overwhelming workloads. Vaccination Sessions 'Not Scheduled consistently by health facility managers caused confusion and led to missed vaccination opportunities.

Delivery Outcome Tracking required better coordination among Medical College Hospitals, Government Hospitals, PHCs, and private facilities. Delay in Delivery Outcome Entries was significant, often due to frequent HR changes and challenges in data collection, while Inadequate Notification of Private Hospital Delivery Outcomes in IHIP resulted in gaps in the data. Poor Vaccination Entries at Outreach Session Sites further compromised program assessment and resource planning. Lack of Regular Review Meetings at District Level also hampered progress, as participation and follow-through were inconsistent.

Finally, the Transition Between the Portals created reporting deficiencies during the shift from HMIS and IHIP to U-WIN.

Tamil Nadu's Comprehensive efforts to improve UWIN performance:

Tamil Nadu has followed a comprehensive set of strategies to improve the performance in the UWIN portal.

i. Regular review of Vaccination Performance in UWIN

Since November 2024, the vaccination performance of all districts are being strictly reviewed on the UWIN portal by the State Immunisation Officer and the Director of Public Health and Preventive Medicine on a weekly basis. The review focuses on key indicators such as Pregnant Women Registration, Pregnancy Vaccination (Vaccinated), Pregnancy Outcomes, Infant Registration, Birth Dose Vaccination, Child Registration, and Sessions Planned vs Held. The antigen wise vaccination coverage data in UWIN is compared with IHIP, and TNHMIS to address the inconsistencies.

ii. Cascade of Refresher Trainings:

To strengthen outreach vaccination efforts and reduce resistance among field health workers (VHNs/ UHNs), the state organized refresher training programs at various levels. This began with Training of Trainers sessions at the state level, involving second-level district officers such as District Training Medical Officers and District Maternal and Child Health Officers.

Multiple levels of training were rolled out to enhance familiarity and confidence in using the UWIN portal. Refresher training on the Administrator and Vaccinator modules was conducted virtually for Block Medical Officers,

Cluster Health Nurses, and Block DEOs.

This was followed by block-level refresher trainings for PHC Medical Officers, Vaccinators, Mobilizers, Cold Chain Handlers, MPHWs, ASHAs, LHVs, and Staff Nurses, led by Project Officers and VCCMs across districts in batches. Nearly 11,320 training sessions were conducted statewide and this cascade of trainings were held from November till December.

iii. Scenario-based learning:

To further ease the challenges faced by vaccinators during data entry into the UWIN portal, a scenario-based approach was adopted to explain the process more clearly and simply. Detailed explanations covering different data entry situations in the form of videos were compiled and shared with vaccinators through a Google Drive link. These materials were made available in Tamil, ensuring better understanding, and vaccinators were encouraged to download and save them for future reference whenever needed.

iv. Support for Improved UWIN Data Entry

In addition, to provide on-the-ground support, instructions were given that if VHNs or UHNs encountered difficulties while entering data in the UWIN portal, Block DEOs will assist them by entering the data using the login credentials of the concerned VHN or UHN. Despite this support, the ultimate responsibility for ensuring the accuracy, validation, and authentication of the data entered into the UWIN portal continued to rest with the VHN/UHN, as they are the primary care providers. Through these combined efforts, hesitation among VHNs regarding data entry was significantly reduced, leading to marked improvements in both the accuracy and timeliness of updates in the UWIN portal.

v. Reinforcing Importance Through Regular Communication

A continuous communication strategy was adopted to ensure UWIN remained a high-priority agenda at all levels. The State Immunisation Officer (SIO) regularly disseminated updates, reminders, and SOPs to all District Health Officers (DHOs). DHOs were further instructed to frequently reinforce UWIN's importance in review meetings and to monitor and support VHNs and Urban Health Nurses (UHNs) in using the portal effectively.

vi. Head-Count Survey and Systematic Pre-Registration Strategy in Tamil Nadu

As part of Tamil Nadu's initiatives to strengthen outreach vaccination and improve data management under U-WIN, District Health Officers (DHOs) were instructed to ensure the annual updating of the Family Register by VHNs/ UHNs under the supervision of Sector Health Nurses (SHNs) and Medical Officers.

Following communications from the Government of India, it was emphasized that to achieve substantial reduction in the number of zero-dose children, a Head-Count Survey (HCS) or House-to-House Survey (HTH) must be conducted across all districts, serving as a critical first step in microplanning activities.

Also as directed by GOI, it was instructed to all District Health Officers that all identified beneficiaries must be systematically incorporated into the U-WIN portal for effective vaccination session planning and monitoring. Accordingly, VHNs and UHNs were instructed to pre-register pregnant women, infants (0–1 year), and children (1–2 years) during or at the end of the HCS activity.

DHOs were also advised to ensure that VHNs/ UHNs update the vaccination status of these beneficiaries in the U-WIN portal under the "Previous Record Vaccination" tab, based on vaccination card entries. This systematic approach has been crucial for improving beneficiary tracking, strengthening vaccination coverage, and enhancing the

overall quality of immunization services across Tamil Nadu.

vii. Expansion of Vaccination Services and additional UWIN sessions planning through Health and Wellness Centres

A strategic plan was developed in anticipation of the Tamil Nadu Budget announcement for the year 2025-26 to enhance vaccination services. The plan includes providing vaccination facilities every Wednesday at all 4,848 Health and Wellness Centres (HWCs) in rural areas and 500 Urban Health and Wellness Centres (UHWCs) in urban areas, in addition to the existing outreach sessions.

To ensure smooth implementation, District Health Officers (DHOs) were instructed to ensure that Sub-district administrators (Block Medical Officers/Community Health Officers) create 708 health facilities in UWIN, including 500 functional and 208 to be made functional facilities, as per the Standard Operating Procedures (SOPs). Additionally, Health Facility Managers are responsible for creating vaccination sessions in UWIN, including 14,544 additional sessions for rural HWCs (4848 × 3) and the required sessions for UHWCs, scheduled for the next three months.

These sessions must be planned well in advance to ensure timely vaccination services. The creation and management of these sessions in UWIN will allow for effective session planning, monitoring, and improved coverage, ultimately strengthening vaccination efforts across Tamil Nadu.

Current status and progress in UWIN performance:

As of March 2025, 6,103 health facilities have been enrolled under UWIN, slightly surpassing the expected 6,075. The number of Delivery Point Managers stands at 2,354, falling short of the target of 2,651. However, the number of Government health facilities and Delivery Managers creation exceeded expectations, with 3,028 created against an expectation of 2,623.

Additionally, 11,331 sub-centers have been registered under UWIN, surpassing the anticipated 11,046, contributing to improved vaccination access.

The creation of session sites also exceeded expectations, with 51,520 compared to the target of 46,805. While the number of vaccinators registered stands at 16,337, slightly below the expected 17,835, it remains a substantial workforce for supporting vaccination efforts. The healthcare professional registry shows 18,614 registered, falling short of the expected 19,276, largely due to vacancies.

Table 2: U-WIN Infrastructure status in Tamil Nadu, 2024- 2025

S.No	Infrastructure	Expected	Created
1.	Number of Health Facility	6,075	6,103
2.	Number of Delivery Point Manager	2,651	2,354
3.	Number of Both Health Facility & Delivery Manager	2,623	3,028
4.	Number of Sub-Center	11,046	11,331
5.	Number of Session Sites	46805	51520
6.	Number of Vaccinators	17,835	16,337
7.	Healthcare Professionals registry Health Facility registry	19276	18614
8.	Health Facility registry (Govt)	2640	2368
9.	Health Facility registry linked in UWIN (Govt)	2368	581

Table 3 presents the performance report of UWIN during 2024-2025 in Tamil Nadu. Out of an expected 9,58,843 pregnant women registrations, 9,18,541were achieved, resulting in 96% of the target being met. For pregnancy vaccination, out of the same expected number, 5,04,003 women were vaccinated, achieving 53% of the target. Regarding pregnancy outcomes, 5,79,314 outcomes were recorded, reaching 60% of the target. In terms of infant registration, 7,24,336 infants were registered out of an expected 8,76,964 achieving 83%. For birth dose vaccination, 5,88,516 doses were administered reaching 67%. Child registration was significantly lower, with only 42,593 children registered out of the expected 8,06,421, achieving just 5% of the target. Lastly, for sessions planned versus held, out of 3,45,207 planned sessions, 1,43,165 sessions were actually held, achieving 41% of the target.

Table 3: U-WIN Performance report of Tamil Nadu, 2024-2025

S.No	Parameters	Expected	Achieved	%
1.	Pregnant Women Registration	9,58,843	9,18,541	96
2.	Pregnancy Vaccination(Vaccinated)	9,58,843	5,04,003	53
3.	Pregnancy outcome	9,58,843	5,79,314	60
4.	Infant Registration	8,76,964	7,24,336	83
5.	Birth Dose Vaccination	8,76,964	5,88,516	67
6.	Child Registration	8,79,732	42,593	5
7.	Session targeted vs Planned	5,66,460	3,45,207	61
8.	Session Planned vs Held	3,45,207	1,43165	41

In 2024–2025, the percentage of Pregnant Women Registration significantly improved from 46% in 2023–2024 to 96%, Pregnancy Vaccination, increased from 22% in 2023–2024 to 53% in 2024–2025. Pregnancy Outcome entry also, from 42% in 2023–2024 to 60% in 2024–2025. Infant Registration saw an improvement, moving up from 69% to 83%. Similarly, Birth Dose Vaccination increased from 41% to 67%. Child Registration, though still low overall, increased from 8% in 2023–2024 to 5% in 2024–2025. However, the achievement for Sessions Planned versus Held improved from 25% to 41% over the two periods. Overall, while there

was good progress in several areas like Pregnant Women Registration and Infant Registration, challenges remain in improving vaccination coverage and child registration.

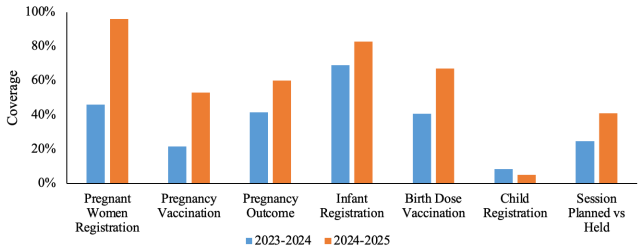

Figure 2: UWIN performance progress report, 2024-2025, Tamil Nadu

The progression of UWIN's Outreach Vaccination performance over the months is demonstrated in Figure 6. From April to October 2024, vaccination entries in UWIN remained at 1%. However, with the implementation of strategies aimed at improving UWIN in Tamil Nadu starting in November 2024, there was a noticeable increase in performance. This improvement became evident from December 2024, with UWIN performance rising from 4% to a significant surge of 28% by March 2025, reflecting a rapid and substantial progress.

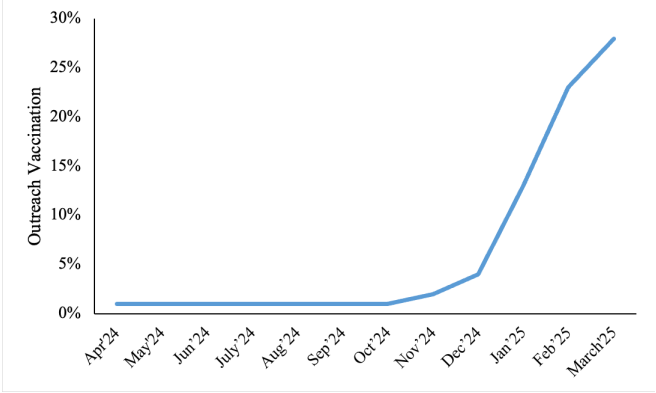

Figure 3: Outreach Vaccination performance in UWIN, 2024-2025, Tamil Nadu

U-WIN vaccination coverage by institutions, Tamil Nadu, 2023-2025:

In 2024–2025, there was a significant improvement in UWIN vaccination coverage compared to 2023–2024. Under Directorate of Public Health and Preventive Medicine, the total number of antenatal (AN) registrations increased from 49,244 in 2023–2024 to 87,342 in 2024–2025. Similarly, the number of infants (0–1 year) vaccinated improved from 2,18,806 to 2,92,881. The vaccination of children above one year also showed a decline, with 44,201children vaccinated in 2023–2024 compared to 25, 646 in 2023–2024, though this category showed a decline likely due to a shift in focus towards early infant immunization. Notably, significant contributions came from the Directorate of Medical Education and Research and Directorate of Medical and Rural Health Services. Private sector participation also improved, with 226,829 infants vaccinated in 2024–2025 compared to 104,125 in 2023–2024. These trends suggest that the strategies implemented since late 2024 have effectively strengthened vaccination coverage across Tamil Nadu under different directorates particularly for infants, aligning with broader public health goals.

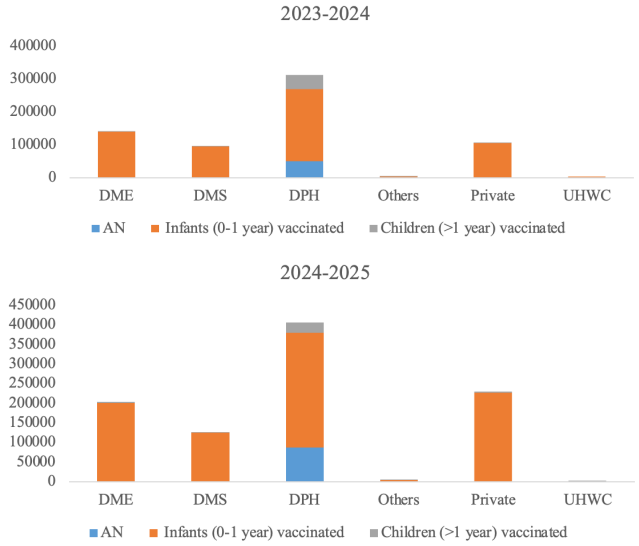

Figure 4: U-WIN vaccination coverage by institutions, Tamil Nadu, 2023-2024 vs 2024-2025

Way Forward Digital Micro-plan in U-WIN:

The Government of India, in collaboration with UNDP, is gearing up to implement the digital micro plan under the UWIN initiative to strengthen immunization services which will eventually be implemented in Tamil Nadu. As part of this, vaccinators will capture geo-coordinates at session sites, enhancing the tracking and monitoring of immunization activities. High-risk areas will be identified within selected villages and wards for targeted interventions, with an additional feature to record the names of local influencers for future collaboration. During session creation, vaccinators will be able to tag AEFI (Adverse Events Following Immunization) and other key details using an easy dropdown menu; AEFI registration options will be available at both the Vaccinator and DIO dashboards. Furthermore, users can link AEFI centres while setting up sessions, choosing from a pre-populated line list. Supervisory oversight will be strengthened with the implementation of a supervisory plan through UNICEF's U Mentor platform. To support logistics, a cold chain contingency plan will be introduced where users can fill in details once and download

the plan as a PDF for streamlined printing and reference. Additionally, the Immunization Waste Disposal Plan will ensure accountability by prompting users to confirm whether waste is disposed of terminally by the health facility; if not, they must specify the responsible agency or mark it as 'Not disposed'. Together, these enhancements aim to bring greater transparency, efficiency, and responsiveness to immunization service delivery under UWIN.

UWIN and eVIN: Transforming Immunization Through Digital Innovation:

Moving forward, immunization coverage will be reported and reviewed through the UWIN platform, enhancing the accuracy and efficiency of data management. Vaccine stocks and cold chain logistics will continue to be monitored via the eVIN platform, ensuring optimal vaccine storage and distribution. To streamline processes and reduce double data entry, efforts will be intensified to establish API linkage between PICME and UWIN, with repeated reminders being sent to the Government of India. This integration is expected to ease the workload of Village Health Nurses (VHNs) and Urban Health Nurses (UHNs), enabling them to dedicate more time to community health activities. Additionally, with technical issues identified in PICME 3.0, UWIN will play a key role in ensuring seamless information flow, allowing for accurate and easily accessible vaccination data. Together, these measures are poised to significantly strengthen the efficiency and effectiveness of immunization programs.

ACKNOWLEDGEMENT

We express our heartfelt gratitude to the Government of India (GoI) and UNDP for the invaluable Standard Operating Procedures document, which served crucial for the formulation of the UWIN process document.

Additionally, we extend our sincere appreciation to UNDP for their continuous efforts in implementing the eVIN, CoWIN and UWIN across all the states of the country. Also, the insightful presentations during the National Workshop on Improved and Inclusive RI Microplanning not only clarified the objectives of inclusive planning but also highlighted the necessary improvements to be made within UWIN, which greatly assisted us in formulating the process document.

CONFLICT OF INTEREST

None

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