2024 India Joint Appraisal Report

Joint Appraisal (JA) is an **annual, country-led, multi-stakeholder** review/discussion that represents an important opportunity for countries to engage Gavi Alliance partners and other key stakeholders on the annual progress of routine immunization programs against national goals and objectives and to **discuss how Gavi support is contributing to this progress**. Key stakeholders involved in the country's immunization program should be represented at the Joint Appraisal, including civil society organizations (CSOs). It is **essential to Gavi's regular monitoring and performance management (MPM)** and has evolved to align with Gavi 5.0's strategic shifts.

As an integrated part of Gavi's portfolio management process, the JA discussion should review **Gavi's contribution to the immunization program's performance in 2023-2024.** A key feature of the JA is the joint discussion about **promising practices, challenges met, and future needs for improving immunization performance,** focusing on reaching zero-dose children and missed communities. The modality of the Joint Appraisal exercise is tailored to the country's context and may be scheduled taking into consideration other planning exercises such as EPI reviews or National Immunization Strategy development.[1] The JA process will involve preparatory work to assemble and analyze data in advance of the discussion and exchange on the trends and their implications for the EPI program. It will conclude by finalizing a report, identifying relevant deliberation outcomes, and taking follow-up actions. At least one live discussion (in person) of the country stakeholders engaged in the Joint Appraisal should be organized.

The 2024 Joint Appraisal template is structured as follows

- **Section 1: Country situation**: an overview of the performance of Gavi support & discussion on progress and challenges faced
- **Section 2: Way forward**: summary of discussion points and follow-up actions

The information and indicators in Section 1 on the country's immunization program performance and Gavi support are mostly based on standard reporting. They are part of Gavi's monitoring and performance management framework, which will inform ongoing portfolio discussions, the JA, and discussions at Gavi's High-Level Review Panel (HLRP). This section entails Gavi's expectations on reporting against the Grant-linked Key Performance Indicators developed during Full Portfolio Planning (FPP) applications. For these indicators, results are to be analyzed as (1) the absolute change in the indicator as a trend over time and (2) the percent change in the indicator against the baseline value from the FPP application. Changes over time will be assessed against the end of the grant target set during the application stage. The report ensures sufficient data to conduct such analyses, including the baseline values, targets, and sufficient annual data to infer trends.

The below set of cross-cutting questions should be considered to structure qualitative information:

Cross-cutting Questions

1. What factors have facilitated or impeded progress?
2. What promising practices and/or innovations have emerged?
3. What key contributions have partners made to drive performance?
4. What are the top risks that should be mitigated?

Section 1 forms the analytical foundation for the JA discussion, with Section 2 summarising the outcome of the JA and follow-up actions. The outcome of this joint appraisal will include a joint assessment of promising practices, perceived challenges, and opportunities for Gavi investments. It should also elaborate future actions with clear targets and assigned responsibilities owned by the in-country stakeholders and leadership.

Section 1: Country situation: an overview of the performance of support & discussion on progress, challenges faced

A. Immunization Program Performance – Zero-dose, Routine immunization coverage, Vaccine introductions, campaigns, and outbreak response

1. Learning Question: **What progress has been made to reach zero-dose and under-immunised children with vaccinations?**

[1] Countries which are finalising in the course of 2023 a Full Portfolio Planning are not expected to conduct a JA.

Indicator	2019	2020	2021	2022	2023	2024*	% change, 2019-2023	% change, 2022-2023
Number of zero dose children at national level[1]	1.41m	2.98m	2.73m	1.14m	1.59m	2.16 m	+13% (+180505)	+40% (+452,891)
Drop out from DTP1 to DTP3 at national level[1]	3.2%	2.3%	3.4%	2.1%	2.2%	1.58%	-31.2%	+5%
Drop out from DTP1 to last routine dose of MCV at national level[1]	11%	7%	7%	5%	3%	1.47%	-73%	-40%
Percentage of health facilities that reported no stock-outs for the full year for DTP[2]	NA	NA	94%	NA	NA	NA	NA	NA

[1]Source: WHO/UNICEF Estimates of National Immunization Coverage (WUENIC), July 2024. https://immunizationdata.who.int/listing.html?topic=coverage

[2]Country data as reported to WHO/UNICEF through the electronic Joint Reporting Form (eJRF), July 2024. https://www.who.int/teams/immunization-vaccines-and-biologicals/immunization-analysis-and-insights/global-monitoring/who-unicef-joint-reporting-process

*Data has been taken from HMIS for the period of Jan 24 to Sep 24, and Expected Level of Achievement (ELA) has been annualized accordingly

Country Comments (please consider the set of cross-cutting questions to structure comments):

India's Universal Immunization Program (UIP) is the largest public health initiative globally, aiming to reach 26 million children and 29 million pregnant women annually. Over the years, India has built robust and sustainable health systems focused on enhancing health service delivery, health information systems, and community engagement, providing a strong foundation for achieving many program objectives.

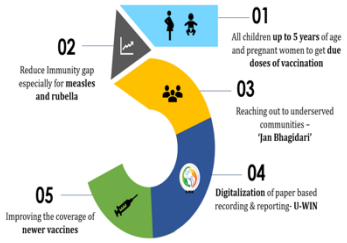
India has made remarkable progress in immunization coverage and has been able to reverse the backsliding owing to the COVID-19 pandemic. The DPT1 coverage reached 95%, surpassing the pre-pandemic levels of 94% (2019), and the number of zero-dose children dropped substantially from 2.7 million in 2021 to 1.1 million in 2022. However, as per the WUENIC 2023, DPT1 coverage is at 93% and DPT3 coverage at 91%, reporting a slight decline compared to 2022 at the national level, with an overall increase of 0.42 million zero-dose children in 2023. Although this is a small percentage increase in the zero-dose children, it might appear huge in absolute numbers, given India's huge birth cohort. Multiple hypotheses are leading to an increase in the number of zero-dose children, including factors related to HMIS entries, wherein there was a drop in facility reporting as the HMIS portal was upgraded and was not operational due to maintenance of the portal for approximately three months. There were strikes by FLWs, including ANMs and ASHA workers, in multiple states across the country. Earlier, private facilities were to submit reports to health facilities on paper, but with the new HMIS interface, all private facilities are given unique IDs for direct reporting. Direct reporting is not happening on the portal. Further, legacy data could not be entered on HMIS from the day user IDs were created for facilities.

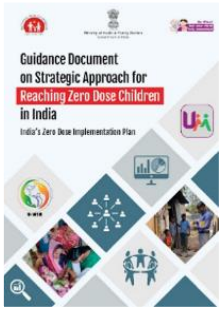
Although the progress around 1st dose of the Measles and rubella-containing vaccine (MCV) is at 93%, the second dose coverage has remained constant at 90%. Around 12 states have reported an increase in their Pentavalent 1st dose coverage in 2023 compared to 2022, with some states showing notable increase—Uttar Pradesh, Sikkim, Manipur, and Mizoram. Around 14 states/UTs have reported MR 1st dose coverage >95%, while 10 states/UTs have reported MR 2nd dose coverage >95%. Uttar Pradesh, Mizoram, and Gujarat have reported significant increases in MR 1st dose coverage in 2023 as compared to 2022, while Arunachal Pradesh, Meghalaya, and Telangana have reported significant increases in MR 2nd dose coverage in 2023 as compared to 2022. India has consistently maintained a high Full Immunization Coverage (FIC) of over 90% in the last five years. In 2023-24, 24,9,09,717 children were fully immunized, resulting in an FIC of 93.5% (Source: HMIS). 22 out of 36 states/UTs have reported an FIC of >90% in 2023.

What factors have facilitated or impeded progress?

The achievements under UIP result from years of efforts to strengthen service delivery and improve community vaccination demand, harnessing the power of innovation and technology. Some of the key factors are as follows:

Immunization Intensified Drive: Intensified Mission Indradhanush round five (IMI 5.0) was held nationwide in all districts to immunize left-out or drop-out children between August and November 2023. With MR elimination in mind, the target age group in IMI 5.0 was increased to five years, which was two years in the previous IMI rounds. Demand generation guidelines and communication packages for IMI 5.0 were developed. Around 10 million children up to the age of 5 years and 1.9 million pregnant women were vaccinated. 54.6 million children and 13.2 million pregnant women have been cumulatively vaccinated to date under Mission Indradhanush since 2014.





Zero Dose Implementation Plan: Zero-dose Implementation Plan (ZIP) provides a roadmap and operational guidance through 11 strategic activities to identify and reach zero-dose children and missed communities. It envisages a multifaceted approach to reach every child with life-saving vaccines, building on the Health System Strengthening (HSS) strategy. Approaches and interventions customized to local contexts are key to addressing service provision and utilization barriers. India's ZIP 2023-2026 aims to achieve a 30% reduction of zero-dose children against the 2019 baseline by 2026, with a strong impetus for a Roadmap to 90% of Full Immunization Coverage and Elimination of Measles & Rubella. Under ZIP, 143 districts and 214 NUHM cities across 11 states are targeted to maximize the impact. The official Zero-dose Implementation Plan document was launched by the MoHFW on the 2nd of February 2024 and distributed down to the block level. This initiative will bring uniformity in the planning, implementation, and monitoring across intervention areas.

Dedicated Workforce and Capacity Building: As planned, different development partners deployed the dedicated workforce to the sub-district level. As of 01st November 2024, 90 Surveillance Medical Officers (SMO), 7 Sub-Regional Team Leaders (out of 104 dedicated positions), and 37 (out of 39) dedicated RRTs have been coordinating the district-level activities for 143 districts. Dedicated Urban Focal Persons were deployed in 11 out of 12 major city corporations for convergence, microplanning, monitoring, and feedback sharing. Similarly, dedicated Field Monitors/External Monitors (FM/EM) have been deployed in each block (a total of 1,554), supporting the operational planning, microplanning, and monitoring of the field activities. 40 divisional consultants are placed in the Gavi intervention states to effectively monitor the role of CSOs and undertake monitoring and mentorship. Similarly, UNDP is about to complete the deployment of 368 UWIN coordinators on the ground for seamless operationalization of UWIN. Regular training of the health workforce results in a confident and skilled workforce, which leads to robust, quality microplanning, community needs session planning, minimized program errors and related AEFIs, improved and inclusive due listing, and effective data recording and reporting.

a.) The overall training status of the health workforce on RI microplanning is mentioned below as of 21 October 2024,

- State-level microplanning workshops were completed in 7 out of 11 states, and **542 district master trainers** were imparted training, with an overall participation of 96%.
- District microplanning training for Medical Officers was conducted in all 143 districts. Overall, **11,544 Medical Officers** were trained, with 94% training attendance.
- 1,550 block-level training was conducted to orient ANMs on routine immunization microplan components and their preparation. **55,269 ANMs** out of 57,916 are expected to be trained during these microplan

preparation trainings. An assigned FM/EM monitored each training under the overall supervision of Block MOIC.

- Microplan training was completed in 195 NUHM cities. During these trainings, **1,688 Medical Officers, 3,620 ANMs, and 3,525 others (ASHA, MAS)** were trained.
- **319,008 health workers were** trained at the planning unit level from **8,681** batches.

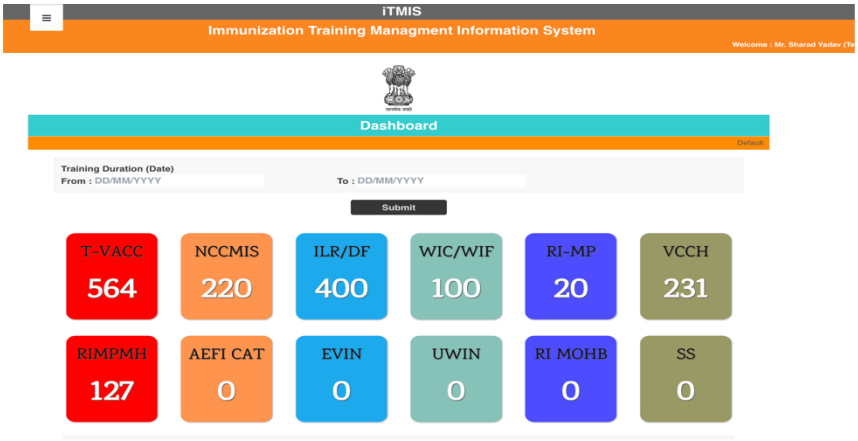
b.) National Training on Revised Manual on Routine Immunization

- A national workshop on the Revised Medical Officer's Manual was held from 20-22 September 2024. State-level workshops are planned for 11 Gavi intervention states. The state-level workshop has been conducted in Meghalaya while being planned for the remaining 10 states.
- A national workshop on the Revised Health Workers Manual was held on November 11th and 12th, 2024. Cascade training is being planned for health workers.

c.) Training on Cold chain:

- Five national-level cold chain trainings on NCCMIS, CCO review meeting, CCT WIC/WIF, T-VaCC, and CCT–ILR/DF have been conducted, with **2,654 participants** trained.

d.) iTMIS training:



Dashboard of training on iTMIS

- State-level ToT for iTMIS has been conducted for Uttar Pradesh, Madhya Pradesh, Rajasthan, Maharashtra, Meghalaya, Mizoram & Nagaland; more than 1200 program officials have been trained. Training is scheduled for Arunachal Pradesh & Jharkhand in Q4 2024. Additionally, iTMIS trainings planned for all the other states/UTs were conducted for Odisha and other states are in the pipeline.

Snapshot of Health Workforce Trained						
ASHAs	**Community Health Officers**	**Health Supervisors**	**MAS workers**	**Cold Chain Handlers**	**Link Workers**	**Supporting NHM staff**
256,430	17,346	14,634	14,615	2,729	3,888	9,366

Rapid Immunization Skill Enhancement (RISE): RISE is a capacity-building initiative using digital platforms in local dialects (Hindi, English, Marathi, Tamil, and Odia). It has been conceptualized and developed by the Government of India with support from JSI to enhance the knowledge and skills of health workers on routine immunization. In the CDS-2 phase from 2022-24, RISE extended to 89 districts and nine corporations, enrolling learners from 5 States (Madhya Pradesh, Odisha, Uttarakhand, Tamil Nadu, and Maharashtra) Additionally, 53 out of the targeted 236 districts under the HSS-3 phase have been initiated in June-September 2024, with 24 districts in Tamil Nadu and 29 districts (including 16 corporations) in Maharashtra. The remaining districts in the 5 States (Uttar Pradesh, Rajasthan, Bihar, Arunachal Pradesh, and Meghalaya) will be covered during the current project period. RISE has disseminated knowledge to 70,000+ health workforces without the direct involvement of trainers. Completion rates in Modules 1 and 5 have increased by 16 and 21 percent across the four fully saturated states (Himachal Pradesh, Madhya Pradesh, Odisha, and Uttarakhand) from Jan to Oct 2024. In all four states, the M1 start % is above 80%, and the M5 completion

rate is above 75%. 28 districts and 280 blocks in these four states have achieved 100% completion for all 5 RISE modules.

Strengthening RI Microplanning: The availability of updated and complete microplan at the planning unit is critical for delivering quality immunization services. Urban slums, peri-urban areas, hard-to-reach, migratory, and underserved communities have emerged as major gaps in service delivery due to incomplete headcount surveys and subsequent incomplete microplanning. Similarly, incomplete microplan in rural areas, especially in remote locations, difficult terrains, scattered small villages, riverine settlements, and erratic climatic conditions, have missed the communities, leading to zero-dose and under-immunized children accumulation. The following objectives have been laid out to ensure that microplan are robust, high-quality, and inclusive in nature, and required training has been conducted at state, district/city, and block levels:

- Mapping of unmapped areas, migrants, new beneficiaries, and missed communities
- Clear demarcation of catchment areas at every session site, urban & peri-urban settlements, among ANMs and planning units
- Session planning based on community needs and demands
- Desk review and validation checks to ensure the quality and completeness of microplan
- Digitalization of microplan and synchronization of missed communities with CSOs and Monitoring and Mentoring (M&M) intervention
- Periodic microplan review meetings to sustain the quality-of-service delivery

Outcome of multi-level microplan training (as of 21 October 2024):

- **49,730** sub-centers/ANMs have completed the listing villages/hamlets/mohallas/colonies: 6,725 in urban areas.
- **72% (35,430)** of sub-centers/ANMs have well-defined session site catchment areas in microplan and **85%** in urban areas.
- **97% of** immunization sessions are planned per injection load, **99%** in urban areas.
- **9,142** new session sites were added in the last 6 months.

Urban Immunization: The challenges in urban areas are further accentuated due to rapid urbanization. Based on the "Framework for action to strengthen immunization in Urban areas" model, MoHFW and stakeholders have continued to advocate for strengthening the accountability framework through regular Task Force & review meetings. Continued efforts to address the bottlenecks include HR gap analysis, resource mapping, skill enhancement training, microplan updation, enhanced monitoring, and feedback sharing at all levels.

Strengthened governance and review mechanism: Every quarter, the progress of the activities is reviewed and monitored at the national, state, district, and block levels. Immunization coverage data reported through HMIS, national surveys, U-WIN, VPD Surveillance, and concurrent monitoring are triangulated to identify areas with a high burden of zero-dose/unvaccinated and partially vaccinated children. Furthermore, states are preparing detailed action plans informed by their state-specific findings to bridge the identified gaps. Regular task force meetings at various levels, viz state, district, and block, provide oversight of the program through strategic directions. Additionally, 3 extensive reviews of states reporting a high burden of zero dose children were undertaken—on 11th September 2024 for 8 states, from 20-22nd September 2024 for 26 states, and on October 18^{th,} 2024 for 11 states. The states were selected based on their data, progress, and emerging gaps; some were reviewed more than once.

During the year, 81% of the district weekly review meetings were held against 1,716 expected in 143 districts. The frequency of review meetings was highest in Quarter III. In addition, significant improvement has been seen in block-level task force meetings, which improved from 15% in Quarter I to 64% in Quarter- III. However, it emerged that there was a moderate decline in task force meetings at the state and district levels against the set targets owing to the following reasons. The MOHFW has taken cognizance of this, and the issue is being raised during state review meetings. Some of the potential reasons that led to this decline this year are as follows:

- **18th Lok Sabha national election** was held from April 19 to June 1, 2024 (House of the People, Lower House of the Parliament of India for the formation of new government)–emerged as a key factor. The Lok Sabha elections are critical in the country, and many state and district-level functionaries and key administrators are engaged in the election duties. This leads to a decrease in the number and frequency of regular task force and review meetings, which are not limited to health and immunization alone. Approximately four to five months (quarters II and III–including the post-election time and key administrative changes at various levels and departments, including Health) are usually affected. As a protocol, the states and districts must align work per the '*Model Code of Conduct*' guidelines issued by the Election Commission of India' with the available human resources involved in election duties right from the announcement until the polling results are completed.
- **Lack of proper documentation (Minutes of Meetings):** This remains a challenge across programs where meetings are conducted; however, a lack of documentation and official evidence leads to the under-reporting of such meetings. The state/district sometimes combined the immunization task force meetings with other

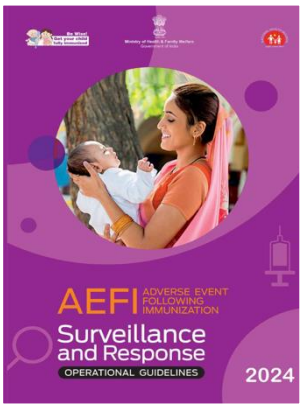
state/district health meetings, leading to a lack of dedicated minutes for immunization task forces. This is not limited to meeting documentation alone; it also leads to inefficient and fragmented decision-making that is difficult to follow up on.

Status of Task Force & Review Meetings in 2024 (as of 21 October):

Activities (Expected / QTR)	Quarter-1	Quarter-II	Quarter-III
IAG (3)	1	0	1
Pre-IAG (3)	1	0	1
State Task Force Meetings *(11)*	5	7	3
District Task Force Meetings *(429)*	293	316	222
Block Task Force Meetings *(4,650)*	735	1,167	2,982
City Task Force Meetings *(642)*	190	205	207
District Weekly Review Meetings *(1,716)*	1,336	1,347	1,397

Enhanced Monitoring and Feedback Mechanism: Surge monitoring was conducted in high-priority areas, including urban areas identified under ZIP, to enhance the quantum of monitoring and track the progress made. Approximately **86,000 sessions and 970,350 children** up to 5 years of age were monitored in the third quarter of 2024, an overall increase of 19% and 14%, respectively, compared to the second quarter of 2024. Progress in monitoring and accountability mechanisms was regularly tracked using dedicated dashboards.

Robust AEFI Surveillance and Management System: India has one of the world's largest AEFI Surveillance systems, a critical component of the Universal Immunization program. National Regulatory Authority of India Assessment led by WHO (HQ) (a comprehensive and in-depth review of India's vaccine regulatory system) was conducted from September 16 to 20, 2024, and India retained its Maturity Level 3 benchmarked against Global Benchmarking Tool (GBT) VI. In 2023, India met the AEFI surveillance sensitivity indicator (GVAP, 2016) of ten AEFIs reported per 100,000 live births annually. SAFE-VAC, an application to capture AEFI data, has also been integrated with U-WIN, and electronic reporting of minor AEFIs has started. Further, 99.9% (2826/2843) of serious and severe reported AEFIs following COVID-19 vaccines have been causally assessed nationally, and reports are available on the MoHFW website. National AEFI Surveillance Operational Guidelines 2024 have been developed and launched on 10th Jan 2024.



Additionally, two National workshops, Six Regional workshops, and 16 State-level trainings have been completed while the District and sub-district trainings are ongoing. Five National AEFI Committee Meetings (conduction and presentations) for COVID-19 AEFIs and routine immunization have been conducted since July 2023. Besides this, causality assessment meetings for COVID-19 and RI cases, Signal Review Panel meetings for vaccines, and pharmacovigilance partners' meetings are being held regularly. Quarterly ranking of states based on Key Performance Indicators and Monthly AEFI surveillance updates are shared with each State regularly. AEFI Secretariat coordinating the overall AEFI surveillance under the guidance of MoHFW has received NHSRC certification for the Quality management system (QMS) for AEFI Surveillance after an external audit for three years (May 2024). To date, QMS has been implemented in 25 States. The AEFIs reported during the Adult BCG vaccination study (ICMR-CTD) through the TB-WIN-SAFEVAC module are followed up, reviewed, and coded (MedDRA) for causality assessment. A repository of Evidence on Vaccine Safety (REVISE) has also been created (A login-based evidence repository about vaccine safety, including journal articles, a summary of product characteristics, information sheets, and position papers for state and national-level experts).

Vaccine-Preventable Disease (VPD) Surveillance: Robust VPD surveillance facilitates the identification of geographies and populations with immunity gaps and guides programmatic decision-making. India has a robust VPD surveillance network, wherein Polio and MR surveillance have continued to maintain the global standards even during the COVID-19 pandemic. To measure the impact of the vaccination program, lab-supported case-based surveillance for diphtheria, pertussis, and neonatal tetanus (DPT) has become functional in all the country's states from August 2022.

UWIN:

Launch of UWIN on 29th October 2024

Building on the successful roll-out and implementation of eVIN as a tool for vaccine supply chain strengthening and Co-WIN for beneficiary management, recording, and reporting of COVID-19 vaccination, U-WIN, an Electronic Immunization Registry, has been launched by the Hon'ble Prime Minister on 29th October 2024 for '*Anywhere access and Anytime Vaccination.'* UWIN enables digital vaccination tracking of all beneficiaries nationwide and has been under implementation since Aug 2023, except in West Bengal. West Bengal has shared in-principle approval in December 2024 and roll out in West Bengal to initiate in January 2025. All the modules are functional in UWIN, including Vaccinator, Delivery Point, and Mobiliser & Citizen modules. The adherence to U-WIN by the vaccinators is reflected by the proportion of sessions being held against planned U-WIN and the comparative of the same against HMIS data. The adherence rate of vaccinators actively using U-WIN is encouraging ~ 92%. More than 225,000 ANMs and over 600,000 ASHA workers are trained on U-WIN.

Strategic Communication: IEC materials/creatives were prepared and shared with all the states and UTs for large-scale use on various platforms, informed by robust understanding and deliberations among stakeholders about zero-dose children. Three short animated films on zero-dose vaccination featuring the characters Tiki and Tiku–the immunization mascots in diverse roles, were developed and released. Three radio spots were also produced and widely disseminated through social media platforms to increase reach and engagement. These have also been shared with states/UTs for wider usage through CSOs and grassroots mechanisms to maximize the impact of the zero-dose concept and vaccination awareness.

The *Immunization India Update*—a quarterly newsletter, continued to be published throughout 2024, engaging all states and UTs by providing updates, sharing best practices, and featuring human-interest stories. So far, in 2024, newsletters for the first three quarters have been released, covering routine immunization activities across all states.

Measles Rubella Films: India aims to eliminate Measles and Rubella (MR) by 2026, and keeping this goal in mind, the communication strategies have been constantly evolving and redesigned. Two animated films were conceptualized while considering the myths surrounding MR vaccines. The idea was to experiment with street theatre and folk media genres in the storyline to find resonance with stakeholders, especially hesitant communities and those with an information gap on vaccines and MR. Both films have been shared with all states and UTs for wider dissemination and adaptation in regional languages.

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Impeding Factors:
Although the performance of UIP has been noteworthy, some factors continue to impede the progress and call for concerted efforts. Disparities in immunization coverage at the state and district level persist. Certain areas may still face challenges in reaching zero-dose and under-immunized children owing to various factors—data quality and management, review mechanism, demand-related barriers, inadequate human resources, particularly in urban regions, poorly demarcated and rapidly expanding urban regions, challenges in tracking migrant populations, inevitable strike of frontline health workers, vacant subcentres, geographical challenges, and hard to reach areas. The country has prioritized some of the mentioned factors owing to the associated potential impact.

a. ***Data quality, management, data culture, and review mechanism:***

Over the past decade, India has significantly improved immunization coverage. However, challenges persist in achieving full immunization, with approximately 20% of children partially vaccinated and 3.6% left out (NFHS-5). Significant regional, state, and district-level variations further underscore the disparities in immunization coverage. The country relies on multiple data sources to track immunization progress, including HMIS, national surveys like NFHS, VPD surveillance, concurrent monitoring, and the recently introduced U-WIN system. However, national review reports, regional data analyses, and existing literature reveal several gaps within the immunization data ecosystem. Key issues include incomplete and delayed data collection, inconsistencies in reporting across various platforms, and limited use of data for informed decision-making at different levels. Further, HMIS reporting adherence was affected due to downtime for upgrading the HMIS portal and providing utility for backlog entries in HMIS.

To address these challenges, robust triangulation of administrative coverage data with household survey data is needed to ensure accurate, high-quality data is available for informed decision-making. There are variabilities in understanding data–its comprehension and utilization amongst key stakeholders like immunization officers, managers, data handlers, and frontline workers vary. Data quality issues eventually impact the quality of program reviews at multiple hierarchical levels due to inadequate data utilization to inform the program—the program's limited capacity and inadequate technical support and handholding to harness the full potential of collected data for effective decision-making. Having said that, these variabilities differ across states and districts, are dynamic in nature, and call for continuous support and improvement. While simplifying data for practical use and action is crucial, behavioural barriers also limit health officials' motivation to use data to improve program efficiency. Enhanced data can improve reviews, planning, and advocacy but will require adequate support and handholding to overcome these challenges.

b. *Demand-related barriers:*

The country also deals with demand-related challenges, which are contextual, vary across states and districts due to diverse populations, cultural and religious practices, and norms, and are dynamic. These need to be regularly addressed with tailored interventions and long-term systemic planning. There are pockets of vaccine hesitancy and refusals in certain states and districts that are influenced by religious beliefs and practices–these pockets are fewer in numbers; however, these translate to a larger cohort in absolute numbers in populous states with a high burden of unvaccinated children. Faith-based organizations, leaders, and social influencers are crucial in addressing these misconceptions and improving vaccination acceptance in communities. The challenges of urban populations are complex owing to multiple factors. Prioritization of vaccination over livelihood (daily wage labourers, migrant workers, workers at construction sites, brick kilns) is a persisting challenge in urban and peri-urban regions and slums.

Pockets of *Vaccine Avoidance Behaviour (VAB)* continue to be a challenge where evidence-driven community engagement interventions are ongoing. Behavioural Insights (BI) studies conducted by UNICEF in two districts each from Uttar Pradesh and Meghalaya highlighted the lack of family and community support to caregivers/mothers, apprehensions due to AEFI, and faith-based reasons for non-acceptance of vaccination. Studies have also indicated gender-based barriers, such as mothers bearing the burden of blame for immunization gaps without the authority to act; therefore, mothers, particularly in marital homes, prioritize maintaining household harmony and acceptance over advocating for immunization. Based on the findings of BI studies, human-centered design (HCD) solutions are being

piloted to address these barriers, such as the need for the engagement of grandmothers to support the mother in Uttar Pradesh and immunization buddy (mother of a vaccinated child handholding another mother of an unvaccinated child in Meghalaya. Further, church and mosque-based interventions are also being implemented in Meghalaya and Uttar Pradesh.

In addition to these efforts, JSI India has applied HCD approaches to strengthen immunization efforts across India. This includes user-focused case studies in Bihar, Uttar Pradesh, Nagaland, and Maharashtra to identify barriers, co-creation workshops to develop targeted solutions, and interventions addressing challenges such as vaccine hesitancy, limited awareness, and male caregiver involvement. Building on these insights, four key interventions are now being piloted in the urban areas of Uttar Pradesh and Bihar: a mobilizer's flip-flyer and a voucher to improve awareness of UIP vaccines, a post-vaccination care kit to dispel myths about AEFI, and a father's meetings to enhance male engagement. These interventions are also being iteratively refined through real-world feedback to maximize impact and equity.

What promising practices/innovations have emerged?

Promising practices and innovations have emerged in the efforts to reach zero-dose and under-immunized children in India.

1.) Digital technology for UIP:

- **Digital micro plans:** It includes a digitized version (Excel sheet) of all formats of the micro plans to be consolidated at the planning units/Cold Chain Points (CCP)/UPHC, which the respective program managers, i.e., Block/District Immunization Officers, will utilize through the U-WIN platform. In 11 Gavi intervention states, out of 4,271 Planning Units, digital micro plans are available at 3,862 (90.4%) Planning units; 3164 (74%) Planning units have submitted their microplan to the District. A communication plan was available in 2,408 (56%) of the Planning Units.
- **eVIN:** The Electronic Vaccine Intelligence Network (eVIN) is a smartphone and cloud technology-based app that digitizes information on vaccine stocks and temperatures across the country to strengthen the vaccine supply and ensure vaccine availability for every mother and child in time. An initiative of the Ministry of Health and Family Welfare, Government of India, eVIN, has been developed and implemented with support from the UNDP. eVIN has supported continued immunization during the pandemic with uninterrupted vaccine stocks and flows and their efficient management.
- **U WIN:** Digital platform for routine immunization. Some of the innovative features are:
    - Developing tailor-made modules for the staff nurses and vaccinators at delivery points for capturing the birth cohort right from the delivery point possible.
    - Extension of private sector institutions to ensure universal capture of the entire birth cohort.
    - Citizen module so that the beneficiaries can self-register themselves and book an appointment for vaccination at the vaccination centre (session) of their choice.
    - Name-based due list generation for Vaccinators & Mobilisers for end-to-end individualized beneficiary tracking.
    - SMS reminders for due doses are sent to beneficiaries to ensure that beneficiaries get the right vaccine at the right time.
    - Anytime access, anywhere vaccination along with e-Vaccination certificate to enable the beneficiaries to access their immunization records digitally.
    - Integration with existing digital platforms for seamless data flow of beneficiaries' health records using ABDM (Ayushman Bharat Digital Mission).
- **Institutionalized Routine Immunization Training and iTMIS:** Considering that several new interventions are being undertaken under the Zero Dose Implementation Plan, the need for a robust and institutionalized training mechanism also emerged during the sub-national consultations for 11 states. The four key activities under institutionalized training are—the establishment of the *Centre of Excellence* in Immunization Training at the national level, roll out of immunization training in a cascaded manner using a *Hub and Spoke* model, development of skill labs at the hub institutions and recording all training on immunization Training Management Information System (iTMIS). MoHFW collaborates with NCCVMRC, NIHFW, and development partners to establish a Centre of Excellence for Immunization. States often find it challenging to roll out training across multiple days owing to the huge workforce (e.g., MO RI manual training–3 days, HW RI Manual training–2 days) due to limited available institutions with expertise, equipment, and accommodation requirements. Hence, ensuring that all the immunization training is planned and rolled out up to the sub-state level becomes more critical. To address this, the Hub and Spoke model was proposed to expedite the cascaded rollout with efficiency and quality. As training spanned across multiple days poses unique technical and operational challenges, each state needs to identify institutes such as the State Institute of Health & Family Welfare (SIHFW)/Divisional Training Centres or Medical Colleges, which can be developed as hubs for training at state and divisional level. The hubs are expected to train peripheral medical officers and mentor the spoke institutions in the periphery (Primary Health Centres/Community Health

Centres/Urban Health Centres (PHC/ CHC/ UHC) linked to them, which are expected to regularly conduct short-duration training programs (half-day refresher/reorientation) of immunization frontline health workers. WHO-NPSN, in collaboration with states, has been identifying proposed hub institutions, developed Hub, and spoke assessment checklists in consultation with NCCVMRC, which will be used for assessing proposed Hub and spoke institutions across the 143 intervention districts. Currently, the Immunization Division, MoHFW, is reviewing the assessment tools. Further, based on the gaps identified, measures will be suggested to strengthen the system. It is also proposed that immunization skill labs at the select hub locations be developed to facilitate hands-on training. This is at an early stage, and hence, many challenges are foreseen in procurement, equipment placement, ownership, maintenance, and putting it to the best utilization.

- There has been no uniform system of recording and maintaining training data previously. iTMIS, originally developed for capturing national and state-level cold chain training data, has been further refined and expanded to include about 25 types of training. All immunization training-related data will be captured through iTMIS for effective monitoring and implementation. It will enable states/UTs to track all routine immunization-related training statuses for effective monitoring.
- **RISE:** Rapid Immunization Skill Enhancement (RISE), a capacity-building initiative using digital platforms in local dialects (Hindi, English, Marathi, Tamil, Odia), has been conceptualized and developed by the Government of India with support from JSI for enhancing the knowledge and skills of the health workers on routine immunization. By partaking in online training, health workers could learn on their own schedule. Each module in RISE is designed to address key factors contributing to zero-dose children. With each module, the RISE App targets the issues the vaccinator must focus on. The RISE platform covers five learning modules, consisting of key areas impacting the quality of the routine immunization program – Immunization schedule and session management, Injection safety and vaccine administration, Principles of cold chain management, Adverse events following immunization, and Communication to tackle vaccine hesitancy. As the vaccinators sequentially complete modules, they can address issues of "Zero-Dose" children by reducing missed sessions, more effective preparation & management of the due list of beneficiaries, and administering accurate techniques, sites, and doses of vaccine administration. The learners learn proper vaccine management, ensuring adequate vaccine availability in the sessions with reduced wastage, better reporting and management of AEFI with follow-up and better handling of vaccine hesitancy-related issues through effective community involvement. All these contribute to building vaccine confidence in the community. Together, these modules aim to decrease the number of "zero-dose" children effectively.
    - **Enrolling non-traditional vaccinators as learners in RISE for Routine Immunization training**. The RISE app supports the state in harnessing the capacity of other healthcare cadres, including GNMs and CHOs, apart from ANMs, LHVs, SNCs, MHWs, and PHNs.
    - **Incorporating New Development Vaccines into RISE Modules:** integrated content on all new vaccines into its modules, ensuring that vaccinators are well versed.
    - **Saturation of States under HSS 3 Grant:** RISE, initially implemented in 12 districts of Tamil Nadu and six districts and 9 municipal corporations in Maharashtra, has been expanded to cover the remaining 24 districts in Tamil Nadu and 29 districts, and 16 corporations in Maharashtra.
    - **Development and Ongoing work on Zero Dose Implementation Plan modules:** Under the stewardship of the Ministry of Health and Family Welfare, JSI is developing the zero dose modules. The new chapters will work on 'Identification and Planning to Cover the Zero-Dose Children' to enhance the capacity of the vaccinator/CSOs. These will be available to all learners in all districts across 11 RISE intervention states (Himachal Pradesh, Madhya Pradesh, Odisha, Uttarakhand, Maharashtra, Tamil Nadu, Uttar Pradesh, Arunachal Pradesh, Meghalaya, Bihar, and Rajasthan).
    - **Development of Module based on Revised Manual for Routine Immunization:** A module for Health workers based on the recently released revised version of the Health worker manual on Routine Immunity and a Module for Medical Officers based on the Revised version of the Medical Officer manual on Routine Immunity will be developed.
- **Monitoring and Mentorship app:** MoHFW developed this app with the support of UNICEF as a unified government monitoring application. It will provide real-time access to required analytics to all program managers and partners at various health system levels for review and corrective actions. The app will streamline the data flow from the field monitors across the country and be rolled out once the internal testing is completed.
- **Partner Mapping Tool (PMT)**: The Immunization Technical Support Unit (ITSU) has developed the Partner Mapping Tool under MoHFW's guidance. It provides MoHFW with human resource-related information deployed by the different development partners across Gavi intervention states for better program implementation up to the sub-national level.
- **Data Analytics and Review:** MoHFW initiated process to develop an integrated dashboard compiling critical indicators from existing data sources with support from UNDP. This includes further strengthening the review mechanism by identifying key indicators, ensuring data quality and completeness, and ensuring

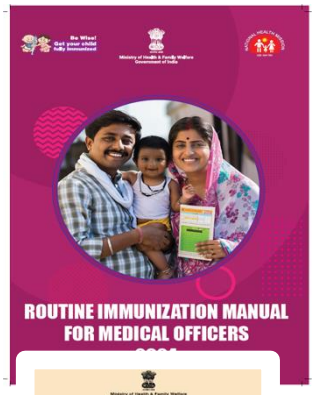
critical indicators are discussed during the review meetings and action points are generated for subsequent review. Stakeholder consultation and landscape analysis is planned in January 2025.

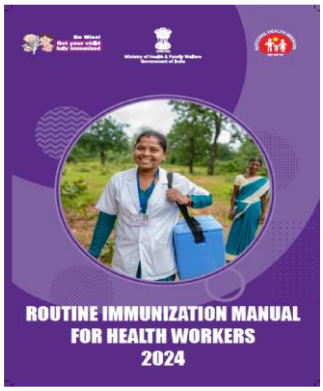
2.) Community Engagement Initiatives: Civil society Organizations (CSOs) are being engaged to reach zero-dose children and hesitant and resistant communities in 1028 blocks/UPHCs across 143 priority districts. The CSOs will strengthen community systems and structures to increase social accountability for RI and establish a sustainable system for identifying and referring Zero Dose and Vaccine Avoidance Behaviour (VAB) families; for example, a total of 1154 ZD children have been linked to vaccination services over a period of three months in 3 corporations in Maharashtra. CSO staff has been recruited for 133 districts, and induction training, covering technical updates on routine immunization, SBC approaches, and participatory communication, is ongoing. After completing training, CSO staff will undertake entry-level activities like social mapping, identification and onboarding of influencers, headcount survey validation, etc. From HSS-2 to HSS-3, the key shift in CSO strategy has been the change of focus from awareness generation and social mobilization to now working with community structures and platforms for increased social accountability. The CSOs will focus on identifying systemic and behavioural barriers to immunization and support FLWs and community structures in finding local solutions. The project will also strengthen community feedback mechanisms to facilitate community voices at the policy table. The BI study informs the CSO project strategies and co-created with communities to address behavioural barriers to RI.

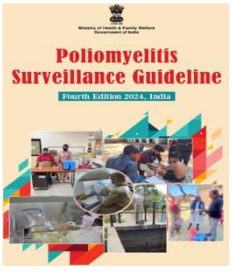
3.) Behavioural insights (BI) studies: These studies have been undertaken in Uttar Pradesh and Meghalaya to understand behavioural barriers to vaccination uptake. Human-centered design-based solutions have been implemented and tested for efficacy following the studies. In their State Communication Plan for Routine Immunization, the government has included two communication interventions tested by UNICEF in Behaviour Insight based Human Centered Design (BI HCD) in 4 Blocks of Firozabad and Bahraich. Similarly, BI studies have been completed in Bihar and Maharashtra to understand the impact of gender on immunization. The study shows that on the demand side, gendered inequities in household decision-making often result in women being excluded from critical health decisions, like immunization, despite carrying the burden of caregiving. On the supply side, Frontline workers, particularly women, face systemic gendered challenges, such as under-recognition of their work, higher emotional and physical burdens, and limited opportunities for professional growth.

4**.) Mapping human resources and unmapped areas:** Rapid urbanization accentuates urban areas' challenges, especially with limited human resources. Based on learnings from the City Embrace Model, periodic (half-yearly) mapping of extended areas to identify new populations and define the catchment area with session planning as per community need has been ongoing.

5.) Revision of the Routine Immunization Manual for Medical Officers and Health Workers:







Both manuals have been tailored specifically to empower Medical Officers, Program Managers, and Health Workers with essential knowledge and practical guidance on the latest guidelines and strategies developed recently in the Universal Immunization program. The Revised Routine Immunization Manual for Medical Officers and the Revised Routine Immunization Manual for Healthcare Workers were launched on 20 October 2024 and 11 November 2024, respectively.

6.) Poliomyelitis Surveillance Guidelines 2024: Acute Flaccid Paralysis Surveillance system in India has been functional since 1997, and the last and third edition of the AFP Surveillance field guide was published in 2005. Thus, new Polio surveillance guidelines have been released on 11th November 2024. Since 2005, there has been Introduction of new types of Polio vaccines such as monovalent OPV (mOPV) type 1 and type 3 in 2005, Introduction of bivalent OPV (bOPV) in 2010 having type 1 and type 3 only, Introduction of Inactivated Polio Vaccine (IPV) in 2015, Switch of trivalent OPV (tOPV) to bivalent OPV (bOPV) in April 2016, Expansion of Environmental surveillance (a supplement to AFP surveillance) sites and Introduction of immunodeficiency-related vaccine-derived poliovirus (iVDPV) surveillance in persons with Primary Immunodeficiency Disorders (PID).

7.) Inclusion of the Behaviour and Social Drivers (BeSD) questionnaire into the routine monitoring system: Incorporating BeSD questions during routine monitoring has helped to understand the social and behavioural drivers

of immunization, further initiating appropriate interventions (short and long-term), especially in identified Vaccine Hesitancy Behaviour pockets.

Overall key findings from RI Concurrent monitoring for the period October 2023 to September 2024 are:

- 92% (4,506,774/4,893,293) of parents/caregivers who say that vaccines are "moderately" or "very" important for their child's health
- 94% (4,601,763/4,893,293) of parents/caregivers say most of their close family and friends want their child to be vaccinated
- 98% (4,779,073/4,893,293) of parents/caregivers who say they want their child to get the recommended vaccines under UIP
- 98% (4,774,964/4,893,293) of parents/caregivers who say they know where to get their child vaccinated
- 30% (1,469,737/4,893,293) of parents/caregivers who say vaccination is "moderately" or "very" easy to pay for

While comparing the HRA and non-HRA data, there is significant variation regarding the importance of vaccines for their child's health, with a positive (Very important) 79% response by Parents/caregivers in HRA. In comparison, it is 84% in Non HRA.

Besides this, JSI India has also conducted a BeSD surveys in 11 states (20 districts) in 2 phases wherein 1130 caregivers/parents of children under 5 were surveyed using the recommended BeSD practical guide adapted to the Indian context. The study had similar findings to that of RI concurrent monitoring. As per the survey, around 95% of parents/caregivers were aware about the importance of vaccination while 90% of parents/caregivers were willing to get their child vaccinated with 'all' the recommended vaccines under UIP

8.) Community of Practice & Demand (CoP-D):

COP-D (Community of Practice on Demand) secretariat was established in the last quarter of 2024. The Communities of Practice (CoP) Secretariat will be a national-level technical and strategic support coordination platform, bringing demand to the forefront for improving immunization coverage. CoP-D will play a catalyst in furthering Gavi's vision of *'Leaving No one behind with Immunization.'* The primary focus of the CoP will be to stimulate and guide demand generation initiatives for routine immunization to achieve *'Zero, zero dose'* children through continuous assessments, impact evaluations, cross-sharing, proof-of-concept pilot testing and documentation, and dissemination of learnings. Creating innovative concepts, designs, insight-driven behaviour change tools, and assets on demand generation will be one of the key deliverables of the CoP. It will build on the power of data, digital, and technology for systematic thinking and bringing in fresh perspectives and ideas. The COP-D will maintain an action-oriented focus, driving the translation of evidence into tangible actions that promote effective vaccination uptake strategies. The aim is to create a comprehensive and inclusive approach to public health that addresses the needs of all communities. Some objectives have been laid out as follows:

Objectives of COP-D:

- Setting the technical agenda on demand under guidance from MoHFW and providing technical assistance for demand strategies, communication, and behaviour change materials and tools.
- Coordination between the recipients of the HSS grant on demand generation and strengthening the technical oversight on demand generation and inter-sectoral coordination, with an emphasis on CSO engagement
- Leading research and learning on demand generation

The demand-related barriers addressed in the earlier impending factors section call for a strategy that can effectively help address zero-dose children and missed communities, and CoP-D provides that platform. It is envisioned to increase demand for immunization by curating best practices, conducting human-centered research to identify barriers and facilitators, and designing tailored behaviour change strategies. The CoP-D secretariat will drive the technical agenda, ensuring that demand-generation efforts are context-appropriate and data-informed. Group M has been engaged as an implementing partner to establish the CoP-D secretariat, and activities have been planned under this intervention. The key members of the secretariat have been identified.

Additionally, the CoPD-Secretariat will be supported by an advisory panel of Nominated Community of Practice Action Group (CoPAG) members. These members will be nominated from Government, Private, and Public Institutes of repute. The government representatives from national and state health or immunization demand generation units, technical support units, and other departments like Education and WCD for inter-sectoral coordination. There will also be members from core partners in the development sector—NGOs, CBOs, and CSOs engaged in demand generation; and academic or private organizations with expertise in advertising and communication, community activation, behavioural science, research, implementation, and impact assessment.

The secretariat will focus on developing a CSO engagement strategy and building a research and evaluation framework. By analyzing existing practices, CoP-D aims to understand regional challenges and offer effective solutions, strongly emphasizing digital data collection, inclusion, and dissemination tools. Pilot tests in select districts will be conducted

to validate demand interventions and test the proof of concept. The insights from these pilots will inform the long-term design and strategy of the broader intervention, helping to scale up efforts to reach zero-dose children across affected regions. These findings will be shared with stakeholders regularly to refine and improve strategies over time.

9.) V-Shiksha:

V-Shiksha is a school-led community engagement initiative aimed at strengthening vaccine confidence and vaccine uptake by educating school students and teachers through enhanced awareness about vaccination. The primary objective is to expand community outreach, effectively raising awareness about vaccination and thereby reducing the number of zero-dose children. It includes devising a scientifically curated, high-quality chapter on immunization into the Class 5 curriculum, complementing the School Health & Wellness thematic areas under the Ayushman Bharat program. A comprehensive teacher-training module on immunization is also being developed as teachers play a crucial role in imparting knowledge and serving as primary information sources for students. The linkage between school education and vaccination impacts age-appropriate knowledge regarding vaccine-preventable diseases, including COVID-19 vaccination.

Project geography & data collection: Four states have been selected for the pilot—Odisha, Assam, Rajasthan, and Karnataka–6 districts and 63 schools across these four states. The data collection process is underway using standardized quantitative and qualitative tools. This baseline assessment is crucial for understanding current immunization knowledge levels among Class V students, their parents, and teachers, which will guide targeted content development. The baseline data collection with findings to be incorporated into the contents will be completed by the end of December 2024.

Progress update on content development: Content will be developed in five languages–English, Hindi, Oriya, Kannada, and Assamese. The project has formulated a content development plan, including a student manual, a teacher manual, and educational videos for teachers and students. This content will be refined and enhanced based on insights gathered from the baseline pre-assessment of students, teachers, and parents.

Teacher Training Module: In line with recommendations from the Joint Working Group (JWG), additional deliverables of training modules for teachers have been included in the project work plan. This module will empower teachers to introduce immunization content confidently, strengthen student engagement, and promote vaccine-related knowledge and attitudes. The content development for teachers & students will be completed by December 2024. Onsite district-level teacher training will be conducted from January 2025, engaging relevant health professionals involved in the immunization program. Teachers play a crucial role in imparting knowledge and serving as primary sources of information. Teachers serve as the mentors for the students, and developing a training module and content for teachers is essential to ensure effective uptake and acceptance among the students. Thus, this project will support leveraging the school teachers as immunization ambassadors in the community using the school as a platform, thus reducing the zero dose & left-outs cohort. The students will act as messengers and change agents and share the acquired knowledge with the household and community members through peer interactions.

10.) State Specific initiative:

- **Risk categorization of sub-centre's/ANMs by Uttar Pradesh:** The government of Uttar Pradesh, with support from WHO-NPSN, has categorized the health sub-centre/ANMs by triangulating coverage from HMIS, VPD cases, and monitoring along with cases. This has helped the state initiate focused interventions to minimize zero-dose, under-immunized children and missed communities and mitigate the emergence of VPD outbreaks.
- **Assessment of Measles Rubella elimination progress in Karnataka:** An assessment of MR elimination progress to understand the barriers and critical gaps to achieve the goal has been carried out in Karnataka. The assessment highlighted the importance of accountability mechanisms and multi-level systematic reviews in achieving the program deliverables. It also highlighted causal relationships among varying resources, urbanization, migration, limited awareness, and low coverage.
- **Immunization System Strengthening in Urban Areas of West Bengal, a Case Study:** A baseline assessment of immunization in urban areas of West Bengal state was conducted to identify the role of governance mechanisms, health workforce, service delivery, and information management in strengthening the health system.
- **High-risk areas and urban immunization**: JSI mapped high-risk areas using Geographic Information Systems (GIS) technology for improved urban immunization in selected cities of Rajasthan & Meghalaya. The GIS tool was piloted in two cities—Jaipur in Rajasthan and Shillong in Meghalaya, to support more robust micro planning in urban areas. The tool was designed to use GIS capabilities to map location and catchment areas served by urban health facilities and high-risk areas and identify geographical gaps in immunization coverage. Data visualizations were embedded into the tool to translate datasets into intuitive

maps, enabling users to explore and interpret data easily. The maps were stratified into multiple layers to show ANM area demarcation within a facility's area, mapping all session sites for that health facility and areas unreached by services. This enabled users to understand where there might be gaps in coverage between a health facility's area and an ANM's demarcation area. Through the GIS tool, the unreached areas by immunization services were identified, and more than 200 high-risk areas were mapped.

- **Mapping of refusals and tagging of mobilizers**: The root cause analysis of large measles outbreaks in 2023-24 in Mumbai City has revealed overt refusal as one of the causes of low vaccination coverage. WHO-NPSN supported the Greater Mumbai Corporation in identifying 25 areas with high-density refusals and tagging ~2,500 families to mobilization coordinators who received orientation on focussed interventions. Close to 1,100 families were convinced, and beneficiaries of 901 families were vaccinated with due vaccine/s.

What key contributions have partners made to drive performance?

- The Government of India (GoI) has achieved remarkable progress in strengthening its Universal Immunization Program by leveraging robust systems, fostering strategic partnerships, and introducing lifesaving vaccines, collectively contributing to significant health outcomes. Between NFHS-4 (2015-16) and NFHS-5 (2019-21), Full Immunization Coverage (FIC) in the country increased from 62% to 76%, with several states achieving over 90% coverage. This improvement reflects the success of concerted efforts under initiatives such as Mission Indradhanush, Intensified Mission Indradhanush (IMI), and new vaccine introductions like the Rotavirus vaccine and Pneumococcal Conjugate Vaccine (PCV). In 2016, India became the first country in the WHO South-East Asia region to introduce an indigenously developed Rotavirus vaccine, scaling it nationally by 2019 across all 29 states and 8 union territories, with significant support from Gavi in Uttar Pradesh. The rollout of Rotavirus vaccines (RVV) in 2016 and Pneumococcal conjugate vaccines (PCV) in 2017 align with the The Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD), and has contributed in decreasing the Under 5 mortality from 45 (2014) to 32 (2020) as per SRS 2020. It is evident from the research that the introduction of newer vaccines under the UIP over the years has led to an increase in the breadth of protection. This expanded breadth of protection is a critical incremental improvement in expanding vaccination services to everyone. In 2022, the global Breadth of Protection (BOP) stood at 72%, while India achieved a significantly higher BOP of 84%, outperforming the global average by 12 percentage points. Any new vaccine introduction contributes to the overall system strengthening, ensuring the delivery of services. It provides an opportunity for training, capacity building, community sensitization, cold chain assessment, and programmatic improvements and scale-up

  These successes were underpinned by the collaborative efforts of key immunization partners—WHO, UNICEF, UNDP, and JSI, who have played transformative roles in overcoming systemic challenges and scaling immunization coverage. WHO has been pivotal in strengthening VPD surveillance, digital microplanning, and monitoring campaigns like Mission Indradhanush, contributing to increased FIC. UNICEF's tailored behaviour change communication (BCC) strategies, solarization of health facilities, and cold chain system enhancements were instrumental in achieving the 80% benchmark in the 2022 National EVM Assessment. UNDP's digital platforms—eVIN, CoWIN, and the latest addition of UWIN, revolutionized vaccine logistics by digitizing stock management and empowering frontline workers, particularly women, through digital literacy and operational confidence. JSI's Rapid Immunization Skill Enhancement (RISE) program and tailored educational curricula bridged capacity gaps and promoted community-level immunization advocacy. The phased rollout of eVIN under HSS-1 and HSS-2 using a Build-Operate-Transfer (BOT) model ensured sustainability in cold chain operations. At the same time, Mission Indradhanush and IMI successfully targeted hard-to-reach and underserved areas, increasing FIC to over 90% in several districts. It shows that, on average, 6 million children and 0.5 million pregnant women have been vaccinated every round. The leadership of the GoI, supported by immunization partners, has ensured a seamless introduction of vaccines, timely mitigation of challenges, and a strengthened immunization ecosystem.

What are the top risks that should be mitigated?

India's Universal Immunization Program (UIP) has achieved remarkable milestones, but sustaining progress requires addressing several critical risks through robust mitigation strategies. One significant challenge is the country's large and rapidly growing birth cohort, coupled with increased rural-to-urban migration, leading to the rise of peri-urban settlements. These areas often lack adequate healthcare infrastructure due to a lack of clear demarcation, overburdening existing systems and creating disparities in vaccine access. Strengthening immunization services in these peri-urban

zones through targeted infrastructure expansion and innovative delivery models is essential to maintain equitable coverage.

Recent measles outbreaks in low-coverage areas also highlight the urgent need to increase the second-dose measles vaccine coverage to 95% to achieve herd immunity and prevent further outbreaks. This requires a focused approach, including intensified vaccination drives, strengthened surveillance, and robust community engagement strategies. In 2024, 58% of Measles cases of age more than 12 months 2024 have missed receiving any MR doses (MR zero dose); in 2023, it was 73% (measles zero dozers)] [80% of Suspected Diphtheria cases in 2023 and 78% in 2024 were of more than 5 years of age]. In addition to 143 ZIP districts, the remaining districts need to be prioritized based on Surveillance, immunization coverage, demographic, and other data on challenges (tribal, urban population) to bolster the immunization strengthening efforts (significant measles outbreaks are occurring in non-ZIP intervention districts in 2024). Keeping the MR Elimination goal in consideration, the country needs to think of strategies to bring the *second year of life* as a huge priority and push the focus beyond first year of life and achieving higher FIC.

Another issue is apprehension about multiple injections due to the introduction of many new vaccines under UIP, which may adversely impact immunization coverage of co-administered vaccines. While the global literature supports this statement, JSI India also conducted a recent study across 8 Indian states under the direction of MoHFW to better understand the stakeholders' perspectives (caregivers, vaccinators, community mobilizers, and program managers) on introducing additional injectable vaccines under the UIP. Some of the key findings highlight that while caregivers believe in the critical role of vaccines in preventing VPDs, about two-thirds of them find it challenging to manage their child's discomfort level, which impacts their livelihood and interference with daily activities. There was a strong preference for oral and combination vaccines across caregivers and vaccinators. These results with more related findings are yet to be published.

The country has also identified future pandemics or other disruptions to healthcare services as critical factors that may cause setbacks in vaccination progress. Despite improved community awareness of the importance of vaccination, there are still some pockets where vaccine hesitancy persists (In preparation for IMI 5.0, vaccine-hesitant areas were identified in 120 Districts across the country). Such pockets are identified through house-to-house monitoring, program review, and qualitative feedback from the program managers and frontline workers. To address these barriers and develop a proof of concept, HCD solutions are piloted in 2 districts, each of UP and Meghalaya. A similar approach will be undertaken in Maharashtra and Bihar to address gender-related barriers to RI. The details of these studies have been provided in previous sections.

Also, the immunization program is so large that each intervention generates data, and triangulation of these data sets is needed for better decisions at all levels, from the PHC/Block level up to the national level. Therefore, such data sets are proposed to be triangulated and analyzed using Data analytics intervention approved under HSS-3 for detailed UIP reviews. The simultaneous entry of data on multiple portals by healthcare workers is another burden and a key challenge.

Climate change introduces an emerging risk to vaccine efficacy, as shifts in temperature and humidity threaten the stability of vaccine supply chains. Strengthening the cold chain infrastructure, incorporating renewable energy solutions such as solar-powered cold storage, and investing in climate-resilient vaccine management systems will be essential to safeguard vaccine quality.

2. Information Question:? Forecasted routine introduction dates should be discussed and validated during the JA discussion

Please insert a table with vaccine introductions currently being forecasted with timelines and at what stage of preparation the introductions are:

Program Name	Classification	Status
HPV	Routine	Decision Letter Sent
HPV	Campaign	Decision Letter Sent

Country Comments (please consider the set of cross-cutting questions to structure comments):

National Technical Advisory Group for Immunization (NTAGI) is the apex technical advisory body that advises the Ministry of Health and Family Welfare on the immunization program and any vaccine introduction under the Universal

Immunization Program (UIP). It has recommended the introduction of the Human papillomavirus (HPV) vaccine and the Typhoid Conjugate Vaccine (TCV) under UIP.

HPV: On June 28, 2022, based on fresh evidence on disease burden, evidence on the effectiveness of a single dose of HPV vaccine, clinical trial data, and experience of the Government of Sikkim on the introduction of the HPV vaccine 17th NTAGI recommended the introduction of HPV vaccine in the UIP with a one-time catch-up for 9–14-year-old adolescent girls followed with a routine introduction at 9 years of age. The introduction and scale-up of the HPV vaccine is planned in a phased manner over a period of 3 to 4 years. The introduction's timelines depend on the availability of sufficient vaccine doses, including the Gavi-supported supplies.
TCV: On June 28, 2022, the 17th NTAGI recommended that Indigenous Typhoid Conjugate Vaccines (TCV) are safe and efficacious, and the country has sufficient burden to consider this disease a public health problem. Therefore, it is worthwhile to introduce Typhoid Conjugate Vaccine in the Universal Immunization Program. Program managers at the Immunization Division may consider one of the recommended strategies for introducing the Typhoid Conjugate vaccines in the UIP. NTAGI recommended the following TCV introduction strategies in the order of preference:

- Initiate routine vaccination along with MCV at 9-12 months. One-time school-based campaigns for all children (urban and rural) and vaccination at school entry for the next three years (includes campaign)
- Routine vaccination and MCV at 9-12 months with one-time urban school-based campaigns (includes campaign)
- Routine vaccination and MCV 9-12 will be introduced for 4 years at school entry and in class 5th (along with HPV vaccine?) for the next five years (no campaign strategy).

Based on the 5th meeting of the Typhoid Working Group (TWG), NTAGI recommended setting up a Surveillance system for Typhoid Fever to determine the burden and plan control strategies. Twenty typhoid workshops have been planned, two of which were held in Ahmedabad and Indore, and the rest of the 18 are planned. The workshop aims to finalize a strategy to roll out city-based typhoid surveillance.

What factors have facilitated or impeded progress?

Preparedness for TCV introduction is facilitated by Gavi HSS-3 funding for setting up enteric fever surveillance and the existence of four domestic suppliers. However, India has HPV vaccine introduction experience from Sikkim and Punjab, its introduction is impeded by supply constraints of HPV vaccine doses by manufacturers globally.

What promising practices/innovations have emerged?

Technical committees:

- For the inter-ministerial coordination & oversight, the National Advisory Group (NAG) on HPV vaccination has been constituted, chaired by the Additional Secretary and Mission Director (NHM), MoHFW, and members from the Ministry of Education and Ministry of Women and Child Development. Further, to develop an operational plan for HPV vaccine introduction, a National Operations Group (NOG) has been set up under the chair of the Additional Commissioner (Immunization), MoHFW comprising officials from the Immunization Division, Adolescent Health Division and representatives from AIIMS, ICMR-NCDIR SIO (Sikkim, Punjab), NCCVMRC-NIHFW, WHO, UNICEF, UNDP, JSI, BMGF, ITSU & JHPIEGO. For developing a communication strategy on HPV vaccination, a Working Group on Communication Strategy for HPV vaccination was set up under the chair of the Additional Commissioner (Immunization), MoHFW, with members from BMGF, Girl Effect, UNICEF, JHPIEGO, Group M, CSBC, AIIMS-Rishikesh, Adolescent Health, SNA Division, ITSU, JSI, WHO.
- MoHFW has constituted a Typhoid Surveillance Group (TSG) and Typhoid Operation Group with experts from medical colleges/institutions and partner agencies.

Line list of beneficiaries: MoHFW has identified the Ministry of Education's UDISE plus and Prabandh portals for leveraging to line list schools, grade-wise girl students, and out-of-school girls, respectively.

What key contributions have partners made to drive performance?

As mentioned above, various partners are members of the vaccine group and contribute to developing vaccine introduction strategies.

What are the top risks that should be mitigated?

- Global supplies of the HPV vaccine have to be improved before any country introduces it. As with any new vaccine, the states must be assessed for readiness before the introduction. This includes orienting schools, ample cold chain space, and capacity building of front-line workers, health care workers, teachers, and local leaders.

To build a positive environment for the introduction of the HPV vaccine, the following risks should be addressed;

- Community-based perceptions and taboos associating HPV vaccine with sex and sexuality.
- Reluctance of service providers: Despite awareness of cervical cancer, practitioners have mixed feelings and knowledge gaps about the HPV vaccine, leading to hesitancy in recommending it. Some physicians see HPV vaccination as the responsibility of gynaecologists and paediatricians, shifting accountability.
- Lack of reliable sources of information: Inconsistent information on public forums complicates addressing parental concerns.
- HPV vaccine security considering large eligible cohort in India.

- For TCV, estimating disease burden through sentinel surveillance would precede the introduction. y.

- The introduction of multiple injectable vaccines, including the Typhoid Conjugate Vaccine (TCV) and Human Papillomavirus (HPV) vaccine, under the UIP requires a robust, evidence-based strategy supported by extensive capacity building of stakeholders. Studies have consistently highlighted that administering multiple injectable vaccines during a single visit can create apprehension among caregivers, healthcare workers, and program managers, necessitating proactive measures to address these concerns. To explore this issue, a comprehensive field study was conducted to understand the perspectives of caregivers, vaccinators, community mobilizers, and program managers regarding adding TCV to the UIP.

- The study employed a two-phase methodology: a scoping literature review followed by primary data collection using quantitative and qualitative methods. The sampling process included eight states—Andhra Pradesh, Assam, Bihar, Delhi, Himachal Pradesh, Maharashtra, Tamil Nadu, and West Bengal—covering

- one district, one planning unit, and two session sites per state. Data were collected through a telephonic survey of 1,140 caregivers/mothers, Key Informant Interviews (KIIs), and Focus Group Discussions (FGDs) with relevant stakeholders.

- The findings revealed mixed perspectives. While 59.3% of caregivers believed that multiple injectable vaccines positively impact a child's health, many expressed concerns about discomfort for the child and fear of injections. Notably, 66% reported that post-vaccination care interfered with their daily routines, and only 37.1% were confident about administering three or more injectable vaccines to their child in one visit. However, 82.3% agreed to accept three or more vaccines per visit when informed that multiple injections could improve disease protection. Combining new injectable vaccines with existing ones was frequently mentioned as a preferred approach to save time and reduce costs.

- Stakeholder perspectives emphasized additional challenges. Caregivers cited discomfort and logistical challenges, while program managers highlighted vaccine hesitancy, tracking mobile populations, and geographical barriers as major hurdles. Service providers stressed the importance of effective training, improved system preparedness, clear communication strategies, and simplified data management systems.

- Addressing these concerns through targeted, community-level preparedness efforts is critical to ensuring the smooth introduction of TCV under UIP. This includes enhancing infrastructure, disseminating clear and accessible information, and implementing comprehensive communication strategies to build trust and acceptance. Addressing these varied concerns through evidence-based interventions and stakeholder engagement will be key to achieving vaccine acceptance, overcoming hesitancy, and improving coverage for these critical vaccines.

4. Learning Question: Trajectory and progress against targets set

- **How does the progress over the past year compare with your Theory of Change or program objectives?**

Country Comments (please consider the set of cross-cutting questions to structure comments):

Under Universal Immunization Programme, the country has an objective to maintain and reach full immunization coverage of ≥90%, which has been sustained since past 5 years. This has been a result of various ongoing efforts and simultaneous implementation of innovative interventions to tackle the evolving challenges of the programme. While UWIN has streamlined the name based tracking of each and every beneficiary, another key milestone has been the successful onboarding of Civil Society Organizations (CSOs) in 133 out of 143 identified districts, laying the foundation for grassroots-level engagement. Complementing this, social mapping activities were initiated in seven states, a critical step in identifying and addressing zero-dose children and underserved populations. Piloting incentivization schemes for

community mobilizers in some districts has shown potential, though resistance and integration challenges in certain states have delayed broader implementation. The RISE initiative has made notable capacity-building strides, reaching over 70,000 health workers, with tangible improvements in knowledge retention and module completion rates. However, attrition among participants remains an area of concern that needs careful monitoring and mitigation strategies. System innovations have been a key focus, with initiatives such as the UWIN electronic immunization registry, the AI-driven Chabot "Hello Vaxi," Model Immunization Centres, and the iTMIS training platform strengthening immunization tracking, service delivery, and workforce engagement. These tools have enhanced efficiency, ensuring improved data management, service quality, and workforce upskilling. High-impact campaigns like IMI 5.0 and MR vaccination drives have significantly contributed to reducing immunity gaps and reaching zero-dose children on a large scale, particularly in hard-to-reach areas. Despite these successes, systemic challenges persist, including competing priorities for the workforce, delays in integrating new technologies, and state-specific objections to certain interventions like incentivization. To address these, targeted advocacy, state-level engagement, and adaptive strategies are essential. The collaborative efforts of key partners such as WHO, UNICEF, and JSI have been invaluable in driving technical advancements, fostering innovation, and providing implementation support. While there are ongoing challenges, the program's steady progress underscores a growing momentum toward equitable immunization outcomes and a stronger delivery system. Moving forward, sustained efforts, cross-state knowledge sharing, and targeted interventions will be crucial to achieving long-term program objectives. The progress on the IAG indicators is placed at annexure.

Progress on some of the key interventions under Zero Dose Implementation are:

- **Digitized microplan:** Approximately 3,840 (89.8%) of 4,272 Planning units have digitized RI microplan.
- **UWIN** was launched and is functional across all states/UTs except West Bengal. As of 10th November 2024, 7.26 cr beneficiaries have been registered, 1.21 cr sessions have been held, and 26.84 cr administered vaccine doses have been recorded on UWIN.
- **Monitoring & mentorship program:** U-Mentor (government-owned and managed mobile application). The implementation of the U-Mentor mobile application, initially planned for Q3 2024, is slightly delayed due to the extended time required for model testing, API processes, and post-sync data validation. Developed to monitor routine immunization with a focus on Gavi-supported districts, the app underwent internal testing in Maharashtra and Uttar Pradesh, with feedback successfully incorporated. Based on recommendations from the program steering committee, pilot testing will now be initiated. The application is expected to be finalized by December 2024, with a national launch planned for early 2025. However, the anticipated time for API integration across the remaining 34 states and Union Territories may pose a challenge to meeting the full roll-out timelines. A cascade training mode is planned for Q1 2025 to ensure smooth implementation. Additionally, nearly 40 job aids focused on monitoring and mentorship are under development and are expected to be ready by the end of 2024, complementing the app's deployment.
- **Civil Society Organization (CSOs) Engagement:** Under the HSS-3 grant, the placement of CSOs in 133 out of 143 identified high-priority districts is slightly delayed, with onboarding for the remaining 10 districts underway. Induction training for these CSOs is expected to be completed by the end of 2024. The delay in onboarding was primarily due to the rigorous process of identifying, screening, and finalizing the CSOs, which took longer than anticipated. Social mapping and entry point activities were initiated in key states, including Arunachal Pradesh, Bihar, Maharashtra, Meghalaya, Mizoram, Nagaland, and Rajasthan. Despite the delay, the capacity building of CSOs has been effectively conducted using standardized training materials aligned with the strategies outlined in the Theory of Change (ToC). Implementation of ToC strategies began in Q4 2024, and progress will be reported against the indicators defined in the Gavi HSS-3 MEL framework.
- **Mobilizer incentives:** The workflow for the identification and payment of mobilizer incentives has been prepared and shared by MoHFW with all Gavi HSS-3 implementing States. The functionality of UWIN to tag mobilizer with eligible beneficiaries, approval of incentives by health Facility Manager, and visibility of approved/pending incentives to mobilizer is under development. Jharkhand, with one Gavi intervention district, has initiated mobilizer incentives in offline mode effective from 1st Nov'24 while awaiting U-WIN functionalities to take it online. Some of the States are waiting for these functionalities to be active so that they can initiate this intervention. However, a few states like Uttar Pradesh, Bihar & Madhya Pradesh, accounting for 100 Gavi intervention districts, have queries like the budget line to be used for payment of incentives, integration of UWIN with their financial payment software and ASHA software, discrimination within the State between Gavi and Non-Gavi intervention districts and sustainability of intervention after 2026. Currently, the allocation for mobilizer incentives for 5 quarters (Q4 2023 to Q4 2024) amounting to $3.37 million will go unutilized and needs re appropriation. Further, the utilization of the remaining allocation will depend on the number of districts that implement the intervention. A clear picture of the number of districts is anticipated to be available by the end of March 2025. Functionality in U-WIN is developed to tag ASHA workers at Registration and Vaccination and further generate report for Incentives.
- **RISE:** In the pilot phase of RISE in 2020, over 2,800 frontline health workers were trained, achieving an 80% completion rate of RISE modules with demonstrated improvements in knowledge and practices. The first scale-up phase expanded to 33 districts across three states, reaching over 12,500 health workers during 2021-2022. In the CDS-2 phase from 2022-24, RISE extended to 89 districts and 9 corporations, enrolling learners

from 5 States (Madhya Pradesh, Odisha, Uttarakhand, Tamil Nadu, and Maharashtra) Additionally, 53 out of the targeted 236 districts under the HSS-3 phase have been initiated in June-September 2024, with 24 districts in Tamil Nadu and 29 districts (including 16 corporations) in Maharashtra. The remaining districts in the 5 States (Uttar Pradesh, Rajasthan, Bihar, Arunachal Pradesh, and Meghalaya) will be covered during the current project period. RISE has disseminated knowledge to 70,000+ health workforces without the direct involvement of trainers. Completion rates in Modules 1 and 5 have increased by 16% and 21% points across the four fully saturated states (Himachal Pradesh, Madhya Pradesh, Odisha, and Uttarakhand) from Jan to Oct 2024. In all four states, the M1 start % is above 80%, and the M5 completion rate is above 75%. 28 districts and 280 blocks in these four states have achieved 100% completion for all 5 RISE modules. As of 31st Oct 2024, there has been an average increase of 11% in knowledge across most states, with nearly one-third of learners demonstrating over a 20% gain. Himachal Pradesh and Odisha recorded the highest post-test scores, surpassing the national average. Notably, Tamil Nadu and Madhya Pradesh exhibited the most significant improvement at a 12% points increase. Based on post-assessment performance, learners are eligible for either the Gold Certificate: 85-100% or the Silver Certificate: 70-84%. Nearly 65% of the learners achieved a gold certificate in at least three out of five modules, with States like Himachal Pradesh and Odisha showing the highest achievement of 80% and 75%, respectively.

What factors have facilitated or impeded progress?

1. **Sustaining immunization services during the Pandemic:** Recognizing the distressing consequences of disruption, the Government of India issued guidelines in April 2020, declaring immunization as an essential health service and instructing the states to resume routine immunization.
2. **Virtual and Physical Reviews:** To understand the challenges being faced by the States and to ensure that States identify the zero dose children and include them in the micro plans, virtual and physical reviews have been undertaken every quarter comparing the performance of the State on key immunization, VPD surveillance, and UWIN indicators. Besides this, the performance of the states on Gavi intervention was reviewed during the IAGs. These reviews were of immense value as they provided a platform for exchanging ideas and cross-learning to understand various local measures adopted by the states for restoring immunization services.
3. **Special Vaccination Drive–Intensified Mission Indradhanush and Outreach Sessions:** The country conducted the Intensified Mission Indradhanush (IMI) 5.0 in 2023 across all States/UTs intending to bridge the immunization gaps, encompassing the backlog of partially vaccinated, unvaccinated children and pregnant women. To leverage Measles and Rubella (MR) Elimination, the catch-up drive was carried out in children up to the age group of 5 years, and all children up to the age of 5 years were vaccinated with missed or due doses of MR. Around 0.2 million children were vaccinated with MR-1, and 0.17 million were vaccinated with MR-2.
4. **States specific campaigns:**
    a. In response to outbreaks in 2023, MR catch-up campaigns were conducted in several states (Jharkhand, Haryana, and Rajasthan) in the children up to the age group of 10/15 years, as there has been an age shift in the epidemiology of Measles. Approx. 5 million children were vaccinated with an additional dose of MR. Other states also conducted Outbreak Response Immunization, vaccinating around 0.7 million children with missed or due vaccination doses.
    b. Delhi (children aged 9 months to 5 years) and West Bengal (children aged 9 months to <15 years) conducted the MR campaign in respective States, vaccinating approx. 100% and 96.4% beneficiaries respectively.
    c. The school-based Td vaccination campaign in Uttar Pradesh will be held in November 2023 with 100% coverage.
    d. Catch-up campaigns in Haryana and Punjab for all UIP vaccines for children up to 5 years of age vaccinated 93% and 99% of children, respectively.
5. **Capacity-building workshops:** A national workshop on the Routine Immunization Manual for Medical Officers, a National workshop on the Routine Immunization Manual for Healthcare Workers, and a National workshop on Revised Adverse events following Immunization Guidelines were conducted to enhance the capacity of State program officers so that they can cascade the same training in their respective States/UTs.
6. **UWIN:** Factors contributing to progress include enhanced system maturing, a greater number of tailor-made modules, improved state compliance, and increased capacity of state healthcare workers with ease of working and familiarity with the system, streamlined portal performance over time, and regular bottleneck resolution. Additionally, the expanded Human Resource (HR) network has improved adherence.

Impeding factors:

1. **Monitoring and Mentorship:** The development and implementation of the U-mentor app have been delayed due to the project's delayed initiation and time-consuming API integration with UWIN.
2. **Mobilizer's incentive:** Implementing this intervention has faced multiple challenges, making operationalization more complex than it may initially appear. While the intervention is currently being implemented in only one district (Sahebganj, Jharkhand), several states have raised significant concerns, including Uttar Pradesh, Bihar, and Madhya Pradesh. Uttar Pradesh (60 districts) has objections, while Bihar and Madhya Pradesh have raised several operational queries regarding its feasibility. A key factor contributing

to these challenges is the mobilizer incentive, which is limited to the project duration and is not sustainable in the long term. States are concerned that introducing mobilizer incentives could set unrealistic expectations among health workers, increasing pressure to extend incentives post-project, which would substantially raise program costs and burden state immunization budgets. Moreover, there is apprehension that implementing such incentives in intervention districts could disrupt program equity and performance in neighbouring districts or states, potentially triggering demands from health workers for similar incentives elsewhere. This has been well documented in scientific literature, highlighting that while short-term incentivization may temporarily boost coverage, it can have adverse long-term impacts on program sustainability, delivery, and cost efficiency. Specifically, the average cost of vaccinating individuals may rise significantly, leading to unsustainable increases in expenditure. Due to these complexities, $3.37 M in funding disbursed in November 2023 remains unspent. Discussions and dialogues regarding the intervention's implementation are in their final stages, focusing on addressing these valid concerns and ensuring the long-term viability of the initiative.

3. **RISE:** The vaccinators and district health workforce may face competing priorities, such as special campaigns, unexpected disease outbreaks, or natural disasters, impacting routine immunization efforts. To mitigate this, it is essential to coordinate with National and State Governments to maintain RISE as a program priority, alongside effective partner coordination, supervision, and monitoring. Also, there has been an attrition of learners from Module 1st to Module 5th, leading to missed opportunities for adopting best practices in immunization due to multiple factors, including competing priorities, lack of monitoring and troubleshooting support, and internet and application navigation-related issues. Ensuring the continuity of learning and leveraging the advantages of self-paced e-learning content will be a key step for sustainability.

What promising practices/innovations have emerged?

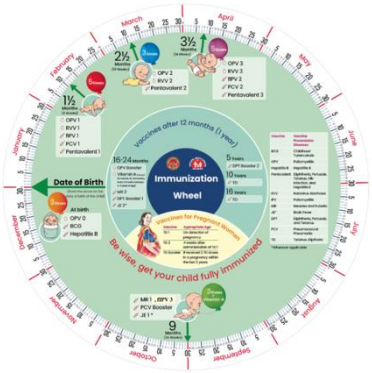
- **E-VIN to U-WIN:** The Government of India, based on the learnings of eVIN and Co-WIN, developed U-WIN, an Electronic Immunization Registry to track infants and pregnant women for vaccination under UIP.
    - Continuous handholding support onsite/virtual to the users has helped the portal uptake among the HCWs.
    - The availability of an Offline module, onsite registration, preregistration facility, Mobile app for Citizens, and Grievance module for Citizens has improved the efficiency of this digital intervention.
    - The development of training modules and videos has helped uptake the portal.
    - Video and virtual training significantly improved access to capacity development, especially in remote regions.
- **Public-Private Partnerships:** Collaborations between the government and private healthcare providers accelerated vaccine distribution and administration. This experience has also opened new avenues of engagement and collaborative partnerships to reach and reduce the zero-dose children in the country.
- **Rapid Immunization Skill Enhancement (RISE):**
    - **Development of E-learning modules for Medical Officers:** Following encouraging outcomes with learners, the Government of India has developed e-learning content for Medical Officers. Critical content will be curated from the latest version of the Medical Officers Handbook.
    - **Enrolment of New Vaccinators:** The recruitment of human resources is an ongoing process within the health system. RISE aims to provide modular training on routine immunization for all vaccinators, including newly recruited vaccinators. These new vaccinators are enrolled in the RISE app to receive training and enhance their knowledge and skills in immunization practices.
- **iTMIS:** Dynamic training registration tool developed by NCCVMRC-NIHFW under the guidance of MoHFW. This application enables immunization program managers/Trainers to register and capture the data of participants trained in various immunization trainings at the central, state, district, and block levels. At present, more than 25 types of immunization training are registered in this application. Some of the iTMIS features include:
    - Scheduling training through iCalendar
    - Master sheet of Human resources - State /District/Sub-District
    - Provision for creating training batch
    - Estimating Training Load & Refresher training load
    - Participant & Trainer Details
    - Edit feature for updating & modification of HR data
    - Dashboard for a quick overview
    - Pre- post-test/ Feedback Provision
    - Graphic representation of Training & Participants trained
    - Self-Registration facility for participants

State-specific innovations:

- **Model Immunization Centres (MIC) to Create Child-Friendly Environment**: Several States have made child-friendly environments with colourful theme-based décor, play areas, and facilities at health centers making visits memorable for children and caregivers. The Model Immunization Centre (MIC) initiative represents an innovative approach to improving immunization access and quality in urban areas, with successful implementations in Uttar Pradesh, Rajasthan, Bihar, and other states. These centers offer high-

quality, patient-centered immunization services to meet urban healthcare challenges. MICs provide essential amenities such as breastfeeding corners, cold chain storage, and spacious waiting areas, creating a welcoming environment for beneficiaries. Additionally, each MIC incorporates demand-generation activities, including audio messages, community engagement campaigns, and feedback mechanisms, to boost public awareness and participation in immunization services. Since its launch, the MIC model has led to a marked increase in beneficiary footfall and immunization uptake, with several centers reporting substantial growth in service utilization.

- **Immunization Wheel:** Facilitating frontline workers, the immunization wheel, called a '*Teekakaran Chakra*' in Hindi, is being used in certain states. The wheel consists of two discs, placed one on top of the other, one bigger than the other, and attached with a rivet. The smaller one has details of the vaccines and arrows; the larger one has a calendar with days and months. Health workers register a child's birth in what they refer to as the ASHA Diary. They use the wheel to match a birthdate to the first vaccine. The rest of the dates for year, one of an infant's life (for immunization at 1.5, 2.5, 3.5, and 9 months) fall into place without manual calculation. There is a pictorial indication of whether the vaccine is a jab (syringe vector) or will be orally administered (drop vector).



- **Chabot for Routine Immunization:** Another innovative contribution by the UT of Chandigarh was launching an AI-supported Chabot called 'Hello Vaxi' to simplify the vaccination process and enhance immunization services for children and pregnant women. The Chabot's target audience was healthcare workers and caregivers, and its features include Frequently Asked Questions (FAQs) on various thematic areas of immunization, a facility locator for routine immunisation services, and a vaccine calculator for due doses. This Chabot was piloted in 6 cities across 6 States and is currently available in 3 languages.
- **Immunization corners:** The State of Bihar has developed the infrastructure for an Immunization corner in 1000 Health and Wellness sub-centres, offering vaccination services to beneficiaries three days a week.
- **Zero Dose Learning Agenda:** An innovative approach of iterative learning by doing is being implemented in selected areas of Uttar Pradesh (UP) [Lakhimpur Kheri (Blocks-Bankeganj, Dharera, Ramia Behar); Maharajganj (Mithaura, Nautanwa, Nichlaul; GB Nagar (UPHC Dadri, UPHC Sarfabad), Unnao (UPHC Champapurwa, UPHC Shuklaganj Bazar); Badaun (Block- Ambiapur), Banda (Block- Baberu), Prayagraj (Block- Manda), Saharanpur (Rampur Maniharan) & Bihar [East Champaran (Areraj, Harshdhi, Phenehra); West Champaran (Gaunaha, Majhaulia, Piparasi); Nalanda (UPHC Sundargarh, UPHC Badidargah)]. This approach focuses on identifying key drivers of immunization for both under-vaccinated and unvaccinated children. Drivers have been identified by analyzing secondary data, primary data collection, quantitative and qualitative- in-depth interviews, Key informant interviews, etc., for understanding the behavioral and social reasons among the ZD children's families for not taking up vaccination. Interventions are being developed and planned in collaboration with the community and key stakeholders. Co-creation workshops have been conducted in the select districts and prioritized geographies, with different sections of the program, viz.- beneficiaries, front-line workers, and program managers, to co-design interventions that are acceptable to the community and feasible for delivery for the FLWs and program managers. The interventions which are emerging are around innovative ways of conveying the importance of vaccination in a language and in a way that is understandable to the community, establishing mechanisms of connecting the moving population to the health care workers of the community, and equipping the FLWs to re-look into their population and understand the reasons for missing vaccination and subsequently strategizing for ensuring vaccine uptake. Subsequently, interventions will be carried out iteratively, with continuous adaptation and refinement as the implementation progresses.

What key contributions have partners made to drive performance?

The contributions of partner organizations have been instrumental in implementing Routine Immunization. The support provided is especially in ensuring equitable access, data management, healthcare worker training, and the overall effectiveness of the vaccination program.

- **UWIN:** Leveraging learnings from eVIN and CoWIN, UNDP provided technical and implementation support to the Ministry of Health and Family Welfare to develop U-WIN (Universal Immunization Program -WIN). It was

utilized as a single source for coverage reporting during Intensified Mission Indradhanush 5.0 and officially launched on 29 October 2023. The nationwide implementation of UWIN was possible with collaborative and collective efforts by all Vaccination partners, especially during training. Viz. UNICEF, JSI, WHO.

- **IMI 5.0:** All partners (WHO, UNDP, UNICEF, JSI, CHAI, JHPIEO, ITSU, BMGF) supported in the planning of the biggest catch-up campaign IMI 5.0 to reach out to all children up to 5 years of age missed any vaccine dose due to pandemic. Partners also supported the campaign's monitoring in the high-priority districts during the three rounds of IMI 5.0. ITSU developed a communication strategy for the campaign. Workers and Revised Operational Guidelines for AEFI—all partners contributed to the synthesis of a comprehensive manual for the field staff on Routine Vaccination

- **Zero dose implementation plan:** The partners (WHO, UNDP, UNICEF, JSI) are supporting the implementation of various interventions as envisaged under ZIP in 143 districts across 11 States and effectively deploying trained Human Resources at the ground level for capacity building and providing technical assistance.

- **Revised Manual for Routine Immunization for Medical Officers, Revised Manual for Routine Immunization for Health Workers, and Revised Operational Guidelines for AEFI—**all partners contributed to synthesizing a comprehensive manual for the field staff on routine vaccination.

What are the top risks that should be mitigated?

One primary risk is operational inconsistency across States, where varying infrastructure and health workforce capacity levels may lead to unequal adoption and execution of these interventions. Additionally, Community resistance and vaccine hesitancy present further challenges, as misconceptions and cultural beliefs in some areas may undermine trust in immunization initiatives. Moreover, there is a risk of overburdening frontline health workers with new reporting requirements and operational changes, impacting service quality and staff morale. For devising the curriculum on immunization, Engagement with multiple stakeholders, including high-level coordination with the Ministry of Education and Ministry of Health and Family Welfare at both national, state, and district levels were required to kick start the project for overall smooth implementation by the partner. Multiple administrative approvals were required for various reporting channels. Besides this, field-level coordination, including engagement of schools through the district education department, also requires multiple coordinated efforts.

The long-term sustainability of HSS 3-supported immunization interventions is also a pressing concern. Financial dependency on HSS grants poses a major risk, as many States may struggle to maintain these initiatives without continued external funding, particularly in resource-limited areas. These sustainability risks highlight the importance of developing local ownership, financial planning, and gradual integration into State health budgets to ensure the lasting impact of these interventions.

B. program management

Financial implementation of Gavi cash grants

Cash[2] Support Summary*

Grant	Recipient	Period	Status as of 30th September 2024					Cash Bal	Compliance**	
			Grant Value	Appr.	Disb.	Exp.	Uti. Rate vs Disb.		Fin. Rep	Audit
COVID19-CDS-CDS	UNDP	10/12/2021-31/12/2022	7,767,000	7,767,000	14,715,302	18,216,418	100%	0	Yes	N/A
COVID19-CDS-III	UNDP	16/05/2023-15/5/2025	4.281.720 adjusted to 3.501.116	4,281,720	3,501,116				Yes	N/A
COVID19-CDS-NBF	UNDP	22/07/2022-21/7/2024	6,948,302	6,948,302	6.948.302				Yes	N/A
COVID19-CDS-CDS	UNICEF	5/11/2021-31/12/2022	900,000	900,000	900,000	3,976,235.33	99.85%	18,889	Yes	N/A
COVID19-CDS-NBF	UNICEF	22/07/2022-21/7/2024	3,100,000	3,100,000	3,095,123.85				Yes	N/A
COVID19-CDS-CDS	WHO	14/01/2022-31/12/2022	4,132,875	4,132,875	2,801,382	4,675,936	76.64%	1,425,446	Yes	N/A
COVID19-CDS-NBF	WHO	8/8/2022-7/8/2024	3,300,000	3,300,000	3,300,000				Yes	N/A
COVID19-CDS-III	JSI	1/5/2023-10/5/2025	762,667	762,667	230,922	984,604	100%	0		N/A
COVID19-CDS-NBF	JSI	17/11/2022-16/11/2024	746,639	746,639	380,458					N/A
HSS-2-	JSI	29/08/2017-31/12/2020	2,968,700	2,968,700	2,968,700	2,968,700	100%	0	Yes	N/A
HSS-2-	UNDP	20/09/2017-31/12/2020	40,015,047	40,015,047	40,015,047	40,015,047	100%	0	Yes	N/A
HSS-2-	UNICEF	14/08/2017-31/12/2020	34,440,220	34,440,220	34,440,218	34,440,218	100%	0	Yes	N/A
HSS-2-	WHO	20/08/2017-31/12/2020	24,695,823	24,695,823	24,695,823	24,695,823	100%	0	Yes	N/A
HSS-3	JSI	01/12/2023-31/12/2026	5,896,892	5,896,892	873,954	784,147	100%	0	Yes	N/A
HSS-3	UNDP	01/12/2023-31/12/2026	62,955,160	62,955,160	34,148,644				Yes	N/A
HSS-3	UNICEF	01/12/2023-31/12/2026	35,216,793	35,216,793	14,587,152	5,180,167	35.51%	9,406,985	Yes	N/A
HSS-3	WHO	01/09/2023-14/06/2025	9,293,321	9,293,321	9,293,321	4,549,409	48.95%	4,743,912	Yes	N/A

*All amounts are in USD

** $1,425,446 under WHO CDS was refunded back to Gavi in 2023 hence the difference between grant value and disbursed amount.

***Comment below in case of non-compliance

5. Learning Question: How well is the country able to absorb Gavi funding, and what are the drivers? (This should cover all funding, including funds channelled through partners.)

- Comment on the financial implementation progress of grants, including but not limited to the utilization rates. What are the key issues?

Indicator(s):

- Percentage of grant funds utilized
- Amount of cash balance in-country

Country comments:

Country comments:

WHO updates:

- The GAVI grant phase I is utilized in accordance with the planned objectives and goals.
- Utilization rate as of 30 September 2024 is >80% (funds for immunization) and ~65% utilization for overall funds.

[2] All HSIS grants (HSS, VIGs, OPS, Switch), EAF and CDS cash support as applicable.

- The progress had been slow in the first quarter due to the unavoidable procedural time taken for release and availability of funds. Constant monitoring was done to bring in timely interventions for optimal utilization. Multi-level microplan trainings were planned and implemented down to the block level. RRT/Urban focal person deployment has strengthened routine immunization with a special focus on urban areas. This has resulted in increased representation of urban area monitoring. Concurrent monitoring provides data as a basis for mid-course corrections and evaluation of the program implementation. As the grant stands extended, near complete utilization is expected for immunization funds.
- Typhoid Surveillance Funds—Following the approval of the typhoid surveillance concept note in January 2024, pilot testing of the surveillance model was initiated in two cities (Ahmedabad and Indore) by September 2024. The learnings from the pilot study are being incorporated into the surveillance program's technical and operational aspects. From November 2024 to June 2025, surveillance will be initiated in 18 other country cities. By June 2025, near complete utilization is expected to happen.

UNICEF updates:

- UNICEF received the first tranche of funds at the end of November 2023. As of this date, the utilization rate is 61% of the year-1 allocation (excluding the funds allocated for mobilizer incentives), and the unspent balance is $4,550,423. In anticipation of the release of contracts for the vaccine perception study and capacity building of CSOs, the utilization rate is expected to cross 70% by December 2024.
- The amount allocated for the mobilizer incentive up to December 2024 ($3.8 million approx.) will not be utilized due to delay in implementation and may need reprogramming as proposed in Pre-IAG & IAg meetings for Q3 2024. This has been recommended by Gavi secretariat and decision of MoHFW is awaited to propose re-appropriation in relevant budget lines.

UNDP updates:

- 30.95% of grant funds utilized against the total budget for HSS-III
- 49.1 % against total budget for Phase I, HSS-III, UNDP

JSI updates:

- **Saturation of the exiting districts under CDS-2 Grant** - In the CDS-2 phase from 2022-24, RISE extended to 89 districts and nine corporations. Expanding to a further 19 districts in Odisha, 39 districts in Madhya Pradesh, 13 districts in Uttarakhand, 12 districts in Tamil Nadu, and six districts (along with 9 corporations) in Maharashtra. The CDS-2 Grant targets have been met, and the fund has been completely utilized by 30th June 2024. Two no-cost extensions (NCEs) were used to continue the RISE operations and scale up in new geographies. CDS-2 Grant was also further utilized to strengthen the program and further geographical extension.
- Financial Expenditure vs. Approved budget under various interventions till September 2024 under CDS -2: 100% utilization (Budget- $7,46,639 & Expenditure: $7,46,639)
- **Scale-up in HSS-3 grant States and Districts** - Under the HSS-3 grant, 236 districts in 7 states are targeted for the rollout of RISE training (2024 to 2026). The project has begun scale-up (saturation) in Maharashtra (29 districts including 16 corporations) and Tamil Nadu (24 districts). Hence, 53 out of the targeted 236 districts under the HSS-3 phase have been initiated in June-September 2024. The remaining districts in the 5 States (Uttar Pradesh, Rajasthan, Bihar, Arunachal Pradesh, and Meghalaya) will be covered during the remaining project period.
- **LMS Enhancements**: The LMS is being enhanced to enhance user experience. Features like Server Infrastructure Migration, Bandwidth Increase, SCORM Content Navigation Issues, Supervisor Dashboard Update, and HR Data Update for Tamil Nadu and Maharashtra have been enhanced. Further, the LMS reporting features are being strengthened to deliver concise insights into learner progress, facilitating efficient monitoring and assessment.
- Financial Expenditure vs. Approved budget under various interventions till September 2024 under HSS-3: 19% utilization (Budget- $44,67,631 & Expenditure: $8,59,776)
- Financial Expenditure vs. Approved budget under various interventions till September 2024 under CDS-3: 31% utilization (Budget- $ 762,667& Expenditure: $ 238,543)

6. Learning Question: How well is the country resolving issues arising from the audit action plan activities? What issues are left to solve, and what is the path forward?

- How has the country addressed recommendations arising from the past audit (Gavi program Audit in 2022)?

Country comments:

The Gavi Audit team conducted a program audit in 2022. The audit period was from 1 January 2016 to 31 December 2021, but it was extended to 30 June 2022 for COVID-19 response and vaccination rollout. An audit scoping mission was completed between 6 and 15 June 2022, followed by fieldwork between 29 August and 30 September 2022.

The key issues identified by the audit team were the sustainability of Gavi investments, vaccine supply chain management, governance and oversight and budgeting and financial management, immunization management, and monitoring of cold chain equipment functionality. Most of the Audit recommendations have been considered, and corrective measures have been initiated, such as:

- As per Gavi audit recommendations, a comprehensive quantification of all fixed and recurring operational costs for eVIN maintenance was prepared, based on which norms have been established for budgeting operational costs for eVIN under domestic funding of State PIPs. A national transition of eVIN is under consideration.
- Considering the Gavi Audit recommendations, an e-VIN security audit is planned every year.
- Master Data Management (MDM) policies and Backup services are incorporated in eVIN based on the recommendations.
- NCCMIS will be integrated with eVIN. This process will also establish a singular data warehouse for vaccine and logistics data to improve visibility and reduce cases of duplication. Baseline data matching activity to be prepared.
- UNICEF has prepared guidelines for temperature mapping of cold rooms and completed temperature mapping of all the cold rooms at GMSDs in collaboration with UNDP, NCCRC Pune, and NCCVMRC.
- As per the recommendations of the Gavi Audit team, the scope of IAG has been expanded to review all aspects of UIP (beyond Gavi support), and now, the states, districts, and CSOs will also have quarterly representation in IAG under HSS-3.
- NCCMIS is tracking the implementation of EVM recommendations, and improvement plans are being proposed under the state program implementation plan (PIP).
- The National Effective Vaccine Management (EVM) Assessment was conducted in 2022 across all States and UTs, and a score of 82% was achieved. The report will be published soon.
- The MR campaigns in Delhi and West Bengal, which were delayed for unavoidable reasons, were successfully completed in 2023. All children in the age group of 9 months to 15 years (9 months to 5 years in Delhi) were vaccinated with a campaign dose of MR vaccine. The coverage of both States reached >95%.
- UNICEF has a robust fund-tracking mechanism to ensure financial accountability. Following the audit, the recommendations have been carefully considered, and necessary tweaks are being made to the existing system. These modifications effectively address and incorporate the suggested improvements for an even more streamlined and accountable financial process.
- U-WIN, developed for Routine immunization, has been integrated with ABDM (Ayushman Bharat Digital Mission) for the components of the Health Facility Registry, Health Professionals Registry, and ABHA (Ayushman Bharat Health Account) ID for citizens. U-WIN has been made ABDM compliant to ensure interoperability with any other available software or further developed under the overarching umbrella of ABDM.
- Many other recommendations will be addressed by interventions planned under HSS-3, like Monitoring & Mentorship, which will strengthen supportive supervision at various levels of vaccine stores, including GMSDs. Issues pertaining to immunization coverage data will be addressed by the roll-out of data analytics for action intervention undertaken under HSS-3.

7. Learning Question: Please comment on any other financial management-related bottlenecks for implementation and compliance (if applicable).

Country comments:

While the implementation of all 11 Zero dose interventions as per ZIP under HSS-3, interventions under CDS-2 and CDS-3 are underway, there have been a few operational challenges and financial bottlenecks:

UNICEF:

Mobilizer's incentive:

- Operational challenges in implementing the mobilizer incentive program have led to underutilizing funds under Gavi HSS-3. While approximately $3.37 million allocated for mobilizer incentives up to December 2024 is unlikely to be utilized, the utilization of the remaining funds for the activity will depend on the geographical scope of implementation. It is proposed to use these savings for the underbudgeted CSO intervention.
- Additional funds may be required for consultants due to underestimating real costs at the planning stage and high travel costs due to the increased/diverse geographical scope.
- UNICEF anticipates no other financial bottlenecks in Gavi HSS-3 implementation.

WHO:

- The initial time taken for the release and availability of funds delayed many activities, which resulted in underutilization in some quarters.
- The various rates used under different budgetary heads correspond to the rates in 2020. It has been four years since then, and rates have increased considerably. This has affected major activities like hiring RRTs and FMs/EMs. The fuel rates have also increased considerably.
- The budgetary heads for RRT, EM/FM do not include the management, insurance, and other budgets.
- Similarly, the HR positions also need a scale revision as the budget is for old scales.
- Due to the grant cycle, inevitable delays may result in a break in activities.

- State-level workshops for microplanning are not budgeted but are mentioned in the ZIP document.
- National workshops on Microplanning, MO, and HW handbook budgeted for USD 14,114, which was grossly inadequate (The actual cost for each such workshop is above USD 70,000)
- For the Microplan Review meetings planned for Years 1 and 2, State and National workshops are not budgeted (each workshop is to be budgeted for around USD 70,000)
- As per the ZIP document as well as the MoHFW request, all frontline workers need to be oriented in GAVI areas. There are more than 26,800 ASHA workers most of whom are oriented with much budget constraint. About 300,00 AWW workers are planned to be trained in year 2 accordingly budgetary provision is required.
- The cost budgeted for developing and maintaining a dashboard to monitor all GAVI activities being implemented (PMA) is insufficient ($1,200/month). It needs to be upgraded to $3,500/month to purchase a quality software collection tool and develop and maintain a real-time dashboard.

JSI

- **Early initiation of RISE in remaining HSS-3 targeted States and request for reappropriation of HR:** Under the HSS-3 grant, the RISE initiative is set to target 236 districts across seven states: Maharashtra, Tamil Nadu, Uttar Pradesh, Arunachal Pradesh, Meghalaya, Bihar, and Rajasthan. Given the ongoing GAVI interventions in these ZIP districts, the states have requested expedited RISE implementation and have preferred simultaneous implementation across all districts rather than a phased approach. Expediting the implementation of RISE will enhance immunization coverage by rapidly training vaccinators across all districts, ensuring timely vaccinations for children. It will strengthen the health workforce's capacity, leading to knowledge acquisition so that no child is missed. Hence, a re-appropriation of Human Resources within the overall approved budget is required to engage additional HR during 2024 and 2025.
- Support from domestic capacity-building funds is needed for cascade RISE training at the district/block level, re-orientation, and periodic review meetings in intervention geographies to ensure sustainability.

8. Learning Question: Is the country effectively addressing gender-related barriers (e.g. faced by caregivers or adolescents in accessing immunization services and barriers faced by health workers in delivering immunization services)?

Indicator(s):	
● Has the country implemented or will implement initiatives that remove or reduce gender-related barriers?	
Qualitative information	

Country comments:

UIP ensures that all available vaccines are provided free of cost to all infants and adolescents irrespective of gender. The country is also cognizant of the gender-related barriers that may be faced by caregivers or adolescents in accessing immunization services and barriers faced by health workers in delivering immunization services. Thus, in all the initiatives the program undertakes, considerations are made to remove or reduce gender-related barriers. A few of the illustrations are:

- Gender-responsive re-branding of the UIP has been undertaken through mascots Teeku & Teeki.
- The majority of the Cold Chain Handlers (nearly 61%) involved in the immunization program are women, who closely work with 2.5 Lakh female vaccinators (ANMs) and 10 Lakh female community mobilizers (ASHAs) for the provision of immunization services. All the digital innovations UNDP offers, such as e-VIN, CoWIN, and U-WIN, empower last-mile female healthcare workers by introducing them to digital technology for vaccine and beneficiary management. With eVIN, CoWIN, and U-WIN, capacity building is done for more than 1 million front-line workers, including Cold Chain Handlers, ANM,s and ASHA workers, to access the digital ecosystem. These health care workers are empowered to perform their tasks and other work more efficiently. With remote temperature monitoring aspects, female front line workers are assured at home that vaccines are potent and in safe temperature conditions. This is contributing to a better work-life balance for Healthcare workers.
- Gender disaggregated data (GDD) is maintained for Healthcare workers and beneficiaries to track vaccination coverage and inequalities through eVIN and U-WIN applications.
- Drawing from the evidence from the eVIN assessment and scientific literature and testimonials, the empowerment of frontline health workers (FHWs) through digital platforms like eVIN multi-dimensional and supported by significant programmatic outcomes. eVIN, implemented to digitize vaccine stocks and manage cold chain logistics, has improved vaccine visibility, reduced stock-outs, minimized wastage, and streamlined supply chain processes, enhancing operational efficiency and reducing the burden on FHWs. The system's real-time data capabilities have simplified record-keeping, reduced the reliance on manual data entry, and equipped health workers with the tools to make informed decisions, fostering confidence and accountability in their roles. CoWIN and U-WIN have built on these advancements by integrating beneficiary tracking and session planning, empowering ANMs and ASHAs to plan immunization sessions better and track beneficiaries across their service areas.

- The research highlights that integrating digital tools has enhanced data accuracy and accessibility, enabling FHWs to focus more on service delivery rather than administrative tasks. For instance, mobile applications and real-time alerts have allowed cold chain handlers and vaccinators to monitor vaccine storage and transport conditions effectively, leading to improved confidence in vaccine quality and safety. Moreover, these platforms have introduced FHWs to new technological competencies, building their digital literacy and professional capacity. Importantly, the systematic training provided alongside these tools has further empowered workers by enhancing their knowledge of vaccine logistics, beneficiary management, and session planning.
- These digital tools have not only improved operational efficiency but also boosted the confidence of female health workers. For instance, Veena Kumari, a cold chain handler from Punjab, shared that the smart temperature logger allows her to monitor vaccine safety remotely, reducing stress and enabling better work-life balance. Similarly, Gurjeet Kaur, another cold chain handler, mentioned that the app has enhanced her confidence by simplifying data management and fostering real-time collaboration with her team.
- Under UWIN, mobile numbers are utilized as the primary identifier, ensuring equal access for both males and females. Besides this, the third gender category has been included, demonstrating inclusivity to ensure that marginalized groups are not left behind in immunization efforts. Citizens can self-schedule appointments through the digital platform, which empowers them to choose convenient times. Additionally, gender-disaggregated data on immunization coverage can identify any gender disparities for undertaking targeted measures.
- RISE has helped learners who are predominantly women improve their digital literacy and build knowledge and skills for their professional development. The content of RISE modules often narrates scenarios that show the involvement of the father and other male members who actively bring pregnant women and children to the health center for vaccination. This helps sensitize the learners about the men folk's role in immunization decision-making and guides them to constructively engage with all members of the community to improve vaccine acceptance.
- The country has successfully implemented the interpersonal capacity building (BRIDGE course) for ANMs/ASHAs/AWWs (AAAs). This strategic initiative aims to enhance the accessibility of immunization services while addressing communication-related barriers and other challenges faced by health workers. Though the BRIDGE IPC skills training and the module addressed ‘equity’ for improving coverage of unvaccinated/partially vaccinated children for RI, the training module did not explicitly emphasize vaccinating boy or girl children.
- As part of Gavi HSS-3 programming to increase the demand for immunization services and reduce the number of zero-dose children, key strategies that are being adopted include evidence-based community engagement, strengthening the partnerships with CSOs and CBOs, community-based monitoring and feedback, use of human-centered design approaches and social data to co-create gender-responsive local strategies to promote positive behaviors, social norms, and demand, support capacity building of health.
- Under the **Community of Practice-Demand (CoP-D)**, creating innovative concepts, designs, insight-driven behavior change tools, and assets on demand generation will be one of the key deliverables of the CoP. It will build on the power of data, digital and technology for systematic thinking and bringing in fresh perspectives and ideas. The CoP will be dedicated and sensitive to the complexities and perspectives to thoroughly understand the needs and achieve a context-specific approach, for which tailored pilots to test the proof of concepts will be implemented and will feed into intervention design. To build resilient demand, gender mainstreaming will be integrated into the concepts and the demand strategy.
- Using Behaviour Insight findings from UP and Meghalaya, three human-centered design (HCD) interventions were designed, piloted, and tested to increase male/family support for the mother in vaccinating the child. Another BI study is underway in Bihar and Maharashtra to understand gender-related barriers to RI and guide HCD-based solutions.
- Community monitoring and feedback will be rolled out to identify and address barriers (including gender) in vaccine uptake. UNICEF is undertaking BI studies on gender barriers to RI in Maharashtra and Bihar to co-create HCD solutions using other resources. CSO partners in Gavi intervention areas will implement the recommended solutions as applicable to promote positive behaviors, social norms, and demand for vaccines. Similarly, the findings from pilot interventions by COPD could also be adapted by CSOs for community engagement.
- Flexible timing sessions are carried out, especially in urban areas of a few States, based on the community's consensus regarding the time, date, and place of vaccination to suit the convenience of daily wage laborers, mainly the women caregivers.
- The V-SHIKSHA initiative is developing educational content with a strong commitment to gender neutrality and inclusivity, aiming to ensure equal access to immunization information and resources for all students, teachers, and parents involved in the program. The aim is to provide knowledge that resonates across diverse backgrounds, fostering an inclusive environment where all students feel represented and empowered to understand the importance of vaccines. The project ensures no gender disparity when selecting school teachers

and parents involved in the intervention. This inclusive approach ensures that the program benefits from diverse perspectives and reaches the entire school community, enhancing the overall impact.

9. Learning Question: How well is the country implementing its health information systems and data strengthening, monitoring, and learning activities?

- What is the progress of planning and implementing health information systems and data strengthening, monitoring, and learning activities? Do these collectively constitute at least 10% of your HSIS grant budget?
- How will the country address data-related gaps or barriers to immunization program performance?
- Comment on key results or findings for identified learning priorities from the FPP application. Specifically, what actions have been taken to improve immunization program performance based on these data? e.g., better understanding of specific barriers to immunization, successfully guiding implementation, informing course correction for grant activities

Please share any documentation of learning results if available (e.g., reports, evaluations, assessments, etc).

Country comments:

Two Immunization dashboards are developed by MoHFW with technical support from ITSU every month. The immunization dashboard reflects the overall performance of the immunization program, and the urban immunization dashboard reflects specifically on the performance of urban immunization. These dashboards provide a common platform to analyze administrative (HMIS, MCTS/RCH), evaluated, and concurrent monitoring data to provide State-specific feedback for initiating corrective measures. The dashboards not only provide feedback to the States with respect to their performance but also highlight any data issues. The monthly immunization dashboards are being digitalized to better utilize data for action.

Under the Gavi HSS-III grant, several interventions are being undertaken which will not only improve health information systems and strengthen data but also better understand specific barriers to immunization, successfully guide implementation, and inform course correction for grant activities.

- **Data Analytics and Review Mechanism:** A data analytics intervention is being undertaken to support district decision-makers in making informed decisions by understanding the gaps in program implementation. Enhanced data use for reviewing and undertaking corrective measures in the RI programs of the targeted districts will further add value to the monitoring process of the zero-dose cohorts and missing communities. The primary purpose of this intervention is to strengthen the data quality and the review mechanism to improve vaccination coverage.
- **U-WIN:** India has rolled out its electronic immunization registry, U-WIN, a name-based registry for children and pregnant women. It will enable the capture of all beneficiaries' vaccination status and improve data quality.
- **Monitoring & mentoring**: Based on the understanding from stakeholder consultations during the FPP process, an intervention on enhanced monitoring and mentoring has been planned under Gavi HSS-3 support. The enhanced focus on Monitoring will enable us to understand the barriers and challenges in vaccination better and subsequently take data-guided corrective actions. This will support the health workers with one-on-one mentorship for quality service delivery through standardized formats and real-time dashboards; Internal testing is underway in two states (Uttar Pradesh and Maharashtra), which will be followed by pilot testing. Monitoring and mentorship-related job aids are under development. The application is expected to be ready by the end of 2024, and the launch and cascade training mode will follow in Q1 2025.
- Additionally, Surveillance sensitivity parameters, including laboratory performance, are monitored regularly through the VSIMS (Vaccine Preventable Disease Surveillance Information & Management System) portal, and feedback is shared at the national, state, district, and block levels.
- **RISE:** RISE provides a real-time monitoring tool through the mobile dashboard, where supervisors at various levels can see learners' progress and take targeted corrective actions. This will support timely interventions by identifying struggling learners, enhancing accountability through real-time visibility of progress, and providing individualized support tailored to specific needs.

C. Implementation of Technical Assistance (TA)

10. Learning Question: Is the country implementing TA as expected? Please explain how the TA has helped to support the achievement of the country objectives.

Indicator(s):	
● Country analysis on partner performance as per work plans	

WHO Updates:

- **Technical support in developing, designing, and printing Revised Routine Immunization Manual for Medical Officers and Health Workers.**
  - As of 21 October 2024, an order for the printing of 12,750 MO Handbooks had been placed. 4,756 copies have been distributed to 22 States; the rest will start on 11 November 2024.
  - HW Handbook: The print-ready version is completed and ready to be rolled out.
- **Workshops to train Master Trainers (MO handbook and HW handbook)**
  - WHO-NPSN supported the National TOT for MO handbook was held between 20-22 September 2024. A total of 136 participants from 36 state/UTs, along with national immunization partners, attended the training.
  - Cascaded state-level workshops are planned in 11 GAVI-supported states.
  - Four states, Karnataka, Telangana, Gujarat, and Jammu & Kashmir, have completed the training.
  - The National ToT on HW handbook was conducted on 11-12 November 2024, and participants came from all 36 states/UTs.
- **National level Microplan trainings:**
  - National workshop on inclusive and improved microplanning was conducted on 19 September 2024, with participation from 36 states/UTs and immunization partners.
  - Cascaded microplanning training was completed in 143 ZIP districts, 195 NUHM cities, 1,554 blocks, and 4,271 Planning units.
- **Support and strengthen high-quality microplanning for the reduction of zero-dose children:**
  - WHO-NPSN has deployed 37 out of 39 RRTs at the district level to support high-quality microplanning preparation. Hiring for two vacant positions is underway.
  - 11 out of 12 Urban Focal Person positions have been filled to support NUHM cities identified under the ZIP document; recruitment for one position is in process.
  - 430 External Monitors have been hired to support the ZIP activities at the block level. They are involved in concurrent monitoring of immunization services in the field, sample validation of micro plans and High-Risk Areas, and headcount survey quality.
- **Regional and State AEFI Workshops on Revised AEFI Surveillance Guidelines, 2024, conducted through CDS need-based funds.**

UNICEF Updates:

- Monitoring & mentorship:
  - Support development of the U-Mentor application
  - Support development of job aids, quarterly supervision format template, and training materials
  - Capacity building of supervisors on SS formats
- CSO Engagement:
  - Scoping of CSO partners
  - Finalization of implementation strategies with CSOs
  - Development of training materials and capacity building of CSO staff
  - Development of CSO MIS for planning and reporting of CSO activities
  - Supportive supervision and quality assurance of CSO activities
- Mobilizer Incentive:
  - Advocacy with state governments to implement the mobilizer incentive program.

Technical support for developing operational guidelines, communication strategy, and vaccine forecasting forthe roll-out of the HPV vaccine.
Technical support to the government at the national, state, and district levels under various thematic areas of routine immunization.

UNDP Updates:
UNDP is mandated to strengthen data analytics and review mechanisms. UNDP has engaged the agency to perform landscaping and stakeholder consultations. Under the data analytics and review component, UNDP to initiate the work on a landscape analysis of the data lake (various data sources meant to review the progress of Routine Immunization) to scope out critical indicators achieved from various MIS including but not limited to U-WIN, eVIN, NCCMIS, HMIS,

RCH, Safevacc and states specific MIS to conceptualized integrated dashboard and understand data gaps and quality assurance indicators. Further, the agency will be hired to develop data analytics tools and concretize the review mechanism across all levels, including state, district, and block.

Under UNDP's "Data Analytics and Review" mandate, the project is structured into 2 key components to achieve its objectives and outcomes.

Component 1 – Strengthen and institutionalize the capacity of program managers for real-time program monitoring and review data to take prompt action for reaching zero-dose children and improving Routine Immunization coverage.

Key Objectives

- To evaluate and compare the proportion of zero-dose children in priority districts on a yearly basis, using coverage of the first dose of Diphtheria, Pertussis, and Tetanus (DPT) containing vaccine as a proxy indicator.
- To estimate annual, district-level antigen wise-(for all vaccines included under the UIP) and full immunization coverage among children aged 12-24 months in priority districts.
- To characterize the determinants of immunization and monitor the progress of ongoing interventions under the GAVI HSS 3 grant, thereby generating evidence for tailoring program action at sub-state or district levels.
- To establish a real-time program monitoring system using Information Technology (IT) enabled tools.
- To conduct baseline and end-line surveys to comparethe proportion of zero-dose children. Baseline data of zero-dose children will be part of the periodic review.

Component 2—Strengthening Governance, Management, data quality/analytics, and Review Systems for Vaccination planning and review at the national level and Strengthening Review Systems for reducing Zero-dose children and improving routine immunisation coverage at the State, District, and Block levels.

Key Objectives

- Strengthen the capacity of governance/technical bodies for analyzing different data sets, reviewing performance, planning, coordination, and tracking progress at all levels, particularly for reaching zero-dose children
- Strengthen programme performance monitoring, including data quality, validation and management systems at all levels
- Ensure uptake of analytical tools to drive the usage of data and facilitate qualitative insight building on zero dose identification during the review processes.
- Enhanced governance based on timely and quality analytics (including at district, block, and lower levels)
- Capacitate key state Routine Immunization cell, National Health Mission staff, and data handlers at state and district levels on building data summaries band bulletins using programmatic indicators through tools and training to improve data processes for reducing Zero Dose children and strengthening available access, keeping a focus on coverage and equity.

Section 2: Looking forward: Summary of key discussion points and follow-up actions

Briefly summarise the **key discussion points**, including **identified needs** and **follow-up actions** resulting from the Joint Appraisal review and dialogue.

This may include

- Identified (future) needs and priorities
- Follow-up actions to accelerate planned activities
- Expected adjustments to activities and, as applicable, the Gavi workplan, targets, and budget, such as budget reallocations, modifications in TA planning, revision of dates for anticipated new vaccine applications or introductions, etc. [3]
- Roll-out or expansion of promising practices and innovations

Ministry of Health and Family Welfare (MoHFW), Government of India, and the Gavi, conducted India Joint Appraisal between 29th – 30th November 2024. On 28th November, a field visit was conducted at Meerut, Uttar Pradesh. The team observed the demonstration of UWIN at UPHC Zakir colony and then travelled to Alipur to observe the Routine Immunization Sessions and CSO engagement activity at the field level. The team was accompanied by a Representative

[3] This refers to all types of Gavi support

from the Immunization Division, Ministry of Health and Family Welfare, stakeholders from the State of Uttar Pradesh, and immunization partners.

On 29th and 30th November 2024, a joint appraisal workshop was conducted under the Chairpersonship of Additional Secretary & Mission Director (NHM) and the Co-Chairmanship of Joint Secretary (RCH). Mr Thabani Maphosa, Chief country Delivery officer, led the Gavi team with Dr Adetokunbo Olushola, Director High Impact Countries, Dr Ranjana Kumar, Ms Smita Singh (Virtually), Mr Homero Hernandez, Senior Country Manager India, Ms Sabrina Clement, Programme Manager India. The two days review was attended by the in-country partners, namely UNICEF-ROSA and India, UNDP, WHO, JSI, ITSU, NCCVMRC, Group-M, and BMGF. The minutes of the JA, along with the list of participants are annexed.

Identified (future) needs and priorities

- Achieving the goal of zero zero-dose children across India, with a targeted focus on 143 priority districts supported by Gavi HSS-3.
- Enhancing routine immunization systems to eliminate the need for periodic catch-up campaigns for missed children and pregnant women.
- State-level workshops and training programs for the revised Medical Officer Handbook and Health Worker Module are completed. Ensuring comprehensive reporting of these training sessions on the iTMIS portal.
- Institutionalizing the hub-and-spokes model for immunization and systematic capacity-building efforts for all cadres under the Universal Immunization Programme (UIP)
- Rolling out HPV and TCV vaccines based on NTAGI recommendations to strengthen the immunization schedule.
- Intensifying efforts for the elimination of Measles and Rubella, including community engagement strategies and sustaining polio elimination.
- Nationwide scale-up of the U-WIN platform with seamless operations in key states like Gujarat, Tamil Nadu, Rajasthan, and West Bengal and Integration of U-WIN with platforms such as RCH 2.0, eVIN, HMIS, U-Mentor, RISE, and other feasible systems.
- Implementing BeSD surveys, COPD Secretariat initiatives, Program Monitoring and Action (PMA), and data analytics for improved program outcomes.
- Recruitment and training of Civil Society Organizations (CSOs) in intervention districts to drive demand generation and community mobilization.
- Developing interventions based on human centred design approach to improve the vaccination uptake and tackle the various reasons for vaccine hesitancy/ refusal.
- Creation of e-content for the revised Medical Officer Handbook, updation of the existing Health Worker Modules to align with Handbook released in 2024, development of a module on zero-dose for healthcare workers under RISE
- Immunization-focused content for Class 5 & module for teachers under the V-SHIKSHA initiative.
- Alert mechanisms for monitoring based on frequency and certain triggers (such as VPD cases/outbreaks) to be integrated into the U Mentor app.
- Strengthening the review process using data triangulation and advanced analytics for improved decision-making.
- Finalizing and discussing Standard Operating Procedures for ASHA worker incentives with state-level stakeholders.
- Strengthening partnerships at the field level to foster collective action and promoting shared responsibility and ownership of successes and failures in immunization programs.
- Implement village-level monitoring and regular follow-ups to ensure vaccine coverage for zero-dose children.
- Build a framework to assess both process and product innovations over time to ensure interventions are integrated into sustainable planning (e.g., in PIPs) and to gather concrete data to inform future strategies.

Follow-up actions to accelerate planned activities

UWIN

- Utilization of the Delivery point module should be increased for increased registration of pregnant women, new-borns and birth dose vaccination.
- Hiring of all UWIN coordinators.
- Digitalization of RI Micro planning module with GIS mapping and tagging of hesitant family
- Alternate mechanisms apart from OTP for authentication

Improved and inclusive Microplanning

- Microplanning review exercise for data quality
- Accountability framework in place for following up on review meeting action points

COPD

- Incorporating insights from current co-creation already piloted in many lower-performing districts.
- Develop a sustainability framework for designing demand creation and social-behavioral change interventions, particularly at the sub-national leve,l for ease of inclusion in the State PIPs afterwards.
- Enhancing the soft skills among frontline health workers as a part of the intervention.
- Involve Faith-Based Organizations (FBOs) for demand based pilot intervention as a part of community structures.
- Pilot and explore the integration of different government services within the same household to improve service delivery and efficiency.

BeSD

- Revision in methodology for selection of participants of the survey
- BeSD to capture detailed data on the quality and frequency of communication between caregivers and healthcare providers
- Questions need to be made context-appropriate to improve effectiveness.

CSO engagement:

- Leverage field-level interventions and behavior change initiatives to inform decision-making processes.
- Deploy CSO staff at the block level in alignment with the PRI to address vthe accine hesitancy issue.

Monitoring and mentorship

- Expedite the rollout of the app by Q1 2025 after addressing feedback from ongoing pilot testing.

Institutionalized Capacity Building

- Complete training and onboarding of all States onto iTMIS.
- Identification and operationalization of all hubs and spokes, including all logistics.

RISE: initiate RISE rollout in high-demand states, with resource reallocation to meet expedited timelines and synchronous roll-out with other zero dose implementation plan interventions.

V-Shiksha: In line with recommendations from the Joint Working Group (JWG), additional deliverables of training modules for teachers have been included in the project work plan. For the same budget re-appropriation is expected into the existing project framework to ensure its successful execution.

PMA: Hiring of agency to start the evaluation and assessment of interventions.

Data Analytics: Data outliers such as facilities reporting unusually high or low data need to be identified, monitored, and corrected.

Expected adjustments to activities and as applicable the Gavi work plan, targets and budget, such as budget reallocations, modifications in TA planning, revision of dates for anticipated new vaccine applications or introductions, etc.

JSI: Early initiation of RISE in remaining HSS-3 targeted States and request for resource reallocation: Under the HSS-3 grant, the RISE initiative is set to target 236 districts across seven states: Maharashtra, Tamil Nadu, Uttar Pradesh, Arunachal Pradesh, Meghalaya, Bihar, and Rajasthan. Given the ongoing GAVI interventions in these ZIP districts, the states have requested expedited RISE implementation and have preferred simultaneous implementation across all districts rather than a phased approach. Expediting the implementation of RISE will enhance immunization coverage by rapidly training vaccinators across all districts, ensuring timely vaccinations for children. It will strengthen the health workforce's capacity, leading to knowledge acquisition so that no child is missed. Hence, a resource reallocation is needed to meet expedited timelines and synchronous rollout with other zero-dose implementation plan interventions.

Reappropriation of savings from delayed implementation of mobilizer incentives: The total allocation for mobilizer incentives was $8 million for 12 quarters. The delay in implementing this intervention resulted in savings of $3.37 million, which was allocated between Q4 of 2023 and Q4 of 2024. As proposed by UNICEF and recommended by the Gavi secretariat, these savings may be repurposed to CSO engagement activities after approval of MoHFW to further intensify community engagement activities by CSOs in the priority areas that are not currently covered due to budget constraints.

Additional allocation for Consultants: Based on the experience of 1 year of implementation of HSS-3 interventions, it is evident that the budgetary allocation for consultants is significantly lower than the actual cost. This difference is due to the time taken between the planning and implementation of interventions. Further, due to challenging geographies in the northeast and Rajasthan, the Divisional level of administration in UP, 39 consultants are required to cover 143 districts instead of 29. Further, the travel cost is also high as each consultant is to cover 5 districts. It is proposed that an additional allocation of $1.1 million be made to the budget line of divisional consultants. Savings from other budget lines due to delays in the implementation of interventions may be used to provide this additional allocation.

Rollout or expansion of promising practices and innovations

Under the Gavi HSS-3 interventions, several innovative and promising practices are being implemented. The U-WIN Electronic Immunization Registry has been scaled up nationwide and integrated with other platforms such as SAFEVAC and PM-ABHIM. Plans are in place to expand this digital portal to include indicators related to cold chain functionality, including vaccine stock levels and tracking stock-outs at the implementation level. Currently, the private sector captures only birth-dose vaccinations, but this will be expanded to cover all vaccines.

The COPD initiative will pilot integrating various government services within households to improve service delivery and efficiency. Civil Society Organizations (CSOs) are being engaged to incorporate community feedback mechanisms, fostering a closed feedback loop that enhances trust in the health system and services. The RISE tool will develop e-modules for the Revised Routine Immunization Manual, targeting health workers and medical officers, and an e-module for Zero Dose Immunization.

The V-Shikha project will develop a teacher training module to effectively implement the school curriculum for Class 5 students. Additionally, a dashboard on iTMIS will be created for real-time tracking of immunization-related training across the country, ensuring optimal resource utilization.

Other key initiatives, including Monitoring & Mentorship, mobilizer incentivization,BeSD survey, Program Monitoring for Action, data strengthening and analytics for review, capacity building institutionalization, the Community of Practice on Demand, and CSO engagement, will be expedited at the field level.

Annexure- IAG Indicators Progress as of Q3 – 2024

Activity	Supporting Entities	Activity / Indicator description	Current Status
All	National EPI	% of health facilities(CCP) that reported no stock-outs for the full year for Pentavalent vaccine	
All	National EPI	% of ZD Children in area of project (143 districts)	6.50%
All	National EPI	% of Zero Dose (ZD) Children at national level	7.0%
All	National EPI	Drop out from Penta 1 to MCV-2 at national level	3.2%
All	National EPI	Drop out from Penta 1 to Penta 3 at national level	2.2%
All	National EPI	Drop out from Penta 1 to Penta 3 in areas targeted for intervention(143 Districts)	4%
All	National EPI	Number of Zero Dose (ZD) Children at national level	1.6 Mn
All	UNDP	Number of Potential ZD Children Reached in targeted areas= No. of children vaccinated with Penta 1 between the age of 14 weeks and 1 year	1.8 mn
CSO Engagement	UNICEF/UNDP/WHO	Rural: Proportion of identified Resistant/Hesistant HH converted	
CSO Engagement	UNICEF/UNDP/WHO	Urban: Proportion of identified Resistant/Hesistant HH converted	
CSO Engagement , CoPD and BeSD	UNICEF/UNDP/WHO	% of parents/caregivers who say most of their close family and friends want their child to be vaccinated	95%
CSO Engagement , CoPD and BeSD	UNICEF/UNDP/WHO	% of parents/caregivers who say that vaccines are “moderately” or “very” important for their child’s health	92%
CSO Engagement , CoPD and BeSD	UNICEF/UNDP/WHO	% of parents/caregivers who say they know where to get their child vaccinated	98%
CSO Engagement , CoPD and BeSD	UNICEF/UNDP/WHO	% of parents/caregivers who say they want their child to get the recommended vaccines under UIP	98%
CSO Engagement , CoPD and BeSD	UNICEF/UNDP/WHO	% of parents/caregivers who say vaccination is “moderately” or “very” easy to pay for	23%
Data analytics, triangulation, review strengthening and capacity building support	UNICEF/UNDP/WHO	Variation in Number of ZD Children at sub-national level for each 11 states (difference in % of penta1 coverage between JRF data and yearly PMA survey)	
District and sub-distirct level data analytics, triangulation, review strengthening and capacity building support	UNDP- DAD & R	Proportion of district immunization review meetings/ DTFI that discussed Block Analytical Report (data analytics feedback)	
Gavi Secretariat	UNDP	Timely submission of reports and conduct of IAG meeting (every quarter)	
HPV Roll out	JSI	No of States where HPV- MAC completed	
HPV Roll out	JSI	Proportion of states with more than 80% Campaign(in both the rounds if it is two dose campaign) coverage	

Improved & Inclusive Microplanning	WHO	% of Planning units having updated standardized digital microplans = Total no. of Planning units having standardized digitalized updated microplans / Total no. of Planning units in 1554 blocks & 214 NUHM cities- yearly	90%
Improved & Inclusive Microplanning	WHO	Rural: % of new sessions held= No. of new sessions held (HRA/ non HRA)/No. of new sessions planned (HRA/non HRA) - quarterly	88.70%
Improved & Inclusive Microplanning	WHO	Rural: % of Planning Units where new sessions identified and included in microplans in last 6 months = No. of Planning Units where new sessions identified and included in microplans in last 6 months/ No. of Planning Units	32%
Improved & Inclusive Microplanning	WHO	Urban : % of Planning Units where new sessions identified and included in microplans in last 6 months = No. of Planning Units where new sessions identified and included in microplans in last 6 months/ No. of Planning Units	56%
Improved & Inclusive Microplanning	WHO	Urban: % of new sessions held= No. of new sessions held (HRA/ non HRA)/No. of new sessions planned (HRA/non HRA) - quarterly	90.20%
Institutionalizing Capacity Building	State	% Financial utilization for training - State PIP for RI	
Institutionalizing Capacity Building	WHO- CB	% of trainings reported on iTMIS(Held/ Planned in calendar, Consolidated Immunization Training Calendar will be developed for 11 states)	
Mobilizer Incentives	UNICEF	% of Infants for which mobilizer incentivized for U-WIN registration and vaccination(Penta 1, OPV 1, RVV-1, PCV-1, fIPV-1+ BCG) = No. of infants for which mobilizers incentive payment done/ No. of infants registered and received vaccination (Penta 1, OPV 1, RVV-1, PCV-1, fIPV-1+ BCG)	
Mobilizer Incentives	UNICEF	Rural: % of Infants for which mobilizer incentivized for U-WIN registration and vaccination(Penta 1, OPV 1, RVV-1, PCV-1, fIPV-1+ BCG) = No. of infants for which mobilizers incentive payment done/ No. of infants registered and received vaccination (Penta 1, OPV 1, RVV-1, PCV-1, fIPV-1+ BCG)	
Mobilizer Incentives	UNICEF	Urban: % of Infants for which mobilizer incentivized for U-WIN registration and vaccination(Penta 1, OPV 1, RVV-1, PCV-1, fIPV-1+ BCG) = No. of infants for which mobilizers incentive payment done/ No. of infants registered and received vaccination (Penta 1, OPV 1, RVV-1, PCV-1, fIPV-1+ BCG)	
Monitoring & Mentoring	UNICEF	Percentage of ANMs with no mentorship scoring in the last quarter= No. of ANMs not scored/ Total no. of ANMs	
Monitoring & Mentoring	UNICEF	Proportion of ANMs with a mentorship score > 80% (Total number of ANMs with a mentorship score of > 80% / Total number of ANMs who have been contacted by mentors)	
Monitoring & Mentoring	UNICEF	Rural: % of sessions monitored= No. of sessions monitored/ no. of sessions held	95%
Monitoring & Mentoring	UNICEF	Urban areas: % of sessions monitored= No. of sessions monitored/ no. of sessions held	96%
Recruitment of Human Resource at State and district level	All	Partner wise & State wise % of HR in position= No. of HR in position/ No. of sanctioned positions	

RISE	JSI- RISE	Percentage of learners who have completed RISE course and following correct immunization practices (in at least 75% of the parameters) during the immunization sessions {Number of learners following correct practices in identified parameters at the immunization sites at the time of observation/ Number of learners sampled for the observation)	Tamil Nadu (24 districts) and Maharashtra (29 districts) states were targeted in Q3 and the reporting for this indicator will be initiated in Q4 - 2024
RISE	JSI- RISE	RISE course completed learners obtaining minimum 85% marks (Gold certificate) in post-test in at least 3 modules (out of 5) {Number of course completed learners who scored 85%or more in post test (in at least 3 out of 5 modules) /Number of total learners completed the course}	This indicator will be reported by Q1 2025
State level data analytics, triangulation, review strengthening and capacity building support	UNDP- DAD & R	Proportion of state immunization review/ STFI meetings that discussed District Analytical Report (data analytics feedback)	
Typhoid surveillance	WHO	Initiation and expansion of sentinel surveillance for typhoid in 30 cities situated in 30 states of the country	10%
U-WIN	National EPI	Transition of Uwin Server, Development & Maintenance costs to Domestic funding	
U-WIN	UNDP	Number of HH tagged as hesitant on U-WIN by mobilizer	
U-WIN	UNDP	Percentage of immunization sessions conducted on U-WIN (No. of sessions conducted on U-WIN/ No. of sessions held as per HMIS)	74%
U-WIN	UNDP	Percentage of U-WIN trained mobilisers maintaining U-WIN adherence rate > 90%	91%
U-WIN	UNDP	Percentage of U-WIN trained vaccinators maintaining U-WIN adherence rate > 90%	92%
U-WIN	UNDP	Proportion of births being registered on UWIN Numerator: Births registered on UWIN Denominator: Estimated birth cohort for the district	19%
U-WIN	UNDP	Reach of UWIN: % of newborns registered on UWIN = No. of newborns registered and birth dose(BCG, OPV, Hep B) administered on UWIN/ No. of deliveries registered on HMIS	24%
U-WIN	UNDP	Reach of UWIN: % of pregnancies registered on UWIN = No. of pregnancies registered on UWIN/ No. of pregnancies registered on HMIS	12%