Ministry of Health and Gavi Alliance Partners 2025 Joint Appraisal Report

Maternal, Child, and Adolescent Health Service Lead Executive Office

Immunization Service Desk, MoH

Addis Ababa, Ethiopia

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Table of Acronyms

AHEAD	Actionable Health Analytics for Decision making
AEFI	Adverse Effects Following Immunization
BCU	Big Catch Up
CBMP	Capacity Building and Monitoring Program
CCE	Cold Chain Equipment
DHIS	District Health Information System
DRIVE	Direct Delivery of Routine Immunization Vaccines and other PHC commodities for Equity
eCHIS	Electronic Community Health Information System
EAF	Equity Accelerated Fund
EFDA	Ethiopian Food and Drug Authority
E-NITAG	Ethiopia-National Immunization Technical Advisory Group
EPHI	Ethiopian Public Health Institute
EPI	Expanded Program on Immunization
EPSS	Ethiopian Pharmaceutical Supply Service
Gavi	Global Alliance for Vaccine and immunization
HCD	Human Centered Design
HEW	Health Extension Worker
HFs	Health Facilities
HFSE	Health Facilities Solar Electrification
HPV	Human Papilloma Virus
HSS	Health System Strengthening
ICC	Interagency Co-coordinating Committee
ICT	Information Communication Technology
IDP	Internally Displaced People
IIP	Immunization in Improvement Plan
ISC	Immunization Supply Chain
IPC	Inter-personal communication
ISD	Immunization Service Desk
JA	Joint Appraisal
LMC	Leadership Management Coordination
MoH	Ministry of Health
MoF	Ministry of Finance
NIPE	National Immunization Program Evaluation
ODK	Open Data Kit
OPV	Oral Polio Vaccine
PHCU	Primary Health Care Unit

PHFs	Private Health Facilities
PIRI	Periodic Intensification of Routine immunization
RCS	Rapid Community Survey
RED	Reaching Every District
RHBs	Regional Health Bureaus
RI	Routine Immunization
SDG	Sustainable Development Goal
SIAs	Supplemental Immunization Activities
TWGs	Technical Working Groups
TCA	Targeted Country Assistance
TA	Technical Assistance
UNICEF	United Nations Children Fund
VPD	Vaccine Preventable Diseases
WUENIC	WHO and UNICEF Estimate of National Immunization Coverage
WHO	World Health Organization
ZD	Zero-Dose

Executive Summary

The Gavi Joint appraisal (JA) report is an annual country led, multi-stakeholder reviewed joint report of the Ministry of Health and Gavi partners on the progress and performance of Gavi-supported immunization activities. It provides a forum for discussion with Gavi Alliance partners and other key stakeholders about how immunization programs are performing compared to their goals and objectives. This report presents a comprehensive update on the Ethiopia's immunization programme in collaboration with the Gavi Alliance partners with a particular focus on zero-dose (ZD) and under-immunized children reduction, and on strengthening routine immunization and the broader health system. The report underscores progress achieved through the government leadership and partners' support to enhance immunization program performance. It details the key activities performed across thematic areas, including vaccine and cold chain management, demand generation, integrated service delivery, strengthening institutional capacity, financial management, surveillance and vaccine safety, gender consideration, and data and evidence generation. It also identifies promising practices, key challenges and learning to guide future improvements.

In line with the National Immunization priorities, the Gavi alliance partners supported the MoH in various aspects across thematic areas. They contributed to the implementation of the Ethiopia immunization Full Portfolio Plan (FPP) and comprehensive multi-year immunization plans (cMYPs) that are aligned with the country's broader health goals. The Ethiopian Ministry of Health (MoH) is intensifying efforts to reduce ZD and under-vaccinated children, with due emphasis on routine immunization strengthening and improving coverage. Partners have been instrumental in enhancing immunization activities across the immunization system. The ministry has utilized the TAs supports from partners to reinforce and facilitate routine immunization efforts in the country. Their support has also strengthened partnerships among government, civil society, and the private sectors while building the government staff capacity to promote long-term sustainability consistent with the national and global objectives.

Ethiopia has designed important strategies to reach underserved communities. These include: mapping underserved communities, strengthening routine immunization, use of various immunization service delivery modalities, including periodic intensification of routine immunization (PIRI), targeted campaigns, big catch-up and hit and run. Other key areas are improving last-mile vaccine and supply delivery, demand promotion to increase immunization uptake, facilitating regular coordination meetings, performance monitoring, supporting campaigns and new vaccine introduction and enhancing data quality for informed decision making. Continued support from the Gavi Alliance partners will be critical in facilitating these efforts and in identifying and reaching of zero-dose and under-immunized children.

The JA report is structured according to the Gavi joint appraisal report template and addressed key learning questions across thematic areas. It is organized into two sections: the first describes activities carried out to date, while the second focuses on future directions, summarizing discussion points and outlining follow-up actions. The report also highlights priority areas for the year 2026 that can assist the MoH and Gavi-Alliance partners in strengthening the immunization program.

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

Country Context

Ethiopia is the second most populous country in Africa, with an estimated population of approximately 113 million people, of whom about 77% live in rural areas. Ethiopia has a large population of groups for immunization services, including approximately 3.6 million infants under one year of age, nearly 19 million children under five, and an estimated 26.7 million women of reproductive age, of whom around 3.8 million being pregnant at any given time. These demographic characteristics place sustained demand on the health system and immunization services.

The country operates under a decentralized federal administrative structure, comprising 12 regional states and two chartered city administrations, which are further divided into zones, woredas, and kebeles.

Ethiopia delivers Health care services through three tier system (Primary, secondary and Tertiary level of care) as defined in the Health Sector Investment and plan (HSIDP). Primary care is provided through Primary Health Care at health posts, health centers, and primary hospitals. Ethiopia has around 471 public hospitals, 3,537 PHCUs, and 16,074 health posts[1] and Private health facilities also contribute to health service delivery, although their role in routine immunization remains relatively small (only 2%).

Ethiopia's diverse geography presents significant challenges for delivering equitable health services. Around 18% of the population does not have access to a public health facility within two hours walking distance, particularly in remote and pastoralist settings[2] that necessitate context-specific tailored strategies to reach underserved communities with immunization services.

A. Immunisation Programme Performance – Zero-dose, Routine immunisation coverage, Vaccine introductions, campaigns, and outbreak response

Ethiopia's immunization program has expanded significantly over the years, growing from six antigens in 1980 to fifteen by 2025, adopting a life-course approach. Immunization services are delivered through routine programs, supplemental activities, and outbreak responses.

Routine immunization (RI) services are delivered through a mixed approach: according the immunization program evaluation survey conducted on 2024, 39% of the targeted population received the service from fixed (static) sites, 52% from outreach sessions, and 9% from mobile services along with other special approaches like intensified integrated outreach, PIRI, hit and run for security affected areas, and integrated health campaigns.

According to the national immunization program evaluation 2024 report, 95% of the visited health facilities offered immunization services, 99% of health centres that showed 94% of primary hospitals, 94% of health posts, and

[1] DHIS 2

[2] Hendrix N, Warkaye S, Tesfaye L, Woldekidan MA, Arja A, Sato R, Memirie ST, Mirkuzie AH, Getnet F, Verguet S. Estimated travel time and staffing constraints to accessing the Ethiopian healthcare system: A two-step floating catchment area analysis. J Glob Health 2023; 13:04008

92% of general hospitals are providing immunization services[3]. However, daily immunization services were provided in only 38% of health facilities, with the lowest rates observed in Southwest Ethiopia (22%) and Sidama (19%) regions. The national evaluation further assessed the immunization service readiness using 21 tracer items, with only 12% of health facilities having all tracer items with significant regional disparity.

Engaging private health facilities (PHFs) is a key strategy to expand access and improve the quality of routine immunization services, particularly in urban areas. It increases service options for communities while allowing public facilities to focus on reaching marginalized, zero-dose, and under-vaccinated children. Although the PHF contribution is small (accounting for about 2% of national performance) the number of PHFs providing RI increased from 166 in 2024 to 198 in 2025, and children receiving Penta1 rose from 40,098 to 62,525 (DHIS2). However, only 15% of PHFs currently provide RI services, indicating significant untapped potential.

Routine immunization performance

Ethiopia has achieved significant progress in its immunization program over the past two decades, broadening access to services. However, a notable disparity exists among the key data sources used to measure immunization coverage. In 2024/5, routine administrative reports from the government (DHIS2) indicated as penta1 coverage exceeding 100%. Conversely, the 2024 EPI program evaluation survey reported a lower figure of 75%, and the WHO and UNICEF estimates of national immunization coverage (WUENIC) placed it at 81%.

These discrepancies underscore the limitations of relying on any single data source. Administrative data may lead to overestimation due to inaccuracies in denominators, data quality issues, and reporting practices, while surveys may suffer from underestimation resulting from recall bias and sampling constraints. The WUENIC estimates, despite their programmatic limitations, are commonly used for global comparison and monitoring, offering a balanced reference point. Ethiopia's RI program typically uses WUENIC estimates to assess immunization access (see fig 1).

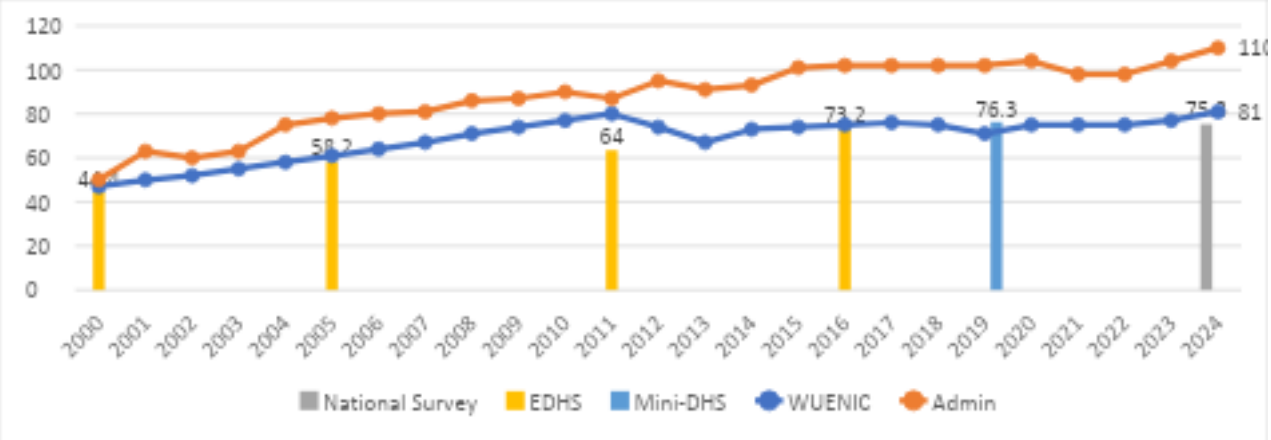


Figure 1: Penta 1 coverage with different data sources, 2000-2024, Ethiopia

Similarly, immunization service utilization, measured by Penta-3 and measles vaccination coverage, are steadily improving. According to WUENIC data, penta-3 coverage rose from 68% in 2020 to 73% in 2024, and MCV1 coverage increased from 58% to 72% in the same period. Despite this progress, Ethiopia's immunization coverage remains below the national target and the global SDG benchmarks. Although immunization initiatives and

[3] CBMP Universities in Ethiopia, 2024, National Immunization Program Research in Ethiopia, Addis Ababa, Ethiopia

financial investments have improved coverage and reduced Vaccine-Preventable Disease (VPD) incidence, VPD outbreaks continue to occur across various regions of Ethiopia due to sub-optimal coverage, particularly measles (see VPD outbreak on Learning question 6).

Ethiopia has progressed in reducing cervical cancer incidence and contributing to the cervical cancer elimination goal set by WHO by introducing HPV vaccination since 2018. Administrative data of HPV vaccination coverage showed above 90 %, while the WEUNIC 2024 estimate places coverage at 58%. Through 2024, Ethiopia delivered HPV vaccines primarily via nationally coordinated annual and bi-annual, using schools as the main platform for service delivery. In 2025, the country shifted its strategy from annual to routine provision, with planning and coordination of activities managed by the respective RHBs and woreda health offices (see detail in section 6.2). since 2024, the national immunization program switch HPV vaccination campaign from two dose to single dose targeting 9 years age adolescent girls.

Factors contributed for the progress include strong political commitment and collaboration with sector ministries, efforts to develop bottom-up micro planning exercises through headcounts, leveraging local media platforms at the sub-national level, presence of professional commitment and using a “hit and run” strategy in security affected areas. Despite the progress, there are still challenges on routinization of the HPV vaccination program, including community awareness, health workers practice and financing sustainability.

Learning Question 1: What progress has been made to reach zero-dose (ZD) and under-vaccinated children (UVC) with vaccinations?

Ethiopia is among the top five countries with the highest burden of zero-dose and under vaccinated children. Although there has been notable improvement in immunization coverage over the last three years, reports show that Ethiopia still has a significant number of zero-dose and under-vaccinated children. Several internal and external factors contribute to zero-dose and under-vaccination.

The burden of zero dose and under vaccinated children, remains disproportionately high in Afar (40%), Somali (40.7%), and Oromia (27.7%), while Addis Ababa (0.9%) and Dire Dawa (4.9%) report the lowest rates based on AHEAD subnational analysis.

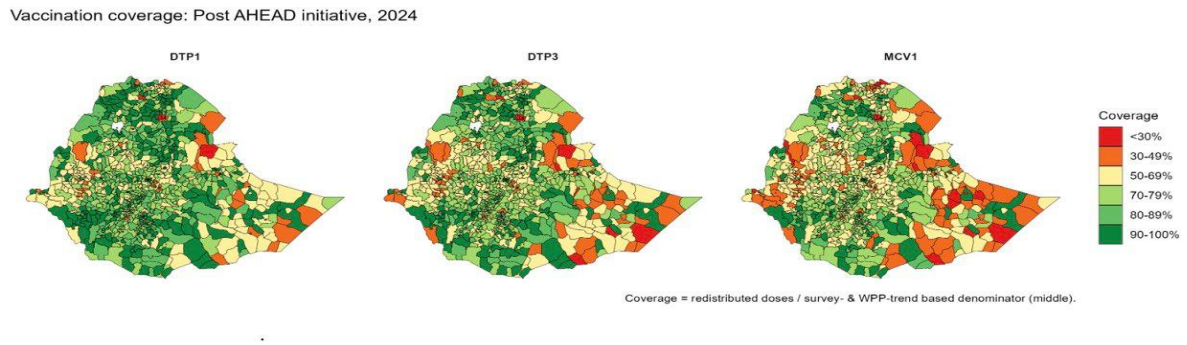


Figure 3: Vaccination Coverage Post AHEAD Initiative

Cognizant to high burden of zero dose and disparities among region, the Ministry of Health (MoH), together with partners, has prioritized addressing zero-dose (ZD) and under vaccinated children (UVC). The MoH developed a catch-up vaccination policy to reach children who missed routine immunization for any reason. The policy allows children to receive missed vaccines up to the age of five years.

In 2023, the MoH estimated that 3.9 million children aged 12–59 months remained zero-dose and required urgent vaccination. In response, the MoH and partners developed an accelerated plan to reach zero-dose and under-vaccinated children within a short time frame, aligned with the global momentum of the Big Catch-up. With support from Gavi, the Vaccine Alliance and other global partners, catch-up vaccination efforts were intensified through activities such as Periodic Intensification of Routine Immunization (PIRI), outreach services, integration with campaigns, community mobilization, and other targeted interventions. The MoH also documented progress made and lessons learned during implementation and took corrective actions based on the recommendations generated.

The MoH is implementing catch-up vaccination within the broader context of strengthening routine immunization (RI). Catch-up vaccination is integrated into all routine immunization service delivery points as part of institutionalizing the approach. The aim is twofold: to reduce the number of new zero-dose children by strengthening routine immunization, and to reduce the existing zero-dose burden through catch-up vaccination.

As a result of strengthened routine immunization efforts, the number of new zero-dose children has declined over time, according to WUENIC reports. Zero-dose children decreased from 1 million in 2022 to 768,000 in 2024 representing more than a 23.2% reduction (see Table 1)

Table 2: shows progress of Zero dose and vaccination uptake performance

Indicator	2022	2023	2024	% change or improvement/decline, 2022-2024
Number of zero dose children at national level1	1,000,000	917,000	768,000	23%
Drop out from Penta1 to Penta3 at national level1	16%	9.1%	10%	
Drop out from Penta to last routine dose of MCV(MCV2) at national level	30.7%	31.2%	27%	
Percentage of health facilities that reported no stock-outs for the full year for Penta	NA	92%	94.50%	

In 2025, the MoH together with partners, revised the accelerated plan and updated the zero-dose estimates using the most recent available evidence. Based on this revision, 2.9 million zero-dose children were re-estimated, of whom 1.5 million remained unreached with catch up efforts before.

To address these remaining 1.5 million zero-dose children, the MoH planned targeted mini-campaigns by mobilizing stakeholders and partners, leveraging the momentum of the Big Catch-up period and using all available resources by integration. Through these efforts, Ethiopia was able to vaccinate more than one million zero-dose children in 2025.

Overall, with all catch up vaccination efforts, the MoH managed to reach 2.4 million zero-dose children. Furthermore, through catch-up vaccination efforts, more than 2.8 million children were reached with MCV1 and 1.7 million with MCV2 (see Table 2).

Table 2: Zero dose and Under vaccinated Children Vaccination Status since 2023 to Dec 2025

Region	Penta1	Penta3	MCV1	MCV2
Oromia	947,810	1,076,039	1,119,478	670,506
Amhara	551,917	515,639	739,809	428,995
Somali	360,018	207,277	211,735	91,530
South Ethiopia	143,490	134,068	196,379	107,238
Afar	129,245	148,982	180,727	96,061
Tigray	88,103	94,227	95,276	100,241
Sidama	86,782	72,716	102,615	80,573
Central Ethiopia	69,281	57,209	82,838	69,303
Southwest Ethiopia	68,485	92,728	82,454	52,796
Benishangul-Gumuz	22,792	8,575	17,270	16,628
Gambella	18,116	11,007	19,660	11,148
Dire Dawa	3,865	3,163	3,466	3,154
Addis Ababa	1,403	1,378	4,818	8,039
Harari	1,150	678	336	336
Total	**2,492,457**	**2,423,686**	**2,856,861**	**1,736,548**

Further analysis was conducted to assess the extent to which zero-dose and under-vaccinated children were identified and reached in Priority-one woredas identified under the FPP plan by the MoH. Of the total priority woredas, 447 were supported through Gavi EAF, while the remaining 87 woredas were covered under the Gavi REACH project. Administrative BCU data show significant progress in addressing zero-dose and under-vaccinated children, with 96% of the estimated zero-dose children identified and reached (see Table 3).

Table 3: The number of re-estimated ZD, Penta 1 and 3 vaccinated, and ZD coverage in Priority Woredas

S.N	Region	Total priority woreda	ZD re-estimated in priority woredas	Pent 1 vaccinated	Pent 3 vaccinated	ZD coverage
1	Gambella	7	6306	7565	4797	120%
2	Oromia	180	390567	453688	532667	116%
3	Afar	30	70424	77528	81942	110%
4	Amhara	111	383231	392253	350854	102%
5	Somali	69	263387	259225	149827	98%
6	South West Ethiopia	6	10799	8431	8470	78%
7	Benishangule Gumuze	18	24169	16212	5708	67%
8	South Ethiopia	31	61566	39897	35854	65%
9	Tigray	48	101561	45365	56464	45%
10	Central Ethiopia	11	26301	11197	8101	43%
11	Sidama	15	60230	25360	20357	42%
	Total	526	1398541	1336721	1255041	96%

Factors facilitated to Progress:

- Ethiopia established a clear catch-up vaccination policy, supported by an accelerated plan and a standardized BCU/catch-up operational guide to harmonize implementation across health facilities.
- Regular monitoring and virtual follow up in addition to supervision and face to face review.
- Strong leadership commitment elevated catch-up vaccination as a national flagship initiative, reinforced through subnational planning with active regional ownership, MoH delegates, and partner engagement.
- Humanitarian partners, international NGOs, and local CSOs were engaged to support vaccine delivery, logistics, and service provision in conflict-affected settings.
- Partners were actively involved in zero-dose initiatives through TCA, standalone grants, and other funding mechanisms.
- Technical support from multiple partners strengthened implementation, monitoring, supervision, and overall program performance.
- Operational capacity was enhanced through regular mission teams, improved integration of catch-up vaccination into routine immunization and campaigns, targeted mini catch-up operations, and widespread advocacy efforts involving media, stakeholders, and community platforms.
- Substantial financial and technical support from Gavi, (HSS, EAF, TCA), the World Bank COVID-19 project, SDG Fund, CDC, and other partners enabled headcounts, microplanning, outreach/PIRI implementation, monitoring, logistics support in conflict settings, and technical assistance.
- Identification of zero-dose and under-vaccinated children improved through headcounts, integration with polio campaigns, PIRI/mobile teams in pastoral areas, and integrated outreach in agrarian and urban settings.
- Deployment of digital tools such as digital micro plans, supportive supervision applications, rapid community surveys, and Looker Studio facilitated timely data collection and improved the quality of supervision and accountability.
- Rapid community survey tool used to evaluate the performance at community level and take corrective action on spot level.
- In addition, Immunization in Practice (IIP) training provided to health workers (HWs) and health extension workers (HEWs) strengthened capacity to identify and vaccinate zero-dose children in both public and private health facilities.
- Integration of catch-up vaccination with other campaign conducted, for instance, during the polio outbreak response (nOPV2) a total of 225,872 zero dose and nationwide measles SIAs 191,346 zero dose children aged 9-59 months identified and vaccinated.
- The Ministry designed and implemented tailored high-impact delivery strategies and activities; including PIRI, intensified integrated outreach services, hit and run vaccination approaches, targeted urban outreach vaccination, mobile team vaccination, and targeted mini catch-up campaigns. As report more than 9,464 rounds of sessions were implemented vaccinated routine immunization and identify and vaccinate zero-dose and under-vaccinated children. Of these 9 464 sessions, 66% of sessions conducted by government and 34% by partners.

Table 1: Number of vaccination sessions conducted on PIRI, Hit Run, catch up etc by region by implemented through MOH and partners

Regions	Number of rounds/sessions conducted at woreda level by strategy and region*					
	Urban Outreach	Intensified outreach/ PIRI/Mini catch-up campaign	Mobile service	Hit and Run	Integrated Health Campaign	
					Measles SIAs (2022 & 2025)	nOPV campaign
Addis Ababa	396	-	-	-	2	3
Afar	-	467	81	-	2	4
Amhara	-	1429	63	13	2	4
Benishangul Gumuz	-	241	54	-	2	3
Central Ethiopia	-	239	-	-	2	3
Dire Dawa	120	9	-	-	2	4
Gambella	23	191	-	-	2	3
Harari	96	33	-	-	2	4
Oromia	-	2737	198	4	2	4
Sidama	-	285	-	-	2	3
Somali	109	933	-	-	2	4
South Ethiopia	-	372	36	-	2	4
Southwest Ethiopia	-	185	-	-	2	3
Tigray	-	1073	-	-	2	3
Total	**744**	**8194**	**432**	**17**	**28**	**49**

** Number of rounds of sessions conducted for each service delivery strategy in the woreda/town administration. The above session information data were collected from the session conducted by directly on government and partners (JSI, PATH, IRC, CHAI, WHO, AMREF and CCRDA/CGPP) supported woredas.*

Challenges: There several factors impede the implementation catchup to reach all zero dose and under vaccinated children and reduce new coming zero dose and under vaccinated children.

- Budget shortages affected critical activities such as identification, vaccination sessions, monitoring, printing documentation tools, and training.
- Routine immunization facing service disruptions due to several factors logistical delay in hard-to-reach areas.
- Access barriers including conflict, rugged terrain, scattered settlements, rainy seasons, and flooding limited outreach and last-mile vaccine delivery in remote, rural, and insecure settings.
- Staff faced competing priorities and emergencies
- Broader systemic challenges persist, including limited humanitarian engagement in conflict areas,
- Limited private-sector engagement on immunization program
- Program monitoring gaps in conducting supportive supervision and rapid community survey

Future direction: Despite these gains in catch-up vaccination and routine immunization in reducing zero dose burden in Ethiopia, the routine immunization is insufficient to reach all infants, there are new zero dose children coming every. To sustain the gains, improve the coverage, it is important and must continue providing catch-up

implementation routinely, with routine immunization program and targeted mini campaigns will remain essential. Key priorities moving forward includes;

- Institutionalizing catch-up within the routine EPI and primary health care system
- Continue implementing tailored interventions to address zero dose and under vaccinated children
- Continue mobilizing vaccines and budget for strengthening routine immunization and catch-up vaccination
- Engaging private health facilities,
- Extending vaccination service hours in high volume health facilities
- Strengthening data triangulation and digitalization for real time data and use
- Expanding cold chain and last-mile delivery of vaccines and supplies
- Continued focus on program management, mentorship and supportive supervision,
- Continue demand creation and community engagement
- Continues capacity building health workers on immunization program.
- Deploy technical assistance for capacity building and gaps filling.
- Further advocacy on strengthening domestic financing will continue as the key focus area to ensure country owned sustainable immunization program.

Performance on Demand Generation/ Promotion and Communication

The Communication Technical Working Group (C-TWG) is a collaboration between the Ministry of Health, agencies, and partners that leads all EPI demand and advocacy efforts. Utilizing the 2024–2025 Demand Promotion Action Plan, the group coordinates social mobilization, innovative Human-Centered Design (HCD) approaches, and interpersonal communication training.

Key Achievements (2024–2025):

- **New Vaccine introduction** Successfully supported the rollout of new vaccines
- **Campaigns** supported integrated measles SIA through health campaign effectiveness and integrated polio campaign
- **Strategic Engagement:** Conducted advocacy workshops and community engagement with decision-makers, media, religious leaders, hotline counsellors and stake holders

Advocacy Workshops & Launch Events

The Ministry of Health conducted 7 national advocacy sessions involving 348 participants from government sectors, religious councils, and professional associations. These workshops focused on integrating measles campaign through health campaign effectiveness, integrated polio campaign, Hep B (birth dose), and malaria vaccines introduction with a specific emphasis on reaching zero-dose (ZD) and under-vaccinated (UV) children.

Strategic Objectives:

- **Political Commitment:** Secured leadership ownership and cross-ministry coordination.
- **Gender & Equity:** Promoted gender-inclusive approaches, including male engagement in caregiving and addressing equity gaps.
- **Crisis Management:** Strengthened responses to vaccine misinformation and hesitancy.
- **High-Level Launches:** Executed national launch events for Hep Birth dose& Malaria vaccines introduction and measles and polio campaigns with significant media coverage to drive public awareness.

Pictures of advocacy workshops and integrated campaign launching April 2025

At the sub-national level, **1,975 advocacy sessions** were conducted, engaging over **350,688 participants** including regional decision-makers and local administrators. These sessions focused on reigniting catch-up vaccinations, urban immunization, and identifying zero-dose children.

Key Highlights:

- **Field Leadership:** Conducted direct advocacy visits to zonal and district offices to ensure administrative support for vaccination "reignition."
- **Integrated Campaigns:** Successfully launched Malaria, HepB (birth dose), and Measles campaigns across all regions.
- **High Visibility:** National and regional launches featured high-level officials and secured extensive media coverage to drive community uptake.

Sensitization & Media Engagement

The immunization program conducted extensive sensitization across national and sub-national levels to support integrated vaccine rollouts (Measles, Polio, HepB, Malaria, and HPV).

- National: 6 sessions reached 463 participants, including media professionals, hotline counsellors, and youth forums.
- Sub-national: 2,860 sessions engaged over 1.5 million participants, targeting religious leaders, schools, IDP/refugee sites, and community associations.

National & Sub-national Commemorations

High-level celebrations for African Vaccination Week (AVW) and World Polio Day (WPD) were held in Addis Ababa, Dire Dawa, and all regions to advocate for universal immunization.

- Key Themes: Focused on "Making Zero Dose Zero" and "Ending Polio Now" by reaching under-vaccinated children.
- Engagement: Led by Ministry of Health and Regional Health Bureau (RHB) heads alongside global partners and stakeholders.
- Goal: To reinforce the message that "Immunization for All is Humanly Possible" and ensure political and community buy-in.

Social Mobilization & Media Outreach

The Ministry launched a massive multi-channel campaign to promote routine immunization (RI), catch-up doses, and new vaccine rollouts (HPV, HepB, Malaria).

- **Mass Media:** Broadcasted TV and Radio messages across government and private outlets, reaching **over 50 million people**.
- **Digital:** Designed and deployed targeted social media campaigns via the Ministry of Health Facebook page focusing on zero-dose and under-vaccinated children.
- **Print & Localized Tools:** Developed posters, brochures, and job aids, translated into local languages to ensure regional accessibility.

Regional health bureaus localized immunization messages into multiple languages for TV, radio, and community platforms, focusing on routine services, catch-up campaigns, and new vaccine introductions.

- **Massive Reach:** Social mobilizers and volunteers visited 12.8 million households, reaching over 37 million people directly.
- **Community Pillars:** Engagement was driven by religious leaders, teachers, and local platforms (WDU, VHL, and block leaders).
- **Male Engagement:** While overall partner involvement remains a challenge, regions like Afar and Amhara showed promising progress in engaging men in immunization efforts.

Health education at holy water in North Gojam March 2025, and maternal monthly health conference at Dera woreda August 2025 respectively Amhara Region

37,070 community dialogue sessions were conducted to strengthen vaccine uptake. These sessions engaged **over 1.1 million community representatives**, focusing on routine services and catch-up vaccinations to build trust and improve service uptake.

Program communication

To bridge communication gaps and address demand side and supply side barriers

- **Human-Centered Design (HCD):** Following a national TOT for **92 experts**, the training was cascaded to **17,590 local staff**. Health Extension Workers (HEWs) are now using "co-creation" with communities to identify and solve vaccination barriers. In line with this 352 woredas and 12 local solutions are identified and under implementation
- **Interpersonal Communication (IPC): 3,527 service providers** and experts were trained to improve the quality of healthcare interactions and build community trust.
- **Social Mobilization:** Targeted training was provided to sub-national teams to drive demand for routine immunization, new vaccines, and COVID-19 integration.

HCD cocreation and implementation with a local community 2025

Risk & Crisis Communication

The Ministry proactively manages vaccine misinformation and hesitancy through systematic social listening and rumor tracking.

- **Proactive Response:** Experts at all levels were oriented towards risk communication to counteract disinformation regarding HPV, routine services, and campaigns.
- **Addressing Concerns:** Communication platforms were used to debunk specific myths, including claims of HPV-related infertility, concerns over multiple neonatal injections, and misconceptions regarding supplemental polio doses.
- **Crisis Management:** These targeted interventions successfully addressed public rumours including those associating vaccines with "evil work" to maintain community trust and high coverage.

Vaccine Safety and Adverse Events Following Immunization – (AEFI) Monitoring

The Ethiopian Food and Drug Authority (EFDA), in close collaboration with the Ministry of Health (MoH) and other national and regional stakeholders, continues to strengthen vaccine safety monitoring across Routine Immunization (RI), Supplementary Immunization Activities (SIAs), and outbreak response vaccination campaigns. Both active and passive AEFI surveillance mechanisms are implemented to ensure continuous monitoring of vaccine safety, safeguard public health, and sustain confidence in national immunization programs.

Financial and technical support from Gavi, the Vaccine Alliance, has played a pivotal role in strengthening Ethiopia's national pharmacovigilance and AEFI surveillance systems. This support has enhanced institutional

capacity, expanded decentralized safety monitoring infrastructure, and improved national contributions to global vaccine safety data systems.

Key Achievements in Pharmacovigilance System include:

- Capacity strengthening: Targeted training programs were delivered to healthcare professionals, regulatory staff, and regional stakeholders to enhance competencies in vaccine safety surveillance, AEFI detection, reporting, investigation, and pharmacovigilance practices.
- Supportive supervision: Structured supportive supervision was conducted across all 12 regions and two city administrations, with particular attention to low-performing zones, woredas, and sub-cities to improve reporting quality and system performance.
- Strengthening investigation systems: Regional and sub-regional AEFI investigation taskforces were revitalized to ensure timely investigation, causality assessment, and regulatory response to serious adverse events.
- National coordination and review: Annual national AEFI review meetings were institutionalized to assess progress, share lessons learned, identify system gaps, and strengthen stakeholder coordination.
- Global pharmacovigilance contribution: As of January 2026, Ethiopia submitted 108,915 safety reports to the WHO Vigiflow global database, including 101,707 AEFI reports, positioning Ethiopia among the leading African contributors to global vaccine safety surveillance.
- Regulatory system strengthening: Ethiopia attained WHO Global Benchmarking Tool (GBT) Maturity Level 3 (ML3) in medicines regulation, reflecting a stable and well-functioning regulatory system with strengthened pharmacovigilance capacity.
- Decentralization of pharmacovigilance: A total of 13 regional pharmacovigilance centers has been established to coordinate safety data collection, reporting, and investigation across their respective catchment areas.
- Regional taskforce establishment: Multidisciplinary AEFI taskforces were established in all regions and two city administrations, involving experts from public health programs, regulatory bodies, clinical services, and EFDA branches.
- Case investigation and causality assessment: A total of 68 serious adverse event cases were investigated and reviewed by the National Pharmacovigilance Advisory Committee (NPAC) for causality classification using WHO-recommended methodologies.
- Strengthened expert advisory mechanisms: The NPAC continues to provide independent expert oversight, ensuring robust causality assessment, evidence-based regulatory decision-making, and stakeholder guidance.

Learning Question 2 &3: How well are vaccine stocks being managed? Are vaccines being consumed at rates that are in-line with approved forecasts? What are the key drivers of consumption compared to expectation?

Immunization Supply Chain Management

Immunization supply chain management activities include forecasting and supply planning, procurement, customs clearance, inventory management, and cold chain management. Furthermore, last-mile distribution, vaccine wastage monitoring, and waste disposal are key components. These immunization supply chain management activities were overseen by the Pharmaceutical and Medical Devices Lead Executive Office and the Immunization Service Desk of the Ministry of Health (MoH); and the Ethiopian Pharmaceuticals Supply Service (EPSS). At both national and sub-national levels, the Vaccine Logistics Technical Working Group (TWG) serves as an advisory body to the MoH, Regional Health Bureaus (RHBs), and EPSS. The MoH has delegated UNICEF to manage the procurement of vaccines and related devices based on the approved forecast and supply plan. Meanwhile, the

Ethiopian Food and Drug Authority (EFDA) handles product registration, as well as ensuring quality and safety compliance.

Significant progresses were achieved in strengthening the immunization supply chain through improved forecasting and supply planning, cold storage and transportation capacity expansion, vaccine direct delivery expansion, inventory management, human resource capacity development, and waste management.

To ensure uninterrupted availability of vaccines and dry supplies, the Ministry of Health has conducted the 2026 immunization supplies demand forecasting and quarterly supply plan reviews using the new forecasting and supply planning tools (FSP4All). Vaccine shipment pipelines were closely monitored using ViVA (Visibility for Vaccine tool) and the electronic Vaccine Arrival Report (eVAR), which provided visibility on supply plan, vaccine clearance, stock level projections, and early identification of risks of overstocking or stock-outs. Progress also continued in local vaccine manufacturing, including setting up a project office, hiring staff and capacity building trainings, selecting priority vaccines, and designing the plant for fill-finish vaccine production by 2027. Inventory holding policies were revised to increase maximum stock from 1.25 to 2 months and minimum stock from 0.25 to 1 month, reducing end-month stock depletion. Meanwhile, rollout of the vaccine traceability and verification system (TRVST) has started, and it will improve the end-to-end traceability of vaccines across the supply chain levels.

The availability and functionality of optimal cold chain equipment are crucial for ensuring vaccine potency and safety, as well as the effective delivery of vaccines during both static and outreach immunization sessions.

To meet the expanding need for optimal cold storage and transport capacity, the Ministry of Health, in collaboration with partners, has made significant investments to enhance cold chain equipment (CCE) and transportation infrastructure. These includes installation of 2,275 optimal vaccine refrigerators (1,592 SDDs and 683 ILR), procurement of 23 refrigerated trucks and 30 pickup vehicles, and deployment of 1,369 motorcycles. In addition, 167 sets of spare parts, 322 toolkits, 30 RTMDs for older refrigerated vehicles, 13,000 fridge tags, 7,965 vaccine carriers, and 2,378 cold boxes distributed to EPSS hubs and health facilities with the support from Gavi and World Bank. These investments added a total cold chain storage capacity of 194,392 litters, bringing the national capacity to 8,430,001 litters, including 8,070,164 litters for 2–8°C storage, 335,000 litters for –25 to –15°C, and 24,837 litters for –80 to –60°C storage. Transport storage capacity also increased significantly, from 300,000 litters to 711,000 litters. This expansion supported the successful rollout of new vaccines, catch-up vaccination activities, SIAs, VPD outbreak response, and routine immunization services. Regarding the health facility solar electrification targeting 380 health facilities, the necessary installation supplies have already arrived in the country, and installation will commence following the official handover of equipment to the regional health bureaus.

To enhance cold chain equipment functionality corrective maintenance was conducted for 1,905 vaccine refrigerators, 42 walk-in cold rooms (WICRs), and 7 freezer rooms, and inventory record of 2,553 refrigerators were updated based on the information gathered during maintenance activity. Preventive maintenance monitoring tools (daily to quarterly checklists) were revised, formalized, and institutionalized at EPSS hubs. The central EPSS cold room and five hub cold rooms were renovated and relocated as needed. A spare-part forecasting tool was developed for WICRs and WIFRs to optimize planning and reduce downtime. To ensure that cold and freezer rooms maintain the uniform and stable temperatures required to preserve vaccine potency, temperature mapping exercises were conducted at Dire Dawa, Jigjiga, Gondar, and Kebridhar EPSS hubs. The assessment confirmed that the equipment meets standard requirements, with only minor corrective actions recommended.

Direct delivery of vaccines and dry supplies to health centers and hospitals increased from 2,686 (60%) to 3,019 (70%); however, the remaining 30% continue to receive supplies through woreda health offices, and despite this

progress, performance remains below the CMYP 2021–2025 target of 90% by 2025. Furthermore, to strengthen last-mile distribution, the Ministry of Health, in collaboration with UNICEF, is piloting the DRIVE initiative (Direct Delivery of Routine Immunization Vaccines and other PHC Commodities for Equity) in four regions, and will be scaled up based on the findings of this pilot. Humanitarian partners, including UNICEF, IRC, and others, supported the delivery of vaccines and primary health care commodities to conflict-affected and hard-to-reach areas. The lessons from the public–private partnership model for integrated vaccine distribution will also be documented and used to inform plans for future scale-up based on the findings.

Digital transformation progressed with the implementation of the SAP/ERP system, aligned with Target Software Standards (TSS), enabling improved data visibility and analytics. The system is now interoperable with Dagu-2, mBrana, and other eLMIS platforms. To expand Dagu-2 implementation beyond the current 1,603 facilities, 80 desktop computers were procured with support from WHO and an additional 891 units currently being processed through support from the Government, Gavi, UNFPA, and the Global Fund. Additionally, 615 smartphones were procured and deployed to revitalize mBrana functionality at 495 districts. The MEMIS platform continued to support CCE inventory management, maintenance work orders, tracking, and maintenance at 400 health facilities. Temperature monitoring was strengthened by using RTMDs in all EPSS cold rooms and refrigerator-equipped health facilities, enabling real-time reporting to the central level.

To enhance human resource capacity on vaccine and cold chain management, a series of capacity-building trainings were conducted in collaboration with partners. These included training 57 vaccine logistics officers in vaccine and cold chain management; 115 biomedical engineers in mid-level CCE maintenance; 755 health professionals in DRIVE implementation; 26 drivers and technicians in refrigerated vehicle maintenance; and 413 technical experts in the use of Varo Pogo LT for temperature-driven maintenance planning. Additionally, 1,079 immunization and supply chain experts received training on eLMIS tools, including Dagu-2, mBrana, and VRF analysis tool. To promote institutionalization and sustainability, fifty university lecturers were trained to integrate CCE management into pre-service curricula, and ninety graduating biomedical engineers received practical pre-service training. Furthermore, the senior-level training manual for CCE maintenance was revised and submitted for final CPD approval.

Supportive supervision on vaccines and cold chain management was conducted across 17 EPSS hubs, 74 woreda health offices, and 137 health facilities, with targeted mentorship provided to selected mBrana implementation sites. Bi-annual immunization supply chain reviews were conducted to assess the performance and inform corrective actions. Job description and workflow SOP for CCE management and maintenance was developed as part of EPSS HR restructuring to clarify roles and standardize procedures. Knowledge sharing and continuous professional development were further supported through a peer-learning platform (Telegram) engaging 102 cold chain technicians and biomedical engineers, enabling rapid troubleshooting, dissemination of best practices, and cross-site collaboration.

To strengthen the waste management system, maintenance of high-temperature incinerators was carried out at eight EPSS hubs to ensure safe and effective waste disposal. In addition, a technical task force was established to initiate and oversee the disposal of obsolete, non-functional, and non-repairable cold chain equipment. Finally, a Gavi-funded EVMA 2025 study was launched, together with studies on vaccine waste and temperature monitoring.

Innovation and Promising Practices:

- **VRF Analysis Tool:** - An in-house web-based VRF analysis tool was developed at EPSS to analyse Vaccine Request Forms (VRFs) submitted by health facilities. The tool standardises and monitors vaccine request processes and stock situation; increases data visibility and monitoring and mitigation of risk of stock-out and vaccine wastage.

- **Dagu 2-VRF Module:** - VRF module integrated in facility Dagu-2 is being implemented to over 1603 health facilities to enhance data visibility and stock situation monitoring at health facility level.
- **The DRIVE Initiative**: -is implemented across 41 woredas, 120 PHC facilities, 727 health posts, and 1,234 outreach sites in Afar, Amhara, Oromia and Somali regions 160 unemployed youth from local communities who facilitate access to vaccines for zero dose reduction; and creating gainful employment for youth using motorcycles.
- **Varo-Pogo LT:** -Use of temperature data for equipment performance monitoring and cold chain equipment maintenance planning.

Indicators on Stock Availability, Wastage and Maintenance

Ethiopia employs a combination of three and four-tier supply chain systems for the distribution of immunization supplies. Under the four-tier model, products move from the EPSS center to hubs, then to woredas, and subsequently to health facilities. Vaccine and supply distribution from the central level to hubs is conducted quarterly, while woredas and health facilities receive monthly replenishments from their respective EPSS hubs based on submitted Vaccine Requisition Forms (VRFs). Out of 4,326 hospitals and health centres providing vaccination, approximately 4,066 (94%) health facilities had Pentavalent vaccines available throughout the year. Similarly, uninterrupted measles vaccine was available in 4,110 (95%) health facilities. The closed vial wastages of Pentavalent vaccines were approximately 37,128 doses (0.34%), mainly due to Vaccine Vial Monitor (VVM) changes, expiration, and breakage. Out of 3,249 identified non-functional vaccine refrigerators and cold rooms, 1,954 (60%) were maintained during the reporting period, and a maintenance campaign will be conducted to address remaining non-functional refrigerators. Closed vial wastage rate is persistently below 1%, which is far below WHO unavoidable recommended wastage rate of 2%. COVID-19 vaccine doses approved for this reporting period were not received due to reduced demand for COVID-19 vaccination. However, 98% of the doses available in-country were utilized.

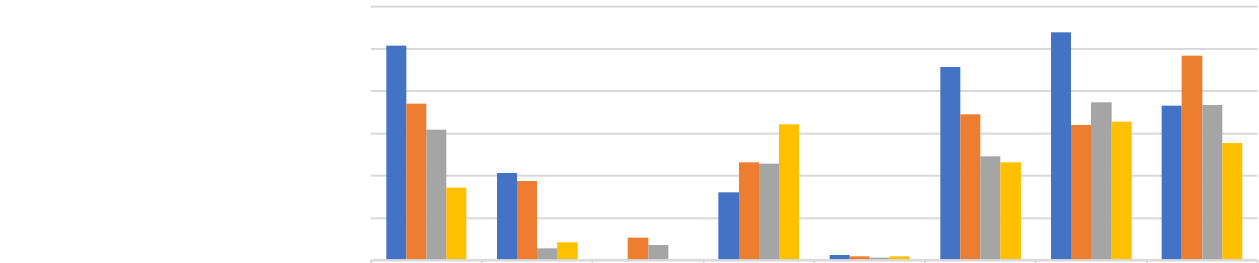
Table 5: Stock Availability, Wastage and Maintenance Data, as of January 2, 2026

S. N	Indicators	Performance	Percentage
1	Number of health facilities that reported no stock-outs of DTP containing vaccine	4,066	94
2	Number of health facilities that reported no stock-outs of Measles containing vaccine	4,110	95
3	Closed vial wastage of DTP-containing vaccine	37,128	0.34
4	Number of CCE received/installed/ leased through third party providers.	2,275	73
5	Equipment maintenance	1,954	60
6	Cumulative volume of C19 doses expired to date (and volume specific to COVAX supported doses, if the data is available)	19,200	2

Routine Immunization Vaccine Forecast and Utilization

Most of the Gavi-approved doses for the routine immunization program were received, and the remaining doses are expected in the first quarter of 2026. The estimated average consumption is slightly higher than the approved

quantities and annual shipment plan due to rollover stock from the previous year. The low consumption rate for the HepB vaccine is attributed to its early stage of introduction. Regarding HPV, no doses were received in 2025 because of the availability of leftover doses from the MAC campaign. However, following the implementation of routinization, higher quantities were consumed during this reporting period compared to the previous one.



	Pentavalent	HepB	HPV	IPV	Malaria V	Measles	PCV	Rota
Forecasted Doses	10,159,639	4,116,655	0	3,212,891	238,343	9,132,802	10,776,101	7,318,332
Approved Renewal	7,418,500	3,756,000	1,083,850	4,638,200	186,200	6,898,000	6,409,800	9,667,100
Consumption Estimate	6,183,479	561,180	725,028	4,573,445	112,770	4,933,556	7,481,019	7,347,817
Average Annual Shipment (Doses)	3,449,128	836,000	0	6,433,400	186,200	4,621,000	6,561,000	5,557,600

Figure 5: Routine immunization vaccines consumed at rates that are in-line with approved forecasts - as of January 2, 2026.

Big Catch-Up, Vaccine Consumption Rate (Dose Reconciliation)

Most of Gavi and GPEI-approved doses for the BCU were received and utilized. Overall consumption of BCU doses during this reporting period was higher, driven by sustained follow-up and the implementation of targeted mini catch-up campaigns. Additional doses of IPV were utilized from routine immunization stock.

Table 6: Big Catch-Up, Vaccine Consumption Rate (Dose Reconciliation), January 2, 2026

S. N	BCU Vaccines	Total Number of Approved Doses	Stock on Hand	Total BCU Vaccine Doses Used Since Start of BCU	Vaccine Utilization (%) *	Remark
1	IPV	2,884,000	0	4,703,729	**163%**	Gavi
2	MCV	6,924,000	649,931	6,274,069	**91%**	Gavi
3	PCV	5,116,600	146,978	4,969,622	**97%**	Gavi
4	Penta	12,167,950	5,810,630	6,357,320	**52%**	Gavi
5	Rota	7,728,600	2,981,801	3,980,299	**57%**	Gavi
6	bOPV	12,863,300	5,612,590	5,903,033	**46%**	GPEI
	Total	**47,684,450**	**15,201,930**	**32,188,072**	**69%**	

**The colour code under vaccine utilization rated against national BCU target 85% utilization at the end of December 2025.*

Challenges/Weakness:

- Lack of an end-to-end interoperable digital system to monitor the stock and CCEI.
- Sub-optimal functionality of sub-national TWGs.
- Infrastructure related (Vehicle, Freezer room at Hubs, temperature monitoring device to monitor temperature during transportation, motorcycle, vaccine refrigerator, computer, electricity, road access).
- Availability of HFs without CCE, non-functional and obsolete CCE.

- Weak temperature monitoring practice.
- Limitations on vaccine stock management at health facility level.
- Sub optimal waste management practice, low functionality of waste disposal facilities at lower level.
- Security challenges for Vaccine delivery to health facilities.
- Weak last mile delivery system at Health centres to health posts.
- Sub optimal spare part inventory management system and shortage across supply chain level
- Undefined HR structure and lack of career incentives for cold chain technicians at EPSS
- Sustainability and ownership of digital tools

Anticipated Risks:

- Resource constraints to scale up LMD to hard-to-reach and conflict affected areas.
- Sustainability of eLMIS implementation at the lower level
- Technology/System failure/Virus Attack.
- Conflict that hinders expansion of direct delivery to health facilities

Mitigation Strategies:

- Leverage partner support, advocacy and resource mobilization
- Strengthening the PPP to support LMD in hard-to-reach areas
- Strength government ownership on digital tools
- Advocate community ownership
- Forecast future needs and anticipation of challenges

Next priorities:

- Expand Vaccine Direct Delivery and Last Mile Delivery
- Enhance Stock Management and Data Visibility (eLMIS)
- Optimize Real-time CCE inventory Updates Using MEMIS
- Strengthen preventive and corrective maintenance system using temperature data across the supply chain.
- Strengthening Coordination at Sub-national Level
- Enhance temperature monitoring practice during vaccine transportation
- Strengthen PPP & Humanitarian Actors' Engagement
- Human Vaccine Manufacturing (SheildVax)
- Implement of New Initiatives (DRIVE and HFSE)
- Conduct CCE inventory gap analysis and optimize CCE
- Implement cIP based on NIS priorities and national EVMA, TMS and National wastage study.
- Strengthen Healthcare Waste Management
- HR Capacity Building
- KPI Based Monitoring and Evaluation

Learning Question 4: Is the country complying with co-financing requirements in a timely manner?

The MoH has been actively engaged in co-financing arrangements to enhance healthcare funding, particularly through initiatives that align with the Ethiopian Health Care Financing (HCF) Strategy (2022-2031). This strategy emphasizes the importance of co-financing as a means to bridge the funding gap in the health sector, encouraging partnerships between various governmental levels and development partners. As part of this, MoH and Gavi have a framework agreement on vaccine program and other health system support, Ethiopia agreed mandatory

obligation to pay the co-financing payment for vaccine and cold chain equipment and Gavi also covers the remaining costs.

Every year, MoH pays co-financing payment through UNICEF for the vaccine and cold chain equipment procurement. As target population and coverage increases, the co-financing cost that the government will be covering also increases. For this, the government has been increasing its co-financing allocations through time. Despite several competing priorities, trends over the years showed that Ethiopia fulfilled the co-financing obligations. The table below shows the cost the government of Ethiopia paid for co-financing for vaccine and cold chain equipment procurement.

Table 7: Co-Financing for Vaccines and Cold Chain Equipment

Cost Category	Co-Financing for Vaccines and Cold Chain Equipment					
	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	Total
MoH-Co-Financing (USD)	8,505,713.70	6,682,663.00	9,381,160.22	7,148,435.18	10,666,167.05	48,949,375.7

For the 2025/26 obligations, cost estimates for vaccines and cold chain equipment totalling $10,666,167.05 were received. Of this amount, $3,070,866.82 (29%) has been settled, and the transfer of the remaining funds to UNICEF is underway.

Learning Question 5: If applicable, have new vaccines been introduced as planned and if not, why? Is coverage of recently introduced vaccines being scaled up as expected?

Ethiopia introduces new vaccines based on scientific evidence reviewed by the Ethiopian National Immunization Technical Advisory Group (E-NITAG) and focuses on the burden of vaccine-preventable diseases, the vaccine's effectiveness and safety, and the country's implementation capacity. Factors considered include disease severity, public health impact, implementation feasibility (like cold chain infrastructure), and alignment with national and global health goals. [4]

[4] Prioritization of future new vaccines introduction: The experience of the Ethiopian National Immunization Technical Advisory Group

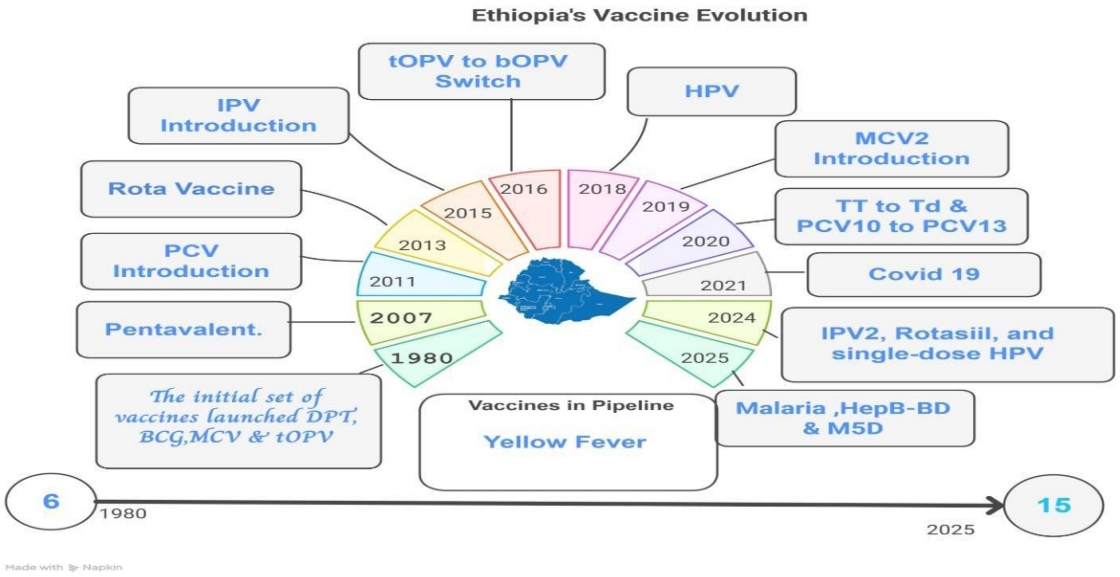


Figure 6: Evolution of new vaccine introductions in Ethiopia

The 2021-2025 cMYP aimed to introduce COVID-19, nOPV2, and the piloting of the hepatitis B vaccines by 2021, scale the introduction of hepatitis B birth dose, and introduce MR, IPV2, Yellow fever, and Meningitis A (Men A) vaccines by 2022. Accordingly, COVID-19, nOPV2, IPV2, HepB BD were successfully introduced. While Ethiopia's routine immunization program has included the first dose of the measles-containing vaccine (MCV) since 1980, the combined Measles-Rubella (MR) vaccine faced delays. This hold-up stemmed from insufficient preliminary prioritization and a lack of adequate data on the rubella disease burden. The MenA vaccine was also not introduced due to a lack of adequate local evidence and the presence of other competing priorities. The ongoing risk assessment aims to facilitate introduction of Meningococcal vaccine during the next strategic period. Preparation for introducing the yellow fever vaccine is underway, but progress is delayed due to the delay and policy shifts from Gavi support on Yellow Fever.

Table 8: New vaccine introductions, switches and optimization from the comprehensive multiyear plan 2021-2025

New vaccines/switches	Plan 2021-2025	Performance	Remark
COVID-19	*	Achieved	
nOPV2	*	Achieved	For Outbreak Response
IPV2 introduction	*	Achieved	
HepB-BD	*	Achieved	
Yellow Fever vaccine	*	In progress	
MR	*	Not achieved	
Meningococcal vaccine	*	Not achieved	
Rotarix to Rotasil switch	No	Implemented	
Switch to single-dose HPV vaccination	No	Implemented	
Malaria	No	Implemented	
Measles five-dose switch	No	Implemented	

In 2025, it was planned to introduce the malaria and HepB-BD vaccines into the national immunization program, switch from 10-dose measles vials to 5-dose vials and carry out preparatory activities for the introduction of the yellow fever vaccine. The introduction of the malaria and HepB-BD vaccines, along with the M5D switch, was successfully implemented.

Status of Recently Introduced Vaccines and optimizations

- **Malaria vaccine introduction**

Malaria remains one of the most significant public health and socio-economic challenges in Ethiopia, causing widespread illness and death and exerting the highest economic impact, particularly during harvest seasons. It accounts for nearly 30% of the country's overall disability-adjusted life years (DALYs) and affects approximately 75% of the population living in malaria-endemic areas of 69% country's landmass. Despite Ethiopia's strong government commitment and the launch of a malaria elimination program in 2017, there is a surge of cases since 2019 due to different factors like internal displacement, climatic changes, and biological factors related to mosquito resistance and gene deletion. Given the urgent need to reduce the malaria burden among high-risk groups—especially infants and young children—a comprehensive approach integrating interventions, like insecticide-treated nets, indoor residual spraying, diagnosis, treatment, and the malaria vaccine is critical. [5]

To optimize impact, woredas with an annual parasite incidence (API) of 250 or higher were prioritized, with the top 58 selected for the initial vaccine rollout, while additional eligible areas will be included in future scale-up efforts. The malaria vaccine was launched in integration with a mass distribution campaign of LLINs on September 18, 2025. As of February 2026, a total of 45,503 (119%), 28,168 (73%), and 9,821 (26%) children had received the MV1, MV2, and MV3 doses, respectively. To improve overall vaccine coverage and reduce dropout rates, a series of interventions were implemented, including regular coordination meetings, systematic data monitoring with routine feedback, and the integration of malaria vaccination performance indicators into existing supervision and monitoring systems. Efforts were also made to strengthen last-mile vaccine availability, alongside intensified demand-promotion and community-engagement activities. In addition, a malaria vaccination job aid was developed, printed, and distributed to health facilities to further support service delivery.

During the preparatory and implementation activities, Ethiopia received technical assistance from partners through GAVI's TCA global support for malaria vaccine introduction.

- **Hep B birth dose vaccine introduction**

Ethiopia has developed a national strategy for the elimination of viral hepatitis and the triple elimination of HBV, HIV, and syphilis to meet the global target of eradicating HBV by 2030. A population-based study reported a national prevalence of 9.4%, with a significant burden among pregnant women at 4.8%.[6] Consequently, the MOH introduced HepB vaccine in a pentavalent form in 2007 and has placed strong emphasis on introducing the HepB-

[5] Services availability and readiness assessment (SARA), 2018, Ethiopian Public Health Institute

[6] *5 C. Deme, B. Edao, G. Jaya et al., "Prevalence of hypertension, anemia, asymptomatic urinary tract infection, syphilis, HIV and hepatitis B virus infection among pregnant women attending an antenatal clinic at a rural hospital in southern Ethiopia," The Southeast Asian journal of tropical medicine and public health, vol. 47, no. 5, pp. 1032–1039, 2016.*

BD vaccine into the routine immunization program, to be integrated with maternal, child, and newborn services across the country as outlined in the cMYP (2021–2025)

The risk of mother-to-child transmission can reach up to 90%, making early prevention critical. The Hepatitis B birth dose vaccine, when administered within 24 hours of birth and followed by three doses of the pentavalent vaccine, is about 90% effective in preventing perinatal infection. Protecting newborns is essential because infections acquired at birth are more likely to become chronic and lead to premature death. Therefore, universal administration of the Hep-B-BD vaccine for all newborns, regardless of maternal HepB status, is strongly recommended to ensure maximum protection.

The pilot implementation was conducted from January 2021 to May 2022 in four woredas across the Afar, Addis Ababa, Amhara, and Tigray regions. To document best practices and inform nationwide introduction, a Post-Introduction Evaluation (PIE) was also conducted, which confirmed the feasibility of timely HepB-BD administration during health facility deliveries.

Following the pilot implementation and robust preparatory activities, Ethiopia launched the nationwide introduction of the HepB-BD vaccine into the routine immunization program on November 25, 2025. As of February 2026, a total of 232,578 newborns had been vaccinated, of whom 195,504 (89%) received the vaccine within the first 24 hours of birth. The overall three-month vaccination coverage stood at 30%, a level considered low due to delays in vaccine rollout in several woredas. These delays were primarily linked to late provision of training and challenges in vaccine distribution within security-affected areas. In addition, some regions commenced implementation one month after the national launch due to competing priorities.

To improve overall vaccine coverage, a series of interventions were implemented. These included regular coordination meetings, systematic data monitoring accompanied by routine feedback, and the integration of HepB-BD vaccination performance indicators into existing supervision and monitoring systems. Further efforts focused on strengthening last-mile vaccine availability, alongside intensified demand-promotion and community-engagement activities.

During the preparatory and implementation phases, Ethiopia received technical assistance from partners through GAVI's TCA support for the HepB-BD vaccine introduction.

- **Measles five dose switch**

Ethiopia conducted a pilot study to switch from 10-dose to 5-dose measles vials in 60 selected woredas of the Amhara and Oromia regions. The study aimed to assess the impact on measles vaccination coverage and timeliness, evaluate the cost-effectiveness of both interventions, and examine health workers' attitudes toward smaller multi-dose vials. The results showed a significant improvement in MCV2 coverage, with a 17% increase. Although MCV1 coverage did not show a notable increase, vaccination timeliness improved significantly. Eligible children were able to receive their MCV1 at nine months of age, and the frequency of daily vaccination sessions increased. Additionally, the cost analysis indicated that using five-dose measles vials is considerably more cost-effective compared to the expected number of children vaccinated.

Following the pilot study and robust preparatory activities, Ethiopia switched from 10-dose measles vials to 5-dose vials nationwide in November 2025. As of February 2026, a total of 858 (77%) woredas had fully implemented the M5D switch. The transition was designed to be undertaken systematically, with health facilities expected to request the measles five-dose (M5D) vaccine only after completely utilizing their existing stock of 10-dose vials. However, some facilities and woredas continue to use the 10-dose vials due to remaining stock that

has not yet been exhausted. Ongoing, strengthened monitoring will be maintained to ensure that the transition to the M5D formulation is completed smoothly and consistently across all service delivery points.

During the preparatory and implementation phases, Ethiopia received technical assistance from partners through GAVI's TCA support for the M5D switch implementation.

Factors facilitated successful introductions/switch (MVI, HepB-BD, and M5D)

- Strong leadership commitment and joint decision-making structures through the ICC.
- Well-coordinated immunization task forces at national, regional, zonal, and woreda levels.
- Comprehensive preparatory activities, including planning, coordination, funding, readiness assessment, training, cold chain preparation, logistics, and supervision.
- The MVI launch was well coordinated and integrated with a mass distribution campaign of LLINs, maximizing reach and impact.
- Pilot testing was conducted before the introduction/switch to resolve programmatic and logistical issues (HepB-BD & M5D).
- Strong community engagement, demand generation, and tailored communication strategies led to high awareness and uptake (e.g, MVI)
- Availability of effective and safe vaccines (high vaccine effectiveness for HepB-BD when administered within 24 hours and followed by pentavalent doses, improved innovations on Malaria vaccine)
- Prior incorporation of HepB-BD into DHIS2 and other related data tools.
- Use of monitoring and coordination tools such as RAT, ODK, and regular virtual meetings.
- Innovation and digitalization
- Service integration and collaboration (active involvement of maternal and child health departments and health workers (especially delivery-ward staff for HepB-BD, Malaria program for malaria vaccine introduction).
- Strong collaboration and support from partners, including GAVI and TCA partners.

Factors impeded or challenged the introductions/switch (MVI, HepB-BD, and M5D)

- Accessibility challenges due to conflict, climate factors, and difficult geographic terrain, affecting vaccine distribution and timely vaccinations.
- Some districts lagged behind in introducing or switching the vaccine due to training delays caused by security issues.
- The DHIS2 system and related data tools were awaiting revision and had not yet incorporated the malaria vaccine.
- Funding gaps that hindered rollout activities and follow-up (e.g., MVI & M5D switch).
- Limited skilled delivery coverage impacted HepB-BD uptake, along with challenges in tracking home births within 14 days
- Limited visibility into stock levels for 10-dose and 5-dose measles vials constrained the strategic guidance needed to accelerate the switch
- Inadequate cold-chain equipment at delivery wards (e.g., need for additional refrigerators for HepB-BD).
- Service delivery gaps on weekends and holidays for newborns requiring HepB-BD.
- Reprioritization of woredas: adjustments based on recent API loads delayed implementation (MVI).

Table 9: Status of Recently Introduced Vaccines and optimizations

New vaccines /switches	Year introduced / switched	Children vaccinated	Coverage as of February 2026	Remark
IPV2	2024	315,968	100%	Six-month admin coverage
Rota switch	2024	324,014	100%	Six-month admin coverage (Rota3)
HPV single dose	2023	7,085,236 (MAC) 429,983 (Routine)	96% (MAC) 30% (routinized)	In 2025, the country shifted its strategy from annual to routine provision
Malaria vaccine	18-Sep-25	MV1= 45, 503 MV2= 28, 168 MV3 = 9,821	MV1= 119% MV2= 73% MV3= 26%	Five-month post- introduction coverage
HepB-BD	25-Nov-25	232,578 (89% of them were vaccinated within 24 hours)	30 %	Three-month post- introduction coverage
M5D switch	25-Nov-25	NA	858 (77%) woredas have implemented the M5D switch	Three-month post –switch performance

New Vaccine in the Pipeline and Preparation

Yellow Fever Vaccine

Ethiopia successfully prepared and submitted an application to GAVI to include the yellow fever vaccine in the routine immunization schedule for children at nine months of age. The Ministry of Health received partial approval with comments, all of which have been addressed, and is now awaiting the decision letter from GAVI to proceed with the proposed actions outlined in the application. The initial implementation period for the first phase of the PMVC was scheduled for the fourth quarter of 2025, and introduction into routine immunization (RI) was planned for the second quarter of 2026. Preparation for introducing the yellow fever vaccine is underway; however, progress has been delayed due to policy shifts and delays in Gavi's support for yellow fever. Development of the implementation guidelines has begun, and work is ongoing to adjust costs in line with the current exchange rate and revised unit costs.

Upon receiving approval, the MoH will implement the plan, which includes integrating the yellow fever vaccine into the routine immunization schedule and executing the preventive mass vaccination campaign as per the outlined strategy.

New vaccine prioritization and sequencing:

A new vaccine introduction is a multi-step process that involves prioritization, detailed planning, and implementation. To guide this, the Ministry of Health established the E-NITAG in May 2016 to provide evidence-based recommendations on immunization to policymakers and program managers, based on scientific evidence, the local epidemiology of vaccine-preventable diseases, and the implementation capacity of the national immunization program.

Historically, E-NITAG reviewed each new vaccine introduction individually, resulting in a recommended list of several new vaccines to be introduced over a short period without conducting a preliminary prioritization exercise. This can strain national immunization programs by overlooking key implementation challenges, such as financial sustainability, cold chain capacity, and human resource constraints. Moreover, this approach has sometimes required the delay of vaccine introduction even if the E-NITAG recommendation was issued to introduce them.

However, recently, E-NITAG adopted the new vaccines' introduction prioritization and sequencing framework. The goal of the prioritization exercise is to ensure that the most impactful vaccines are introduced at the right time, based on the country's epidemiological context, feasibility, and health system capacity.

Among the globally available vaccines, E-NITAG shortlisted six vaccines for prioritization: Meningitis Multivalent, MR, Hexavalent, Cholera, Typhoid Conjugate Vaccine (TCV), and Respiratory Syncytial Virus (RSV). A multi-criteria decision analysis (MCDA) framework was used to prioritize vaccines under two main domains: importance and feasibility. The importance domain assessed factors such as disease burden (incidence, mortality, and severity), vaccine effectiveness, contribution to national and global health goals, duration of protection, and availability of alternative interventions. The feasibility domain evaluated programmatic and operational considerations, including funding sustainability, market availability, cold chain capacity, human resource impact, and individual-level risk.[7] Accordingly, the following four vaccines were prioritized and sequenced for 2026–2030 by E-NITAG but have not yet been endorsed by the Ministry of Health.

TCA Partners provided technical assistance to Ethiopia's NITAG in identifying and prioritizing new vaccines for introduction in the country.

Table 10: New Vaccine Prioritization and Sequencing by E-NITAG

Vaccine Name	Proposed introduction period
Hexavalent vaccine	2026-2027
Measles Rubella (MR)	2026-2027
Meningitis	2028-2030
Respiratory Syncytial Vaccine (RSV)	2028-2030

Promising practices/innovations (new vaccine introductions)

- **Vaccine Prioritization and Sequencing:** Implemented an evidence-based approach to prioritize and sequence vaccines for the next five years.
- **Integrated MVI with the ITNS distribution campaign:** Combined the ITNS distribution campaign with malaria vaccine introduction to maximize impact and shared lessons learned as best practices with WHO AFRO.
- **Integrated Training Approach:** Conducted joint training sessions for HepB-BD and M5D to optimize resource utilization and improve efficiency.
- **Humanitarian Partner Engagement:** Collaborated with humanitarian partners to ensure vaccine delivery in hard-to-reach and inaccessible areas.
- **Integrated Supply and Logistics Distribution:** Coordinated supply and logistics distribution alongside other routine vaccines to ensure efficient use of resources.
- **Regular Coordination Mechanisms**: Held weekly coordination meetings with RHB EPI managers and partners during the preparatory and implementation phases of new vaccine introductions to strengthen planning and execution.

7 Prioritization of future new vaccines introduction: The experience of the Ethiopian National Immunization Technical Advisory Group

- **The planned vaccine optimization exercise by E-NITAG**

Top Risks to be Mitigated

- **Delayed Decision from Gavi:** The delay in Gavi's decision affected the initial implementation plan, including the first phase of the Preventive Mass Vaccination Campaign (PMVC) and routine immunization introduction.
- **Rising demand for domestic financing to meet co-financing obligations:** Rising requirements for domestic financial contributions to meet co-financing obligations may strain available resources and delay the timely introduction of new vaccines.
- **Resource Constraints:** Limited resources for cascading training, advocacy, and social mobilization activities (e.g., for MVI and M5D switch) hindered timely execution.
- **Security Challenges and Geographic Inaccessibility:** Security issues caused delays in cascading training and last-mile vaccine delivery.

Learning Question 6: If relevant, how effective have recent Gavi supported vaccination campaigns been?

The Ministry of Health (MoH), in collaboration with its agencies (EPHI, EPSS, and EFDA) and partners, has conducted a series of preventive and outbreak response vaccination campaigns from 2020 through 2025. These initiatives were designed to bridge immunity gaps, protect the population from vaccine-preventable diseases, and advance Ethiopia's goal of VPDs prevention, control, elimination, and eradications accordingly.

Summary of Campaign Effectiveness: The effectiveness of these campaigns is characterized by three core achievements:

- **High Reach and Scale:** National Measles SIA administrative coverage has consistently met or exceeded **100%**, successfully reaching over **18.5 million children** by 2025.
- **Integrated Service Delivery:** Beyond immunization, these campaigns served as a "one-stop" platform for health, integrating nutrition screening, Vitamin A supplementation, and maternal health referrals, thereby maximizing resource efficiency.
- **System Resilience:** The 2020 and 2022 campaigns demonstrated the health system's ability to maintain essential services despite global shocks (e.g., COVID-19) and domestic challenges, utilizing digital monitoring (ODK/Kobo) and bottom-up microplanning to identify "zero-dose" children in hard-to-reach areas.

a) Follow-up Measles Supplementary Immunization Activities (SIAs), 2020-2025

Ethiopia has demonstrated a steadfast commitment to measles elimination through the implementation of robust surveillance, strengthened routine immunization, integrated Measles Supplementary Immunization Activities (SIAs), and reactive vaccination campaigns.

Key components of the strategy:

- **Surveillance:** Enhanced case-based monitoring to detect and respond to outbreaks in real-time.
- **Routine Immunization:** Successive improvements in reaching infants with the first and second doses of the measles vaccine.

- **Supplementary Immunization Activities (SIAs):** Large-scale, periodic nationwide campaigns designed to reach children who were missed by routine services.
- **Reactive Campaigns:** Rapid response vaccinations triggered by localized outbreaks to prevent further transmission.

Measles campaigns serve as a critical strategy to close immunity gaps that arise from suboptimal routine immunization coverage, high birth rates, and periodic humanitarian challenges. By targeting children aged 9 to 59 months, the Ministry of Health and its partners like Gavi aims to interrupt measles virus transmission and prevent large-scale outbreaks, which remain a significant public health threat in the country.

Over the years, these campaigns have evolved from standalone vaccination exercises into highly integrated health interventions. By leveraging the SIA platform, the Ethiopian health system successfully delivers a package of life-saving services, including Child Health services, Maternal Health Services, Nutritional Services and RI
This integrated approach not only maximizes resources but also ensures that the most vulnerable and hard-to-reach populations receive a comprehensive set of essential health services, aiming to move the country closer to its universal health coverage goals.

The 2020 Campaign – Immunization During a COVID-19 Global Pandemic:
Integrated Services in 2020 Measles SIA: The campaign ran for 10 days (June 30 – July 9, 2020) and successfully reached 14,542,803 (100%).

- COVID-19/ARI Screening: Health workers screened for Acute Respiratory Infections and COVID-19 symptoms at vaccination sites.
- COVID-19 Awareness Raising: Teams educated the public on pandemic prevention measures during the campaign.
- Public Safety Interventions: Use of PPE materials and implementation of hand-washing stations and temperature checks at session sites.

The December 2022 Integrated Measles Campaign – Integration of Life-Saving Services:
Integrated Services in 2022 Measles SIA: The campaign achieved a national administrative coverage of 98.7%, reaching 15,579,818 children.

- Zero-Dose Identification: 109,984 zero-dose and 65,356 under-vaccinated children reached.
- COVID-19 Vaccination: Nearly 1.7 million people received primary or series-completing doses.
- Cold Chain Inventory: An assessment of equipment was conducted alongside the vaccination activities.
- Nutritional Screening: During the SIA, a total of 15,185,857 children underwent nutritional status screening. From this cohort, 739,830 cases of Global Acute Malnutrition (GAM) were identified. This total includes 651,097 children with Moderate Acute Malnutrition (MAM) and 88,733 children suffering from Severe Acute Malnutrition (SAM).
- Vitamin A & Deworming: 13.1 million children received Vitamin A; 8.8 million received Albendazole.
- Delivery of maternal and child health services: 3,649 suspected cases of clubfoot were identified and successfully referred for treatment. Additionally, healthcare teams identified and referred 1,332 suspected cases of obstetric fistula to specialized care facilities.

2025 Integrated Measles Campaign, through the recently launched initiative: Collaborative Action Strategy / Health Campaign Effectiveness:
The 2025 Integrated Measles SIA, implemented between May 14 and June 4, 2025, aimed to further Ethiopia's progress toward measles elimination by reinforcing routine systems and reaching high-risk areas and populations.

The campaign emphasized decentralized ownership, with coordination task forces revitalized at regional, zonal, and woreda levels to ensure local accountability and multisectoral engagement.
Performance monitoring for 2025 showed high success rates: in-process independent monitoring recorded a ~90% vaccination rate, while end-process monitoring showed a ~92% rate. Integration remained a core strategy, continuing to link immunization with nutrition and maternal and child health services. The campaign achieved a national administrative coverage of 100%, reaching 18,531,214 children.

Integrated Services in 2025 Measles SIA:
The campaign integrated different essential services, including Vitamin A supplementation, nutritional screening, deworming, obstetric fistula identification and referral, and sick baby identification and linkage, as well as identification and vaccination of zero-dose and under vaccinated children

- **Routine Immunization**: During the campaign, 191,346 ZD and 211,546 UV children were identified and vaccinated for the routine immunization dose of pentavalent and other relevant vaccines. As a continued effort to integrate the COVID-19 vaccination service, 206,431 Pfizer doses were also administered to high-priority population groups during the integrated campaign.
- **Nutritional Services**: More than 18,996,194 children under five were screened for nutritional status. Among the screened children, 874,722 were Moderate Acute Malnutrition (MAM) and 122,207 were Severe Acute Malnutrition (SAM) cases. These acute malnutrition cases were linked to appropriate services. In addition to the under-five children, about 1,365,190 pregnant and 2,703,678 lactating women have received nutritional screening and counselling services during the integrated campaign. A total of 314686 pregnant and 392634 lactating women were identified as MAM. Over 15 million children received Vitamin A during the integrated measles SIA, and 11,095,948 children aged 24 to 59 months received albendazole for deworming.
- **Obstetric fistula identification and linkage**: Total of 1,355 suspected cases of obstetric fistula were identified through a community-based case definition during an integrated Measles campaign across all regions, including the city administrations of Addis Ababa and Dire Dawa. These cases were designated for confirmation diagnosis and linked to fistula treatment centers. Through this coordinated effort, 82 obstetric fistula cases and 60 Urogenital Prolapse (UVP) cases have been confirmed and linked to treatment centers and the three university hospitals for treatment and ongoing care.
- **Neonatal and Child Health Services**: 49,312 sick children were identified and 46,462 were successfully linked to appropriate healthcare services for treatment and follow-up during the campaign.

Table 11: Measles SIA Coverage by Years and Region (Administrative %)

Region	2020		2022		2025	
	Admin%	Survey%	Admin %	Survey%	Admin %	Survey%
Addis Ababa	93%	94%	99%	92%	101%	On-going
Afar	102%	91%	86%	87%	100%	On-going
Amhara	101%	80%	95%	91%	97%	On-going
Benishangul-Gumuz	106%	94%	57%	91%	82%	On-going
Central Ethiopia	101%	86%	103%	94%	108%	On-going
Dire Dawa	97%	93%	96%	85%	99%	On-going
Gambella	96%	90%	101%	82%	103%	On-going
Harari	95%	92%	110%	86%	113%	On-going

Oromia	101%	78%	99%	85%	102%	On-going
Sidama	103%	88%	107%	89%	99%	On-going
Somali	97%	78%	104%	79%	96%	On-going
South Ethiopia	101%	86%	103%	90%	104%	On-going
Southwest Ethiopia	101%	86%	103%	74%	100%	On-going
Tigray	97%	N/A	95.3	93%	97%	On-going
National	**100%**	**82%**	**98.7%**	**87%**	**100%**	On-going

The above provided table details Measles SIA coverage across various Ethiopian regions for the years 2020, 2022, and 2025, comparing administrative data against survey results. A key promising practice identified in the data is the consistent ability to scale administrative coverage to high levels, with the national average frequently reaching or hitting the 100% mark. Regions like Harari, Central Ethiopia, and South Ethiopia have demonstrated a strong upward trajectory in administrative reach, with Harari peaking at 113% in 2025. While administrative figures for 2025 appear strong across the board—with many regions hitting or exceeding the 100% mark—the survey results for this period are still "On-going," leaving the actual effectiveness of the current year's campaign yet to be verified.

The primary challenge remains the significant "inflation gap" between administrative reports and independent survey verification. Nationally, while admin data suggested full coverage (100%) in 2020, the survey revealed that nearly 18% of the target population was missing. This discrepancy, alongside reported figures exceeding 100%, underscores a critical need for improved target population estimates and data synchronization. Moving forward, the priority must shift from simply reporting high numbers to closing the 5%-15% gap found in survey results. Future efforts should focus on integrating real-time digital tracking to replace manual administrative tallies and conducting more frequent "on-going" survey validations to ensure that high administrative percentages translate into genuine community immunity.

Lessons from Ethiopia's Measles Campaigns (2020–2025): Strengthening RI and upcoming campaigns

High-Level Leadership and Multisectoral Coordination: A primary lesson across all campaigns is that high-level political commitment and multisectoral coordination are essential for success. Leadership from the Ministry of Health, supported by state ministers and regional heads, and national and subnational task forces ensured that national visions were aligned with grassroots realities and consistently reinforced through advocacy.

Bottom-Up Microplanning (Head Count) and Data-Driven Strategies: The reports emphasize that a comprehensive, bottom-up microplanning process is critical for reaching underserved and high-risk populations.

Efficiency Through Service Integration and Digital Innovation: Integrating measles vaccination with other essential health services—such as nutrition screening, Vitamin A supplementation, and maternal and child health referrals—has proven to be an effective strategy for maximizing resources and improving overall health outcomes.

Promising practices and/or innovations have emerged:

- **Digital Monitoring (ODK/Kobo):** The use of mobile-based tools for real-time reporting and supervision allowed for immediate corrective actions during the implementation phase.

- **Zero-Dose Mapping:** Using micro-planning to specifically identify and target "zero-dose" children (those who had never received routine immunization for Measles and other vaccines) ensured the campaign reached the most vulnerable.
- **Multi-Sectoral Launching:** Formally launching the campaign across multiple regions simultaneously (except Somali and Addis Ababa) helped maintain a sense of national synchronization and urgency.

Partners Key contributions:

- **Technical Assistance:** Partners provided essential support to MOH in proposal development, micro-planning, and training for health workers.
- **Financial and Logistical Support:** Gavi and partners were instrumental in the procurement and distribution of bundled vaccines and cold chain equipment.
- **Independent Monitoring:** Partners conducted Rapid Convenience Monitoring (RCM) and post-SIA independent monitoring during intra and post campaign to validate coverage and identify missed clusters and children.

Risks that should be mitigated:

- **Sustainability of Immunity:** While the SIA provides a necessary "catch-up," the risk of future outbreaks remains high if routine immunization (RI) services are not strengthened post-campaign.
- **Cold Chain Failure:** Frequent power outages or equipment malfunctions in rural areas pose a constant risk to vaccine potency.
- **Data Quality Issues:** Over-reporting or inaccurate administrative data can hide pockets of low coverage, leading to a false sense of security.
- **Competing Health Priorities:** High-intensity campaigns can temporarily strain health system resources, potentially leading to service gaps in other essential healthcare areas.
- Delays in the shipment of essential supplies—such as Vitamin A—often occur due to complex bundled procurement processes. This requires proactive planning and early follow-up to ensure all components arrive simultaneously for the integrated campaigns.
- Human resource gaps in remote regions often necessitate the temporary reassignment of manpower from other districts. This requires active follow-up and logistical support to ensure these "shifted" teams are effectively deployed and compensated.

b) HPV MAC (Multi Age Cohort) Vaccination

Ethiopia implemented a single dose, multi-age cohort HPV vaccination for 9–14-year-old girls from 18-22 November 2024.The main objective of the MAC vaccination is to prevent HPV infection in girls aged 9-14 years before the initiation of sexual debut. This is achieved by administering a single dose HPV vaccine aimed at building herd immunity, reducing cervical cancer incidence in Ethiopia and contributing to the first pillar of the cervical cancer elimination.

The national target for the HPV MAC campaign was to vaccinate 7,342,605 girls aged 9-14 years. Of these, 7,085,236 girls are vaccinated, achieving an administrative coverage of 96%. Among those vaccinated, 77% were reached through school vaccinations, while the remaining 23% were reached through community outreach vaccination posts.

Region	Target (9–14-year-old girls)	Number of girls vaccinated	Coverage (%)
Addis Ababa	178,706	178,706	100%
Afar	92,840	90,540	98%
Amhara	1,503,824	1,352,571	90%
Benishangul Gumuz	61,541	61,541	100%
Central Ethiopia	411,027	411,027	100%
Dire Dawa	30,060	30,060	100%
Gambella	40,828	39,453	97%
Harari	16,889	15,482	92%
Oromia	3,223,180	3,138,459	97%
Sidama	342,625	338,739	99%
Somali	478,896	444,080	93%
South Ethiopia	487,014	480,239	99%
Southwest Ethiopia	165,816	162,481	98%
Tigray	308,568	294,221	95%
Total	**7,341,814**	**7,037,599**	**96%**

***Table 11**: HPV MAC Performance by region, January 2025. **Source**: DHIS2, Official Micro plan, HPV MAC Technical Reports*

According to the admin data, the coverage of HPV MAC Vaccination is greater than 90% at all regions.

Promising Practices

- Several regions successfully bundled the MAC with cervical cancer screening, adolescent nutrition assessments, and the identification of "zero-dose" or under-vaccinated children.
- Enhanced detection, reporting, and management of Adverse Events Following Immunization (AEFI) improved the safety of the rollout.
- Partnering with humanitarian organizations improved vaccine equity in conflict-affected and hard-to-reach zones.
- Leveraged geospatial mapping to analyze the distribution of schools relative to community settlements in some regions, enabling EPI managers to pinpoint areas with high concentrations of out-of-school girls.
- Strengthened HPV routine immunization systems by mapping out-of-school populations to guide post-campaign HPV outreach planning and target underserved areas for some regions

Implementation Challenges

- Late vaccine arrival led to the postponement of the campaign, resulting in protracted and fragmented training schedules.
- Micro-planning was hampered by denominator inaccuracies, and "double entry" at both the PHCU and Woreda levels.
- The rollout clashed with malaria outbreak responses, harvest seasons (e.g., Jimma Zone), and Community-Based Health Insurance (CBHI) initiatives (e.g., Addis Ababa).

Corrective Actions Taken

- Conducted refresher training for immunization officers and providers to align them with updated campaign goals.
- Performed granular data analysis at the Woreda and PHCU levels, providing targeted feedback to correct discrepancies.
- Transitioned to phased implementation in regions where health emergencies or seasonal priorities (like CBHI) required a more flexible approach.

c) Yellow Fever Mass Preventive Campaign

Ethiopia remains one of the last two high-risk countries in Africa yet to integrate the Yellow Fever (YF) vaccine into its national immunization program. Recognizing this critical gap, the Ministry of Health (MoH), guided by local epidemiological data and sub-national risk assessments, has developed a dual-track strategy: launching a Preventive Mass Vaccination Campaign (PMVC) and integrating the vaccine into Routine Immunization (RI).
While the technical foundation is solid and the commitment from leadership is high, the program is currently navigating a complex global financing landscape to ensure these life-saving vaccines reach the 113 million people who need them.

Progress and Planning

Through detailed risk profiling, the MoH has designed a five-phase, five-year implementation strategy targeting individuals from 9 months to 59 years of age. This phased rollout ensures that the most vulnerable "hotspot" regions are prioritized first.

Key Milestones:

- **National Endorsement:** The Inter-Agency Coordinating Committee (ICC) has fully vetted and approved the comprehensive proposal.
- **Gavi Engagement:** Following our September 2024 application, we engaged in a rigorous feedback loop with Gavi's Independent Review Bodies (IRBs). As of February 2025, all technical clarifications have been addressed.
- **Preparedness:** National implementation guidelines are currently being drafted, and budgeting is being meticulously updated to account for shifting exchange rates and logistical costs.

The Challenge:

Despite our readiness, we fail to execute this plan due to delays of getting decision letters from Gavi and further complicated by shifts in Gavi co-financing policy. Under the new Gavi 6.0 framework, a policy change which was introduced after our initial application, Ethiopia is now required to cover 5% of the campaign vaccine costs.
For a population of 113 million, this co-financing obligation exceeds $9.7 million USD. While Ethiopia has a flawless track record of meeting routine immunization commitments, this additional, unprecedented requirement poses a substantial fiscal burden. Currently, the application remains "on hold" at Gavi as we work to align these new requirements with our national budget capacity.

d) Polio Vaccination Reactive Campaigns (2021–2025)

Polio Reactive Campaigns

Prior to 2021, Ethiopia relied on mOPV2 for outbreak response; however, following global guidance and WHO authorization, the country adopted novel oral polio vaccine type 2 (nOPV2) to reduce the risk of seeding new vaccine-derived poliovirus while maintaining high immunogenicity. Between 2021 and 2025, Ethiopia implemented multiple Gavi-supported polio vaccination campaigns, primarily using nOPV2 in response to circulating vaccine-derived poliovirus type 2 (cVDPV2) outbreaks. These campaigns included nationwide, sub-

national, reactive, and co-administration campaigns, demonstrating a flexible and risk-based approach to outbreak control.

Table 12: Integrated Immunization Campaigns Conducted in the last 5 years

S/N	Campaign	Round 1	Round 2	Remark
1	Nationwide nOPV2 campaign	October 2021	April 2022	
2	Tigray Region campaign	April 2024	June 2024	
3	nOPV2 campaign in 5 regions	October 2024	December 2024	
4	nOPV2 campaign in 10 regions	February 2025	June 2025	
5	Co-administration campaign in 22 zones from 7 regions	October 3-6, 2025	Dec. 12-15, 2025	
6	Nationwide nOPV2 campaign	Dec. 12-15, 2025		Including the co-admin areas

Nationwide Polio Campaign using nOPV2

After years of responding to outbreaks using mOPV2. Following the successful fulfilment of all WHO requirements for nOPV2 use the country proceeded with full-scale campaign preparation and implementation Ethiopia conducted two nationwide polio vaccination campaigns using nOPV2 in October 2021 and April 2022. The campaigns targeted 16,970,321 children under five years of age. In both rounds, the number of children vaccinated exceeded planned targets, achieving 101% coverage in Round 1 and 103% coverage in Round 2.

Following continued poliovirus transmission, Ethiopia implemented risk-based sub-national nOPV2 campaigns, fully replacing mOPV2 with nOPV2 for all outbreak response activities. The campaign conducted various times across regions.

- In the Tigray region, Round 1 of the campaign was conducted over four days (April 23–28, 2024) with two additional mop-up days, during which 1,782,383 children were vaccinated out of 1,873,299 targeted (95% coverage); Round 2 was conducted over four days, achieving 100% coverage, with 1,772,732 children under 10 years of age vaccinated against a target of 1,772,732 using nOPV2.
- Two rounds of nOPV2 vaccination campaigns were conducted in five regions in October and December 2024, targeting 5,655,165 children under five years of age. According to administrative reports, both rounds exceeded the planned coverage threshold of 95%, achieving coverage rates of 99% in the first round and 103% in the second round, respectively.
- Following a further risk assessment, the country decided to conduct two additional rounds of polio vaccination campaigns in all remaining regions. These campaigns were carried out using nOPV2 in February and June 2025, targeting a total of 15,152,075 children under five years of age. In Round 1, 15,704,449 children (104%) were vaccinated, and in Round 2, 16,820,598 children (105%) were vaccinated, respectively.
- Following the detection of cVDPV2 cases in Ethiopia and cVDPV1 cases in neighbouring Djibouti, a risk-based co-administration campaign using nOPV2 and bOPV was implemented in 22 zones across seven regions from 10–13 October 2025, targeting 8,507,879 children. Administrative coverage reached 105%, with all regions exceeding their targets.

- A nationwide polio campaign was conducted from December 12–15, 2025, targeting 24,802,647 children. According to administrative reports, all regions achieved coverage above the minimum target of 95%, except for Gambella region where security challenges during the campaign implementation period. The second round will be conducted shortly.

Polio Outbreak Response Challenges

Despite repeated high-coverage campaigns, poliovirus transmission persisted and expanded geographically, necessitating additional response rounds. This underscores that while campaign implementation was timely and effective, delayed outbreak detection and persistent immunity gaps—particularly in areas with low routine immunization coverage and high population mobility—remained key challenges. As a mitigation measure, timely outbreak detection and rapid response actions need to be strengthened to address persistent transmission. Nevertheless, Gavi-supported reactive campaigns played a critical role in interrupting transmission and preventing wider spread.

Key Lessons Learned from Polio Campaigns:

- **Effective Reach in Cross-Border and Mobile Populations Polio campaigns**: A total of 256,423 cross-border children were targeted, of whom 237,886 were vaccinated, resulting in 93% coverage.
- **Identification and Vaccination of Zero-Dose and Under-Vaccinated Children:** The campaigns played a critical role in identifying and vaccinating large numbers of zero-dose and under-immunized children, especially in hard-to-reach, pastoralist, urban slum, and conflict-affected settings. 50,993 Zero-Dose children identified of which 40,546 of children were vaccinated (79.5%) and from 214,352 Under-Vaccinated children identified 200,475 of children were vaccinated 93.5%.
- **Mapping and Targeting of Security-Affected Areas:** Security-affected and partially accessible areas were systematically identified and mapped during pre-campaign risk assessments and microplanning. A total of 5,890,433 children were targeted, of whom 5,427,141.75 were vaccinated, resulting in an overall coverage of 92%.
- **Evidenced by increasing LQAS pass rates and improved independent monitoring results**: Findings from earlier rounds were actively used to adjust micro-plans, strengthen team orientation, and improve supervision in subsequent rounds.
- **Implementation of integrated continuous review meetings** were conducted at the national levels After each polio campaign; these meetings consistently concluded with each region preparing and submitting a quality improvement plan to guide enhancements in the subsequent campaign.
- **Timely access to Gavi-supported nOPV2 enabled rapid outbreak response** which limit further transmission.
- **Quality improved over successive rounds**, demonstrating the value of iterative learning, enhanced supervision, and independent monitoring.

Implications for Routine Immunization and Future Campaigns

The campaigns played a critical role in identifying and vaccinating large numbers of zero-dose and under-immunized children, particularly in hard-to-reach, pastoralist, urban slum, and conflict-affected settings. A total of 50,993 zero-dose children were identified, of whom 40,546 (79.5%) were vaccinated, while 214,352 under-vaccinated children were identified, with 200,475 (93.5%) subsequently vaccinated. These findings highlight that while Supplementary Immunization Activities (SIAs) are effective for rapidly boosting population immunity, sustained interruption of poliovirus transmission depends on strengthening routine immunization, improving population estimates, and enhancing the sensitivity of surveillance systems. Future campaigns should deliberately reinforce routine immunization by systematically linking SIA data with RI registers, strengthening post-campaign

follow-up of missed children, and institutionalizing campaign quality and monitoring tools within routine service delivery.

e) Measles Reactive Vaccination Campaigns (2021–2025)

From 2021 to 2025, Ethiopia conducted national and sub-national measles reactive vaccination campaigns to address immunity gaps and recurrent outbreaks. These campaigns were implemented in multiple regions with national-level aggregation of results.

In 2021, the national measles reactive vaccination campaign was implemented in SNNPR and Somali regions. The primary target population was children under five years of age. At the national level, 81,110 of the 81,880 target children were vaccinated, achieving 99% coverage. In the Somali Region, a total of 30,628 children were vaccinated, reaching 100% coverage. Meanwhile, in SNNPR, 50,482 out of the 51,880 target children were vaccinated a slightly lower achievement of 97% of the original plan.

In 2022, vaccination campaigns conducted in SNNPR, Amhara, Oromia, and Somali achieved approximately 103% national coverage, vaccinating 1,477,626 children out of a target of 1,427,750. The campaign targeted children under 10 years old nationally, with the exception of Amhara, where the target was children under five.

In 2023, national coverage reached approximately 103%, with 511,612 children vaccinated out of a target of 496,151. During this period, the target age in Amhara was expanded to include children under 15 years.

In 2024, national coverage again exceeded 101%, vaccinating 3,753,199 children out of a target of 3,728,143, reflecting strong performance across most regions.

Promising Practices and Innovations

The implementation of risk-based planning to prioritize high-burden and outbreak-prone areas has emerged as a key promising practice. By conducting a national level After Action Review and comprehensive root cause analysis, the program highlighted interconnected systemic gaps affecting immunization performance and outbreak control. This strategic approach was designed to determine the underlying causes of measles outbreaks in Ethiopia, assess the effectiveness of current immunization and surveillance systems, and provide actionable recommendations to mitigate the impact of future outbreaks.

Key Risks to Be Mitigated

Key risks include immunity gaps due to suboptimal routine immunization, recurrent outbreaks in high-risk areas, population displacement, and weak follow-up of unvaccinated children. Data quality limitations and inconsistent post-campaign corrective actions also pose risks. Mitigation requires sustained routine immunization strengthening, enhanced surveillance, targeted follow-up activities, and continued partner support.

Learning Question 7: What is the current status of your COVID-19 vaccination?

In Ethiopia, the first COVID-19 case was reported on 13th March 2020. As of June, 2024, there have been 501,157 confirmed cases and 7,574 deaths reported. Ethiopia introduced COVID-19 vaccine on March 13, 2021 and conducted nationwide synchronized launching on the same date. Initially the vaccination was targeting high risk groups and with the gradual increase of COVID-19 vaccine supply and coming of Pfizer vaccine, the target was revised and age 12 years and above were targeted for the vaccination service

To date, approximately 72 million doses of COVID-19 vaccines have been administered as first, second, and booster doses through various service delivery modalities such as fixed/static sites, outreach, mobile, and temporary posts at locations like IDP camps, refugee canters, industry parks, schools, and other public institutions. Four rounds of COVID-19 vaccination campaigns have been planned and conducted to quickly reach more targets within a short timeframe. As part of efforts to integrate COVID-19 vaccination into routine immunization and other primary healthcare services, a total of 1,358,308 doses have been administered to priority populations,

comprising 883,191 first doses, 81,966 second doses, and 393,151 booster doses which is accounted with the total doses administered so far. Currently, the country is experiencing a stockout of COVID-19 vaccines, and vaccination services have been paused due to the available Pfizer vaccine shelf life was completed on September 30, 2025. The community's demand for COVID-19 vaccines has declined through time.

The logistics technical working group was closely following the allocation and shipments of vaccines and cold chain equipment provided by COVAX and various donors. This proactive approach ensured timely delivery of vaccines to the designated distribution points, such as woredas and health facilities. Operational and technical capacity was ensured through the recruitment of supply chain management technical assistants and provision of capacity building training. Since the introduction of COVID-19 vaccine, the country has received a total of 86,959,890 doses of four types of COVID-19 vaccines supplied by four different sources

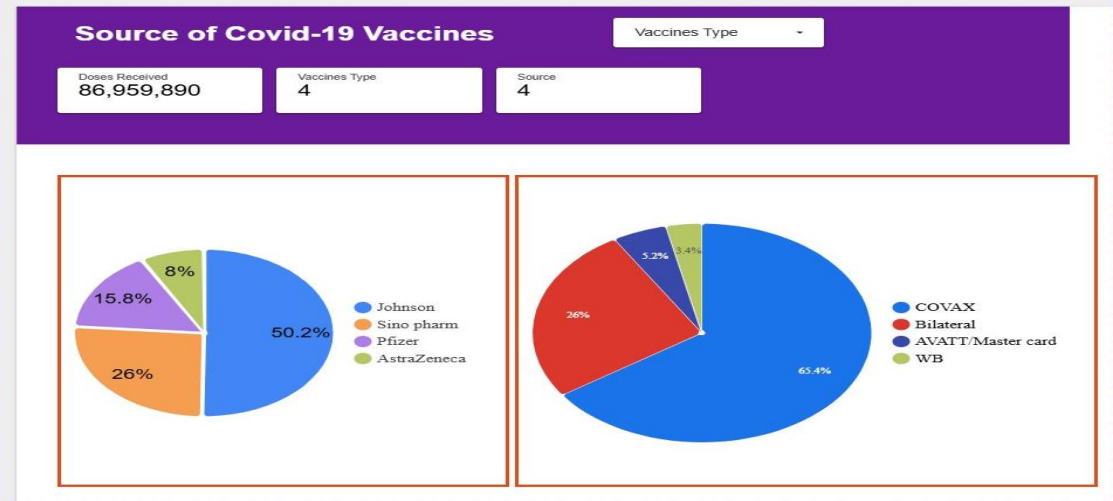


Figure 8: COVID-19 vaccine types and source of fund

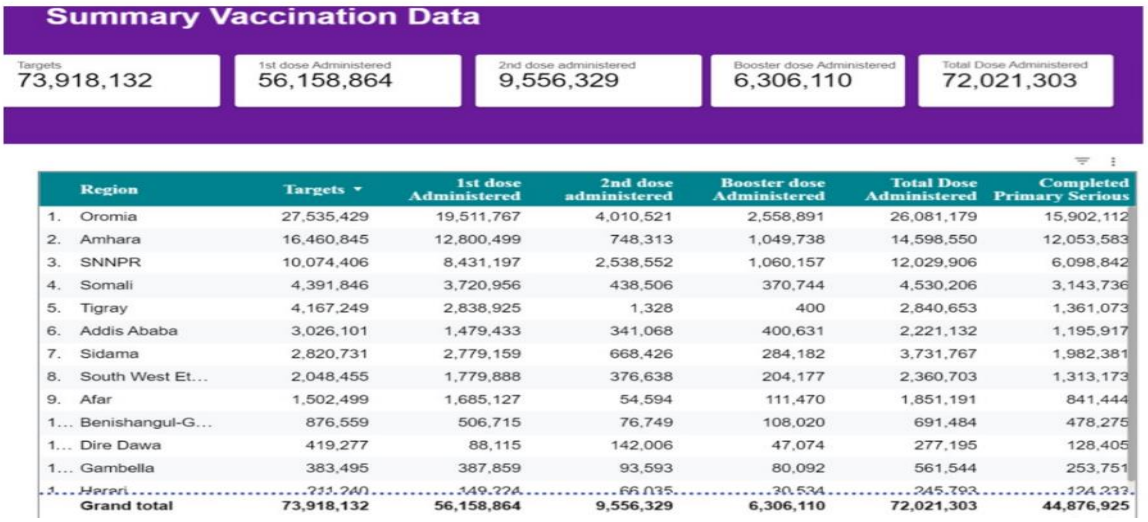
The introduction of COVID-19 vaccines has built the country's cold chain capabilities. Through spearheaded by COVAX, the World Bank, Africa CDC, and other organizations, Ethiopia has witnessed a substantial influx of cold chain equipment, including 430 Ice-lined Refrigerators (ILRs), 29 Ultra-cold Chain (UCC) freezers, 45 Stirling UCC units, 16 Cold Rooms, and approximately 8000 Fridge Tags. These investments mark a pivotal step towards overcoming logistical hurdles and ensuring the equitable distribution of vaccines across the nation.

Different Advocacy, social mobilization and community engagement activities were conducted at all levels including the capacity building training and sensitization of different community groups.

- Synchronized launching ceremonies conducted at national & sub-national level (Top political leaders and religious leaders engaged, get vaccinated and transmit messages)
- 1,450 HCW trained on Communication skill provided in 14 selected Towns of 6 regions
- Sensitization workshop given for forty-five 952 and Hundred 8335 hotline staffs
- 29 National and Regional level advocacy meetings conducted with 1,927 decision makers, religious leaders, professional associations people with disabilities association, Youth associations, Bank CEOs, Aba Gedas, Clan leaders and other stakeholders at all levels

- 1,976 Zonal level and Woreda level repeated advocacy workshops conducted in all regions with 282,492 influencers and different stake holders
- Community sensitization (dialogue) conducted with IDP including religious leaders, people with disability, kebele leaders, village leaders, teachers, WDG members, Aba Gedas, clan leaders and other influential persons. A total of 7,967 meetings with 3,988,720 community representatives conducted for the roll out and campaigns.
- 23 National and sub-national TV and 66 Radio spot messages developed, produced and broadcasted by different governmental and private media out lets
- 20 National and Sub-national panel discussions have been conducted and different experts from Universities, Hospitals and EPI program and EFDA have been participated
- All private and Governmental Media professional orientations were given at national and sub-national level. With this, 14 sessions were conducted repeatedly with 548 media professionals.
- Community mobilization was done using 45 audio mounted vehicles especially at regional and zonal towns was done
- 15 separate discussions with university communities conducted to facilitate vaccination at university
- A total of 1,247,530 IEC materials developed, designed, printed and distributed to all regions (14,274 banner, 62,442 poster, 1,150,000 brochure and 20,814 job aids)

The overall COVID-19 vaccination performance since the launching is indicated in the figure below.



	Region	Targets	1st dose Administered	2nd dose administered	Booster dose Administered	Total Dose Administered	Completed Primary Serious
1.	Oromia	27,535,429	19,511,767	4,010,521	2,558,891	26,081,179	15,902,112
2.	Amhara	16,460,845	12,800,499	748,313	1,049,738	14,598,550	12,053,583
3.	SNNPR	10,074,406	8,431,197	2,538,552	1,060,157	12,029,906	6,098,842
4.	Somali	4,391,846	3,720,956	438,506	370,744	4,530,206	3,143,736
5.	Tigray	4,167,249	2,838,925	1,328	400	2,840,653	1,361,073
6.	Addis Ababa	3,026,101	1,479,433	341,068	400,631	2,221,132	1,195,917
7.	Sidama	2,820,731	2,779,159	668,426	284,182	3,731,767	1,982,381
8.	South West Et...	2,048,455	1,779,888	376,638	204,177	2,360,703	1,313,173
9.	Afar	1,502,499	1,685,127	54,594	111,470	1,851,191	841,444
1...	Benishangul-G...	876,559	506,715	76,749	108,020	691,484	478,275
1...	Dire Dawa	419,277	88,115	142,006	47,074	277,195	128,405
1...	Gambella	383,495	387,859	93,593	80,092	561,544	253,751
1...	Hareri	211,240	349,224	66,035	30,534	245,793	124,232
	Grand total	**73,918,132**	**56,158,864**	**9,556,329**	**6,306,110**	**72,021,303**	**44,876,925**

Table 12: Special Population Vaccination Performance

Special population	Targets	1st dose	2nd dose	Booster
Disability	7,797,033	15,471	3,546	1,924
Comorbid	7,138,129	649,010	499,780	Null
Essential Workers	1,234,670	1,206	2,987	Null
HCW	462,820	378,738	246,792	28,610
Refugee	382,956	32,330	7,690	10,855
IDP	240,000	173,700	64,370	17,675
Grand Total	17,255,608	1,250,455	825,165	59,064

- So far 52,569 cases of AEFI reported following the administration of COVID-19 vaccines

Table 13: Reported AEFI Cases per each Antigen

Reported AEFIs	Total AEFI Cases Reported
AstraZeneca	7,265
Janssen	21,175
Pfizer	15,003
SinoPharm	9,126
Total	**52,569**

- A total of 83 investigated Serious AEFI and causality assessment is done for 58 cases and classified by using standard causality assessment checklist of which 21 are consistent with COVID-19 vaccine
- More than 1200 healthcare providers from various regions were trained in pharmacovigilance, with a focus on the detection, reporting, and investigation of AEFI

Integration of COVID-19 vaccine into RI and PHC service:
On May 5, 2023, the World Health Organization determined that COVID-19 is an established and ongoing health issue that will not be a public health emergency of international concern (PHEIC). However, the prevention and control measures will continue with the provision of COVID-19 vaccination focusing on more priority target population groups based on SAGE recommendation. Despite many unknowns about the future of the pandemic, to plan for sustainable COVID-19 vaccination as an integral part of national immunization programs (NIPs), primary health care (PHC), and other appropriate health services.

Following the WHO recommendation, the Ethiopia ministry of Health (MoH) decided to integrate COVID-19 vaccine into RI and PHC based on the global recommendations and country context the priority targets. The ISD team at the MCAHS LEO, MoH developed and endorsed National COVID-19 vaccination service integration into routine immunization and other primary health care service guideline (2023-2025). National level sensitization workshop was conducted and discussions with regions and stakeholders were held and agreed on the integration.

National level TOT Has been provided for the regional EPI experts, and the training has been cascaded to the lower level. Demand promotion and communication activities have been done by emphasizing the integration of COVID-19 vaccine into the routine immunization program.

COVID-19 vaccination rollout has been integrated with the whole schedules of RI delivery modalities during outreach, mobile, fixed, PIRI, catch-up services, campaign modes and other services. Moreover, EPI microplanning exercise encompassed routine COVID-19 vaccination planning, (service delivery, logistics, Demand, M&E, vaccine safety, surveillance and workforce capacity building).

As part of COVID-19 vaccination service integration a total of 1,358,308 (1st dose 883,191, 2nd dose 81,966 booster 393,151) COVID-19 vaccine doses given to priority population groups. Provision of the COVID vaccine will be provided alongside with other routine immunizations in integrated manner. Currently, the country is experiencing a stockout of COVID-19 vaccines, and vaccination services have been paused due to the available Pfizer vaccine shelf life was completed on September 30, 2025. The community's demand for COVID-19 vaccines has declined through time. We are currently in the process of cleaning COVID-19 vaccination data disaggregated by region, as well as documenting the introduction, rollout procedures, lessons learned, and challenges encountered.

Challenges:

- COVID-19 vaccine distribution overwhelmed the routine system
- Low vaccine uptake due to misinformation, dis-information and rumours
- Vaccine hesitancy especially from educated community group and in urban settlement
- Inadequate vaccine supply during the initial phase of the introduction mismatch with the demand
- Short shelf life of vaccines supplied
- Lack of disaggregated data (lack of exact denominator for special populations)
- Lack of Interoperability of the COVAX DHIS2 with the routine DHIS2

Lessons Learned:

- Strong coordination and commitment of political and health service leaders at all level, ongoing resource mobilization activities conducted
- Engagement of national and sub-national partners
- The health system benefited from the COVID-19 resources like Cold chain, HR, etc (Integration of various resources and leveraging the existing system)
- Intersectoral and multisectoral collaboration
- Strong demand generation and community mobilization (Advocacy, social mobilization, community engagement, media engagement, tailored communication strategy designed for different segments of population, social listening and media monitoring, risk and crisis communication done)
- Integrating COVID-19 vaccination and other RMNCH activities during SIAs, catch up. Use of COVID vaccination campaign for identification and addressing zero dose and under vaccinated children
- Both passive and active surveillance systems, has remarkably improved case detection and investigation with its data flow
- The virtual meeting platform facilitated the daily and frequent monitoring of COVID-19 vaccine introduction and Rollout
- Conducted IAR, identified barriers, best practices, enablers which guided subsequent planning
- Performance monitoring conducted through supportive supervision, review meeting

Learning Question 8a: Trajectory and progress against targets set

- How does the progress over the past year compare with your Theory of Change or programme objectives?
- How has COVID-19 and COVID-19 vaccination impacted your routine immunisation programme, what has been done to maintain and restore immunisation and what has been the impact of it (please include reference to trends in DTP3 and MCV1 coverage)?

Progress Over the Past Year Compared to the Theory of Change / Program Objectives and coverage trend

Over the past decades, Ethiopia has made significant progress in expanding immunization coverage, introducing new vaccines, and strengthening cold chain systems. Major achievements include maintaining wild polio-free status, eliminating maternal and neonatal tetanus, and effectively responding to the COVID-19 pandemic.

Annually, the national immunization program reaches more than 3.6 million children for routine childhood vaccines, (put here target for HPV) adolescent girls for HPV vaccination, Reproductive age group for TD and(indicate the target for c19 here) people for COVID-19 vaccination for adults through static, outreach, and mobile service delivery. These efforts have contributed to substantial improvements in service coverage, prevented outbreaks, reductions in child mortality, with infant mortality declining from 48 to 39 and under-five mortality

from 67 to 51 deaths per 1,000 live births between 2016 and 2024, indicating that our efforts on immunization are contributing to our progress for achieving national and global targets of impactful outcome indicators

Immunization coverage increased significantly over the past years. According to WUENIC estimates, DPT1 coverage has improved from 71% in 2021 to 81% in 2024. Ethiopia also managed to reduce the number of zero dose children by 36.7% from 1.2 million in 2021 to 768,000 in 2024 s which is more than the targeted 25% reduction in the number of ZD by 2025 as indicated on the IA 2030 plan.

Similarly, Immunization utilization rate progressed well in the past years as Penta-3 vaccination coverage progressed from 62% in 2021 to 65% in 2023 and 73% in 2024 whereas MCV1 coverage increased from 57% in 2021 to 72% in 2024. In the same period, the drop-out-rate from penta1 to penta3 has reduced from 17% to 10% while the penta1 to first dose of measles vaccine reduced from 24% to 11% demonstrating impressive improvements made in the progress towards full utilization of immunization service. However, these trends are still less than the national target of reducing dropout rate of penta1-penta3 to less than 5% showing the need to continue strengthening the immunization system.

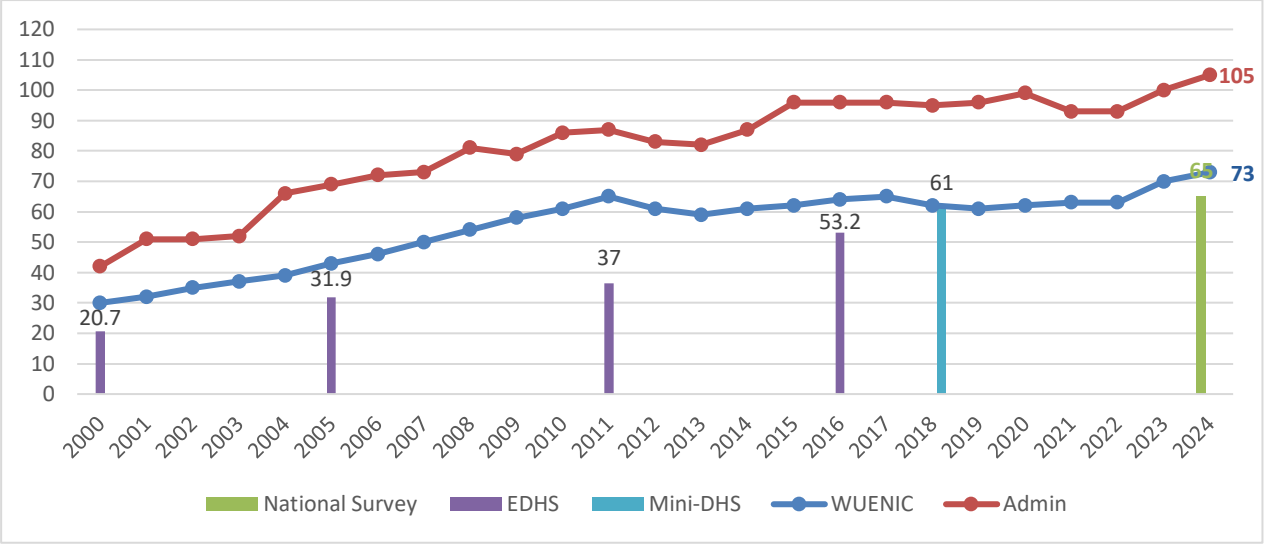


Figure 9: Penta 3 vaccination coverage with different data sources, 2000-2024, Ethiopia

Similarly, the routine immunization also improved in Gavi FPP-targeted woredas, with strengthened service delivery through fixed, outreach, and PIRI approaches, and 94% of public facilities reporting vaccination services (up from 93.2% in 2024). Also, data quality was enhanced through an eight-year review of Penta1, Penta3, and MCV1 data from over 21,000 facilities, improving accuracy and decision-making. Gavi-supported cold chain maintenance reduced session interruptions, while humanitarian delivery mechanisms sustained services in insecure areas. Community engagement efforts also helped rebuild trust and increase demand, particularly in conflict-affected and hard-to-reach settings.

In addition, Ethiopia's immunization programme has also enhanced resilience through evidence-based decision-making (WHO, E-NITAG, ICC), digital data systems, facility rehabilitation in conflict-affected areas, and efforts to address vaccine hesitancy. Strong partnerships with Gavi, civil society organizations, and health system stakeholders have been critical in revitalizing services, particularly in high burden woredas.

Despite high reported administrative coverage in many areas, significant equity gaps persist in lowland, pastoralist, remote, hard-to-reach, and conflict-affected regions, with notable variation both across and within regions.

Insecurity has disrupted service delivery through movement restrictions, supply interruptions, health worker displacement, and communication blackouts. Various evidence such as AHEAD analysis indicating tracer antigen coverage 5–10% lower in affected areas. Immunization performance has also been constrained by heavy health worker workloads due to competing campaigns, high staff attrition, delays in operational funding, and rising inflation particularly fuel and transport costs which have collectively hindered outreach activities, supervision, supply distribution, and consistent delivery of quality services.

Clearly indicate how the catch-up (number of ZD addressed through BUC), SIAs, COVID 19 vaccination, reactive vaccinations etc addressed immunity gaps and prevented/ controlled outbreaks. Furthermore, please also include other integrated activities implemented leveraging with EPI

Factors Facilitating Better Routine Vaccination

Several factors have contributed to Ethiopia's progress in routine immunization:

- **Community engagement and awareness**: Targeted campaigns have raised awareness of the importance of routine immunization and addressed zero dose through existence of community structure
- **Political commitment, a broad partnership**
- **Integration of Services**: Combining zero dose vaccination efforts with routine immunization programs has ensured continuity and enhanced service delivery.
- **Catch-Up Campaigns:** Focused initiatives to vaccinate children who missed their doses during the pandemic have narrowed immunization gaps.
- **Strengthened Partnerships**: Collaborations with CSOs, Gavi, and other stakeholders have boosted resources and expertise for immunization efforts.
- **Policy and Planning Innovations**: The Full Portfolio Planning (FPP) initiative has prioritized demand generation and improved access to immunization services in 447 prioritized woredas with high burden of ZD and UVC.
- Strong partners support at national and sub-national level
- Existence PSNP for immunization service integration

Impact of COVID-19 vaccination on routine immunization

Ethiopia effectively controlled COVID-19 and restore immunization service disruptions by creating resilient primary health care services. Currently, Ethiopia has fully restored the immunization coverage and has managed to reduce the number of zero-dose children, increasing Penta 3 and MCV1 coverage exceeding the pre- COVID-19 pandemic level.

At the same time, significant strengthening of cold chain infrastructure, logistics systems, technical assistance from partners and coordination mechanisms for COVID-19 vaccination, have benefited routine immunization. These response measures contributed to early recovery of the routine immunization performance.

Positive impacts:

- **Strengthened cold chain capacity**: Investments in ultra-cold chain equipment, fridges, transport, and generators indirectly supported RI vaccine storage and availability.
- **Improved adult vaccination experience**: Community familiarity with vaccination increased, helping normalize regular vaccine uptake.
- **Enhanced microplanning and surveillance** systems developed for COVID-19 were leveraged for routine immunization.

Negative impacts:

- **Diversion of health workforce**: Many health workers were reassigned to COVID-19 vaccination, case management, and surveillance, resulting in fewer routine immunization sessions.
- **Disruptions to outreach and mobilization** due to lockdowns, fear of contracting COVID-19, and limited community gatherings.
- **Reduced care-seeking behaviour**: Caregivers avoided health facilities due to perceived infection risks, especially during waves of transmission.
- **Data quality challenges** emerged from parallel reporting systems and increased reporting burden.
- **Competing priorities and fatigue** among health workers reduced attention to routine defaulter tracing and follow-up.

Overall, although the system benefited from certain COVID-driven investments, routine immunization experienced **short-term declines in coverage**, especially for Penta1–3 and MCV1.

Other Factors Impeding Routine Vaccination Efforts

While progress has been made, significant challenges continue to hinder routine immunization efforts:

- **Conflict and Natural Disasters**: Ongoing security issues and natural disasters have created barriers to accessing children for essential health services and delivery of supplies, including immunization in remote and conflict-affected areas.
- **Vaccine Hesitancy:** Misinformation and fear surrounding vaccination, particularly during the pandemic, have affected vaccine uptake.
- **Data Discrepancies:** Variations in data from various sources complicate tracking progress and addressing gaps effectively.
- **Resource Constraints:** Competing priorities and limited resources in crisis-prone areas pose additional challenges.
- Sustained missed opportunities and ineffective referral system
- **Service Interruptions**- Session plans were not implemented as per the plan
- Poor refrigerator maintenance and obstacles for last-mile vaccine and supply delivery
- Lack of inclusiveness of special populations (Refugees, international travellers', occupational risk, vaccines prescribed by physicians, cross boarder vaccination etc in the national guidelines
- Inadequate HRH and vaccine stock outs
- All health posts do not have solar fridges and session plans did not implement as per the plan
- The effect of newly emerging disease outbreak such as Malburg

Moving forward, Ethiopia included major gaps in the national immunization strategy (NIS) to achieve equitable immunization coverage by scaling digital innovations, strengthening health systems and workforce capacity, expanding access to new vaccines, improving data systems, deepening partnerships, and aligning policies to ensure sustainable and inclusive immunization services.

Learning Question 8b: Programme Management

Immunization Program Management

The management of EPI program in Ethiopia is government led, with robust partnership and engagements of partners, to ensure sustainability, ownership, and alignment with national health sector priorities. The MoH provides overall strategic leadership, guidance, and technical oversight, while Regional Health Bureaus (RHBs) and subnational structures lead contextualized implementation. The MoH agencies also significantly contributes for the immunization services: the Ethiopian Pharmaceutical Supply Service (EPSS)oversees vaccine supply chain management; the Ethiopian Food and Drug Authority (EFDA) confirm vaccine safety and market authorization; the Ethiopian Public Health Institute (EPHI) handles VPD surveillance, research, and outbreak response; and the Armauer Hansen Research Institute (AHRI) focuses vaccine-related clinical research. The ministry has also been working closely with local Civil Society Organizations (CSOs), private sectors and academic institutions (CBMP) They engage in strategic planning, service provision, review meetings, supportive supervision, and other related activities.

The immunization program has coordination platforms including interagency coordinating committee (ICC), national immunization technical advisory group (E-NITAG), immunization task force and technical working groups (TWGs). The ICC is led by the MoH leadership and consists of key immunization stakeholders that provide high level decisions, E-NITA composed of national independent experts, serves as a scientific and technical advisory body. Under the immunization task force, there are technical working groups, including Planning, Monitoring and Evaluation (M&E); communication and advocacy; and vaccine logistics TWGs. These platforms strengthen coordination and collaboration among key stakeholders to ensure effective implementation of immunization activities.

Key immunization stakeholders involve in immunization program planning, implementation and monitoring and evaluation. The country has implemented the comprehensive multi-year plan 2021–2025 (cMYP) for the Expanded Program on Immunization (EPI) and is developing the National Immunization Strategy (NIS) for 2026–2030 that has taken into account the government's second Health Sector Development and Investment Plan (HSDIP), the global Immunization Agenda 2030 (IA2030) and GAVI 6.0. Woreda-based annual RED micro-planning that can map newborns, infants, children, adolescents and Pregnant women is developed in annual basis. The country has also developed accelerated plan for the Gavi budget support for the period of January to June 2026 for the implementation of high impact activities that will enhance the immunization program. Despite all the efforts, persistent challenges remain, including inconsistent microplanning, sub-optimal coordination platforms at the subnational, irregular supportive supervision and program review. Addressing these issues is crucial for enhancing performance of the immunization program.

Learning Question 9: How well is the country able to absorb Gavi funding and what are the drivers?

Financial implementation of Gavi cash grants

Ethiopia's healthcare financing landscape is dynamic and developing. In line with its commitment to attaining UHC, the Ethiopian government has worked hard to increase healthcare access and quality throughout the country. The GoE allocated a significant amount of its budget to the health sector, while still far behind the Abuja declaration, demonstrating its commitment to prioritize the well-being of its citizens. Furthermore, foreign alliances and partnerships have been critical in improving healthcare financing in Ethiopia (MoH ARM, 2025).

The financial and technical support of development partners has been instrumental in improving the health system of Ethiopia. Development partners, such as GAVI, Gates Foundation, World Bank, UN agencies, USAID, the US CDC, implementing partners (IPs), and CSOs have played pivotal roles in expanding and restoring immunization services. Their contributions go beyond financing: they have supported systems building, promoted equity,

fostered innovation, and ensured vaccine access for remote and marginalized communities (MoH, NIS Strategy 2026-2030 Draft).

GAVI has allocated USD 200 million of COVID-19 Delivery Support (CDS) grants provided to support COVID-19 vaccination while simultaneously strengthening routine immunization and primary health care systems. This dual-purpose funding allowed Ethiopia to effectively respond to the pandemic without losing momentum in its long-term immunization goals. By improving cold chain capacity, enhancing data systems, expanding service delivery, and mobilizing communities, the CDS grants helped build a more resilient and integrated immunization platform. The CDS grants contributed to strengthening cold chain capacity, enhancing data management systems, expanding service delivery, and engaging communities, ultimately fostering a more resilient and integrated immunization framework.

Ethiopia is one of the Gavi high impact countries and the Gavi grant for the Ethiopian Full Portfolio Planning (FPP) 2023-2025 fund has been instrumental in health systems strengthening and addressing challenges, particularly in underserved settings to identify and reach zero-dose and under-vaccinated children through the Health System Strengthening (HSS), Equity Accelerator Fund (EAF), Cold Chain Equipment Optimization (CCEOP), Targeted Country Assistance (TCA) and Innovation Top Up funding mechanisms. This investment aims to reduce the number of zero-dose children by 50%, a major step toward achieving universal immunization coverage.

The Gavi funds directed to MoH are considered channel 2 funds, and the management of Gavi funds is generally based on the principle of Channel 2 fund management. About 70% of the FPP/HSS grant channelled to the Sustainable Development Goals Performance Fund (SDG PF). SDG PF is a pooled donor fund in Ethiopia that provides grants to priority areas in the health sector. The fund's goal is to improve the quality and equity of health services across the country. The Ministry of Health manages SDG PF fund that includes financing from multiple donors.

Table 14: Cash Support Summary*

Grant	Recipient	Period	Status as of December 31st, 2025					Cash Bal	Compliance**	
			Grant Value	Appr.	Disb.	Expenditure /Commitment	Utilisation (in %)		Fin. Rep	Audit
CDS2	MOH	2022-2025	17,605,795.71		13,970,892.71	13,970,892.71	100%	0		On Progress
CDS3	MOH	2023-2025	6,227,443.87		6,227,443.87	4,817,850.02	77%	1,409,593.85		On Progress
HPV MAC & HPV SINGLE DOSE Switch	MOH	2023-2024	5,978,180.00		5,978,180.00	5,190,172.65	87%	788,007.35		On Progress
Rota	MOH	2023-2024	3,086,892.00		929,283.00	929,283.00	100%	-		On Progress

IPV	MOH	2023-2024	882,422.00		882,422.00	866,957.51	98%	15,464.49		On Progress
HSS4	MOH	2023-2026	12,894,938.79		12,894,938.79	11,804,177.68	92%	1,090,761.11		On Progress
EAF	MOH	2023-2025	25,298,477.69		15,598,477.69	10,990,384.18	70%	4,608,093.51		On Progress
ITU/IF	MOH	2023-2025	3,029,254.00		2,646,801.21	1,716,616.71	65%	930,184.50		On Progress
MSIA	MOH	2023-2025	11,388,606.00		9,520,465.42	9,052,905.10	95%	467,560.32		On Progress
MAL	MOH	2025-2026	99,982.00		99,982.00	90,142.20	90%	9,839.80		On Progress
HEP-B	MOH	2025-2026	2,352,253.00		2,352,253.00	2,158,202.84	92%	194,050.16		On Progress
5 Does	MOH	2025-2026	930,966.00		930,966.00	748,642.48	80%	182,323.52		On Progress
			89,775,211.06		**72,032,105.69**	**62,336,227.09**	**87%**	**9,695,878.60**		

*All amounts are in USD

Table 15: Old Grants Liquidation and Status

Status as of December 31st , 2025		
Grant	**Advance-ETB**	**Advance in USD**
Rota	83,199.19	536.85
SI-2	1,589,226.25	10,254.68
SI-4	1,605,294.17	10,358.36
PCV	280,963.88	1,812.95
CDS-2	3,158,878.57	20,383.06
NVS	2,231,899.66	14,401.61
IPV	216,892.19	1,399.52
HSS-3	8,815,368.66	56,882.26
HSS-2	2,789,535.34	17,999.82
HPV	608,160.29	3,924.23
CDS-1	11,473,996.98	74,037.39
	32,853,415.18	211,990.75

Out of a total of 32,853,415.18 ETB, the amount of 19,901,226.77 ETB (equivalent to 128,415.14 USD) is classified as receivable from SNNPR. The Ministry of Health is actively addressing this matter and has been following up accordingly.

Ethiopia's Ministry of Health (MOH) has made good progress in the financial management and implementation of grants, particularly from Gavi, the Vaccine Alliance. Ethiopia has received different grants such as HSS, EAF, Rota, IPV, HPV, MSIA, 5 Dose, Malaria, HEP-B and immunization initiatives.
The utilization rates vary that routine immunization supplies and cold chain improvements show strong absorption.

Driver factors hinder optimal financial implementation:

There are progresses on the Gavi grant management requirements implementation as the MoH is taking various majors to improve the financial management. Nevertheless, delay of budget utilization and liquidation can still occur as each grant has its own contexts and the following are some of the justifications.

- Delay in activity implementation, especially in conflict affected areas:
- Funding Complexity: Multiple Gavi windows (HSS, EAF, ITU etc.), risk duplication,
- Ethiopia has more than 1120 woredas, and funds are disbursed for activities and collecting SoE from these huge numbers of woredas is time taking with limited number of staff.
- Limitations of digital tool that shows subnational financial data visibility
- Limited capacity and expertise at lower level in recording and timely reporting financial data
- Inconsistency reporting system (zone and woreda level use pool fund system)
- Delays on disbursement of allocated budget

Generally, there is limited local capacity to implement the health activities as per the planned timeline, due to several computing priorities on the ground. The MoH has implemented several initiatives, such as provide capacity building trainings for the staff, including supportive supervision, mentorship using various platforms, to address delays in collecting statement of expenditure from lower-level structures. Financial management is a key priority to the leadership, with guidance issued from high-level leadership to regional health bureaus to facilitate the Gavi-budget utilization and liquidation. MoH has taking several system improvement actions to improve the timely budget utilization and liquidations.

Learning Question 10: How well is the country resolving issues arising from assurance activities? What issues are left to solve and what is the path forward?

Effectiveness of assurance activities for donor support fund on governance, institutional capacity, and stakeholder involvement like internal audit of MOH, Audit corporation of Ethiopia and PricewaterhouseCoopers Limited (PwC). These activities aim to ensure funds are used transparently and efficiently, addressing issues the following strategies

1. Governance and Transparency

MOH Strengthening institutions through clear guidelines and accountability mechanisms is crucial. That enhancing frameworks to prevent fund misuse, fostering trust between donors and MOH. The government of Ethiopia has distinguished financial management guiltiness and directives like Channel 2 directives and public financial management guidelines.

2. Capacity Building

MOH provided training in national and regional finance, program about compliance and Audit features through Internal Audit and Grant management. This builds expertise, enabling better project management and sustainable outcomes.

3. Stakeholder Engagement

Collaborating with MOH, stakeholders (internal audit of MOH, Audit corporation of Ethiopia and PricewaterhouseCoopers Limited (PwC) ensure donor support meets priorities. Feedback channels allow for timely issue resolution, improving project relevance and impact.

4. Monitoring and Evaluation

Robust systems enable real-time tracking and adaptive responses. Embracing lessons from failures enhances future assurance efforts. In this case MOH internal Audit undertook audit in national level and regional level as well external Audit and Price water house Coopers Limited (PwC) also done Auditing activities every grant annually based on the previous audit findings, Channel two financial management guidelines and checklist of grant and compliance.

The Ministry of Health (MoH) has implemented corrective actions by creating and rolling out updated guidelines and directives for managing funds. A key element of this effort is the Financial Management Manual, which standardizes financial procedures and ensures that finance professionals follow best practices. Additionally, the recently approved Channel-2 Financing Directive is designed to improve fund allocation and accountability, with backing from an audit team tasked with overseeing execution and resolving any emerging challenges. The ICC assists the MoH in converting recommendations concerning the immunization program into practical steps.

Additional Efforts:

- Established a centralized system to monitor the implementation status of all grant management requirements and audit findings.
- Appointed focal persons at both central and regional levels to coordinate the execution of recommendations.
- Institutionalize quarterly review meetings chaired by the Audit and Risk Management Committee to evaluate progress, identify obstacles, offer technical assistance, and escalate unresolved matters to leadership.
- Provided targeted training for program and finance staff on grant compliance, risk management, and accountability regarding audit recommendations.
- Ensure that the ICC or an equivalent governance body receives regular updates and meeting minutes on implementation progress and any outstanding audit issues.

General Comment: Improvements in financial management and risk assurance activities should be supported by assurance providers, particularly PwC, which assists the MoH by identifying gaps, preparing timely reports, and transferring skills—making these contributions essential.

Subsequent Actions Taken: In addition, the MoH has formed an Audit and Risk Management Committee to supervise and act the implementation of all audit recommendations from both internal and external audit reports

Learning Question 11: Please comment on any other financial management-related bottlenecks for implementation and compliance.

- Financial management and related bottlenecks for implementation and compliance are: -
- Disbursement delay from GAVI side
- Complex Reporting Requirements

- GAVI financial reporting templet is not friendly use for finance officers and grant management to deliver the report timely
- Inadequate Human Resource to implement GAVI`s fund in financial management
- Limited Financial Management Capacity Regions, zones, and woredas do not possess the essential financial management skills and systems needed for efficient budget tracking and compliance.
- Inadequate Systems and Technology

Learning Question 12: Is the country effectively addressing gender related barriers (e.g. faced by caregivers or adolescents in accessing immunisation services and barriers faced by health workers in delivering immunisation services)?

As articulated in various literatures, mothers and/or female caretakers are primarily responsible and play a pivotal role in the wellbeing of children including access to immunization services. Similarly, In Ethiopia, women play key roles in delivery of child healthcare; including immunization services- at all levels of the health system; and most importantly as health extension workers- at health posts. Thus, the role of women at demand, supply and ultimately uptake of immunization services is indispensable.

However, gender norms and social roles influence whether, when, and how caregivers can vaccinate their child. Women often face structural and sociocultural barriers, including limited autonomy, low health literacy, time constraints due to unpaid care work, and restricted mobility. Their multiple and over-burdened roles and tasks in running the day-to-day household chores further adds to the complexity of the problem. Even when they have some decision-making power, these competing priorities make it difficult to visit health facilities for essential health services, including immunization at the recommended schedules- hence contributing to the high number of zero-dose and under-vaccinated children. Similarly, it has been identified as low access and poor utilization of RI service in pastoral regions and under-served areas. In these areas, there were significant proportion of under immunized and Zero dose children and gender related barriers are common as women have multiple burdens of rearing children, feeding animals, and taking care of the family. Additionally, there is limited male engagement for immunization. Thus, Ethiopia National EPI Comprehensive Multi-Year Plan underscores the central role of addressing gender issues in, enhancing service access and utilization.

the expanded program on immunization has developed and implemented GAVI-FPP since 2023-2025 to extend immunization services to reach zero-dose, under immunised children and missed communities by integrating stronger gender lens into the program among other initiatives.

In this regard The Ministry of Health (MoH), in collaboration with its partners, Regional Health Bureaus, and community structures, has made significant strides in identifying and addressing gender related barriers that hinder equitable access to immunisation services. Through a combination of formative research, gender responsive programming, and system level support, MoH and partners have strengthened both demand and supply side

determinants of immunisation, with particular emphasis on caregivers, adolescent girls, and female frontline health workers

National Immunization Strategy (NIS): At the strategic level, via the technical support from gender technical assistance , the MoH made deliberate efforts to recognise gender and equity as a core component of the development of the NIS. To ensure a comprehensive and inclusive process, a series of national and sub-national workshops have been conducted to address all steps of NIS development: preparation, situational analysis, strategy formulation, costing and development of the monitoring and evaluation framework. Across all these phases gender and equity consideration has been entertained to recognise and address restrictive norms and advocating for vulnerable populations to be prioritized in human resource, demand promotion and service delivery.

Capacity building gender integration: Capacity building was a major focus of the integration of gender sessions into cascade trainings, including Hepatitis B Birth Dose (HepB-BD) introduction training manual. These training equipped health workers to recognize and address gender-related barriers such as cultural postpartum mobility restrictions and limited decision-making power among women. Additionally, National advocacy workshops on the identification and vaccination of zero-dose and under-vaccinated children were integrated into ongoing advocacy sessions conducted during rounds of integrated polio campaigns. These efforts aimed to build strong coordination among national and regional stakeholders, reinforce policy commitment, and strengthen strategies for reaching missed children through catch-up vaccination.

As part of these national advocacy and sensitization efforts, a deliberate gender lens was applied to ensure that immunization strategies are inclusive, equitable, and socially responsive. The workshops introduced gender-inclusive approaches that recognize the different roles, barriers, and opportunities experienced by women and men in supporting child health. This included promoting meaningful male engagement, encouraging fathers to take an active role in child health and immunization, and addressing social norms that traditionally place caregiving responsibilities solely on mothers.

Gender barriers faced by various groups, (Care givers, health workers and Adolescents) implemented interventions and impact for immunization

Table 16: Barriers faced by care givers, health workers and Adolescents

Barrier (state the barriers that restricts the caregiver from access the service)	Intervention that addresses barriers (state the interventions planned)	Was the intervention implemented? (no, partially, fully)	What was the impact (provide evidence)?

Key barriers include poverty, busy schedule, lack of knowledge, lack of decision-making power; influence access to immunization services. Limited male involvement to immunization services	Extended Immunization services provision through various service delivery modalities based on context, including, extended outreach and PIRI. The Ethiopia Health Extension Program (HEP) predominantly female HEW is working to promote demand; and deliver vaccines closer to the community. Advocacy and social mobilizations to increase fathers/ male involvement in immunization.	Immunization service is provided using various modalities and the HEP is implemented all over the country. However, disruption of services, displacement of both local populations and healthcare workers; and logistics and security barriers in areas affected with conflict hindered full implementation. Multiple advocacy and sensitization platforms have been created, including social mobilization and community conversation to enhance boys and male involvement to improve immunization services	Contributed to improve coverage and reduction in zero-dose and under immunized children as detailed in the section of this report Increased and male involvement to immunization as evidenced by program reviews, such as integrated accelerated catchup
Persistent misconceptions regarding the HPV vaccine such as fears of infertility, confusion about why only girls are vaccinated sociocultural norms that limit girls' autonomy and mobility restriction.	Wide reaching SBC activities, including community dialogue advocacy and sensitization delivered through the Champion's App, addressing misconceptions and building trust in routine immunisation and HPV vaccination.	These were mostly implemented in the country- with in-frequent activities in conflict situations due to insecurity	Contributed to increase immunization uptake
Long distance and clinic waiting hours in pastoral and remote rural areas	Making immunization services more accessible to the community through enhanced outreach ; PIRI, and Mobile immunization services and ensuring the continuity of sessions.	These are partly implemented; while long clinic waiting hours still persisting	Immunization service provision to settings with security challenges and hard to reach

Table 17: Barriers faced by health workers

Barrier(state the barriers that restricts adolescents from accessing services)	Intervention that addresses barriers (state the interventions planned)	Was the intervention implemented? (no, partially, fully)	What was the impact? (provide evidence)?
Low quality facilities and work environment, unreliable vaccine supplies, poor inter-personal communication and negative experiences with healthcare providers can deter women/care givers from seeking immunization services.	Provided various capacity building trainings, such as Human Cantered Design (HCD); Immunization In Practice (IIP) to service providers and immunization officers Improving the immunization rooms and service delivery settings through Early Childhood Development (ECD) and Clean and Safe Health Facilities (CASH) initiatives	These trainings are being given for immunization managers, officers and service providers. This training will continue to the community level ECD is implemented in model health facilities CASH is implemented in most health facilities	Several of these challenges are being addressed through government and partners-support including Gavi funding activities. These have enabled delivery of vaccines with improving access over the years. Yet, there is more to be done to develop a sustainable capacity at all levels
Sub-optimal women representation at leadership and policy-development level	National gender policies and strategies including gender mainstreaming in public sectors; affirmative actions to enable and develop leadership skills of women	Mainly implemented at federal level; less so at sub-national levels- hence gaps in representation in leadership and policy development that requires enhancements	Successive women leadership at Federal MoH- both ministerial and director/ lead executive Officer - with leadership the maternal, child and adolescent health services, including immunization
Safety and security for health workers working in some areas, such as conflict affected areas	Closely working with humanitarian organizations and awareness on security and safety requirements to healthcare providers	Safety and security issues remain challenge	With the support of humanitarian organizations and dedication of healthcare workers in difficult situations, many children are getting vaccination

Table 18: Barriers faced by adolescents

Barrier (state the barriers that restricts	Intervention that addresses barriers (state the interventions planned)	Was the intervention implemented? (no, partially, fully)	What was the impact (provide evidence)?

adolescents from accessing services)			
Inequities large numbers of adolescent girls especially those out of school due to early marriage, domestic responsibilities, or geographical remoteness remained unreached by school-based immunization structures. Household mapping revealed tens of thousands of previously unvaccinated girls in rural and pastoralist communities. Mobility constraints, including long distances to health posts and safety concerns for adolescent girls traveling alone, further exacerbated inequitable access	Context specific messages for out of schoolgirls Cascaded HCD training to HWs and the community level to design context specific solutions. Outreach services targeting out of school and hard to reach girls Strengthening micro-planning to map out of school girls	The HCD training is given for the immunization and health promotion officers, immunization service providers, including health extension workers at all levels. In addition, implementation started	Efforts are made by the country to overcome this challenge
Early marriage and early pregnancy compounded with household chore burden contribute for low immunization rate	Male engagement for the immunization services through the HEWs and involving community health leaders Community awareness campaigns, such as community conversation, community sensitization, and the likes based on the findings of the co-creation sessions of HCD	Interventions to prompt male engagement and address the challenges were implemented	Improved immunization coverage and started efforts across all levels

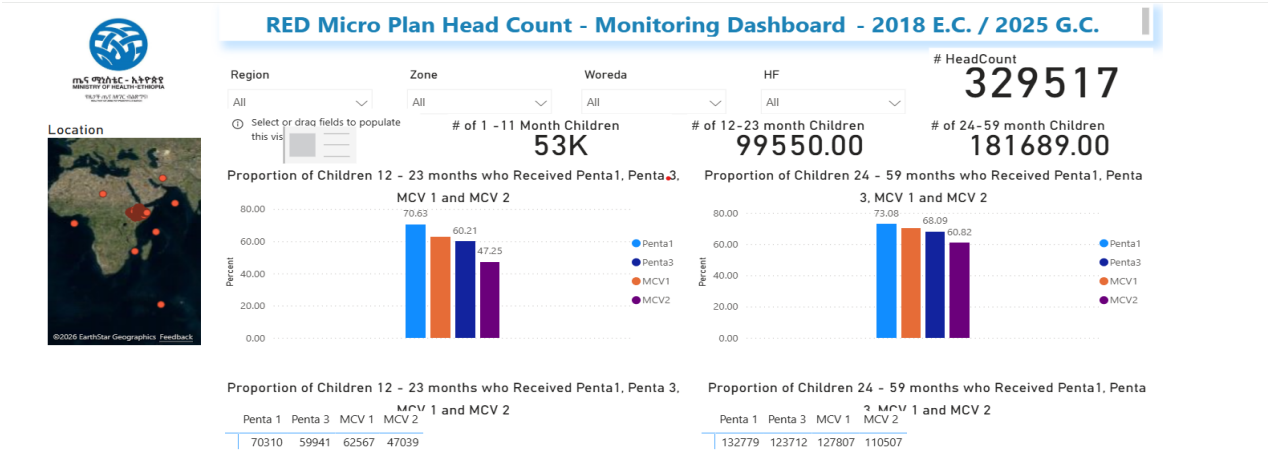
Learning Question 13: How well is the country implementing its health information systems and data strengthening, monitoring and learning activities?

I. Planning Process

a) The Health Sector Woreda Base Plan (HSWBP)

For the 2024/25 fiscal year, the MoH prepared the HSWBP through a highly participatory process involving stakeholders at federal, regional, zonal, and woreda levels, with strong leadership oversight to ensure alignment with national health priorities. This year, the Ministry implemented a fully digitalized woreda-based planning system, complemented by a new hospital planning module, both integrated into the upgraded DHIS2 platform. These enhancements strengthened evidence-based planning, improved efficiency, standardization, data quality, and timeliness, and supported more effective preparation and implementation of health sector plans.

b) Digital headcount and RED micro plan:



The Ministry of Health has strengthened evidence-based immunization planning through the introduction of ODK-based headcount data collection in 2024 and the integration of facility-based RED Micro Plans into DHIS2 starting in 2025. These micro plans capture detailed data on live births, surviving infants, service delivery strategies, vaccine and cold chain availability, forecasting, and integrated maternal and child health services. As a result, population estimates and planning accuracy have improved, enabling more targeted service delivery and better prioritization of resources to reach missed children. Analysis of the 2025 RED Micro Plan data identifies 329,517 children under five, with the largest share (about 55%) aged 24–59 months. While initial immunization access is relatively high, coverage declines across the schedule among children 12–23 months (Penta 1: 70.6%, Penta 3: 60.2%, MCV1: 47.3%), indicating gaps in follow-up and dose completion. Coverage improves among children aged 24–59 months due to catch-up campaigns and outreach services, though continued efforts in defaulter tracing and caregiver engagement are needed.

Life-course immunization services also demonstrate progress. Among 409,464 individuals aged 12 years and above, COVID-19 vaccination coverage reached 59.9%, HPV coverage among girls aged 9–14 years reached 66.3%, and tetanus–diphtheria vaccination among 28,419 pregnant women was high, with most receiving at least one dose. These results reflect effective outreach, school-based strategies, and integrated RED microplanning. However, gaps remain among hard-to-reach populations, out-of-school adolescents, and individuals requiring completion of multi-dose schedules. Sustained demand creation, targeted follow-up, and continued institutionalization of RED Micro Plans will be essential to close coverage gaps and ensure equitable immunization across the life course.

c) RED/REC Micro Planning

RED Micro Plan Performance KPIs

	Last 180 days, Last 12 months										
	Number of Live Birth	Number of Surviving Infant	Number Girls Aged 9 Yrs	Number of Zero-Dose Children (12-23 Months)	Number of Zero-Dose Children (24-59 Months)	Number of Under Vaccinated Children (12-23 Months)	Number of Under Vaccinated Children (24-59 Months)	Functional Service Delivery Sites: Static	Number of Functional Refrigerator	Routine Immunization Session – Static	Catch Up Vaccination Session - Outreach
Ministry of Health	3,132,513	2,909,099	1,786,304	628,424	781,694	630,062	874,655	25,616	11,659	405,827	122,211
Addis Ababa Region	98,589	113,954	28,878	1,565	1,853	2,247	4,555	112	207	18,907	598
Afar Region	65,839	60,702	43,419	13,254	30,719	19,362	48,827	2,285	372	53,762	3,990
Amhara Region	1,065,328	978,191	597,987	240,899	255,834	187,396	236,523	4,601	3,868	50,927	39,130
Benishangul Gumuz Region	32,536	30,175	20,461	2,076	2,193	2,154	2,304	421	407	48,916	2,458
Central Ethiopia Region	71,231	65,303	35,006	12,863	20,300	10,339	14,587	1,935	349	15,445	10,909
Dire Dawa Region	26,466	25,164	10,948	1,070	2,848	2,404	5,688	118	105	2,094	725
Gambella Region	39,441	36,512	31,032	5,004	13,609	5,985	13,286	1,106	312	15,078	1,052
Harari Region	9,119	8,713	3,774	2,375	2,009	1,312	967	20	29	1,425	808
Oromiya Region	1,116,807	1,036,951	582,958	208,069	272,041	264,153	337,871	9,732	3,060	96,379	44,046
Sidama Region	275,715	251,637	156,399	62,869	71,645	61,370	96,142	1,716	1,053	83,778	9,114
Somali Region	62,736	56,560	93,783	35,216	49,422	28,340	44,544	860	399	2,617	598
South Ethiopia Region	146,478	133,431	111,886	21,928	25,114	21,031	26,226	1,805	789	6,132	4,813
SWERegion	121,777	111,359	69,428	21,224	34,093	23,957	43,121	903	707	10,363	3,968
Tigray Region	451	447	345	12	14	12	14	2	2	4	2

Nationally, more than 600,000 zero-dose and under-vaccinated children persist in both the 12–23-month and 24–59-month age groups, with the highest burden in Oromia, Amhara, and South Ethiopia and disproportionately high gaps in pastoralist regions. Service delivery relies heavily on static sessions, while outreach remains limited relative to need in hard-to-reach areas. These patterns point to the need for intensified outreach, targeted catch-up strategies for older children, and strengthened microplanning. In response, the Ministry of Health, with JSI support, has introduced the DHIS2 RED Microplanning tool to improve evidence-based planning and better target underserved populations.

II. Health information system and Digital Health

Health Information System and Data Strengthening

The MoH is advancing the Information Revolution (IR) initiative to strengthen the availability, quality, and use of health information for evidence-based decision-making across the health system. Public health institutions conduct quarterly IR self-assessments using a standardized checklist and report results through DHIS2, with the "100 IR Woredas" initiative providing intensified support and demonstrating best practices alongside CBMP woredas. By 2017 EFY, IR reporting reached 55% of woredas, 64% of health centers and hospitals, and 63% of health posts. The Ministry has also enhanced the routine health information system through redesigned tools and digital platforms—including DHIS2, electronic Immunization Registry (EIR), eCHIS, EMR, LMIS, iHRIS, and mobile health applications—to improve data collection, reporting, and program monitoring, particularly for immunization. Approximately 8% of HSS4, EAF, and ITU grant funding was allocated to HIS strengthening, supporting DHIS2 scale-up, improved data quality, and better health service delivery.

a) DHIS2 implementation

In 2024/25, the Ministry of Health rolled out DHIS2 version 2.40 nationwide, with over 95% of public health facilities reporting through the upgraded system following extensive training, supportive supervision, and technical assistance. Reporting coverage reached 95.6% in Health Centers, 92.2% in Hospitals, 70.3% in Comprehensive Health Posts, 91.6% in Basic Health Posts, and 40% in Clinics, with offline reporting mechanisms

used by facilities without internet access. The system was integrated with the Master Facility Registry (MFR) for real-time facility data access, and legacy data from previous years was migrated into the platform. The upgraded DHIS2 includes enhanced data quality tools such as content completeness checks, LQAS, validation rule analysis, outlier detection, woreda-based planning, and UNISE. To ensure sustainability, comprehensive capacity-building activities, including TOT and user-level training, were implemented across all levels.

b) Implementation of electronic Community Health Information System (eCHIS)

In 2025, eCHIS was scaled up from 8,011 to 9,139 health posts, representing an increase of 1,128 health posts, and expanded to 2,000 health centers across all regions, including Dire Dawa City Administration. Of the total health posts, 3,696 are currently utilizing the full-service delivery modules. To date, eCHIS has registered more than 6.8 million households and 28.5 million individuals, enabling the provision of essential services—including immunization, maternal, newborn and child health, and family planning—and strengthening comprehensive, data-driven service delivery at community level.

c) Electronic Immunization Registry (EIR) Progress:

In 2025, the Electronic Immunization Registry (EIR) was scaled up from 197 to 355 woredas, representing an increase of 158 woredas. The system is now implemented across nine regions and two city administrations, covering approximately 1,200 health facilities nationwide. To date, more than one million clients have been registered, including individuals vaccinated against COVID-19 and children enrolled in routine immunization services, and over 4,100 health workers have been trained on system use. This scale-up has strengthened digital immunization data management and enhanced health workforce capacity to support improved immunization service delivery, monitoring, and follow-up across the health system.

d) Logistic Information Management System (LMIS)

The Ministry of Health has developed and implemented several digital systems, such as eLMIS tools including SAP/ERP, Dagu, mBrana, DHIS2, MEMIS, and the Fanos dashboard, to improve data visibility and enhance vaccine management. The mBrana system, for example, has only achieved functional device coverage in 595 districts and active SIM card coverage in 382, out of a total of 595. Budgets were committed from UNFPA, GF and GAVI for the procurement of 891 desktop computers to facilitate DAGU-2 implementation which was implemented in 1,603. In relation to this, WHO donated 80 desktop computers.

Data Quality

a) Routine Data Quality Assessment (RDQA)

In 2025, the MoH conducted the RDQA to assess HMIS performance across facilities, woredas, and regional bureaus. The assessment found that most facilities (87%) and woredas (86%) had functional HMIS units with acceptable data accuracy for key indicators, though gaps remain, including underreporting of PMTCT cases and overreporting of under-five pneumonia. Performance Monitoring Teams cover over 90% of facilities and woredas, and EMRs are in use at select private facilities. Challenges include limited connectivity, uneven CHIS tool availability, insufficient financing, and weak follow-up on action plans. Recommendations focus on strengthening data quality, scaling up eCHIS and EMR, enhancing supervision and training, addressing human resource and financing gaps, and establishing continuous learning platforms to sustain HIS improvements and support evidence-based decision-making.

b) Performance of routine information management system assessment (PRISM):

In 2024/25 National assessment of the PRISM was conducted focusing on measuring data quality, information use, and data management practices. The study examined organizational and behavioural determinants of HIS

performance. A total of 35 woreda health offices, 120 health centers, 8 primary hospitals, and 90 health posts were assessed using the diagnostic tool and facility/office checklist. In addition, 507 health workers drawn from these health institutions were interviewed using the OBAT tool. Some of the findings are listed below: -

- **Data quality gaps persist**, particularly in accuracy, internal consistency, and concordance between source documents and DHIS2 reports, with variability across regions and facility levels.
- **Limited and inconsistent use of data for decision-making** at facility and woreda levels, with performance review meetings, data visualization, and documented action plans not routinely practiced.
- **Capacity gaps among health workers** in data analysis, interpretation, and use, compounded by high workload and insufficient ongoing mentorship.
- **Weak supportive supervision and feedback mechanisms**, resulting in limited accountability and follow-up on data quality and performance issues.
- **System and infrastructure constraints**, including inconsistent availability of updated HMIS tools and guidelines, connectivity challenges, and limited institutionalization of routine data quality assessments (RDQAs).

c) Actionable Health Analytics for Decision Making (AHEAD 2018-2024) Data Quality and Estimate:

In 2025, the MoH conducted AHEAD estimation to strengthen its capacity for comprehensive data analysis and evidence-based decision-making. The initiative focused on monitoring immunization coverage alongside maternal, child health, and nutrition program performance. Findings from the AHEAD estimation are being institutionalized to guide routine planning, monitoring, and performance review at all administrative levels. This initiative reinforces the Ministry's commitment to leveraging high-quality data and analytics to close equity gaps, enhance immunization performance, and strengthen overall health system planning and accountability.

			Number of datapoints			
admin1	year	months	Inconsistent DTP1/DTP3	Missing data	Outliers	Same value for 6+ consecutive months
National	2011	1-12	4,164	43,421	5,975	51,843
National	2012	1-12	1,826	51,301	4,793	50,211
National	2013	1-12	1,412	72,373	3,481	53,203
National	2014	1-12	1,938	99,666	6,244	55,255
National	2015	1-12	2,612	72,619	6,831	59,679
National	2016	1-12	2,406	55,531	9,443	66,057
National	2017	1-4	604	28,191	5,097	9,430

Figure 10. Number of Penta1, Penta3 and MCV1 datapoints flagged for data quality issues

The proportion of health facilities flagged for having at least one data quality issue varied over time, ranging from 39 percent in 2020 to 53 percent in 2018, with 41 percent of facilities flagged in 2024. The most common issues were missing monthly data reports, totalling 65,639 missing data points in 2024, followed by data points showing the same number of doses administered for six or more consecutive months (51,468 instances). In contrast, inconsistencies in DTP1/DTP3 reporting were less frequent but still notable, with 2,330 instances recorded in 2024.

d) Data Triangulation

MoH conducted a triangulation of administrative coverage data with VPD surveillance, and vaccine and logistics were distributed to lower levels. The immunization data triangulation cascading exercise continued to the regions

once the national TOT conducted in June 2025 and 381 regional and zonal participants were trained on data triangulation methods. Major findings: -

- Vaccine utilization discrepancies: 8% of woredas reported BCG doses exceeding supply, 35% reported IPV doses exceeding received quantities, and 49% reported MCV doses administered beyond distributed amounts.
- There are woredas consistently with good measles immunization coverage and have measles outbreak and there are also woredas with consistently low measles immunization coverage and have no measles outbreak
- RI coverage is not sufficient enough to show the actual population immunity
- There is no significant difference between the proportion of woredas with RI coverage performance status and outbreak status
- The result shows measles vaccination coverage is not sufficient to show the actual population immunity it justifies the occurrence of frequent measles outbreaks.
- the analysis and triangulation result shows inconsistencies, underreporting, and over-reporting of data among coverage data and supply distribution, measles outbreak reports.

Data Use

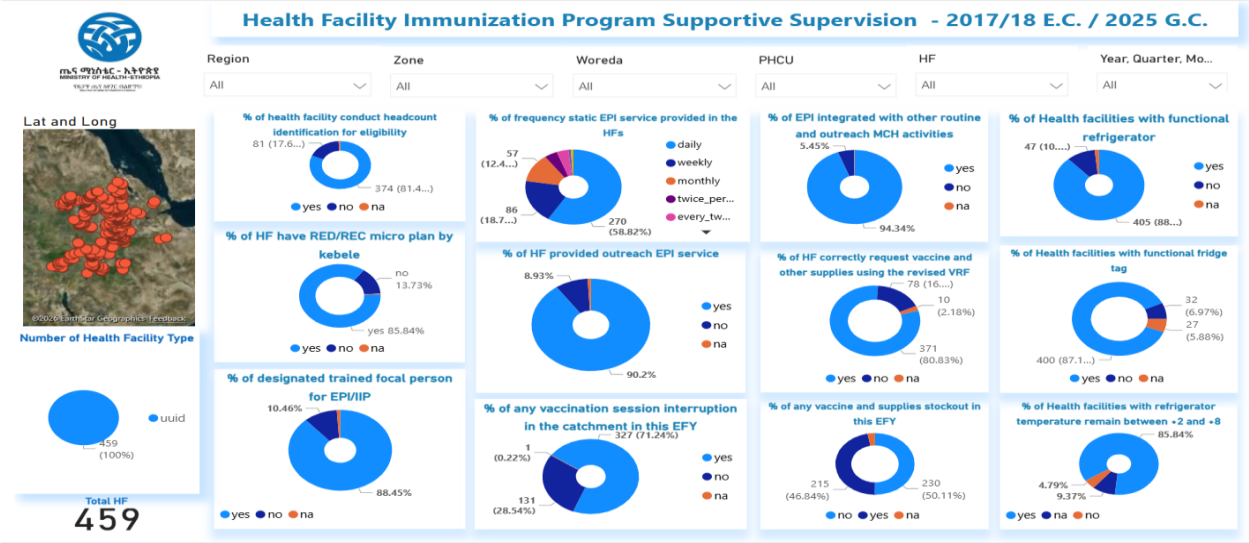
Ethiopia is strengthening the systematic use of immunization data to drive performance, equity, and accountability. Routine platforms such as Performance Monitoring Teams (PMTs) and review meetings support regular analysis of coverage, dropout, zero-dose, and data quality indicators to inform corrective actions at all levels. Additionally, several dashboards, such as the Public Dashboard, Power BI Dashboard, and HIS Dashboards, are under development and pipeline for endorsement to further enhance evidence-driven decision-making. The Ministry of Health (MOH) is actively working to strengthen evidence-based practices by generating various forms of evidence, including implementation research, best practices related to health information systems (HIS) in collaboration with stakeholders and universities (through capacity-building and mentorship programs), and evaluations of immunization program surveys.

III. Immunization program planning, monitoring, evaluation, and learning progress

The national immunization program plays a key monitoring and evaluation role, overseeing routine immunization and supplementary activities, including catch-up services, SIAs, PIRI, and rapid response interventions, while subnational Plan and Monitoring Directorates, M&E officers, and HMIS focal persons at PHCUs manage data generation, analysis, and performance monitoring. Despite these structures, the system faces critical challenges, including denominator inaccuracies, limited use of headcount data, inadequate capture of new vaccines, shortages of trained personnel, weak coordination between EPI staff and HMIS focal persons, limited accountability mechanisms, insufficient incentives for frontline workers, poor digital infrastructure, and the absence of robust, integrated indicators and tools covering service delivery, quality, vaccine supply, AEFI, and VPD surveillance, all of which constrain effective immunization monitoring and evidence-based decision-making. To strengthen RI, BCU and new vaccine introduction, monitoring, UNICEF supported printing and delivery of 14,133,093 EPI Passport Cards, 10,000 copies of Vaccine Ledger Books, 44, 000 copies of Immunization Register Books, 44,000 tally sheet pads, 88,000 monitoring chart, 40,000 copies of Fridge Tag 2E Temperature Recording Pads, and 12,000 copies of Vaccine Request Forms (VRF) pads.

a) Digital Rapid Community Survey (RCS) and Supportive Supervision

The Rapid Community Survey indicates generally strong maternal and child health service utilization, with high rates of antenatal care (54.8% completing four or more visits), facility delivery (85.6%), and postnatal care uptake. Most women are married and have some formal education, though gaps remain among those with limited education or who miss key services, reflecting inequities in access. Immunization coverage is also strong overall, but uneven, with missed opportunities among infants under 12 months and persistent zero-dose and under-vaccinated children. Strengthening outreach, microplanning, and leveraging community networks will be critical to address these gaps, ensure equity, and sustain high coverage for both maternal and child health programs.



Supportive supervision from 459 health facilities indicates generally strong immunization service readiness, with most facilities conducting headcounts, integrating immunization with MCH services, and maintaining functional cold chains. However, gaps remain in service frequency, trained EPI/IIP focal persons, and operational consistency. About one-third of facilities reported session interruptions or stock-outs, and fewer than half have RED/REC micro plans at the kebele level. Strengthening microplanning, workforce capacity, and supply continuity is essential to ensure uninterrupted, high-quality, and equitable immunization service delivery.

b) Review Meeting

Immunization and integrated MCH service review meetings are regularly conducted at national and subnational levels to assess progress, address challenges, and improve vaccination coverage and data quality while narrowing equity gaps. These include immunization-specific review meetings with strategic affairs and digital health stakeholders, the National HIS performance review to evaluate system functions and develop action points, and the Sectoral Annual Review Meeting (ARM 27th) with broad participation from RHBs, partners, donors, and professional associations. Across these platforms, stakeholders collaboratively identify gaps, share recommendations, and plan targeted actions, including for zero-dose and under-vaccinated children.

c) Immunization Program Evaluation

Despite progress in national immunization aligned with global health agendas, challenges persist across the health system, service delivery, and community factors, with outbreaks of vaccine-preventable diseases reported in several regions. In 2024, the Ministry of Health, in collaboration with CBMP Universities, AMREF, WHO, UNICEF, JSI, and PATH, conducted a comprehensive immunization program evaluation using a tailored adaptation of WHO's National EPI Review guide. The study covered 471 enrolment areas, 14,000 children, nearly 3,000 observed vaccination sessions, and over 600 health facilities, assessing leadership, governance, service

delivery, supply chain, demand generation, AEFI, and VPD surveillance. Findings showed coverage rates of 75% for Pentavalent 1, 65% for Pentavalent 3, and 60%/55% for MCV1/MCV2, while also providing actionable insights on SARA, LMG practices, EVM, M&E, and vaccine safety to inform planning and program design at all levels of the health system.

d) Re-Estimation of ZDs in Ethiopia by region

In 2025, MOH conducted re-estimation of zero dose children based on the updated estimation using triangulated data from Admin data, WUENIC estimate, EDHIS survey, Project Hope ZD evaluation, and considering other factors such as outbreak data, conflict, IDPs, etc to estimate woreda level data. The estimation found that Ethiopia has more than 2.9 million ZDs from under-5-year-old children 2020-2024.

e) Evidence generation, translation, and knowledge management

Ethiopia's immunization program generates evidence through research, evaluations, data analytics, and documentation of best practices in collaboration with academia, research institutions, and development partners. This evidence covers key programmatic areas, including service delivery, coverage, demand-side factors, and vaccine-preventable disease (VPD) surveillance. Comprehensive program evaluations are conducted every three years under the oversight of the Ministry of Health, including both national and subnational assessments.

Complementary data sources and initiatives strengthen immunization evidence, including WUENIC and Countdown 2030 for coverage estimates, the 2022 Service Provision Assessment (SPA) for service readiness, and the Actionable Health Analytics for Decision-Making (AHEAD) initiative for district-level coverage estimates and decision support. To translate evidence into action, the Ministry organized an annual conference under the theme "Local Evidence for Action: Building a Country-Owned and Resilient Immunization Program," bringing together researchers, program partners, and national and regional immunization leaders. Gavi provided technical and financial support to facilitate the conference in collaboration with the Ministry and other partners.

IV. Actions taken to address immunization program data-related gaps

- Conducted immunization evaluations and compared administrative data with WUENIC, EDHS, surveillance, and supply data to improve coverage estimates and re-estimate zero-dose children.
- Carried out data triangulation, joint surveillance reviews, and outbreak analyses to identify inconsistencies and population immunity gaps.
- Strengthened HMIS through RDQA and PRISM assessments, addressing connectivity, tool standardization, workforce, and financing gaps.
- Made major investments in digital health platforms (DHIS2, EIR, eCHIS, EMR, LMIS, iHRIS) for real-time reporting and analytics.
- Institutionalized routine performance reviews, dashboards, and evidence-to-action forums to enhance data use and accountability.
- Improved planning and equity targeting by integrating data-driven insights into immunization program decision-making.

V. Factors facilitated the progress

- Strong Ministry of Health leadership and clear policy direction guiding HIS and immunization data initiatives.
- Sustained partner financing and support from Gavi TCA-MCF, World Bank, USAID, BMGF, CIFF, US/Africa CDC, and others.
- Accelerated digital transformation through platforms such as DHIS2, EIR, eCHIS, EMR, LMIS, and iHRIS.
- Functional data review and accountability mechanisms, including PMTs and routine review meetings.

- Continuous capacity building and routine data quality initiatives, such as DQAs and data triangulation.
- Enhanced coordination, interoperability, and a culture of data use to drive performance improvement across the immunization program.

VI. Promising practices, innovations

- Routinize national and subnational immunization estimation and data quality exercise
- Scale up of Electronic Immunization Registry (EIR),
- Strengthen of Digital SS and RCS

VII. Challenge and risk mitigation

- Low scale-up of EIR and Digital Supportive Supervision (Digital SS) systems.
- Capacity gaps among health workers affecting effective utilization of digital health tools.
- ICT infrastructure constraints, connectivity, hardware availability, and system maintenance.
- Weak HMIS implementation in PHF, IDP/refugee settings, and conflict-affected areas.
- Challenges in scale-up and integration of LMIS/DAGU systems.
- Irregular implementation of routine RDQA/DQA to ensure data quality.

VIII. Risk mitigated

Key external challenges requiring additional support include conflict, currency inflation, and a shortage of lower-level human resources. Conflict disrupts healthcare service delivery and access, while currency inflation undermines financial stability, increasing operational costs and limiting resource availability. Simultaneously, the shortage of lower-level human resources hampers service efficiency and coverage, highlighting the need for targeted interventions to address these interconnected issues effectively.

IX. Way forward

- Conduct EPI Coverage Survey and health facility assessment
- Routinize subnational level AHEAD estimation
- Scale up EIR and Digital SS
- Capacity building for health workers to ensure effective use of key digital tools
- Strengthening the ICT infrastructure
- Strengthening Private health Facility, IDP/Refugee, Conflict affected areas HMIS Implementation
- Enhance advanced data triangulation and innovation
- Scale up LMIS/DAGU
- Conduct routine RDQA/DQA
- Strengthened collaboration with local and international partners

1. Implementation of Technical Country Assistance (PEF-TCA)

Learning Question 14: Is the country implementing PEF TCA and COVAX TA, and other Gavi supports as expected? Please explain how the TCA has helped to support the achievement of the country's objectives.

The Ethiopia Ministry of Health is working intensively to reduce ZD and under-vaccinated children, with due emphasis on routine immunization strengthening and improved universal coverage. The MoH has prioritized activities and areas of investment to address access and utilization of immunization and other essential health services.

In line with the National Immunization priorities, the TCA provided support to the MoH in various aspects across the immunization system. GAVI TCA and CDS activities supported the country to implement the Ethiopia immunization Full Portfolio Plan (FPP) and comprehensive multi-year immunization plans (cMYPs) aligned with broader health objectives of the country. Based on the plan, TCA partners (core and extended) deployed technical assistants at national, regional and zonal level in various immunization functions, including LMC, demand promotion, cold-chain management, service delivery, capacity building, surveillance, vaccine safety and AEFI management, review performance, gender integration and M&E, including digitalization. The partners have supported the country to generate evidence, engage stakeholders, extend immunization service delivery, improve demand generation, data quality, human resource and capacity building which enhanced leadership, planning and coordination. The TCA TAs provided training and mentorship that improved technical competencies of immunization officers and service providers. The technical assistance and knowledge transfer have enhanced the immunization service strengthening and quality of immunization services, particularly in conflict-affected and hard-to-reach areas. The support enhanced immunization program performance through micro-planning, enhancing cold chain capacity, demand promotion, services provision using various modalities, evidence generation and use for decision. The TA support enables public and private health facilities to provide vaccination services even under challenging conditions.

The GAVI partners and TCA support provided rapid technical and operational assistance for mass vaccination campaigns including HPV MAC, Supplementary Immunization Activities (SIA) and targeted mini campaigns in underserved communities.

In sum, the GAVI partners, TCA and CDS TA support plays a vital role in enhancing immunization activities and strengthening the overall health system, including enhancing the cold chain infrastructure with the focus on reaching the underserved communities, which in turn improve the overall immunization coverage. The ministry has utilized these TAs to reinforce and facilitate routine immunization efforts in the country. It also strengthens partnerships among government, civil society, and private sectors while building the government staff capacity to ensure long-term sustainability in line with the national and global objectives.

Partners Support with Gavi Fund Across Thematic Areas:

Leadership, Management, Coordination, and Planning

Immunization program guided by the National Health Policy, Ethiopia’s immunization Leadership, Management, and Coordination (LMC) framework provides a steadfast foundation for government stewardship and resource mobilization. This governance and coordination structures are brought to life through the Inter-Agency Coordinating Committee (ICC), E-NITAG, Task force and a dedicated network of thematic Technical Working Groups (TWGs) specialized in service delivery, logistics, and demand creation. Supported by the Gavi Partner Engagement Framework (PEF) Targeted Country Assistance (TCA), these collaborative platforms have been instrumental in integrating COVID-19 and HPV vaccines into routine systems, while successfully orchestrating "Big Catch-Up" (BCU) and campaigns/mini campaigns to reach zero-dose children and close critical immunity gaps. For instance, JSI facilitated Ethiopia’s NITAG-led process, guiding workshops, data compilation, and structured decision-making. The outcome was a clear roadmap for vaccine introduction between 2026 and 2030.

Together, the MoH and TCA partners remain committed to optimizing these coordination structures at every level of the health system. By addressing subnational challenges such as staff turnover and inconsistent coordination through systematic planning and digital innovation.

The support from all Gavi alliance partners was instrumental to ensure a comprehensive and inclusive process of all steps of the National Immunization Strategy (NIS) development, a series of national and sub-national workshops have been conducted to address the preparation of situational analysis, strategic objectives, strategy formulation, and activities, assumptions and risks, monitoring and evaluation framework, resource estimation and budget dialogue. The workshops supported by various EPI partners both financially and technically and facilitated by CBMP universities. IPE Global facilitated embedding gender and equity considerations into the NIS 2026-2030 and integration of gender equity, into the annual plans and other guidelines of MoH and RHBs. TCA partners have supported comprehensive micro-planning using a bottom-up approach, and 85% health facilities has submitted their RED/REC micro plan.

Support to Human Resource and Capacity Building

One of the major contributions of TCA and COVAX was strengthening the human resources of the country on immunization at all levels of the health system. Partners deployed TAs at the national and sub national levels through TCA and COVAX support. A total of 119 TAs recruited and deployed throughout the country by various partners including WHO, UNICEF, CDC, JSI Imm, JSI DHA, CHAI, PATH, CCRDA, Acasus, IPE global and OPM (see Table 19 for details).

Table 19: Planned, Deployed and Achieved of technical assistance providers deployed by partners from TCA and COVAX

Name of Partner	TA Deployed			Accomplishment (% from the plan)
	TA National	TA Subnational	Total	
WHO	1	7	**8**	100%
UNICEF	5	17	**22**	100%
JSI Imm.	4	18	**22**	100%
IPE Global	1	2	**3**	100
PATH	2	20	**22**	100%
CHAI	3	14	**17**	100%
CCRDA/CORE Group	-	12	**12**	100%
CDC	1	1	**2**	100%

JSI	2	5	**7**	100%
ACASUS		1	**1**	100%
Mannion-Daniels and Oxford Policy management (OPM) sub-national TAs	2	-	**2**	100%
Total	22	97	119	100%

NB: The TCA support is 112

The TAs were deployed at National and sub-national level to support the immunization program at all levels, as well as, strengthening of the health system. Below are the reasons for deploying the TA through the TCA and CDS support

This demand-driven assistance provided through various Gavi-funded partners consists of deployment of embedded experts at national, regional, zonal and woreda level. This TA bridges gaps and mitigates challenges in coverage, equity and sustainability of immunisation services by availing expertise to strengthen the system. The TA plays a critical role as the country currently faces multiple natural and human made challenges in reaching and vaccinating eligible children to achieve the desired immunization coverage. These challenges include: internal conflict and associated population displacement, rapid population growth, geographic terrain, weak infrastructure and health systems barriers including turnover of immunization experts.

Thus, the Gavi-funded TA improves capacity of the existing system by sharing expertise with government staff by implementing contextualized and jointly agreed activities, such as planning, training, supportive supervision and sharing of best practices and lessons. For instance, nationally a total of 34, 290 immunization service providers at public and private health facilities have received IIP training, of which 20, 736 were received though CHAI, PATH, JSI and other partners. The IIP trainings targeting immunization managers and service providers. The knowledge assessments showed a substantial improvement, with average scores increasing from 53.4% at pre-test to 87.8% at post-test, and 94% of participants reported the training was relevant to their work.

The 5-day vaccinology training was developed and delivered jointly by CBMP Universities, AMREF Health Africa, Africa CDC, and Gavi to strengthen the capacity of immunization program actors across Ethiopia, including national and regional immunization leaders, technical experts, and researchers. The course aimed to strengthen the country's capacity to protect communities through vaccines, covering key topics such as immunology, vaccine types and safety, manufacturing, program delivery, cold chain systems, data-driven decision-making, and strategies to address vaccine hesitancy through effective communication. Experts from the CBMP alliance universities supported the development of a comprehensive training curriculum and facilitated the sessions. The course represents the first step in a long-term strategy to build local expertise, expand training programs, and ensure equitable access to life-saving vaccines.

In addition, refresher trainings were conducted with the support of various Gavi alliance partners for service providers, including Health Extension Workers (HEWs) covering Data Quality Self-Assessment (DQS), cold chain management, RED microplanning facilitation, Human-Centered Design (HCD), and other immunization-related topics to further strengthen workforce capacity. CCRDA/CGPP, PATH, JSI, and CHAI strengthened community-level immunization by empowering frontline workers with targeted skill transfer and mobilizing

communities using community volunteers and social mobilizers for demand creation—directly boosting vaccine uptake and improving the quality of immunization services.

Contribution of TAs on service delivery, demand generation/promotion, and immunization supply chain management

In line with the national priority, all TCA partners provided technical support to strengthen routine immunization, big catch-up and accelerated mini-campaign, new vaccine introduction (HepB BD, and Malaria), HPV routinization, Measles 5 dose switches, outbreak response (nOPV2, measles,), measles SIA and COVID-19 integration. During the reporting period, Gavi partners provided comprehensive technical and financial support for Ethiopia's nationwide integrated Measles Supplementary Immunization Activity (SIA) through health campaign effectiveness approach. This support Strengthened routine immunization, reducing burden of zero dose and under-vaccinated children, contributing for outbreak control, and improving overall health outcomes.

Through the technical and financial support of CHAI, immunization service delivery expansion from 166 to 198 private health facilities, though consultative workshops, capacity building trainings, supportive supervision and performance review meetings, which as the result improved vaccine uptake.

National Gavi CSO Project Launching Event at Addis Ababa; 14 March 2025 (Photo Credit: OPM)

The Gavi CSO project coordinated by a consortium of Oxford Policy Management (OPM) and Mannion-Daniels (MD) supported 80 priority Woredas to identify and vaccinate ZD and UV children. The project has embedded 93 TAs at Regional, Zonal and Woreda Health Offices exclusively to provide TA for Immunization Program. These include 80 at Woredas, 8 are RHBs, and 5 at Zonal levels. To maximize impact, it implemented locally contextualized and program aligned activities that contribute to systems strengthening. The project engaged five CSOs and three-sub-recipients that deployed embedded TAs at two big regions. The support strengthened skill of health workers, assessed and maintained CCE; conducted supportive supervision and last mile delivery activities. Progress is monthly reviewed through coordination meetings; and at bi-annual regional reviews. Over the last nine months, it contributed to improve access through RI, expanding outreaches and campaigns; and in introduction of new vaccines. By facilitating reaching communities with no services for as long as six months to three years; the project demonstrated that CSOs engagement bridges equity gaps in underserved and conflict affected areas. CDC contributed on planning and evaluation of immunization program of CSOs working in two security affected zones of Oromia region. Likewise, the Gavi-funded ISIS TA project supported strengthening immunization system by supporting partner mapping, coordination, generating evidence-for action; and strategic and operational planning through embedded experts.

The GAVI alliance partners, with TCA and COVAX TA provided support in the applications and roll out of new vaccines introduction and switch. They offered technical expertise throughout the new vaccine application for these vaccines and monitored the implementation for the successful delivery.

UNICEF supported to reach missed communities and strengthen primary health care (PHC) systems through prioritizing high-burden, conflict-affected, and hard-to-reach woredas. The UNICEF Gavi-CNF multisectoral initiative supports integrated service delivery approaches that link routine immunization, campaigns, and NVIs.

The multisectoral service delivery maximized efficiency, reduce missed opportunities and expand equitable access to essential health services.

WHO's technical and financial support has been instrumental in strengthening national capacity for vaccine safety. Through the training of 69 healthcare workers in AEFI detection, investigation, reporting, and clinical management, the country has built a more competent and responsive workforce to manage reported AEFI cases. This targeted capacity building has significantly improved the speed and accuracy of identifying, reporting, and responding to vaccine safety concerns across all regions. These investments have also reinforced the national vaccine safety surveillance system, contributing to greater public trust in immunization services and AEFI management.

UNICEF provided sustained technical support to integrate SBC and RCCE into routine immunization, outbreaks, and emergency platforms, including development of a fully costed national and regional Demand for Immunization Plan. Tailored demand interventions in 10 woredas used Human-Centered Design and co-created solutions with communities, strengthen HEW capacity, and promote gender-equitable practices such as the "chore game." These efforts reached thousands of caregivers through IPC sessions, immunization milestone tracker distribution, and community events, with stronger results in Amhara and Oromia. UNICEF also supported the MOH to standardize an IPC-I training package, trained 1,607 HEWs, strengthened partnerships with CSOs and faith leaders, and conducted a study on BeSD of routine immunization drivers among pastoralist communities.

IPE Global, CCRDA/CGPP, Gavi REACH, and Gavi OPM CSO projects drove a transformative community engagement movement that significantly boosted immunization uptake in underserved, pastoralist, mobile, IDP, and border populations. Through strong technical support, gender responsive community dialogue guidelines, and widespread mobilization of political, clan, and religious leaders, the initiatives broke access barriers and strengthened public trust.

From 2024–2025, CGPP/CCRDA mobilized 960+ Community Volunteers and trained 260+ HEWs and TAs, enabling household mapping, rumour management, and referrals that identified and vaccinated zero dose and under vaccinated children through PIRI, outreach, and catch-up sessions. Over 504 immunization sessions reached large number of zero dose and under vaccinate children to be vaccinated as result reduced high burden of zero dose and under vaccinated children, supported by localized messaging and leadership engagement. System strengthening efforts improved RED microplanning in 70 woredas, updated 120+ facility micro-plans, enhanced outreach logistics, restored cold chain functionality, and achieved 85.7% digital micro-plan completion across 576 facilities using DHIS2, ODK, and Power BI. Overall, 83% of zero dose children were vaccinated despite logistical and supply constraints—proving the power of community led strategies, digital innovation, coordinated supervision, and strong government partnership. These approaches significantly reduced zero dose prevalence and reinforced the foundation for universal immunization in Somali and Gambella.

WHO and other TCA partners technically and financially supported Africa vaccination week celebration, world polio day commemoration, new vaccine introduction launches, and immunization related campaign launches, amplifying key messages and mobilizing stakeholders.

Girl effects supported Big Catch-Up Campaign, School Mini Media Programme, Champion's App Discussions, Community Leader Sensitization, fact Elevator Stories: and Public Awareness Sessions in South Region. The Yegna TV Drama that addresses issues like immunization, Gender Based Violence, menstrual health, and economic empowerment. Episodes aired on Abbay TV and YouTube, reaching 7.2 million viewers. Girl effect School supported the HPV campaign through a mini media program and targeted HPV mobilization for Out-of-School Girls to maximize vaccine uptake, including HPV.

IPE Global technically supported the development of community dialogue guidelines to include gender responsive approaches and facilitated social mobilization and community engagement, which provided frontline workers with culturally sensitive gender responsive techniques to address gender barriers. This approach can improve immunization uptake among zero-dose and under-vaccinated children. The support also included implementation of the tailored demand interventions packages through application of Human-Centered Design and Behavioural Insights approach to enhance community engagement.

UNICEF has a pivotal role in the procurement and installation of different CCEs, RTMDs, transportation vehicles, tool kits, and spare parts. The technical assistance provided at both national and sub-national levels has been highly impactful in terms of ensuring availability of vaccines at all levels of the supply chain. To strengthen last-mile delivery, in collaboration with MOH and other stakeholders, it has introduced an innovative solution called the DRIVE initiative [Direct Delivery of Routine Immunization Vaccines and other PHC commodities for equity]. CDC assisted in the preparation of the service-level agreement for the Direct Delivery of Routine Immunization Vaccines and other PHC commodities for Equity (DRIVE) Initiative project. This initiative is being implemented across four priority regions. The DRIVE also contributes to poverty reduction by engaging unemployed youth from local communities using motorcycle. Through the GAVI Health Facilities Solar Electrification (HFSE) learning agenda, it has also supported solarization of 380 health facilities. Furthermore, the agency provided technical assistance and operational support to the MoH to ensure uninterrupted availability of safe and potent vaccines at all levels of the health system.

UNICEF is also actively supporting the direct delivery of vaccines and other essential health commodities to 146 conflict-affected woredas that are currently inaccessible to EPSS.

National CCE Campaign

The DRIVE initiative

Gavi-supported CSOs with OPM, JSI and CHAI also supported maintenance of cold chain equipment (CCE-WICRs & FRs)/ refrigerators and training of technicians and biomedical engineers on CCE maintenance. With the support of UNICEF, CHAI and JSI, cold room relocation and renovation were conducted at EPSS centre and at hubs. JSI supported in revising the mid-level CPD approved cold chain equipment maintenance management training curriculum and trained technicians and biomedical engineers. It also supported the development of senior level cold chain equipment management training curriculum in collaboration with the MoH PMD LEO and EPSS, which is currently being finalized for CPD approval.

With the objective of enhancing the tracking, utilization, maintenance, and overall management of medical equipment to improve healthcare service delivery, JSI supported the development and rollout of the Medical Equipment Management Information System (MEMIS), and provided orientation training on Varo Pogo LT app to RHBs/ZHDs Biomedical engineers, and EPI experts, to collect and analyse temperature data from Fridge tags for maintenance decisions and resource planning.

JSI supported the revision of planned preventive maintenance monitoring checklists and SOP. Developed Walk In Cold Room (WICR) and Walk In Freezer Room (WIFR) spare part forecasting tool, and CCE spare parts inventory

holding and reposition strategy, which has been endorsed by EPSS. Key aspects of the strategy include Inventory Holding Strategy, Repositioning Mechanisms, and Governance & Capacity Building.

The Gavi-CSO project also supported CCE maintenance, Gavi-CSO projects and provided maintenance training of CCE/refrigerators in their support woredas. Acasus utilized supportive supervision data to identify and flag non-functional units in Afar, which led to 27 fridges being replaced or repaired. Technical Assistants from CCRDA ensured uninterrupted immunization services by monitoring vaccine stock at woreda and facility levels and addressing gaps in Somali and Gambella regions. GAVI- reach project supported indigo backpack vaccine carrier to facilities in project implementation areas.

HIS, M&E and Learning, and Digitalization

The Ministry of Health, with JSI technical support, scale up of the electronic immunization registry (EIR), DHIS2 RED Microplanning tool to improve evidence-based planning and better target underserved populations. To strengthen data use, it has also facilitated visualization of finding from RCS, supportive supervision through Power BI. Additionally, technical support is being provided to migrate the RCS and supportive supervision tools from ODK to DHIS2 platform. The RED micro-planning tool was successfully transitioned to DHIS2, enabling centralized compilation and monitoring of facility-level micro-plan, sustainably.

WHO and CDC provided technical and coordination support for the successful implementation of national and sub-national immunization data triangulation exercises in collaboration with the MoH and RHBs. WHO also supported compilation and submission of quarterly national Big Catch-up (BCU) performance data, including documentation of achievements and challenges. In collaboration with Acasus and MoH, WHO contributed to the development of Standard Operating Procedures (SOPs) and comprehensive survey tools for the 2025 Integrated Measles SIA independent monitoring. The support provided technical oversight on the framework and training of Trainers (ToT), while Acasus led operational execution, including recruitment, training, and deployment of independent monitors along with data analysis and visualization to enable corrective actions. Additionally, WHO provided leadership and coordination support in monitoring the four rounds of the 2025 nOPV2 vaccination campaigns and initiated the Post-Measles Campaign Coverage Survey (PMCCS) through an independent consulting firm to validate the outcomes of Ethiopia's national integrated measles campaign

The MoH, in collaboration with UNICEF conducted Actionable Health Analytics Data for Decision making (AHEAD) initiative project that generates woreda-level analytics based on facility data spanning 2018–2024 across all regions, zones, and immunization-providing facilities. The data analysis focused on three tracer antigens Penta1, Penta3, and MCV1 that representing access, service continuity, and completion of the immunization services. It facilitated the equity-focused data use and evidence generation remain central to programme design, prioritization, and adaptive management.

Through UNICEF technical assistance, an in-house web-based tool has been developed at EPSS to analyse Vaccine Request Forms (VRFs) submitted by health facilities. This tool enhances supply chain efficiency by standardizing and monitoring vaccine request processes, reducing stock-outs and minimizing vaccine wastage, improving data visibility to enable informed supply planning and supporting evidence-based decision-making at EPSS hubs.

With technical and financial support of UNICEF, CHAI and JSI, MoH is utilizing RTMD at all EPSS cold rooms and 34% of health facilities equipped with vaccine refrigerators with RTMD. Temperature feedback collected via RTMD is shared centrally and disseminated to all hubs and health facilities that improved performances.

PATH supported best serving PHCUs were identified as models for others to learn from it: Model PHCUs as true centres of excellence and catalysts for scaling best practices across the region by combining intensive capacity-

building initiatives with systematic knowledge-sharing platforms, the project has created a sustainable framework for improving health outcomes and strengthening service delivery. These model facilities now serve as benchmarks for high quality, demonstrating integrated service provision, robust defaulter-tracing systems, effective microplanning practices. These model PHCUs serves as a center of excellence and learning hub for sustainable health system strengthening.

Through the PSI support, a study was conducted to evaluate the effectiveness of integrating HPV vaccine with RI, which demonstrated that integrated service delivery is feasible, effective & comprehensive supplementing the existing school-based vaccination efforts.

OPM is supporting the national effective management assessment (EVMA 2025), vaccine waste and temperature monitoring studies. The findings help to evaluate the overall performance of immunization supply chain management, to determine country specific vaccine wastage rate and to evaluate integrity of cold chain management system across the supply chain level.

UNICEF, in collaboration with MoH, conducted three case studies under the Big Catch-Up (BCU) initiative:

1. Delivery, Monitoring, and Vaccine Availability for BCU implementation in conflict-affected regions
2. Barriers and Enablers of BCU Implementation, based on insights from government implementers
3. Root Causes of Poor DHIS2 and Google Sheet Data Quality in BCU immunization. These studies generated actionable insights to guide future planning and strengthen system performance.

University of Gondar, in collaboration with other Capacity building and Monitoring Program (CBMP) universities conducted Evidence Synthesis and Translation Training Workshop and provided technical and financial support to EPI Research Dissemination workshop. The CBMP universities are supporting the establishment of the Zero-dose reduction think tank group and Ethiopian Immunization Academy aimed at serving as a national platform for continuous learning, innovation, knowledge generation, and systematic dissemination of policy and best practices in the immunization program.

In summary, the Gavi's Targeted Assistance has played a critical role in advancing the performance, resilience, and equity of the national immunization system. The support has enabled focused interventions in key technical and operational areas, resulting in measurable improvements across the immunization program. Key benefits include:

1. Enhanced LCM: support the effective functioning This governance and coordination structures and advisory groups: the Inter-Agency Coordinating Committee (ICC), E-NITAG, Task force and thematic Technical Working Groups (TWGs) of service delivery, logistics, and demand creation. They also supported planning, including NIS regular coordination meetings and stakeholders' forums

2. Strengthened health workforce capacity: Targeted training and mentorship supported by Gavi have enhanced the competencies of health workers in immunization program management, vaccine safety, cold chain operations, and community engagement. This has improved the overall quality and effectiveness of immunization service delivery.

3. Expanded community engagement and demand generation: Gavi's assistance has supported social mobilization and risk communication activities that address vaccine hesitancy and promote positive health seeking behaviour. This has contributed to increased demand for immunization and greater acceptance of new and existing vaccines.

4**. Improved vaccine management and supply chain performance**: Through investments in cold chain expansion, logistics management, and capacity building, Gavi TA has enhanced the efficiency and reliability of the vaccine supply chain. This includes reduced stock outs, improved cold chain functionality, and better forecasting and inventory control.

5. Strengthened immunization service delivery: Targeted Assistance has helped improve the availability, accessibility, and quality of immunization services, particularly in hard to reach and underserved areas. This has contributed to reducing missed opportunities for vaccination and increasing coverage of routine immunization.

6. Enhanced data quality and use for decision making: Support for digital tools, data quality assessments, and capacity building at national and subnational levels has strengthened the accuracy and timeliness of immunization data. Improved data use has allowed program managers to identify gaps, monitor performance, and implement corrective actions promptly.

7. Reinforced surveillance, vaccine safety and AEFI management: Through capacity building and system strengthening, Gavi TA has contributed to better detection, reporting, investigation, and response to AEFI cases and enhance outbreak control. This has enhanced the credibility of the immunization program and increased public trust in vaccines.

8. Improved equity in immunization coverage: By directing support toward underserved regions and vulnerable populations, Targeted Assistance has helped reduce geographic and socioeconomic disparities in immunization coverage, moving the country closer to achieving equitable access for all children.

9. Strengthened program resilience and emergency readiness: Gavi TA has enabled the immunization system to better withstand shocks such as disease outbreaks, population displacement, and supply disruptions—ensuring continuity of essential vaccination services

Enabling Factors:

- Country leadership, governance, commitment and ownership
- The presence of different functional coordination platform (NITAG, ICC, JCC, task force, and TWGs)
- Availability of enabling health policy, strategies and guidelines.
- Improvement of domestic resource allocation and availability of donor funding
- Availability of technical support through TCA and other sources
- Improved innovation and access to digital technologies
- Improvement of cold chain infrastructure
- Engagement of Private Sector, humanitarian actors and community engagement in vaccine delivery to the last mile in conflict affected areas
- Strong Community Engagement: High vaccine uptake was driven by community demand and generation
- Enhanced practice of evidence generation with the engagement of academia, and program partners and use for informed action

Challenges:

- Data quality issues, including lack of exact denominator for the target groups
- Service interruption due to human made and natural disaster conflict and insecurity (supply distribution and service delivery)
- Narrow structure of immunization program and inadequate staffing that led to overburdened health workforce
- Limited funding options are creating substantial financial gaps
- Insufficient awareness among healthcare workers regarding the routinization of the HPV vaccine risks inconsistent implementation and coverage

Innovations and Good Practices:

- **VRF Analysis Tool:** An in-house web-based VRF analysis tool was developed at EPSS to analyse Vaccine Request Forms (VRFs) submitted by health facilities. The tool standardises and monitors vaccine request processes and stock situation; increases data visibility and monitoring and mitigation of risk of stock-out and vaccine wastage.
- **Dagu 2-VRF Module:** VRF module integrated in facility Dagu-2 is being implemented to over 1603 health facilities to enhance data visibility and stock situation monitoring at health facility level.
- **The DRIVE Initiative:** is implemented across 41 woredas, 120 PHC facilities, 727 health posts, and 1,234 outreach sites in Afar, Amhara, Oromia and Somali regions 160 unemployed youth from local communities who facilitate access to vaccines for zero dose reduction; and creating gainful employment for youth using motorcycles.
- **Varo-Pogo LT:** Use of temperature data for equipment performance monitoring and cold chain equipment maintenance planning.
- Innovative Approaches: Initiatives such as the HFSE and DRIVE model and community engagement strategies that not only meet programmatic needs but also contribute to social well-being and economic empowerment within local communities.
- **Local Capacity Utilization:** Engagement of on-site government biomedical engineers to support the installation of Solar Direct Drive (SDD) units in security-affected and inaccessible areas ensures continuity of cold chain functionality and service delivery.
- **Human-Centered Design:** Integration of SBC, RCCE, and immunization services to improve service delivery and community trust
- **Digital tools enhance data-driven decision making:** digitalization that include DHIS2, KOBO, and Power BI tools for supportive Supervision and Rapid Community Survey enabled decision-makers to strengthen their active use of data for decision-making
- **Evidence for Action:** Use of learning agenda and academic partnerships to generate actionable evidence for zero-dose reduction and adaptive programming
- **Digital Innovation & Real-Time Monitoring:** Use of ODK and DHIS2 enabled agile, data-driven decision-making.
- **The Gavi- supported CSOs inclusive and evidence-driven design** and adaptive project contributed to identify and align activities, minimize overlap in geographic woredas and thematic areas- thus maximizing use of resources to bridge gaps and improve equity in support.
- **The importance of integration** of immunization with other maternal, child, adolescent health services and nutrition, as well as the sub-regional mini-catch up in reducing zero-doses:
- **Engaging community members**, such as Village Health Leaders (VHLs) and volunteers were the foundations for tailored outreach activities
- **Strengthened collaboration with the** CBMP universities, including the initiation of Ethiopian Immunization Academy

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 TCA planning, revision of dates for anticipated new vaccine applications or introductions, etc. [8]
- Roll-out or expansion of promising practices and innovations
- Other aspects and follow up actions

Follow up action	**Timeline**	**Responsible person/partner**

[8] This refers to all types of Gavi support