



COVID-19 vaccination integration assessment

Ethiopia Case Study
March 2024

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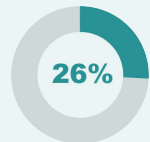
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Background

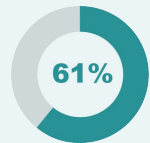


Background and Rationale

- Despite progress in COVID-19 vaccine introduction, **coverage remains suboptimal** globally
- By April 2023, overall population coverage:



Low-income countries: 26% fully vaccinated¹



Lower middle-income countries (LMICs): 61% fully vaccinated

- WHO declared an end to COVID-19 as a public health emergency on May 5, 2023
- Countries anticipate **waning financial, technical, and vaccine support** from external partners as the pandemic transitions.
- **Integration*** is identified as a key **strategy for ensuring the long-term sustainability of COVID-19 vaccination.**
- This report will generate evidence concerning **how LMICs have and are planning to integrate COVID-19 vaccination** with health systems.

¹ Source: <https://www.gavi.org/vaccineswork/covid-19-vaccine-coverage-continues-increase-lower-income-countries#:~:text=Gavi's%20latest%20COVAX%20data%20brief,a%20global%20average%20of%2066%25>

*by integration, we mean: the degree to which COVID-19 vaccination has been or will be integrated with other components of the health system in terms of governance, management, service delivery, procurement, supply chain, information systems, financing, and service delivery – including integration with other essential health services (e.g. ANC, HIV, NCDs, RI).

Multi-country Assessment Methods and Scope



Seven country assessments in:

Benin	India (Tamil Nadu state)
Ethiopia	Mozambique
Ghana	Nigeria
Liberia	

Country selection criteria:

- Innovators in integration.
- Performance on COVID-19 vaccinations and routine immunization (RI).
- USAID target or Pfizer priority countries.
- Geographic contexts.

Data collection:

Key informant interviews with stakeholders involved in implementing integration activities and in broader health system strengthening efforts:

- Federal Ministry of Health (FMOH), COVID-19 task force officials.
- Expanded Program on Immunization (EPI) / National Immunization Technical Advisory Group (NITAG) members, heads of COVID-19 vaccination units at subnational levels.
- Development partners/agencies.
- Civil Society Organizations (CSOs), Implementing partners, public, private providers, academics, etc.

Focus group discussions with health care workers.

Ethiopia Background



According to Federal Ministry of Health (FMOH) administrative data, as of April 2023, COVID-19 primary series¹ vaccination rates were:

- **Overall population:** 61% of the eligible population (12 years and above).
- **Health care workers:** 56%.
- **Older adults (over age 65):** 50%.

Priority groups:

Phase 1: frontline health workers; older adults; younger adults with significant comorbidities; people who are immunocompromised; pregnant women; and internally displaced persons (IDP).

Phase 2: all eligible population aged 12 and above.

The Ethiopia National Deployment and Vaccination Plan (NDVP) was developed in 2021 and has been updated twice (as of December 2023).

¹Two doses for most COVID-19 vaccines available in the country, except Johnson & Johnson vaccine, whose primary series requires only one dose.

COVID-19 Vaccination in Ethiopia

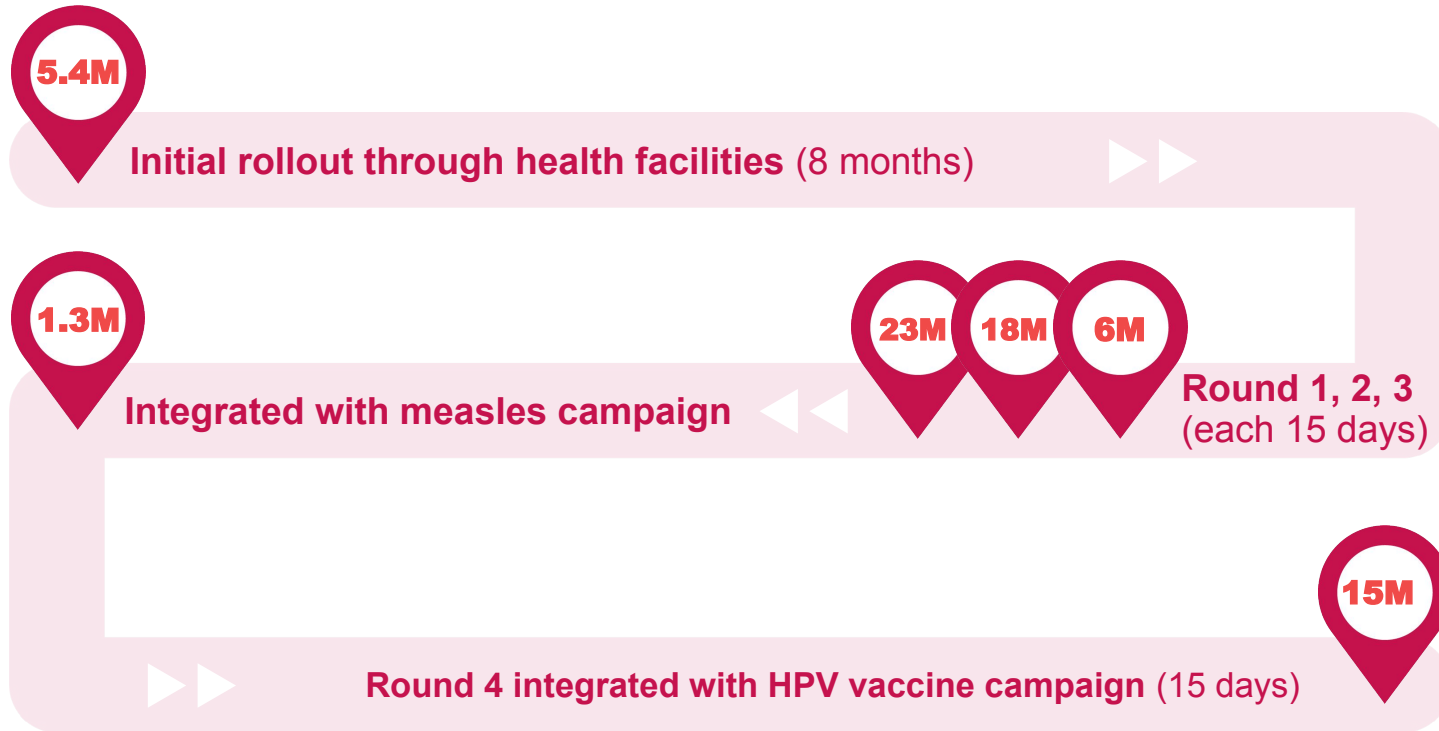
- The COVID-19 vaccine was first introduced in Ethiopia on March 13, 2021, and delivered by health facilities.
- Despite the offer of free vaccinations to targeted populations at health facilities, achieving the government's first vaccination performance goal of at least 20% was not possible until November 2021, when the strategy shifted to conducting mass campaigns.
- The FMOH conducted several rounds of mass campaigns:



- During the campaign there were vaccination services at health facilities.
- The FMOH had planned an additional mass campaign but it was cancelled when WHO declared COVID-19 no longer a public health emergency.
- The FMOH also carried out mini-campaigns to reach conflict-affected areas after the fourth mass campaign in May 2023.

Summary of COVID-19 Vaccination in Ethiopia

Vaccine doses administered



Assessment Objectives

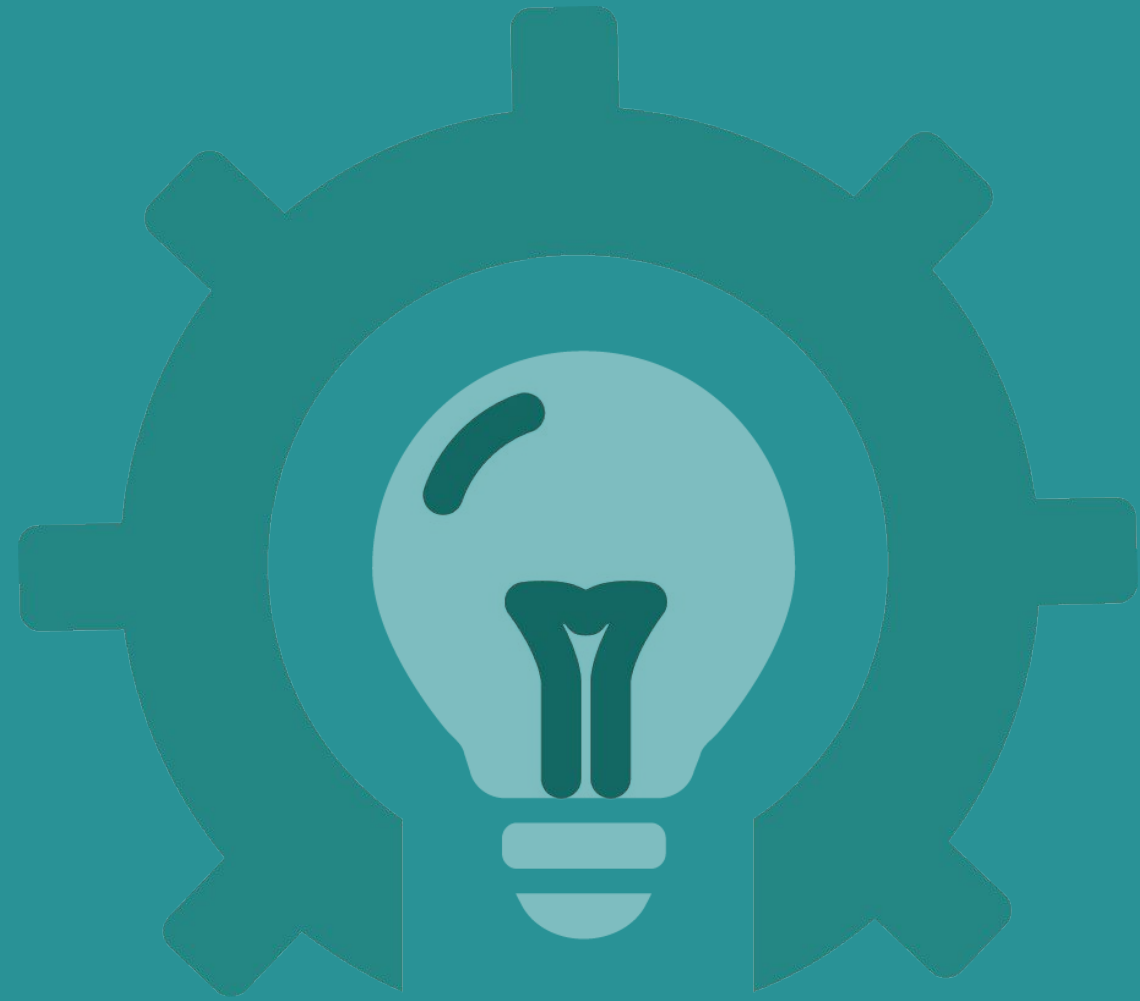


Assess the status and thinking about the future integration of COVID-19 vaccinations targeting priority groups with essential health programs and health system functions.



Compile lessons learned about the integration of COVID-19 vaccinations from the urgent response phase of the pandemic.

Methods



Research Questions

1

What have governments planned for sustaining COVID-19 vaccinations for priority populations?

2

What is the thinking concerning the operational integration of COVID-19 vaccinations with:

- Other essential health services.
- Other health system and vaccination functions.

3

How are COVID-19 vaccinations planned to be (or already are) part of:

- Overall health strategies.
- Immunization strategies.
- Monitoring and evaluation.
- Budgeting.

4

How has integration with other essential services or health system functions helped or hindered equitable access to COVID-19 vaccination?

5

What lessons were learned from integration (or lack thereof) of COVID-19 vaccinations during the urgent pandemic response period?

Methods



Desk review of key documents globally and for each country.



Advisory group input on the approach, facilitation of collaboration, review of findings, and assistance with dissemination.



Qualitative data collection
(conducted from Aug-Oct 2023):

Key informant interviews with 17 people: national and sub-national government stakeholders and multilateral and development partners.

Three focus group discussions with service delivery workers in Addis Ababa, Afar and Sidama regions (one per region).

To obtain representative data, the selection of regions included different settings: one urban (Addis Ababa), one semi-urban and rural agrarian population (Sidama), and one pastoralist setting (Afar). In addition, Afar is one of several conflict-affected regions in the country with IDPs.

Analysis

Notes were produced to summarize each interview and focus group discussion, guided by audio recordings to fill in any gaps in the notes.

Analysis was conducted using Atlas.ti software.

- Both deductive and inductive coding approaches were used.

Inter-coder reliability was ensured through discussions, group coding exercises, and quality checks conducted by the principal investigators.

To summarize the extent of integration into other health services and health system functions, the research team used a maturity scale¹, assigning values based on analysis of the data and reflecting maturity at the current stage:

- 1 **limited/no** integrated activities.
- 2 **opportunistic** integration without planning.
- 3 **strategic plans exist/beginning** deployment.
- 4 integration **implementation underway** with some gaps.
- 5 **highly integrated** and sustainable.

¹Adapted from: [WHO/UNICEF, 2023. Operational framework for demand promotion: Integration of COVID-19 vaccination into routine immunization and primary health care](#))

Research Findings

Ethiopia



Research Question 1:

What have governments planned for sustaining COVID-19 vaccinations for priority populations?

Plan for Sustaining COVID-19 Vaccinations



Initially, COVID-19 vaccines were delivered at health facilities to high-priority groups only (health workers, the elderly, and people who are immunocompromised). During this time there was a shortage of COVID-19 vaccines (due to limited donations) and a limited roll-out of vaccines through static/fixed service delivery at the facility level.



As vaccine availability increased later in 2021, the FMOH decided to expand its vaccination focus to reach everyone 12 years of age and older. To reach this expanded population, the FMOH switched strategies to have a series of mass vaccination campaigns, which included outreach and temporary sites.



In 2023, there were mini-campaigns to address pocket areas that were not adequately reached during the mass/nationwide campaigns due to conflict or other reasons.

Current Situation: COVID-19 Vaccination

As of October 2023, COVID-19 vaccination has halted in most regions, except where there are mini-campaigns to address unreached and previously conflict-affected areas.

However, vaccination services are available based on request, mainly in Addis Ababa where there are international communities and travelers.

The current low rate of vaccination is linked with the lack of demand and absence of demand generation at the national level.

“In my opinion, currently, there is no demand generation activity; it is zero. Nothing has been done about COVID-19 through the media or health centers.”

- Sub-national level respondent



Plan for Sustaining COVID-19 Vaccinations

- An integration plan (guideline) is currently under preparation at the federal (FMOH) level involving different technical working groups (planning and coordination which work on leadership and governance, service delivery, logistics and supply, monitoring and evaluation, and communication)
- The plan is to integrate COVID-19 vaccination with other health services and the health system in general.
 - In addition to integrating into routine service delivery, periodic mini-campaigns may be utilized to address conflict-affected areas and places where uptake remains low.
 - All efforts will be led by the EPI service desk.
- Regional and lower-level stakeholders will be invited to give feedback during the endorsement of the integration guidelines and the implementation phase.
 - Some regional respondents indicated that they were aware that a guideline for COVID-19 integration was being developed, but they had not otherwise been engaged in its development.
- The guidelines were planned to be launched at the end of 2023 at the national level (but preparations are taking longer than initially planned).

Plan for Sustaining COVID-19 Vaccinations

The integration guidelines will be a general guidance, but the details will be determined by the context during implementation, considering what can be integrated and what cannot.

“When we go to the detailed implementation, it depends on the context on the ground. It needs to know which approach works; intra-facility referral [to EPI] or availing COVID-19 vaccine in each department. Do they have a vaccine carrier to provide in each room? In some places, intra-facility referral may work if there is vaccine carriers to provide vaccines in each room.”

- National level respondent

Plan for Sustaining COVID-19 Vaccinations

STRENGTHS

- Involvement of different partners and technical working groups during the development of the integration guidelines at the national level.
- Follows SAGE/WHO recommendations.

LIMITATIONS

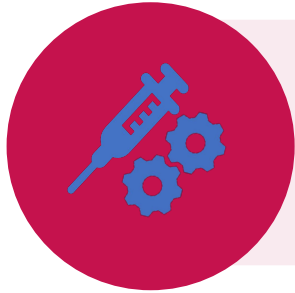
- Slow progress as the guidelines are not yet finalized compared to the initial plan to finalize the guidelines in September 2023 and launch the integration in December.
- Lack of involvement from lower levels of the health system, including regional health bureau staff.
- Concerns from stakeholders on the ability to rollout/implement the integration guidelines, due to lack of funding and the need for initial resources.

Research Question 2:

What is the thinking/decisions concerning the integration of COVID-19 vaccinations with:

- Other essential health services (e.g., antenatal care [ANC], non-communicable diseases [NCDs], HIV, TB, primary health care [PHC])
- Other health system and vaccination functions (e.g., service delivery, human resources, training, procurement, cold chain, supply/distribution systems, information systems, demand generation, supervision, and community engagement)?

Status of Integration of COVID-19 Vaccinations with Health Services



In general, the purpose is to integrate COVID-19 vaccines primarily with maternal child health services, RI, ANC, FP and other chronic and follow-up services like HIV, TB, and NCDs.



The maternal, child and adolescent health directorate/unit is expected to be the main coordinator and implementer of the integration as EPI is under their unit.



As part of the guideline development process, the FMOH wants to test the applicability of the guidelines and overall integration in different settings and contextualize it.

Status of Integration of COVID-19 Vaccinations with Health Services

Key informants reported some experiences integrating COVID-19 vaccination with other health services, primarily during vaccine campaigns.

“Integration with measles vaccine campaigns was done. In addition to that, COVID-19 vaccine integration extended to family planning services and other services.”

- Sub-national level respondent



Status of the Integration of COVID-19 Vaccinations with the Delivery of Other Health Services

Health program	Maturity scale of 1 (low)-5 (high)*	Brief explanation
RI	2	<p>Urgent phase: Most facilities have integrated activities such as demand generation and addressing zero-dose children, primarily during COVID-19 vaccination campaigns.</p> <p>Planned/future: EPI at the facility level will manage and provide COVID-19 vaccinations.</p>
ANC	1	<p>Urgent phase: There was neither a common direction nor practice for COVID-19 vaccinations and ANC - mothers themselves asked providers for COVID-19 vaccinations.</p> <p>Planned: The likely option will be for ANC providers to counsel and internally refer clients for COVID-19 vaccination within the facility's EPI room.</p>
Programs for people who are immunocompromised (e.g., people who have HIV or TB)	2	<p>Urgent phase: In most facilities, there were requests for vaccination from the clients themselves, especially in the beginning. Care providers advised and connected clients with COVID-19 vaccinators.</p> <p>Planned: The likely option will be for HIV/TB providers to counsel and internally refer clients for COVID-19 vaccination within the facility's EPI room.</p>
Programs for older adults and/or NCD programs	2	<p>Urgent phase: Integration has been implemented to some extent at the health facility level, although not formally. During the urgent phase, older populations were identified and reached through campaigns (including temporary outreach sites, for example at elder care homes) in multiple regions.</p> <p>Planned: The likely option will be for providers to counsel and internally refer older adult clients for COVID-19 vaccination within the facility's EPI room.</p>

*Values assigned based on research team's analysis of data, reflecting maturity at current stage. Scale: **1=limited/no** integrated activities; **2=opportunistic** integration without planning; **3=strategic plans exist/beginning** deployment; **4=integration implementation underway** with some gaps; **5=highly integrated** and sustainable.

(Source: [WHO/UNICEF, 2023. Operational framework for demand promotion: Integration of COVID-19 vaccination into routine immunization and primary health care](#))

Operational Integration Modalities



Centrally, two approaches for fixed service delivery have been proposed but not yet decided upon: integrating COVID-19 vaccination with RI and utilizing internal referrals from other units, or providing the service at selected service units. Integration with RI and internal referral from other units has been favored by the team involved in the development of the guidelines.



Additionally, mini-campaigns may be employed to address conflict-affected areas and areas with low uptake, ensuring that these populations are not left behind in vaccination efforts.



Given the regional diversity, the FMOH plan is to prepare general guidance and make necessary corrections during implementation based on the context and feedback from the regional health bureaus and health care providers.



“There will be two types of integration; within the routine immunization and with our primary health care services including ANC and other departments. All departments are expected to provide counseling about COVID-19 vaccination. We anticipate internal referral as the dominant approach. “

- National level respondent

Participant Perspectives on Future Integration Direction

- Key informants and FGD participants who were not involved in the development of the integration plan shared four different strategies as options for integrating COVID-19 vaccination in the future.

Option

1

Suggests providing COVID-19 vaccination alongside RI in the same room. This would involve patients/clients being referred from other service rooms within the facility to the EPI/vaccination room.

Option

2

Proposes administering COVID-19 vaccination in the main service rooms (e.g. ANC room) after training healthcare providers in their respective units. This would involve using cold boxes and vaccine carriers to ensure proper storage and transportation of the vaccines.

Option

3

Suggests establishing a separate room with its own infrastructure, including a cold chain, to provide COVID-19 vaccination. Patients/clients from the main service units would be referred to this specific room.

Option

4

Proposes adopting a mixed approach that combines periodic campaigns with static (facility-based) vaccination. This would involve conducting campaigns in specific areas or communities with low uptake or in conflict-affected areas. The goal is to target these populations and increase vaccine coverage.

- Neither these respondents nor the integration plan indicated routine outreach as an option other than suggestions to conduct mini-campaigns to address conflict-affected areas and places where low uptake is reported.

Participant Perspectives on Future Integration Direction

STATIC SERVICE DELIVERY:

Providing COVID-19 vaccination alongside RI and using referrals from other service rooms within the facility.

Challenge: Culturally inappropriate to expose infants to adults outside the family; mothers may fear risk of disease transmission, like TB; burden to the RI program; loss of some clients unless well tracked; privacy issues for people living with HIV

“COVID-19 vaccine should be integrated with routine immunization. Storage and distribution have already been integrated. Existing facilities were used for COVID-19 vaccines. Forward-looking, it must be integrated with the actual forecast and procurement plans.”

- National level respondent

STATIC SERVICE DELIVERY:

Administering COVID-19 vaccination in the main service (e.g. HIV) after training healthcare providers and using cold boxes and vaccine carriers.

Challenges: Lack of vaccine carriers, absence of trained human resources, space shortage at the respective units, burden to the health worker, long waiting time, lack of quality service provision.

“It is better to invest in the infrastructure including refrigerators. Intra-facility referral demands patients move from one department to the EPI rooms, which are usually narrow. In some facilities, one room is used for both vaccination and under-five treatment.”

- Sub-national level respondent

STATIC SERVICE DELIVERY:

Establishing a separate sub-unit (separate room) to provide COVID-19 vaccination.

Challenges: increased infrastructure/ space needs, lack of vaccine carrier, potential need for separate data tools at the facility level which increases costs.

“And there are various things that need to be registered, and this also has its own registration. This will create a work burden because everything has its own reporting system...Leaving aside the training issue, this will create a burden on both the practitioner and the patients who are waiting outside.”

- Sub-national level respondent

STATIC + CAMPAIGNS WITH OUTREACH

Adopting a mixed approach that combines periodic campaigns with static (facility-based) vaccination

Challenges: Although it is good to reach healthy population groups who have no follow-up, this approach demands higher resources.

“COVID-vaccination can be integrated with other health services. However, for older people who have no medical issues and do not come to health facilities, an outreach approach is appropriate. Similarly, the outreach approach (mini-campaign) is applicable to industry special groups.”

- National level respondent

Status of the Operational Integration of COVID-19 Vaccinations with Other Health System Functions (1)

Health system building block*	Maturity scale of 1 (low)-5 (high)	Brief explanation
Leadership and governance	4	<p>Urgent phase: EPI was closely engaged in the response, including playing a critical leadership role in the implementation effort.</p> <p>Planned: The minister/state minister and respective heads or vice heads at the regional level will lead the integration efforts. The EPI department, under the maternal, child, and adolescent health directorate/unit, will play a central role in coordinating and managing the integration process.</p>
Service delivery	2	<p>Urgent phase: Initial limited rollout through health facilities, followed primarily by the mass vaccination campaign strategy, including some integrated campaigns; integration guidelines under development.</p> <p>Planned: Provide COVID-19 vaccination at the RI center using intra-facility referral, but the actual implementation will be determined based on the context.</p>
Health system financing	3	<p>Urgent phase: Little additional domestic funding was mobilized; for example, the FMOH mainly used existing health workers within the system to vaccinate for COVID-19. Received funding from COVAX World Bank grants for COVID-19 specific efforts such as vehicles/per diems during campaigns, technical assistance, and other essential operational costs.</p> <p>Planned: Will depend on global donations for continued supply (if there is a need, the government will consider co-financing based on global epidemiological data).</p>

Status of the Operational Integration of COVID-19 Vaccinations with Other Health System Functions (2)

Health system building block*		Maturity scale of 1 (low)-5 (high)	Brief explanation
Health workforce	Training	1	Integration guideline orientation and basic training will be provided to the health workforce including extension workers.
	Supervision	2	The plan is to include COVID-19 vaccination in the checklist as part of the routine supervision and use existing supervision mechanisms for RI.
Medical products, vaccines, and technologies	Procurement	3	There won't be any new mechanism of procurement; expect to continue to receive vaccines through global mechanisms.
	Cold chain	4	The cold chain has already been integrated and there is a plan to include private facilities if cold chain supplies are donated as these facilities provide care for many chronic care patients.
	Supply chain	2	The COVID-19 vaccine supply chain and distribution has been partially integrated with RI since its introduction, and will continue
Information systems		2	Urgent phase: Registration and recording forms (e.g. tally sheets) are not integrated, though reporting is done using the online version of the DHIS2 tool. Planned: integrate COVID-19 with RI recording tools.
Demand and community engagement		3	It will continue to be integrated with maternal, child and adolescent health and with other primary health services and chronic disease follow up.

Research Question 3:

How are COVID-19 vaccinations planned to be (or already are) part of overall health strategies, immunization strategies, monitoring and evaluation, and budgeting?

Status of COVID-19 Vaccination Planning

Country strategies and planning	Maturity scale of 1 (low)-5 (high)	Brief explanation
Overall health strategies	3	COVID-19 vaccination has been included in the FMOHs three-year strategic plan (“Health Sector Medium-Term Development and Investment Plan”) and in the annual operational plan (“Woreda-Based Health Sector Annual Plan FY 2016 (2023/2024)”).
Immunization strategies	2	EPI policy (“EPI Implementation Guideline”), last updated in 2021, includes language on integrating RI broadly, without specifying COVID-19 vaccination integration. Gavi FPP: COVID-19 integration not included (at the time of FPP development, the country was still in phase of implementing periodic campaigns, with specific COVID-19 funding from COVAX).
Monitoring and evaluation	3	As a cross-cutting function, COVID-19 vaccination has been/is planned to be included in the health monitoring and evaluation (M&E) system and will be monitored similarly to other routine programs.
Budgeting	2	Urgent phase: budgeting for campaign activities was largely funded through specific COVID-19 funding from Gavi, World Bank, etc. In the future, operational costs will be integrated with the existing budget for vaccination as part of annual budgeting process.

Integration with Governance and Management

There were different responses from key informants at the national versus facility level regarding governance, accountability, and management:



One respondent mentioned the aim to establish a new coordination mechanism for COVID-19 vaccination above EPI. EPI is accountable for vaccination coverage, but they do not typically have authority over other programs who may now be involved (e.g., HIV program). A higher coordinating body could have the authority to coordinate across departments.

“We need to have some coordination mechanism that is at a level above EPI, and is for all of us because it’s difficult for EPI to coordinate horizontally. In the draft coordination mechanism, we proposed a department that is one step higher and will have the authority to coordinate.”

- National level respondent



On the sub-national level, one respondent indicated that business as usual should continue - integrating the governance and management of COVID-19 vaccination along with RI.

“We agreed that it should continue with routine worker work and availing vaccine at health facilities. Doing demand generation activities and availing COVID-19 vaccination service to health facilities is needed.”

- Sub-national level respondent

Integration with Supply Chain Management



Integrated and managed by existing system: The procurement process (except bilateral donations), shipment, storage at all levels, vaccine monitoring and temperature regulation, and waste management are integrated with the existing RI.

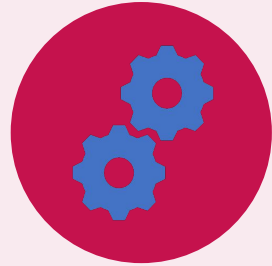


Needs amendment: The Logistics Management Information Sheet (LMIS) monitoring tools such as worda and health facility recording, the Vaccine Requisition Form (VRF) at all levels, and ledger books need to incorporate COVID-19 vaccination.



Not integrated at all: COVID-19 vaccine forecasting and delivery have not yet been integrated; COVID-19 forecasting has been done during campaigns rather than on an annual cycle like RI, and delivery has occurred at the time of campaigns versus regular deliveries every three months.

Integration with Procurement Processes



Will require microplanning for accurate forecasting and procurement.



Vaccine donation will be the main source.



In the face of an initial lack of donations during the early pandemic stage pre-COVAX, there was some initial debate and consideration for the government to self-finance vaccines to reduce vulnerability.



The local government may attempt to co-finance in the future, like they considered previously when there was no donation from any source.

“The FMoH tried to procure (COVID-19 vaccines) but was not successful. We received a few doses of Sinopharm vaccines from China.”

- National level respondent

Anticipated Challenges to Successful Integration

Anticipated Challenges to Successful Integration



There is a difference in target groups for COVID-19 vaccination and RI, and there are cultural barriers related to mixing target groups.



If demand generation activities contain multiple messages, there is often a lack of public understanding.



Overall low health seeking-behavior may mean a low uptake of COVID-19 vaccination once it is integrated.



Additional burden for the health workforce.



A procurement and operational cost dependency on global mechanisms - a lack of financing and shortage of global donations could affect vaccine availability and the rollout of integration.



Vaccine specific cold chain management.



Service interruption and poor health worker commitment.



Short shelf life of the COVID-19 vaccine could aggravate waste if integrated with RI and only provided at health facilities.

Difference in Target Groups and Cultural Barriers

There is a difference in target groups for COVID-19 vaccination and RI, and there are cultural barriers related to mixing target groups.

“One of the challenges is target group difference; EPI is used to target children only. Even the HPV vaccine is not integrated, it is only provided as a campaign mode.”

- National level respondent



Lack of Public Attention if Integrated with Multiple Messages

*“...People cannot understand multiple pieces of information from one spot...
Disseminating multiple messages at a time is difficult and it can confuse people.
It’s not easy.”*

- National level respondent

Uptake may also become low in the future as COVID-19 is no longer a declared emergency by WHO.





Overall low health seeking-behavior may mean low uptake of vaccination once integrated

“In countries where there is low health-seeking behavior, people may not come to health facilities to get vaccinated. For me, vaccines should be delivered to the field during outreach services. The uptake was high during the campaigns. The coverage significantly decreased after we stopped campaign and outreach activities.”

- National level respondent

Additional Burden for the Health Workforce



“There is one EPI focal person and the RMNCH coordinator at the Zonal level will be responsible in the future. The problem is that they are busy and have many responsibilities to handle. Thus, the monitoring and supervision regarding COVID-19 vaccination could be weak. It is better if someone is assigned to closely work with the other program staff and get better results.”

- Sub-national level respondent



“There may be low-quality service as health workers will be busy with activities especially in side effect monitoring.”

- National level respondent

Procurement and Operational Cost Dependency on Global Mechanisms

“There could be changes in the resource availability. COVID-19 has been a global concern. It caused millions to die and millions to be infected. International agencies like the World Bank, Gavi, WHO, UNICEF, and others supported the COVID-19 vaccination efforts in general and mass campaigns in particular. COVID-19 is no longer a global public health concern. Thus, there will not be a huge resource to be available for conducting campaigns...This could negatively affect the program.”

- Sub-national level respondent

Vaccine Specific Cold Chain Management

“The logistics of the Pfizer vaccine was a challenge as it required an additional ultra-cold chain. That took some additional time to get. Therefore, AstraZeneca was used in the first campaign.”

- National level respondent

Suggests that use of vaccines not needing the ultra-cold chain would be preferred though some consider it as an opportunity to introduce new technology.



Service Interruption and Poor Commitment

“During our recent review meeting, it was presented that pregnant women linked to another unit will not wait and receive service if they do not find a health worker at that time. There was no other challenge reported. As long as strong counseling is provided, there will be no problem. Health care workers’ commitment is important.”

- Sub-national level respondent

The Short Shelf Life of the Vaccine Could Aggravate Waste

"The current short shelf-life vaccine is another challenge. If the vaccination is only at health facility level (without campaign), the vaccines could expire before using them."

- National level respondent

Anticipated Benefits of Integration



TO SERVICE PROVIDERS & HEALTH SYSTEM

- Efficient use of resources by minimizing program cost as more than one service can be delivered when integrated.
- Improve full utilization of health workforce skills and time by creating a one-stop service, though they may need initial training.
- Monitoring and evaluation (including planning, supervision, and review) can be carried out simultaneously with other RI services.
- Increase access and reduce missed opportunities for COVID-19 vaccination by creating the opportunity to identify unvaccinated people from other service units.
- Improves the use of technology transformation and data management using COVID-19 resources.
- The lessons from COVID-19 vaccine integration might create a good team spirit and strengthen internal referrals.
- COVID-19 based tailored communication will be a good lesson for the RI.

Anticipated Benefits of Integration

TO BENEFICIARIES

- They can get more than one service in the same room, which can save time, transportation costs and could have economic benefits (productivity).
- Decrease vaccine hesitancy as proper counseling, including the advantages, disadvantages, and side effects of vaccines, are communicated to clients.
- It may improve community engagement.

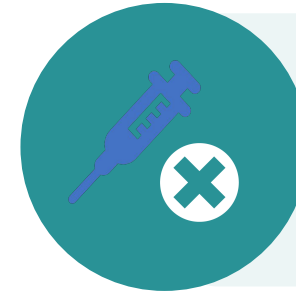
Research Question 4:

How has integration with other essential services or health system functions helped or hindered equitable access to COVID-19 vaccination?

Ensuring Equity in the Integration Process



As COVID-19 vaccination has not been fully integrated and data is not available for each type of priority group, equity issues were not well addressed.



However, there were conflict areas where there was poor access to the COVID-19 vaccine and campaigns were not properly conducted. Thus, mini-campaigns were conducted after the fourth campaign was concluded, addressing these unreached areas.



The integration guideline mainly focuses on addressing the priority groups in the WHO SAGE recommendations: older adults; younger adults with significant comorbidities (e.g. diabetes and heart. disease); people with immunocompromising conditions including children aged 6 months and older (e.g. people living with HIV and transplant recipients); pregnant persons; and frontline health workers.

- Additionally, beyond the SAGE recommendations, Ethiopia has prioritized IDPs to continue to be a priority group in the future to address context-specific equity challenges they continue to face.



Based on the responses from the key informants, the integration guideline will also recommend mini-campaigns when vaccination uptake is low to ensure equity.

Ensuring Equity in the Integration Process

- The plan is to achieve 100% coverage for the priority groups and 70% for the general population, which was not achieved during the roll-out and campaigns. Given the low or almost null uptake in most parts of the country post-mass campaigns, some respondents indicated fear about achieving the plan, and the importance of demand generation and community engagement.
- Mini-campaigns are included in the integration guidelines to ensure equity in conflict-affected areas or any population group which shows low uptake.
- The FMOH conducted mini-campaigns in the Tigray region, which was affected by conflict during the four mass campaigns. There is a plan to conduct mini-campaigns in Oromia and other regions where there have also been conflicts.
- Integration should consider context to assure equity.

“There should be modifications in the delivery modalities. Hard-to-reach areas should be identified. Vaccine delivery strategies should consider the context in account. Different strategies could be needed for pastoral and agrarian regions. For successful integration, all the required logistics should be in place.”

- Sub-national level respondent

Research Question 5:

What lessons were learned from integration (or lack thereof) of COVID-19 vaccinations during the urgent pandemic response period?

Key Lessons from the Urgent Pandemic Response Phase



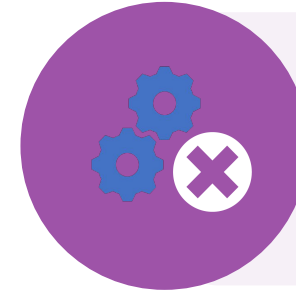
Lessons from small integration experiments may be applied to future, broader integration efforts and the health system.



Early on, little guidance was provided due to a lack of integration experiences to draw upon. Integration guidelines should address details and needs for its applicability.



COVID-19 data visibility and tracking was initially a manual system and needs improvement.



Difficulty managing and coordinating integrated programs.



There was no Vaccine Vial Monitor for COVID-19 vaccine vials which affected vaccine and adverse events following immunization management and will continue to be a challenge if the rate of vaccination slows.

Key Lessons from the Urgent Pandemic Response Phase

- EPI was closely engaged in the COVID-19 response, including playing a critical leadership role in the implementation effort, which positively impacted the rollout.
- There was a disconnect between policy and implementation: for example, health workers were initially unsure/unaware about any guidance related to vaccinating pregnant women.

“There were no clear guidelines for pregnant women whether they could take the vaccine or not. We were telling them orally just to inform them of the side effects and if they agree, they could take it or leave it, but there is no documented file.”

– Sub-national level respondent

- During the initial phase of campaigns, clients were referred from the HIV and TB clinics and medical records were used to identify immunocompromised persons as eligible for vaccination during the campaigns. However, some clients felt a perceived risk of delivering COVID-19 vaccination in the same room as HIV/TB/immunocompromised patients.
- Strengthened coordination along the continuum of care between COVID-19 vaccination delivery and community based nutrition education programs (especially during campaigns).

Conclusions

- Ethiopia has begun to plan how COVID-19 vaccinations will be organized for a sustainable future, and the guidelines are under preparation at the federal level.
- While COVID-19 has already been integrated with some functions, the maturity of integration into health services and health system functions is still in progress and is currently mainly in the planning or nascent deployment stages.
- Moving forward, a shift will be seen from conducting campaigns to an integrated service at health facilities guided by the development of national integration guidelines.
- It is likely that COVID-19 vaccinations will be integrated primarily with maternal and child health services: (RI, ANC, family planning, sick child treatment) and other medical care with follow-up NCDs, HIV, TB etc.
- Routine delivery at health facilities, utilizing internal referrals from other health units for certain priority groups, is likely to be the major strategy.
- However, mini-campaigns that utilize temporary/outreach sites may be implemented to assure equitable access to COVID-19 vaccination for priority groups in conflict-affected areas and/or to address groups with low uptake due to other reasons, including low health seeking behaviors.
- Integration of the cold chain and vaccine distribution system, demand generation, nutrition, and the measles campaign were successful.

Conclusions

- **As the integration guidelines are rolled out, feedback is needed from lower level health administration and health workers to assess feasibility and adapt implementation as needed.**
- **Demand generation using mainstream, social media, and community engagement should be in place before launching integration, given the current lack of communication and perceived low risk, including among high priority groups.**
 - **COVID-19 vaccination should be an agenda item both in the health sector and the media.**
- **There is a need to strengthen the capacity of the cold chain through maintenance of available equipment.**
- **More discussion is needed to determine appropriate and acceptable lines of authority, supervision, monitoring, and responsibilities of COVID-19 vaccination across multiple health programs.**
- **Resource mobilization and stakeholders' engagement is a continued concern and need, particularly during the initial roll out of the integration guidelines.**

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