MEETING REPORT

Stocktake on COVID-19 Vaccination and Integration
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2–3 May 2023, Addis Ababa, Ethiopia

Joint Conveners:
Africa Centres for Disease Control, COVID-19 Vaccine Delivery Partnership, Ethiopia Federal Ministry of Health, Gavi the Vaccine Alliance, United Nations Children’s Fund, World Health Organization
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## Acronyms

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<tr>
<td>IA2030</td>
<td>Immunization Agenda 2030</td>
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<tr>
<td>Africa CDC</td>
<td>Africa Centers for Disease Control and Prevention</td>
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<td>AMC92</td>
<td>COVID-19 Vaccines Advance Market Commitment (92 low- and middle-income economies)</td>
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<td>CDs</td>
<td>communicable diseases</td>
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<tr>
<td>CEPI</td>
<td>Coalition for Epidemic Preparedness Innovations</td>
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<td>CHWs</td>
<td>community health workers</td>
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<td>COVAX</td>
<td>COVID-19 Vaccines Global Access</td>
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<td>COVID-19</td>
<td>coronavirus disease 2019</td>
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<td>CoVDP</td>
<td>COVID-19 Delivery Partnership</td>
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<td>CSOs</td>
<td>civil society organizations</td>
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<td>EAPRO</td>
<td>East Asia and Pacific Regional Office</td>
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<td>EIR</td>
<td>Electronic Immunization Registry</td>
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<td>EMRO</td>
<td>Eastern Mediterranean Regional Office</td>
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<td>EPI</td>
<td>Expanded Programme on Immunization</td>
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<td>ESARO</td>
<td>Eastern and Southern Africa Regional Office</td>
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<td>Gavi</td>
<td>Gavi, The Vaccine Alliance</td>
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<td>HRH</td>
<td>human resources for health</td>
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<td>ICC</td>
<td>Immunization Inter-agency Coordinating Committee</td>
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<tr>
<td>IFRC</td>
<td>International Federation of Red Cross and Red Crescent Societies</td>
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<td>FMoH</td>
<td>Federal Ministry of Health</td>
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<td>NCDs</td>
<td>non-communicable diseases</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<td>NDVP</td>
<td>National Deployment and Vaccination Plan</td>
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<td>PHC</td>
<td>primary health care</td>
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<td>SAGE</td>
<td>Strategic Advisory Group of Experts on Immunization</td>
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<td>SCALES</td>
<td>Service delivery, Communication Accountability Logistics Electronic Management of Immunization data and Supportive Supervision – strategy for COVID-19 vaccine roll-out in Nigeria</td>
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<td>SLL</td>
<td>Saving Lives and Livelihoods</td>
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<td>UNICEF</td>
<td>United Nations Childrens’ Fund</td>
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<td>WCARO</td>
<td>West and Central Africa Regional Office</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WFP</td>
<td>World Food Programme</td>
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Executive summary

The COVID-19 vaccine stocktake event was held in Addis Ababa, Ethiopia, on 2-3 May 2023. Jointly convened by the Ethiopia Federal Ministry of Health, the COVID-19 Delivery Partnership (CoVDP) WHO, UNICEF, Gavi, and Africa CDC, the event brought together over 170 participants, including representatives from 33 CoVDP countries, UNICEF’s Headquarters and Regional Offices in East Asia and Pacific, Eastern and Southern Africa, West and Central Africa, and South Asia, and the WHO’s Headquarters and Regional Offices for Africa and Eastern Mediterranean, Africa CDC, Gavi, The Vaccine Alliance and multilateral partners.

The meeting featured presentations, group work, plenary discussions, marketplace sessions and panel discussions to encourage collaboration and in-depth conversations.

The event participants reflected on the achievements and challenges of COVID-19 vaccine delivery in concerted support countries from 2021 to 2023, identified lessons learned and best practices, and developed actionable recommendations for integrating COVID-19 vaccination into the primary health care.

As a follow up to meeting, CoVDP committed sharing the meeting proceedings report, including a summary of lessons learned and best practices, with participants.

To move COVID-19 integration work forward:

- Enhance the capacity for Ministry of Health (MoH) led coordination for integration within the MoH, with other ministries, and across agencies/partners.
- Support the development and implementation of costed operational integration plans.
- Conduct stakeholder workshops to map partners and resources within the MoH, among partners, and where feasible, across other ministries.
- Identify and leverage various resources aligned with the “one costed plan” approach, including financing from partners like the Global Fund and flexible funds that can be used for multiple interventions.
- Provide technical and financial support for integration at the programmatic level, encompassing areas such as risk communication, community engagement, vaccine demand generation, service delivery, human resources, interoperable data systems, and context-appropriate tools.

In conclusion, the COVID-19 vaccine stocktake served as a platform for countries to reflect on their COVID-19 vaccine delivery efforts, exchange best practices, and chart a path forward for integrating COVID-19 vaccination into routine immunization and primary health care platforms. The event’s outcomes will inform the ongoing support provided by key stakeholders to ensure the sustained success of vaccination programs and the recovery of essential immunization services.
Introduction

The COVID-19 vaccine stocktake event was held in Addis Ababa, Ethiopia, on 2 and 3 May 2023. Jointly convened by the Ethiopia Federal Ministry of Health, CoVDP, WHO, UNICEF, Gavi, and Africa CDC, the event brought together representatives from 33 countries that received concerted support from CoVDP between 2021 and 2023.

Objectives

The key objectives of the event were to:

1. Review coverage progress, identify best practices, and take stock of lessons learned in COVID-19 vaccine delivery in participating countries over the 2022–2023 period with a view to replicate.
2. Identify the needs for continued support from agencies and partners into the next phase of the response, including support for the integration of COVID-19 vaccination into routine immunization and primary health care to ensure sustainability of COVID-19 vaccination efforts.

Key outputs

The meeting aimed to achieve the following outputs:

2. Time-bound recommendations for key immunization stakeholders, including WHO, UNICEF, Gavi, and others, to support the integration of COVID-19 vaccination into routine immunization and primary health care services.

Participation

The event witnessed a broad spectrum of participants, totaling 168 individuals, representing various stakeholders committed to COVID-19 vaccination progress. These included Ministry of Health representatives from 33 countries including the Ethiopian Federal Ministry of Health that co-hosted the event, UNICEF and WHO country representatives, bilateral partners, donors, and key organizations such as the World Food Programme (WFP), the International Federation of Red Cross and Red Crescent Societies (IFRC) and Help Age Tanzania. There was global representation from Gavi, WHO and UNICEF Headquarters. Regional offices for UNICEF (East Asia and Pacific, Eastern and Southern Africa, West and Central Africa, South Asia) and WHO (Africa and Eastern Mediterranean) were represented, Africa CDC, the African Union Commission, and bilateral partners. CoVDP coordinated the event and was represented by funding, technical support, data monitoring and country engagement areas of work. The collective participation fostered collaboration, knowledge exchange and concerted efforts towards advancing immunization goals.

Methodology

The meeting utilized a combination of methods including presentations, group work, plenary discussions and panel sessions. This facilitated in-depth discussions and experience sharing. The marketplace session provided an opportunity to exchange knowledge and insights.

A working group with technical and operational/logistics streams was established to coordinate the event. CoVDP provided project management and technical oversight, working closely with regional and global headquarters focal points from WHO, UNICEF and Gavi. Two meetings with major bilateral partners, as part of an Extended Organizing Committee, were convened to support the event.
Overview

Day One proceedings were comprised of the official opening and two sessions.

**Session 1** focused on tracing COVID-19 vaccination progress to date, including an introduction, presentations and a round table discussion.

**Session 2** focused on country lessons learned through an interactive marketplace and breakout sessions, allowing for focused discussions and the exchange of ideas.

The day’s output was a synthesis of lessons learned from working group discussions, capturing valuable insights and recommendations.

To conclude the day, a dinner was hosted by the Government of Ethiopia, providing an opportunity for networking and further discussions in a relaxed setting.
Official opening of the event

The event commenced with a warm welcome from the Master of Ceremonies. This was followed by a series of opening remarks by the UNICEF Country Representative to Ethiopia, Dr Aboubacar Kampo; Dr Benido Impouma, representing the Regional Director for the WHO Regional Office for Africa (AFRO); Dr Jean Kaseya, the Director General of Africa CDC; Mr Heiko Nitzschke, Deputy Ambassador, of Germany to Ethiopia who made remarks on behalf of the bilateral partners; Dr Seth Berkeley, Chief Executive Officer, Gavi, The Vaccine Alliance; and Mr Ted Chaiban, Global Lead Coordinator of the CoVDP. The Honourable Dr Lia Tadesse, Minister of the Ethiopia Federal Ministry of Health, officially opened the event and delivered the keynote address.

The key messages from the opening remarks include:

• The COVID-19 pandemic had a devastating impact on the whole of society. Initiatives such as the COVID-19 Vaccines Global Access (COVAX) facility and the COVID-19 Vaccine Delivery Partnership (CoVDP) contributed to reopening economies and recovery from the pandemic.

• The success in increasing coverage was due to the collective efforts of governments, health care workers, and partners. Some challenges remain, such as reaching vulnerable and high-risk populations, and the re-emergence of vaccine-preventable diseases.

• The need to support integration of COVID-19 into primary health care systems to contribute to strengthening the wider health system.

• The bilateral partners played a key role in responding to the global pandemic response, with specific support for COVID-19 vaccination through a range of mechanisms including COVAX and CoVDP. These coordinated efforts contributed significantly to expanding vaccine delivery and increasing coverage in low-income countries.

• The importance of countries learning from each other through peer-to-peer collaboration.
Session 1: Setting the Scene

Session 1 was facilitated by Mr. Benjamin Schreiber, CoVDP Deputy and UNICEF ACT-A Coordinator, who provided an overview of the current COVID-19 vaccination progress, the objectives of the meeting and walked participants through the agenda for the two-day event.

Tracing COVID-19 vaccination progress from introduction to date

Dr. Richard Mihigo, Gavi COVID-19 Director and CoVDP Deputy in Charge of Country Engagement, provided an update on the progress of COVID-19 vaccination efforts, tracing progress from initial efforts to date. The visual below shows key milestones in the journey.

Figure 1: Milestones in COVID-19 vaccine journey

The COVID-19 Vaccine Delivery Partnership built on the work of the Country Readiness and Delivery workstream to support countries with the lowest vaccination rates.

Source: CoVDP
Figure 2 COVID-19 vaccination coverage in the 34 priority countries

Of the initial 34 countries, 28 have coverage levels above 10%  
Twenty-one countries have passed the 20% threshold, sixteen of which have coverage above 30%

In April 2023, a year after the launch of CoVDP, the equity gap in vaccine distribution had significantly narrowed globally, with COVID-19 Vaccines Advance Market Commitment in 92 low- and middle-income economies (AMC92) now having a coverage rate of 55%, up from 28% in January 2022. The 34 countries receiving concerted support experienced a nine-fold increase in primary series coverage since January 2022. However, the gap between low-income countries and others remains.

Enablers of success included: strong leadership at the highest levels of government, sufficient and flexible funding for vaccine delivery, decentralized microplanning, tailored vaccination campaigns involving community health workers with community engagement, effective partner coordination, bundling of COVID-19 vaccines with immunization campaigns and other primary health care services, and investments in health system strengthening. Continued progress will require focus on closing the remaining equity gap in low-income countries with support across pillars of vaccination. Dr Mihigo concluded the presentation with an update on the transition of the temporary CoVDP structure, flagging a transition from key functions to an enhanced operational support model for the next phase of COVID-19 vaccination, including integration into primary health care and routine immunization recovery.

Update on Africa CDC’s Saving Lives and Livelihoods Programme

Ms Senga Sembuche, Technical Assistance Team lead, Africa CDC, presented an update on Africa CDC’s flagship Saving Lives and Livelihoods (SLL) programme. SLL is a partnership with the Mastercard Foundation to accelerate COVID-19 vaccination in Africa to support health security.

The programme is built on four pillars:

- procuring vaccine doses,
- supporting their deployment,
- strengthening domestic vaccine manufacturing, and
- building Africa CDC’s capacity, implemented across nine areas (see Figure 3).
With an investment of $1.5 billion, the SLL programme is being implemented in 22 countries, where it has contributed to the delivery of 25.2 million vaccine doses, with a plan to expand to additional countries. Moving forward, the SLL programme’s priorities will focus on:

(i) refining its integration approach in routine immunization and other areas of primary health care including outbreak response as appropriate,

(ii) coordinating with member states and partners for optimal resource utilization, and

(iii) fostering knowledge sharing among stakeholders.

Collaboration opportunities will focus on aligning with member states’ goals and priorities, scaling successful integration case studies, and deepening understanding of partner organizations such as the Coalition for Epidemic Preparedness Innovations (CEPI).

**Round table on lessons learned from COVID-19 vaccine roll-out**

A round table discussion on lessons learned from the COVID-19 vaccine roll-out was held, focusing on the game-changing aspects of COVID-19 vaccine delivery; perspectives on the opportunities and challenges encountered during the vaccine roll-out and key lessons learned.

The roundtable was moderated by Dr. Phionah Atuhebwe, Regional COVID-19 Vaccination Team Lead at WHO AFRO and Dr Abdulaziz Mohamed, Head of Division, Disease Control and Prevention, Africa CDC. Panellists included representatives from Ministry of Health representatives from Nigeria and Ethiopia, partners (Help Age, IFRC), regional working groups for Immunization represented by WHO EMRO and UNICEF ROSA, and bilateral partners represented by World Bank and USAID.
**Game changers:** Empowered political leadership from the highest level of Government and through to the grassroots level was noted as the single biggest game changer to attain success. Collaboration among CoVDP, regional working groups, the Africa CDC, other alliance partners and national coordinating bodies resulted in the development and coordinated implementation of strategies that facilitated efficient vaccine roll-out. Collaboration with non-traditional partners contributed to ramping up of service delivery, including through chronic care programmes, notably HIV/AIDS. The availability of rapid and flexible financing allowed countries to conduct campaigns to ramp up coverage as well as address a range of bottlenecks to roll-out. Decision-making and action were data driven. The delivery of COVID-19 vaccines presented opportunities to strengthen routine vaccination and the overall health system, with remarkable investments in digital health, integrated supply and cold chain, and engagement of additional human resources for health including community health workers (CHWs). These elements were critical for ramping up service delivery capacity.

In Nigeria, the establishment of a Command and Information Centre facilitated the implementation of the ‘Service delivery, Communication Accountability Logistics Electronic Management of Immunization data and Supportive Supervision’ (SCALES) strategy for vaccine roll-out across the country. In Ethiopia, political leadership played a pivotal role in firming up commitments for successful vaccine delivery through campaigns. Both countries reflected on how leveraging existing structures contributed to effective roll-out. This encompasses capacity building of human resources for health, including CHWs, for roll-out, investments in digitalization and cold chain infrastructure.

**Challenges** persist, including the deficit of trust in institutions that hampered uptake, according to the IFRC. The triple burden of the pandemic, conflict, and strained healthcare systems impacted a range of countries. Already limited human resources were strained further during vaccine roll-out, with additional concerns related to adequate deployment and appropriate capacity-building while ensuring continuity of essential health services.

**Opportunities** include integrating health service delivery with climate resilience interventions, as highlighted by the World Bank. USAID suggested exploring the application of the CoVDP model for future response as part of the package of medical countermeasures for other public health threats as well as for strengthening routine immunization. Harmonizing CHW structures, especially in complex country contexts like Nigeria, is important. Supply and delivery should be viewed as interconnected in public-private partnerships involving multiple sectors and ministries of finance.

**Key lessons learned:** The principle of leaving no one behind was emphasized as a key lesson by all panellists. Approaches such as rapid vaccine roll-out, facilitated by early investment in integrated cold chain, supply and service delivery; and inclusive coordination and stakeholder engagement that reduced duplication of efforts while mobilizing resources should be embraced and integrated into routine immunization and other areas of primary health care. Lessons from previous health crises, such as Ebola, were applied to enhance community trust and leverage CHWs. The involvement of non-traditional partners, such as HelpAge in Tanzania, demonstrated a broader approach to healthcare. Many countries took loans for vaccine procurement, and the delayed delivery from COVAX resulted in the need to prioritize short-expiry vaccines, and thus, a focus of vaccination beyond Strategic Advisory Group of Experts on Immunization (SAGE) priority groups.

**Moving forward,** maintaining a high level of political commitment to immunization, building community trust, and strengthening data quality for actionable insights are crucial. Investments in primary healthcare and pandemic preparedness should be prioritized, and the One Country Team approach should be promoted to address enhance immunization and other primary health care programmes. It is important to make full use of untapped potential, such as the use of mobile health, and the enhanced role of the Africa CDC in pandemic preparedness and response. The integration of digital technologies and climate resilience in health systems was emphasized for future planning. Embracing health extension workers at lower levels, and enhancing service delivery were recommended as important lessons for routine immunization programmes. Inclusion of a diverse range of stakeholders from the beginning, including donors, was emphasized for sustained success.

Lastly, leveraging COVID-19 investments to strengthen primary healthcare, pandemic preparedness and adult/life course vaccination will yield long-term benefits.
Session 2: Country Lessons Learned

The Marketplace session

A dynamic “Marketplace” session provided country teams and other participants an opportunity to engage in informal discussions and knowledge sharing using displayed posters as a guide. In total, 24 countries had their posters displayed. Regional working groups, represented by WHO AFRO and EMRO, and UNICEF ESARO, EAPRO, ROSA and WCARO, had presentations on lessons learned on various TV displays in the marketplace area. The summary of lessons learned is presented in a separate document.

Interactive breakout sessions and feedback consolidation

A one-hour breakout session was conducted, aligning with the National Deployment and Vaccination Plan (NDVP) pillars/areas. These areas included coordination, planning, and service delivery; costing and funding; regulatory measures, vaccine safety, and surveillance; vaccine demand and community engagement; supply chain and waste management; as well as human resources and training, and monitoring and evaluation. A standardized template was prepared and shared among the breakout session groups to ensure consistent documentation.

These breakout rooms facilitated parallel discussions in English and French, with Portuguese speakers joining the language group of their choice. Each breakout room had a chairperson, note taker, and facilitator from a regional office to oversee discussions and consolidate feedback. The feedback collected from the breakout sessions was then presented in the plenary session, with facilitators providing consolidated findings for each pillar.

Summary of lessons learned session on COVID-19 vaccine roll-out

The key lessons learned are broadly grouped below:

- **Leadership and access to medical countermeasures for emerging health threats**: The pandemic sparked discussions on the development of a pandemic accord and mechanisms for medical countermeasures and innovations. It also presented an opportunity for Africa to establish empowered leadership capable of addressing the multiple emergencies that countries faces. The lessons learned from COVID-19 underscore the value of political leadership, advocacy and commitment across different levels and stakeholders.

- **Flexible funding** facilitated the rapid scale up of response capacities, including previously underfunded areas of immunization. Exploring avenues such as public-private partnerships and the expanded use of digital tools and electronic systems can further enhance response capabilities.

- **Community platforms and structures** played a vital role in prevention, preparedness and response efforts. They continue to be critical for addressing the pervasive misinformation that has eroded trust and impacted both COVID-19 and routine immunization efforts.

- **Investing in the interconnected pillars of preparedness, primary health care and health systems strengthening**, and leveraging existing collaborations and partnerships are important. Future opportunities lie in building upon these investments that will also be critical for adult/life course vaccination and the ‘big catch up’.


Recap of Day One

The second day began with a brief recap, summarizing the key highlights and discussions. This was followed by a concise overview of what to expect on Day Two, setting the stage for continued progress and productive discussions.

Session 3: Learning from the COVID-19 vaccine roll-out: How to do things differently in routine immunization and integrating COVID-19 vaccine into primary health care services

The session provided valuable insights into the integration of COVID-19 vaccination into routine immunization and primary healthcare services. The session moderators were Dr. Ephrem Lemango, Associate Director for Immunization, UNICEF Headquarters; and Ms. Diana Chang Blanc, Team Lead, Programme Strengthening, Immunization Vaccines and Biologicals Department, WHO Headquarters.
Roundtable

Dr Ephrem Lemango and Ms Diana Chang Blanc moderated a roundtable to unpack root causes of stagnation and decline, and explore opportunities for leveraging COVID-19 interventions for integration into primary health care and recovery of essential immunization. It featured panellists from Madagascar, Tanzania, Cote d'Ivoire, Uganda, Chad, and Bangladesh ministries of health.

The experiences of Tanzania and Nigeria showcased successful integration strategies as well as the challenges faced. Uganda highlighted the importance of managing the commodity pipeline effectively. Cote d'Ivoire discussed their efforts to improve vaccination coverage among healthcare workers and integrate vaccination services with other health programmes. The Tanzania panellist emphasized the significance of community engagement and effective service delivery.

Key themes that emerged from the session included the importance of multisectoral coordination, strong political commitment, and partnerships with non-traditional stakeholders. Countries recognized the need to seize opportunities and expand healthcare infrastructure to achieve vaccination goals. Collaboration with various ministries, such as finance and economy, was identified as crucial for success.

Overall, the feedback session provided valuable insights into successful immunization strategies, highlighting the importance of coordination, government commitment, and innovation in achieving vaccination goals and integrating COVID-19 vaccinations into routine immunization programmes. The session also explored the effect on tackling zero-dose and under-vaccinated children, which could be done by leveraging funds and approaches.
Breakout session on integration of COVID-19 into routine immunization and primary health care

The breakout session consisted of 5 groups of countries, each with a chairperson, note taker, and facilitator from one of the regional offices. The groups were divided into French and English. As part of pre-stocktake preparations, country teams received a PowerPoint deck and checklist to facilitate development of a summary update on integration status, bottlenecks, and critical technical and financial support needs.

During the breakout session, participants engaged in group work and discussed the next steps for integration based on the results of their readiness assessments and updates. The key output was the development of draft plans for the integration process, including the necessary financial support and technical assistance. The feedback collected from the groups was collated and presented in the plenary session, covering both the draft plans for integration and the overall feedback provided.

Group 1: Leadership, coordination, governance, and health systems financing

Countries: Malawi, Sierra Leone, Ethiopia, Bangladesh, Solomon Islands and Syria

Partners: USAID, WHO, UNICEF

Leadership, coordination, and governance

Bottlenecks/challenges

- Limited integrated micro-planning, and coordination challenges with other primary health care programmes including at the lower administration levels, pointing to the need for a higher-level push for routine integration.
- Limited flexible funding and technical assistance for integration were other concerns raised by countries.

Priorities

- The development of a costed one-country plan for strategic and sustainable integration of COVID-19 with primary health care programmes and routine immunization across health system building blocks should be prioritized.
- Systematic engagement/involvement of the NITAG and ICC for technical support.
- Sharing and implementing tested strategies for adult immunization, as it is a very nascent programme that will be the focus of the Immunization Agenda 2030 (IA2030) addressing immunization through the life course.
- Coordination at the highest level, as this will allow for the empowered leadership and commitment required to move integration forward.
- Consider reassessing and/or increasing the human resources required for the optimal implementation of immunization programmes.

Critical support required for

- Development of clear national guidance and integration plans should be developed (using the ‘one team, one budget, one plan’ approach), and higher-level directives and coordination.
- Reinforcing ministry of health capacity to lead and coordinate integration of COVID-19 with primary health care.
- Conducting stakeholder mapping, mobilization, and engagement.
- Technical and financial assistance for costing and planning of the ‘one plan’, including considerations for human resources for health (HRH), NITAG/ICC engagement, and other factors.
Health systems financing

Bottlenecks/challenges

- Many countries anticipate facing challenges related to coordinating financing from other primary health care programmes.

Priorities

To address these challenges, the group suggested the following:

- Implementation of integrated nationwide training and financing, especially for countries with very specific needs of their populations, including those affected by insecurity and displacement.

- Initiating the integrated service delivery draft and establishing a higher-level broader coordination system to provide directives for the inclusion of other programmes, such as non-communicable diseases (NCDs) and communicable diseases, are also important priorities.

Critical support required for

- Secure necessary financing from various sources, with a focus on developing a high-level agenda for each country that reflects available resources and a costed plan.

- Guide on methods for integration, particularly concerning interactions with NCDs and other disease control programmes.

- Streamline the roll-out of integrated services at the sub-national level, as this process can often be time-consuming.

- Ensure sustainable financing, such as through funding for primary health care that is flexible and can accommodate the diverse needs of different countries. Furthermore, clarification on financing from other partners, such as the Global Fund, is necessary to optimize available resources.
Group 2: Demand and community engagement

Countries: Tanzania, Uganda, Gambia, Somalia, Yemen, Kenya

Partners: Help Age, Gavi, UNICEF, WHO

Bottlenecks/challenges

- Hesitancy in the pre-vaccine phase, vaccine shortages and evolving (and declining) risk perception.
- Difficulty in translating information and data into action. This includes unclear data ownership and segmentation, a lack of tailored and specific data, and difficulties in monitoring and responding to misinformation on social media.
- The lack of integrated planning and issues around replicability, scalability and sustainability.

Priorities

- To address these challenges, it is important to understand the reasons behind the decline in demand and collect data on community preferences.
- Leveraging and engaging civil society organizations (CSOs) other programmes such as NCD clinics, and reframing COVID-19 vaccination within the current context of minimal movement restrictions and declining risk perception are key priorities.
- Continuous guidance on communications, tailored data collection through rapid surveys, monitoring and responding to misinformation, and drawing linkages between routine immunization drivers and other vaccination platforms are necessary.
- Identifying and engaging influencers at various levels and building capacity for data collection and analysis are critical support requirements.
- Integrated demand generation plans, leveraging resources for outreach and mobilization, and planning for COVID-19 epidemiological waves are key actions required. The critical support needed includes support at the ministry of health level to bring all programmes together, integration of funding through basket funds, improved data sharing and coordination, nimble monitoring and evaluation approaches, and translating SAGE recommendations on immunogenicity and boosters.

Critical support required for

- Financial and human resources for outreach and mobilization, integration of funding, data sharing and coordination, and translating global recommendations into actionable strategies.

Group 3: Planning, service delivery and health workforce

Countries: Central African Republic, Burkina Faso, Côte d'Ivoire, Niger, Chad, Mali, Guinea Bissau

Partners: Gavi, UNICEF, WHO

Bottlenecks/challenges

- Inadequate joint planning integrating other flagship programmes.
- The availability of services and inputs at health care delivery points, particularly in countries experiencing crises.
- The availability of trained health care personnel for COVID-19 vaccination in other programmes and ensuring their motivation. This is coupled with the increased workload at health care delivery points.

Priorities

- Conducting a mapping of programme integration levels, and establishing multisectoral committees at national and subnational levels
- Providing relevant guidelines and implementation directives from WHO/UNICEF.
- Strengthening advanced strategies and ensuring the availability of resources, including human resources, materials and supplies.
- Technical and financial support for the development and implementation of integration plans.
Critical support required for

- Technical and financial support from partners, such as Gavi, UNICEF and WHO, will be crucial in developing integration plans, providing training and ensuring the availability of necessary resources.

By prioritizing these actions and securing the required support, the countries can enhance their integration efforts, strengthen their health systems and effectively deliver integrated vaccination services.

Group 4: Health information systems, and monitoring and evaluation

Countries: Ghana, Liberia, Nigeria, South Sudan, Zambia, Afghanistan

Partners: Bill and Melinda Gates Foundation, UNICEF, WHO

Bottlenecks/challenges

- While data systems for COVID-19 were often electronic immunization registry (EIR) based, most routine immunization systems relied on aggregated paper-based models at the facility, district, or regional level.
- During the COVID-19 emergency response, resources were allocated for training, electronic/digital tools, server space and the surge in human resources needed to enhance data management and analysis. However, the sustainability of these resources and EIR systems for routine immunization remains a concern.

Priorities

- Conducting maturity assessments for EIR systems, assessing the cost of digitization, and addressing the skills and capacity of health workers, including the double reporting burden.
- For addressing the direction of system integration, there are two options to consider:
  - reinforcing routine immunization systems by incorporating COVID-19 data into existing aggregate systems, or
  - upgrading to EIR systems like those used during the pandemic.
- Considerations for EIR movement included legal requirements for paper records, infrastructure availability at health facilities, and the capacity of health workers to handle the workload from double entry.
- As data collection transitions from centralized campaign-based efforts to more routine sites, such as antenatal care and antiretroviral therapy clinics, the system requirements and expectations will change. It is crucial to review the sites collecting and reporting COVID-19 immunization data, assess their access to reporting platforms, ensure staff capacity and skills, and evaluate the availability of suitable report-based tools. Furthermore, as systems transition from COVID-19 emergency response to routine operations, it is important to introduce necessary controls and security measures. The initial focus on speed and ease of use during the pandemic should now be balanced with considerations of data protection and privacy.

Critical support required for

- Technical guidance and support for conducting maturity assessments and system integration, and providing trainings.
- Planning and implementation.
- Updating paper-based tools (if applicable) and procuring digital tools (if applicable).

Overall, addressing these challenges and implementing the key priorities will strengthen health information systems, and monitoring and evaluation practices, enabling more effective and secure data management in the context of immunization programmes.
Group 5: Integrated supply chain and logistics

Countries: Burundi, Djibouti, Cameroon, the Democratic Republic of the Congo, Guinea, Madagascar, Senegal

Partners: Gavi, UNICEF, WHO

Bottlenecks/challenges

- The lack of coordination between the teams responsible for routine vaccines and COVID-19 vaccines.
- Distribution posed challenges in terms of insufficient quantity and quality of material.
- Inadequate financial resources to facilitate supply chain needs in some countries at the subnational level.
- Inadequate maintenance capacity for devices.
- Lack of financial resources, technical expertise, and monitoring tools.

Priorities

- Assign the management of both types of vaccines to the national EPI programme and integrate the planning and management tools alongside other vaccines.
- Explore/establish public-private partnerships with equipment manufacturers to enhance the capacity of actors in equipment maintenance.
- Implement maintenance mechanisms at all levels and advocate for budget allocation for maintenance.
- Support technical and financial capacity development and the establishment of maintenance systems.
- Establish vaccine hubs as intermediate distribution centres with appropriate allocation of resources for distribution.
- Strengthen partnerships and advocate for adequate resource mobilization.

Critical support required for

Technical assistance, financial support, and advocacy efforts from partners such as Gavi, UNICEF, WHO, CDC, and USAID will play a vital role in facilitating the implementation of these priority actions and ensure the sustainability of integrated systems.

Summary of discussions

The discussions on planning, coordination, and funding for COVID-19 integration and routine immunization highlighted key experiences and challenges across countries.

The way forward with integration work and areas of focus:

- Enhance capacity for MoH-led coordination for integration with primary health care within MoH, and across other relevant ministries and agencies/partners.
- Support the development and roll-out of operational integration costed plans.
- Conduct stakeholder workshops to map partners and resources across MoH, partners, and where possible, other ministries.
- Map and leverage various resources in line with the ‘one costed plan’, including financing from other partners such as the Global Fund, flexible funds that can be used for multiple interventions, or use of basket funds.
- Provide technical and financial support for integration at the programmatic level, including but not limited to RCCE/vaccine demand, service delivery and human resources, and interoperable and context suitable data systems and tools.
Follow-up actions for partner agencies

- Maintain focus on high-priority groups for complete primary series immunizations and boosters given that coverage of elderly remains a concern.
- Finalize the design of the COVID-19 programme and launch implementation for 2024/2025 after receiving final approvals.
- Integrate ways of working used during COVID-19 pandemic in the next phase of response, integration and recovery.
- Support regional manufacturing of vaccines and other medical essentials to improve equitable access in pandemic responses.
- Strengthen investments in primary health care and community health systems, including paid and protected health care workers, to prepare for future outbreaks

Next steps and wrap up

Dr. Richard Mihigo, Gavi COVID-19 Director highlighted that the meeting showcased remarkable energy and enthusiasm from participating countries during panel discussions, marketplace activities, and group work sessions, with a strong focus on integrating COVID-19 vaccination into PHC. The opportunity to learn from diverse teams and their experiences was greatly appreciated.

Several valuable lessons were identified, including the importance of empowered political leadership, engagement of community platforms, investments in PHC and preparedness, and peer to peer collaboration for sharing lessons and building capacities. Specifically, lessons learned from CoVDP highlighted the effectiveness of the “one plan, one budget, one team” approach for facilitating integration and scaling up immunization recovery efforts. Leveraging high-level political leadership through advocacy was also recognized as a crucial factor. Furthermore, there is a need for continued provision of coordinated, flexible, and urgent funding to support immunization recovery, health systems strengthening, and epidemic/pandemic preparedness.
The closing session of the event featured several speakers, including Dr. Rose Dlamini, WHO Representative a.i. to Ethiopia; Dr. Elizabeth Gonese, Africa CDC SLL Partnership Management Lead, Division for Emergency Preparedness and Response; Dr. Derrick Sim, Managing Director of Vaccine Markets and Health Security at Gavi, and Mr. Ted Chaiban, the Global Lead Coordinator of CoVDP. The event concluded with official closing remarks from Dr. Meseret Zelalem, the representative of the Federal Ministry of Health in Ethiopia.

The meeting emphasized the need to integrate COVID-19 vaccination into routine immunization systems, strengthen primary healthcare services and enhance preparedness for future pandemics. Effective partnerships, collaboration, and coordination at global, regional, and national levels, including with non-traditional partners, were recognized as key achievements.
Conclusion

The stocktaking event was a significant milestone in the ongoing efforts in COVID-19 vaccine delivery. The discussions, insights, and recommendations shared will contribute to improving vaccine delivery strategies and ensuring the effective integration of COVID-19 vaccines into primary health care worldwide.

Moving forward, the next steps are to strengthen coordination, develop comprehensive integration plans, mobilize resources, and provide necessary support for the successful implementation of integration efforts, ultimately improving immunization coverage and primary health care services.

Meeting Participants

Participating Countries
Afghanistan, Bangladesh, Burkina Faso, Burundi, Cameroon, Chad, Côte d'Ivoire, Djibouti, Ethiopia, Gabon, Gambia, Ghana, Guinea-Bissau, Guinée, Kenya, Liberia, Madagascar, Malawi, Mali, Niger, Nigeria, République Centrafricaine, République Démocratique du Congo, Sénégal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Syrian Arab Republic, Tanzania, Uganda, Yemen, Zambia

Joint Conveners
Africa CDC, COVID-19 Vaccine Delivery Partnership (CoVDP), Ethiopia Federal Ministry of Health, Gavi the Vaccine Alliance, UN Children's Fund (UNICEF), World Health Organization (WHO)

Bilateral Partners and Donors
Bill and Melinda Gates Foundation, Canada(GAC), France(Ministry of Europe and Foreign Affairs), Germany(GIZ-BMZ), Japan(JICA), Mastercard Foundation, United Kingdom(FCDO), United States (USAID and CDC)

Non-Governmental Organizations and Partners
HelpAge, International Federation of Red Cross and Red Crescent Societies (IFRC), African Union Commission
Since its establishment in January 2022, the COVID-19 Vaccine Delivery Partnership (CoVDP) provided urgent operational, technical, and financial support to 34 countries that were at or below 10% primary series coverage. With the availability of vaccines and a decrease in the equity gap, an increase in primary schedule coverage, with an average rate of 24%, was reported in January 2023, up from 3% in January 2022. Across the 34 countries for concerted support, the dominant strategy is now the integration of COVID-19 vaccination into primary health care (PHC). With integration, countries are expected to further accelerate efforts to reach high-priority groups. It is hoped that these efforts will also contribute to recovery of essential immunization. Given these ambitions, there was a need to identify and determine support needed to achieve sustainable country goals.

It is in this regard that on 2 and 3 May 2023, a stocktake on COVID-19 vaccine delivery in the 34 concerted-support countries was conducted. The objectives of the stocktake were to reflect on achievements and challenges of COVID-19 vaccine delivery and to identify lessons learned and good practices. Participants were asked to identify best practices around:

- coordination, planning, costing and funding
- scaling up last mile service delivery
- vaccine safety and surveillance, supply chain and waste management
- vaccine demand and community engagement
- human resources and training, data and monitoring.

This report includes:
1. Results and successes from the COVID-19 vaccine roll-out
2. Challenges and mitigations adopted
3. Key lessons learned
1. Results and successes from the COVID-19 vaccine roll-out

Coordination Platforms
Coordination platforms were utilized to drive advocacy efforts, organize COVID-19 vaccination campaigns and ensure continuity of routine immunization (RI). Below are examples of mechanisms and structures used in countries.

- Countries built on existing coordination mechanisms, including high-level oversight through the Immunization Inter-agency Coordination Committee (ICC) and National Immunization Technical Advisory Groups (NITAGS).
- Other platforms were established to facilitate coordination, such as the COVID-19 vaccination pillar under the National Task Force for COVID-19, which itself was multisectoral in nature. The COVID-19 Task Force structures, including the vaccination pillar, were replicated at the sub-national level.
- The 'One Country Team' structure was established to enhance the coordination of partner support for COVID-19 vaccine roll-out. The One Country Team embraced the One Plan and One Budget principles to limit duplication of efforts and ensure alignment of technical assistance and funding with country priorities.
- High-level advocacy and technical missions led by CoVDP and partners, jointly organized with the One Country Team, identified and addressed bottlenecks in COVID-19 vaccine roll-out. Missions were also a means of conducting advocacy with high-level government officials.

Innovative Strategies
To maximize reach, countries developed innovative local strategies that included adaptations to traditional fixed, mobile and outreach activities used for immunization. Below is a sampling of various country experiences that were shared.

- In Malawi, new vaccination sites were set up in high-traffic areas like markets, malls, and bus stations. Malawi was able to scale up COVID-19 vaccination through the vaccine express approach to bring vaccines closer to largely rural communities using motorcycles, commuter vans, and other vehicles to transport health workers, vaccines, and supplies. Additionally, house-to-house vaccination through "vaccinate my village" campaigns and integration with other community activities such as bed net and fertilizer distributions facilitated additional scale-up.
- Djibouti rolled out COVID-19 vaccination using integrated community-based approaches, for example, routine immunization and management of malnutrition, that further reinforced vaccine demand and community engagement.
- Tanzania's COVID-19 vaccination successes can be attributed to ramping up vaccination through large-scale events like football games, music festivals, and trade fairs; engagement of mobilizers at the ward level with targets; and vaccination at places of religious worship. Additionally, Help Age facilitated the mobilization of older persons for vaccination in several regions through networks/clubs of older persons and community-based home care providers.
- Mass vaccination campaigns accelerated the COVID-19 vaccine rollout and increased coverage. The Democratic Republic of the Congo's campaigns resulted in a 14-fold increase in monthly vaccination between March and November 2022. Bangladesh organized and coordinated 15 campaigns from early 2021 to 2023, vaccinating more than 70% of its 175 million population in a year. In Sierra Leone, partner support for reverse logistics was used to effectively manage close-to-expiry vaccines. It offered an opportunity to re-channel vaccines to high-volume facilities and vaccination sites.

Risk Communication and Community Engagement (RCCE)/Demand Generation
Below are examples of a range of approaches that contributed to increased demand generation.

- Behavioural surveys were utilized as monitoring frameworks to assess vaccine acceptance towards addressing misinformation. In South Sudan, coverage amongst women rose from 20% to 52% through tailored interventions gathered from social data.
- In Central African Republic, weekly press briefings captured live and chaired by the Minister of Health contributed to debunking misinformation about the COVID-19 vaccine.
- After close discussions with the Chief Medical Officer on COVID-19 vaccination, the King of Zinaire in Burkina Faso invited the local community to his palace for a campaign. This approach has been scaled in other regions of Burkina Faso contributing to improved coverage.

Human Resources
- Personnel from existing immunization programs and across other sectors were brought in to roll-out COVID-19 vaccines. In Somalia, staff from routine maternal and child health services, drought response teams, community health workers, market and election office teams were leveraged. This also ensured equitable access to COVID-19 vaccines, especially for high-priority groups and contributed to the overall increase in primary series coverage over the past year.
## 2. Challenges and mitigations adopted

Below is a list of challenges and some mitigation measures adopted by countries.

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Mitigation(s) adopted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing public health emergencies such as cholera, measles, yellow fever and polio outbreaks.</td>
<td>• Organizational and effective program planning with the response teams.</td>
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<tr>
<td>Coordination challenges amongst in-country partners (One Country Team).</td>
<td>• Establishment of a multistakeholder COVID-19 steering committee to align partners and activities.</td>
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<tr>
<td>• Increased frequency and range of coordination meetings.</td>
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<tr>
<td>High cost of service delivery.</td>
<td>• An integrated approach to leverage existing infrastructure and resources</td>
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<tr>
<td>• Including human resources to reduce costs, improve the efficiency of service delivery and enhance vaccine demand.</td>
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<tr>
<td>Low COVID-19 vaccine uptake outside campaigns.</td>
<td>• Acceleration through intensification campaigns and/or bundling with campaigns for specific childhood antigens.</td>
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<td>Difficulty in reaching hard-to-reach communities, including specific populations such as nomadic groups, refugees, internally displaced persons and migrants.</td>
<td>• Hiring of additional vaccination staff</td>
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<tr>
<td>• Logistics support leveraged from partners, including UN Humanitarian Air Service, UNICEF and non-governmental organizations (NGOs).</td>
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<tr>
<td>Under-reporting of adverse events following immunization (AEFI).</td>
<td>• Training and sensitization of healthcare workers</td>
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<td>• Printing and distribution of AEFI reporting tools</td>
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<tr>
<td>Low vaccine storage and cold chain capacity.</td>
<td>• Collaboration with the private sector supported by development partners.</td>
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<tr>
<td>• Procurement and installation of cold chain through the Cold Chain Equipment Optimization Platform, and additional funding from bilateral partners.</td>
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<tr>
<td>Countries receiving vaccines with short shelf-life.</td>
<td>• Re-organization of logistics for redistribution of vaccines to high-volume districts and facilities.</td>
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<tr>
<td>• Implementation of surge activities using outreach teams.</td>
<td>• Guidance for ‘mix and match’ vaccine use with the opportunity to prioritize vaccines with a short shelf life and limit waste.</td>
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<tr>
<td>Overstretched health facilities, increased vaccine related waste and inadequate number of incinerators to manage waste.</td>
<td>• Funding from bilateral partners to strengthen waste management systems including procurement and installation of incinerators.</td>
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<tr>
<td>Vaccine hesitancy, misinformation, and rumours around side effects for example concerns over infertility and concerns about death.</td>
<td>• Demand generation content was developed through implementation research and evidence-based interpersonal communication.</td>
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<tr>
<td>• Community engagement and media campaigns were launched to address hesitancy.</td>
<td>• Engagement with religious and cultural leaders helped to address misinformation.</td>
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<tr>
<td>Pandemic and behavioural fatigue coupled with low-risk perception</td>
<td>• Use of various media platforms to provide updates on the evolving pandemic and related risks.</td>
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<tr>
<td>• Enforcement of vaccine mandates such as no government services without evidence of vaccination.</td>
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<tr>
<td>Human resources shortages and lack of supportive supervision.</td>
<td>• Mobilization of nurses, NGO paramedics and volunteers as vaccinators, with Essential Programme of Immunization (EPI) vaccinators only being used during accelerated campaigns.</td>
</tr>
<tr>
<td>Overwhelmed and demotivated healthcare workforce with competing priorities and emergencies. Some countries experienced multiple strikes that affected service delivery.</td>
<td>• Integration of response initiatives with incentives for staff and team organization.</td>
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<td>• Performance-based financing was employed in some countries.</td>
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<tr>
<td>Delays with data being entered into digital platforms led to data backlog.</td>
<td>• Sourcing third parties (IT institutions and universities) with data clerks and technology to address backlog.</td>
</tr>
<tr>
<td>Difficulty in tracking and following up on vaccinees for the second dose.</td>
<td>• Reminders were sent through mass messaging of COVID-19 vaccination to those who received the first dose and were due for the second dose.</td>
</tr>
<tr>
<td>Changing landscape and body of evidence regarding priority groups.</td>
<td>• Frequent meetings with NITAGs to ensure country guidance was up to date. Adaptation of national plans in line with evidence.</td>
</tr>
</tbody>
</table>
3. Key lessons learned

Coordination, planning, costing and funding
- The highest level of political commitment, multisectoral coordination and collaboration contributed to the accelerated administration of COVID-19 vaccines.
- The mapping of stakeholders, development of a costed national deployment and vaccination preparedness plan (one plan, one budget) was critical for resource utilization efficiency and to minimize duplication.
- Joint planning and orientation of key actors from all levels from the beginning was key to ensure effective implementation.
- Flexible funding facilitated rapid scale-up of response capacities, including within vaccination, and increased investments in many areas that were not always well funded.

Last-mile service delivery
- National vaccination campaigns with good planning and preparations significantly improved coverage of COVID-19 vaccines. While mass vaccination campaigns effectively accelerated vaccination coverage, tailored approaches were required to reach priority groups and underserved populations.

Supply and cold chain
- Maintaining an up-to-date cold chain inventory is essential to track vaccine availability, plan and manage vaccine distribution, and replenish vaccine stock early while minimizing waste.
- The implementation of flexible systems allowing the rescheduling of vaccine deliveries outside the predefined distribution cycles made it possible to adjust flows as needed.

Vaccine demand and community engagement
- Standardized messages delivered in local languages on community platforms – radio listener groups, public service announcements, megaphones/audio towers – were essential for community engagement.
- Engagement with traditional authorities, village heads and religious leaders, and using them to disseminate key COVID-19 vaccination messages contributed to reducing myths and misinformation on the vaccine and increasing uptake.

Human resources, training, and data monitoring
- Technical support (virtual and in-person) plus close monitoring contributed to ensuring successful and quality implementation of COVID-19 vaccination.
- Utilizing diverse data capturing systems – digital versus paper based, individual versus aggregate – facilitated the collection of vaccination data for which volume was unprecedented.
- Conduct mapping exercises to identify the interoperability of existing data/information systems.
- Development of integrated/joint tools to capture data for reporting.
- Strengthening data collection, reporting and dissemination from the provincial level to national level.
- Monitoring and evaluation of funding flow from the national to the provincial level and taking action to strengthen the financial management capacity of staff at the provincial level.
Working with countries, communities and essential partners