



Deliver, Together: partnerships to deliver vaccines in a pandemic — **learning from COVID-19 vaccine delivery**

Recommendations for a medical countermeasures delivery support mechanism based on lessons learnt from the COVID-19 vaccine delivery support model

COVID-19 Vaccine
DELIVERY PARTNERSHIP



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00 — Table of contents

01 — Introduction.....	3
02 — Vision and mission.....	7
03 — Organizational structure, governance and decision-making.....	9
04 — Internal coordination and ways of working	11
05 — Effective tools and functions.....	12
a. Political advocacy and engagement.....	12
b. Technical guidance and training.....	13
c. Country engagement.....	14
d. Provision of technical assistance.....	15
e. Delivery funding.....	15
f. Data and monitoring	17
g. Demand planning.....	19
h. Knowledge management.....	19
i. Country communications.....	20
j. Spotlight — delivery to populations of concern in humanitarian and fragile settings.....	20
06 — Resources, roles & responsibilities	21
07 — Annex.....	22

01 — Introduction

The development and rollout of COVID-19 vaccines were the fastest in immunization history. The pandemic, however, also surfaced massive structural inequities, including a lack of equal access to COVID-19 vaccines for all countries. One year after the introduction of vaccines, 47% of the global population had received the primary series, but coverage was only 36% of the population in low- and lower middle-income countries. In low-income countries, coverage was even lower, with only 6% of the population vaccinated. By January 2022, 34 countries remained at or below 10% primary series coverage. The fluctuation and lack of visibility over the supply of vaccines and other products made planning and preparation at the country level difficult in many low- and middle-income countries (LMICs). Additionally, many LMICs had limited experience with vaccination programs for adults, especially older adults as well as other priority groups, at such scale and with novel vaccine products.

Two years after COVID-19 vaccines first became available, and after supply in large and predictable volumes was finally available by the fourth quarter of 2021, the consolidated efforts of countries and their partners resulted in the narrowing of the vaccine equity gap between low-income and lower-middle income countries and global averages. This is true for primary series coverage of the general population as well as of high-priority groups, though inequities still exist between and within countries.

Countries were supported by a wide range of partners at the regional and global levels, including the United Nations Children's Fund (UNICEF), the World Health Organization (WHO) and Gavi, the Vaccine Alliance. Early in the pandemic, the three agencies started supporting countries to ready themselves and to introduce, roll out and scale up vaccination through the Country Readiness and Delivery (CRD) workstream of COVAX, the vaccines pillar of the Access to COVID-19 Tools Accelerator. The delivery support of CRD was instrumental in providing evolving guidance and technical assistance needed for readiness and early rollout. This support included the provision of tools and technical guidance in an uncertain environment, e.g., a vaccine introduction readiness assessment, global guidance for the development of strategic national deployment and vaccination plans, and establishment of data reporting metrics and frameworks. Additionally, the CRD created mechanisms to coordinate information flows across key partners, access to early funding, training of national and subnational staff, building of data systems, and oversee programmatic monitoring of rollout and leverage country insights to inform vaccine allocation.

Between 2020 and 2021, the three agencies worked through their country, regional and global offices within their respective mandates, but with tighter and more frequent coordination. As the pandemic evolved, they sought ways to move streamlining decision-making. In January 2022, the three agencies adapted a more structured model for delivery support globally with the establishment of the COVID-19 Vaccine Delivery Partnership (CoVDP), building on emergency practices and existing relations including those in place through the Gavi Alliance. The CoVDP partnership aimed to support vaccine delivery in the COVAX 92 "Advance Market Commitment" countries (AMC92), representing mainly low- and lower-middle income countries, with a particular focus on providing operational support to the sub-set of 34 countries that were at or below 10% primary series coverage in January 2022, to accelerate scale-up and coverage. In CoVDP, agencies were brought together under one organizational 'umbrella' for strategic alignment, led by a global lead coordinator with strong connections to senior leadership within the agencies and capacity for political engagement at the highest levels of political decision-making within countries.

Additionally, CoVDP supported countries with specialized technical assistance, quick impact funding that could be deployed flexibly and rapidly, demand planning, and a dedicated country engagement channel collapsing different layers of global, regional and country-level support. Objective criteria agreed upon across partners were used to prioritize countries that would get this concerted operational support first (e.g., high-level political advocacy at the highest levels of government, quick impact delivery funding, and specialized technical assistance) while offering a broader range of support to a wider range of countries (e.g., technical guidance on product choice and vaccination strategies, and knowledge sharing between countries). Partners also agreed on the core principle of national ownership and the centrality of countries, and to coordinate support to countries as one support team supporting one country team led by government in-country.

The present report documents this global delivery support model for COVID-19 vaccine delivery, highlights the key functions that were needed for delivery support, and synthesizes key learnings for the design, development and implementation of a future vaccine (and other medical countermeasures) delivery mechanism in emergency settings. While explicitly recognizing that many partners provided support and were critical in driving countries' successes, this report focuses on the CRD and CoVDP as multilateral partnership arrangements at the global level for delivery support that complemented and supported country-level and regional efforts.

The recommendations in this report focus on a medical countermeasures delivery support mechanism. Such a mechanism should be part of any global "end-to-end" medical countermeasures (MCM) platform developed which in turn should be integrated within the broader pandemic preparedness and response architecture, the health emergency incident management system coordinated by WHO and the pandemic accord. It is also important to scale up access and delivery capacity including through strengthening health systems and primary health care (PHC), such as capacity building of health workforces at the community level, and routine delivery systems, as well as investments into sustainable regional manufacturing of vaccines and other medical essentials – all of which are needed to improve equitable access and uptake in pandemic responses.

The report is based on interviews with 50 stakeholders across the agencies that were closely involved in COVID-19 vaccine delivery support, as well as an extensive review of material documenting the operating model for COVID-19 vaccine delivery support over a three-year period. The recommendations in this report are forward-looking and build on best practices as well as lessons learnt during the COVID-19 response. A summary of the bottlenecks or issues encountered by CRD and CoVDP during the response that were not fully addressed can be found in the annex.

Summary of Findings

VISION AND MISSION

- A set of functions – set up early, sequenced effectively, and integrated into emergency response – are needed to support delivery activities from preparedness and readiness to the introduction, initial rollout and accelerated scale-up of vaccines and other medical countermeasures.
- Throughout all phases, countries, country targets and strategies should be at the centre of delivery support and the principles of One Team, One Plan and One Budget should be applied as the basis for coordination.
- Partners supporting delivery activities should align on a specific and time-bound mandate early in an emergency response and establish common principles and strategic objectives while also protecting routine systems.
- The focus of a global delivery support mechanism should be on supporting countries with the greatest need for operational support, defined using objective metrics agreed upon by partners, while complementing efforts at the regional and country levels.

ORGANIZATIONAL STRUCTURE AND DECISION-MAKING

- In the early phases of the emergency, agency structures with decentralized accountabilities and decision-making response should be leveraged until the extent of the emergency and the corresponding response model are clear.
- Once the specifics of a required emergency response are clearer, a delivery mechanism grouping agencies under one umbrella should be created, led by a senior official endorsed by all agencies.
- This mechanism should build on and reinforce existing coordination structures and mechanisms while enabling rapid and agile decision-making and the application of emergency principles.
- The mechanism should be adapted to the medical countermeasures required and clearly define work areas with agency leads, based on the comparative advantages of the agencies.
- The delivery support mechanism should have an oversight structure with representation from agencies, governments from LMICs, donors, and civil society organizations.

INTERNAL COORDINATION AND WAYS OF WORKING

- Working across agencies in an intensified way during an emergency, often through processes that are loosely defined and presuppose a high level of flexibility, requires attention to information flow, work culture and staff morale.

EFFECTIVE TOOLS AND FUNCTIONS

- **Political Advocacy and Engagement:** A dedicated advocacy and engagement function with a focus on delivery should be created early on, led by the senior lead coordinator and supported by an adequately resourced advocacy team to strategically engage with governments, and bilateral and multilateral partners.
- **Technical guidance and training:** A delivery support mechanism needs to provide a framework for countries to assess their readiness, agile tools for strategic planning to introduce and scale vaccines and other medical countermeasures, and up-to-date technical and programmatic guidance. Comprehensive operational plans should be introduced early.
- **Country engagement:** Country focal points fully dedicated to the emergency response should be leveraged to establish a direct connection to the country level through country engagement channels and coordinate regional- and global-level support.
- **Provision of technical assistance:** A pandemic response requires a significant scale-up in surge support and the provision of specialized technical assistance. A roster of resources and fast-track contracting processes should be set up in advance to allow timely provision of technical support.
- **Delivery funding:** The delivery support mechanism needs to provide or leverage effective quick impact delivery funding, building on a joint resource mobilization and resource development plan, and to ensure early access and deployment of funding for country readiness, with no-regret funding at its disposal and an emphasis on flexible and non-earmarked resources that allow for bundling with other health and non-health activities.
- **Data and monitoring:** A monitoring framework and interagency data and monitoring governance group needs to be established, and regular reporting for key indicators as well as comprehensive guidance to support countries in establishing necessary monitoring systems should be conducted.
- **Demand planning:** In an emergency with constraints on the supply of vaccines and/or other medical countermeasures, the delivery support mechanism needs to actively manage allocations to support equitable access.
- **Knowledge management:** Knowledge management and platforms for exchange of lessons learnt, best practices and challenges between countries and partners should be actively used to maximize peer-to-peer learning.
- **Country communications:** The delivery support mechanism should have a dedicated country communications team, leveraging partners' channels, to provide countries and partners with updated and accurate information on programmatic and technical developments.
- **Spotlight on delivery to populations of concern (PoCs) in humanitarian and fragile settings:** A delivery support mechanism should put dedicated focus on reaching PoCs while protecting the delivery of routine services and other humanitarian interventions through early engagement of humanitarian partners.

RESOURCES, ROLES, AND RESPONSIBILITIES

- To ensure efficient resourcing and optimized contracting and recruitment processes, an administrative system anchored in the multilateral systems with an in-country presence, a high level of flexibility and dedicated operational budget is needed.
- A formal agreement on resource contribution and allocation should be established and comprehensive resource planning is needed, including surge support requirements and required capacities.

02 —

Vision and mission

A set of functions are needed to support delivery activities from preparedness and readiness to the introduction, initial rollout and accelerated scale-up of vaccines and other medical countermeasures. These functions need to be set up early and sequenced effectively to coordinate support activities across agencies and at country, regional and global, regional levels. Functions need to build on and enhance existing mechanisms, frameworks, and ways of working for an effective emergency response.

- **Focus on dedicated political engagement from the beginning** and ensure resources and communication channels are in place to access the highest level of government, agency leadership and partners for effective advocacy and political attention.
- **Develop and disseminate standardized country readiness assessments** to facilitate country-level planning and provide surge technical assistance capacity while continuously developing and updating technical guidance, tools and training.
- **Set up surge deployment capacity early in the pandemic in specified areas** such as microplanning and operational support to campaigns and other targeted or locally appropriate delivery strategies, leveraging and complementing health emergency mechanisms such as Emergency Medical teams, the Global Outbreak Alert and Response Network (GOARN) and Health Clusters.
- **Conduct demand planning jointly with countries** in an end-to-end process to inform allocation decisions and to provide end-to-end visibility on the supply of vaccines and other medical countermeasures, including product type, shipment quantity and delivery dates.
- **Raise funding for delivery support through coordinated and existing fundraising channels** (e.g., Gavi Alliance, Global Fund, UNICEF Humanitarian Action for Children Appeal (HAC), WHO COVID-19 Strategic Preparedness and Response Plan (SPRP), World Bank, bilaterals) **and joint fundraising efforts and disburse funding in a coordinated manner and against the principle of the One Budget** to prepare essential infrastructure cover a surge in health workforce, technical experts, and operational costs of vaccination campaigns, and offer flexible no-regret funding.
- **Ensure no-regret funding is at the disposal of the delivery support mechanism** during the acute phase of the pandemic response, either through a dedicated delivery fund at the disposal of the delivery support mechanism or by authorizing the delivery mechanism to leverage partners' funding envelopes.
- **Establish a data monitoring function** to set up disease-specific monitoring and reporting channels to identify delivery trends across and within countries and to inform decision making including on allocation and resourcing.
- **Enable knowledge management and exchange for peer-to-peer learning** across countries and partners to document and preserve lessons learned and promote best practices.
- **Ensure a delivery-focused communication function is in place** to leverage partners' channels to reach global stakeholders and manage a clear communication line towards countries.
- **Reach agreement amongst partners of the delivery support mechanism** on a specific and time-bound mandate to guide work cutting across agencies and teams **and establish common principles and strategic objectives while protecting routine systems. Ensure that delivery is a consideration from the start and make sure the delivery support mechanism is fully embedded in the pandemic response operations** for end-to-end alignment and coordination.

- **Focus on a delivery support mechanism particularly during the acute phase of the response and ensure the mechanism is timely, targeted and temporary.**
- **Bring agencies together as a partnership under one organizational umbrella** during the acute phase of the response, enhancing existing models of collaboration (e.g., the Gavi Alliance mechanism), with an explicit joint accountability to support delivery based on shared principles endorsed by the principals of the agencies and communicated to governments.
- **Clearly define strategic priorities across the agencies** from the outset to guide operational management and execution, including where agency mandates, organizational structures and existing operational mechanisms are complementary or distinct.
- **Pay specific attention to the impact of the pandemic response on the delivery of routine services** and set up adequate monitoring and governance functions to ensure that the pandemic response does not derail routine service delivery.

The focus of a global delivery support mechanism should be on supporting while complementing efforts at the country and regional levels. Operational support needs to have a narrow focus that is defined using objective metrics and agreed upon across partners. During the COVID-19 response, the 34 countries for concerted support were at the centre of the operational support model during the acute phase of the pandemic, defined as those countries at or below 10% primary series coverage in January 2022.

- **Define a narrow operational focus when shifting to scale-up and acceleration and choose objective criteria across partners** that include equity considerations **to prioritize countries that will receive concerted operational support** while offering a broader range of support (e.g., tools, guidance, training, knowledge exchange) to a wider range of countries.
- **Sequence operational support** focusing first on countries with the greatest number of unvaccinated people and/or lowest access to medical countermeasures or on countries with strong political buy-in and opportunity.

Throughout all phases, countries, country targets and rollout strategies should be at the centre of delivery support and the principles of One Team, One Plan, One Budget should be applied as the basis for coordination, building on examples of comprehensive planning and coordination in routine settings. To avoid fragmentation and duplication of support, the principles of a common plan and budget need to be implemented early and before countries shift to large-scale roll out of vaccines or other medical countermeasures.

- **Support the One Team, led by the government and including all relevant partners, as the basis for coordination at the country level** and with a regional/global support team assisted by a dedicated country focal point. Where the One Team is not set up or is missing key partners, encourage its formation and inclusiveness.
- **Advocate for the One Team at the country level to be inclusive** and made up of partners critical for the delivery of vaccines and other medical countermeasures, including humanitarian partners, non-governmental organizations (NGOs) and civil society organizations (CSOs) focusing on last-mile delivery or high-priority groups and religious leaders to ensure that expertise and infrastructure of these partners are included in the planning phase. This can build on existing fora bringing together key actors in the health sector, such as the Inter-agency Coordinating Committee (ICC) which meets on immunization, and link to the Emergency Operation Centres (EOCs).
- **Use the principle of One Plan** or a single, country-owned operational plan as a basis for coordinating the response which includes key objectives and indicators, implementation strategies, bottlenecks to be addressed, and areas of support needed to coordinate supply and delivery, as well as financial, technical, and advocacy support.
- **Use the principle of One Budget**, i.e., a single, country-owned consolidated budget for the emergency response, as a framework to improve visibility and coordination across different funding modalities and funds provided by partners.

- **Ensure One Team, One Plan, One Budget principles are used early on and build on existing mechanisms and structures** to avoid fragmentation of planning and funding. Advocate for support of this approach among the main donors and partners.
 - **Combine regional and global resources as One Country Support Team** to coordinate and align partners at the regional and central levels, composed of staff from the different partner agencies, especially those with a strong presence at the country level and with operational capacity.
 - **Build on country presence of partners linked to One Team, ensuring integration with regional and global teams.** During the initial year of the COVID-19 response, travel was highly restricted, and the role of country offices and staff present in-country was crucial for the response.
 - **Leverage country-level coordination mechanisms (Country Coordinating Mechanisms (CCM), EOCs, ICCs)** to coordinate at the country level where available and functional. **Link regional bodies into the overall support model**, e.g., African Union/Africa CDC, regional working groups.
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03 — Organizational structure, governance and decision-making

The model of cross-agency working groups with a central coordination team, used under the CRD workstream in the earlier phases of the COVID-19 response, was useful to leverage existing systems, convene a wide group of technical experts across agencies, and to quickly build on existing coordination structures for delivery support while avoiding siloing of the emergency response. The COVID-19 Vaccine Delivery Partnership was able to build on this base.

- **Build on existing relationships and ways of working and leverage agency and partner structures and processes.**
 - **Launch delivery support with working groups across agencies, with the leads of each working group liaising with a central coordination team** that is set up with representation from all agencies.
 - **Establish clear thresholds to move from a delivery response model building on routine mechanisms to a temporary interagency mechanism with emergency decision-making authority.** Define a decision pathway and threshold to deactivate the temporary interagency mechanism at the end of the acute phase of the emergency.
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The delivery support mechanism should group agencies under one umbrella, led by a senior official endorsed by all agencies, once the specifics of required emergency response are clearer. This structure needs to be temporary and build on and enhance existing coordination mechanisms and structures during the acute phase of the emergency. The partnership structure used for CoVDP with a global lead coordinator allowed the partnership to narrow and sharpen its strategic focus and continuously redefine strategic common ground between the agencies and partners, assisting operations to be more targeted and effective.

- **Build on existing coordination mechanisms at the global and regional levels for the delivery support mechanism** (e.g., emergency coordination structures and the Gavi Alliance mechanism for vaccine-related

delivery support activities) while acknowledging the need for agile decision making and the need to include additional partners according to the requirements of the pandemic response.

- **Equip the delivery support mechanism with the authority to take emergency decisions on a no-regret basis including on quick impact funding.** The ability to react quickly to delivery bottlenecks observed at the country level and to leverage the disbursement of funding flexibly and rapidly (with turnaround as low as 24 hours) was one of the main activities of the CoVDP in the acute phase of the COVID-19 pandemic.
- **Leverage resources and staff seconded from agencies and partners as well as surge capacity according to a clear resourcing plan,** with clearly defined responsibilities and accountabilities complementary to existing roles at global, regional and country levels.
- **Appoint a senior lead coordinator with the delegated decision-making authority** to shorten decision loops and find strategic common ground across the agencies and partners in an evolving emergency context.
- **Identify specific areas that require end-to-end visibility across the procurement/delivery spectrum,** e.g., demand planning, data and monitoring, product guidance and recommendations, political advocacy and monitoring of the impact of the emergency on routine activities.
- **Ensure adequate mechanisms for transversal coordination and knowledge sharing are in place to avoid compartmentalization of the response model.**

Work areas for the delivery support mechanism should be clearly defined, based on the comparative advantages of the agencies, with agency leads overseeing specific areas to allow clear accountabilities. In the CoVDP model, agency leads reporting to the global lead coordinator oversaw operations in work areas that were tied to the respective expertise of their home agencies but included staff from the other agencies and partners. This set up strengthened decision making while leveraging teams and resources from across the agencies and partners efficiently.

- **Ensure a country engagement channel is in place for a delivery approach that puts countries at the centre, with dedicated country focal points linking directly to countries** (in conjunction with regional offices and organizations) **and collapsing the different levels of agency support at the global and regional levels** into one country engagement model, essential for the speed required during the acute phase of an emergency. Leverage this country engagement model to connect to the One Team, One Plan, One Budget approach and to establish a direct pathway for bottom-up information sharing, aligned and complementary to existing roles at regional and country levels. Build on existing country engagement pathways and focal points (e.g., regional focal points and Gavi Alliance Senior Country Managers) where possible.
- **Set up a team focusing on technical guidance, training, portfolio monitoring and data,** including on the development and dissemination of updated technical guidance, training and lessons learnt as well as on peer-to-peer learning and knowledge sharing, establishment of end-to-end monitoring and reporting channels, and creation of a dedicated monitoring function for portfolio-level progress analysis and ground-truthing of data sourced through official reporting systems.
- **Set up a team focused on the provision of delivery funding** to lead strategic and operational funder coordination on delivery topics, link to overall resource mobilization efforts by the agencies and partners, track fund disbursement and utilization across envelopes, work closely with country focal points to anticipate potential urgent funding needs (e.g., for upcoming campaign rounds or to avoid the expiry of vaccines and other medical countermeasures), and coordinate the release of quick-impact funding through the emergency funding window.
- **Create a focal point for humanitarian engagement,** focusing on strategic and operational priorities for the delivery of vaccines and other medical countermeasures for populations of concern (PoCs) in humanitarian and fragile settings, leveraging and setting up partnerships with humanitarian actors and architecture, and identifying opportunities for emergency funding to be bundled with delivery of health and non-health activities for PoCs.

- **Establish a coordination office**, charged with strategic planning, operations, resourcing, staffing, work planning, reporting, accountability and overall coordination of the delivery support mechanism as well as global political engagement and advocacy and communications.
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The delivery support mechanism should have an oversight structure with representation from agencies, governments from LMICs, donors and CSOs. During the COVID-19 response, CRD reported through COVAX governance structures alongside other COVAX workstreams. With the establishment of CoVDP, a dedicated steering committee of the Gavi Board was set up to focus on delivery issues, guide the operational focus and secure continued political buy-in from agency leadership and partners for decisions taken by the partnership. CoVDP, as a partnership set up in and administered by UNICEF, also reported to the UNICEF Executive Board.

- **Establish governance and oversight with a focus on delivery early** on to provide guidance and alignment on delivery issues e.g., through a governance forum for end-to-end oversight (covering procurement, allocation and delivery) or a dedicated steering committee for delivery issues (as was done for CoVDP).
 - **Ensure adequate representation from low- and lower middle-income countries (governments and CSOs) in the oversight mechanism** to reflect country voices in the strategic goals and operational focus of the delivery support mechanism, along with representation of the main funders of the emergency response.
 - **Avoid competing formal reporting and accountability channels within the agencies** to minimize reporting and transaction costs.
 - **Maintain informal reporting lines to key stakeholders as required** (e.g., to the heads of agencies and directors of relevant departments at partner agencies and regional directors) for proactive alignment with the priorities of the agencies and partners.
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04 — Internal coordination and ways of working

Working across agencies in an intensified way during an emergency, often through processes that are loosely defined and presuppose a high level of flexibility, requires attention to information flow, work culture and staff morale.

- **Institute a culture for the temporary team with a clear mandate and objective where each challenge is resolved through a partnership lens rather than an agency lens**, with working teams having representation of all partners, challenges being solved using the available resources of all partners, and success being framed as an achievement of the partnership rather than the work of individual agencies.
- **Introduce a common culture and jointly agreed upon work norms** to maintain a high level of motivation and a strong sense of belonging within a temporary set up, e.g., through regular review of the mission and vision of the partnership and frequent announcements on progress and challenges from leadership to all staff, weekly all-staff updates, work norms and value workshops, check-ins focused on staff wellbeing, career counselling and in-person retreats, and co-location weeks where feasible.

- **In a delivery support mechanism focused on streamlined emergency decision-making, promote information sharing across different vertical teams through cross-cutting technical working groups** with clear workplans and deliverables, reporting progress and decision points back to management and staff more broadly **to avoid silos in the pandemic response.**
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05 — Effective tools and functions

a. Political advocacy and engagement

A dedicated advocacy and engagement function with a focus on delivery should be created early on, led by the senior lead coordinator and supported by an adequately resourced advocacy team, to strategically engage with governments, and bilateral and multilateral partners. During the COVID-19 response under CRD and CoVDP, leveraging a wide set of coordination fora (both existing fora and those specifically set up for the COVID-19 response) was important for the dissemination of key advocacy messages. Advocacy towards broader sets of strategic partners required more active efforts, and the appointment of a senior lead coordinator allowed more targeted political engagement and strengthened political focus on COVID-19 vaccine delivery at the global and country levels.

- **Leverage the lead coordinator position with its strong connection to senior agency leadership and partners, and endorsed by the partner agencies,** for high-level advocacy at the global level and the highest political leadership at the country level.
 - **Set up a well-resourced and experienced advocacy team and communication capacity to engage in advocacy opportunities and leverage political influence of agencies and partners in a strategic manner.** Advocacy opportunities include health and non-health global and regional events (e.g., World Bank Spring Meetings, World Health Assembly, UN General Assembly, G7/G20 and African Union), leverage senior leadership of agencies and partners more broadly and direct bilateral engagement with key decision-makers.
 - **Build on agencies' advocacy channels to strengthen access to country leadership,** e.g., through a letter to Heads of State from leaders of all agencies or public endorsement of the delivery support mechanism.
 - **Extend advocacy from the early planning stage onwards to a broader set of partners** (e.g., African Union, Africa CDC, Global Fund and Unitaid), the humanitarian architecture, non-health partners (e.g., multilateral development banks) and NGOs/CSOs for active and targeted involvement. Leverage the advocacy function to strengthen bundling efforts between routine service delivery and emergency response.
 - **Use existing communication fora to amplify advocacy messages with key constituents.** During the COVID-19 response, CRD used a wide range of platforms to engage NGOs/CSOs, and bilateral and multilateral partners.
 - **Update agency leadership and key partners regularly and use reference publications to efficiently disseminate key advocacy elements.**
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b. Technical guidance and training

A delivery support mechanism needs to provide a framework for countries to assess their readiness to introduce and scale vaccines and other medical countermeasures. Preparation should move to detailed operational planning relatively early on, involving all partners working from a common plan and budget, to avoid fragmentation of planning efforts.

- **Develop and disseminate standardized readiness assessments** across countries early on to identify specific support needs and facilitate country-level planning discussions. Leverage routine assessments (e.g., International Health Regulations) to understand baseline readiness for the introduction of vaccines and other medical countermeasures and focus assessments during a pandemic on key bottlenecks.
- **Develop an agile framework for high-level strategic national planning early to start preparedness discussions and surface preparatory bottlenecks.** Given the emergency context, planning should be nimble and build on the principle of the One Team, led by the government and with all relevant funding and delivery partners at the country level (including humanitarian partners and NGOs/CSOs). Planning frameworks should focus on key areas required for the introduction of vaccines and other medical countermeasures. Plans should be stored in a common global repository (such as the WHO Partners Platform during the COVID-19 pandemic) to allow for real time access to plans by all partners to prepare targeted support.
- **Complement high-level strategic plans with detailed operational microplans that outline the specific delivery model as more information about the appropriate emergency response becomes available,** leveraging the principles of One Plan and One Budget and building on other relevant country-level planning mechanisms (e.g., full portfolio planning). Operational plans need to be developed early to avoid fragmentation of country-level plans.

Updated technical tools and guidance and extensive training opportunities need to be prioritized to train governments, national and subnational staff, and in-country partners on planning, the specifics and handling requirements of different vaccine and other medical countermeasures products, as well as outreach approaches and strategies. There needs to be a clear and joint understanding of which actors provide training.

- **Set up cross-agency, technical working groups to develop guidance on a range of relevant delivery topics** (e.g., demand planning, risk communication and community engagement, innovation, financing, communication and training, supply and logistics, and eventually integration), with representation from all agencies.
- **Update and disseminate product guidance on vaccines and other medical countermeasures continuously** to support countries in their planning efforts.
- **Distribute guidance with agencies at global, regional and country levels and at regular discussion forums for open questions and establish mechanisms to “bring partners and donors to one table,”** such as recurring meetings for all immunization and/or implementing partners or regional working groups (RWGs).
- **Provide regular and updated trainings** and make use of webinars and online platforms for flexible distribution of training materials and **leverage the country presence of agencies and partners to serve as contact points** for the dissemination of technical guidance and training.
- **Build guidance and provide support for evaluation of delivery efforts** 2-6 months after implementation. During the COVID-19 response, Intra- and After-Action Reviews were used to adapt delivery strategies and inform peer-to-peer learning.

During a pandemic, specific attention needs to be given to demand generation since health-seeking behaviours for vaccines or other medical countermeasures will be different than those for routine services and will depend strongly on the perceived risk during the pandemic, the perceived safety of medical countermeasures and the perceived relative priority of the disease compared to other diseases. Demand generation should include key messages to address hesitancy and misinformation, as well as support for targeted communication approaches in-country that leverage trusted networks, e.g., community and religious leaders.

c. Country engagement

Country focal points fully dedicated to the pandemic response should be leveraged to establish a direct connection to the country level and to coordinate regional- and global-level support, building on and reinforcing existing country engagement channels for the pandemic response.

- **Set up a country engagement channel early in the pandemic response with a focus on a set of countries for concerted support**, leveraging existing structures and teams, and establish a database of country coordination mechanisms and country contacts for closer coordination with countries. In the case of CoVDP, country engagement focused on providing operational support to the 34 countries at or below 10% primary series coverage in January 2022. A database with relevant country contacts facilitated coordination with the One Country Team.
- **Leverage dedicated country focal points of the partnership as needed to focus on specific countries and work in coordination with relevant focal points in the different agencies** (e.g., Gavi Alliance Senior Country Managers and regional focal points), to support coordination of partners, organize country missions and utilize the functional levers of the delivery mechanism, including quick impact funding, technical assistance and political advocacy.
- **Select individuals to be country focal points who have strong technical expertise and relationships to existing coordination mechanisms and countries.** Focal points need to be fully dedicated to the pandemic response and report to the delivery support mechanism rather than their home agencies. In the case of the CoVDP, these country focal points were recruited from agencies and humanitarian partners and each covered 4-5 countries.

Country engagement channels should be leveraged to quickly resolve delivery bottlenecks. In the acute phase of the COVID-19 pandemic, a dedicated country engagement channel was set up to link directly to regional mechanisms and countries to collapse the different levels of the agencies' support.

- **Link country focal points to existing support mechanisms** at country and regional levels through frequent organization of and participation in coordination meetings or bilateral coordination lines. Actively include information and insights from existing structures into operational decision making.
- **Conduct high-level political and technical missions and follow-ups, ideally jointly with relevant partners to ensure engagement at the highest political level**, and engaging with Ministers of Health, Ministers of Finance, and heads of government during country missions through targeted political advocacy and assistance, site visits, stock-takes on progress, identification of delivery bottlenecks and proposed interventions, resource mobilization, and strengthening of partner coordination.

- **Use high-level missions to advocate for bundled service delivery and identify opportunities for bundling of resources** to minimize the impact of emergency response on routine immunization efforts.
 - **Leverage country focal points to proactively identify areas in which support by the delivery support mechanism may be required**, e.g., funding available for upcoming vaccination campaigns and preparation of quick impact fund disbursement in case of funding gaps or expected disbursement delays.
 - **Follow up on agreed action points post-mission** across partners to maintain the momentum of the emergency response. **Resource the country engagement team with analytical capacity** to analyse portfolio trends and inform strategic direction and focus of delivery support.
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d. Provision of technical assistance

A pandemic response requires a significant scale up in surge support and the provision of specialized technical assistance. A roster of resources and fast-track contracting processes should be set up in advance to allow timely provision of technical support. The novel character of COVID-19 vaccine rollout (scale, target groups and products) and the fact that countries had to prepare for COVID-19 vaccine delivery at the same time required a significant surge support in technical assistance, including to support planning and rollout at the subnational level.

- **Use early readiness assessments and planning activities to inform technical assistance support needs.** Align on roles and technical assistance provided by the agencies and partners at global, regional and country levels, building on existing emergency and public health emergency coordination mechanisms such as EOCs and those specific to individual medical countermeasures such as the ICC which can be expanded to include humanitarian partners.
 - **Provide early funding at the country level for surge technical and management capacity and set up mechanisms to fast-track contracting of experts**, e.g., through memorandums of understanding with relevant partners, including humanitarian actors, operating in the countries as part of the response. Support mobilized by a delivery support partnership should complement technical assistance available to countries through channels already mobilized via government and partner channels.
 - **Strengthen the capacity of country offices and set up regional surge teams and task forces to provide hands-on technical support** to priority countries (e.g., for introduction planning, pre-campaign operational support, strategic plan and microplan development), and complement and back up those teams with surge capacity at the global level (e.g., coordination support). During the COVID-19 response, the number of staff in UNICEF and WHO country offices increased by the factor of 3-4 and specialized surge teams deployed by the regions were important for country-level operational support.
 - **During the delivery phase of vaccines and other medical countermeasures, provide specialized technical assistance to support microplanning and to accompany campaigns and delivery efforts at the subnational level**, complementing technical assistance deployed from the agencies at the country and regional levels.
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e. Delivery funding

Resources for delivery of vaccines and other medical countermeasures need to be mobilized, with visibility over disbursements and commitments and coordination across partners.

- **Raise funding for delivery support through coordinated and existing fundraising channels and joint fundraising efforts** and build on existing fundraising frameworks to do so (e.g., Gavi Alliance, Global Fund,

UNICEF HAC, WHO SPRP, World Bank, bilaterals) to avoid fragmentation of resourcing efforts and competing resource mobilization requests.

- **Disburse funding in a coordinated manner and against the principle of the One Budget** and tightly coordinate across partners.
- **Ensure early access and deployment of funding for country readiness** through reprogramming of existing resources (e.g., Gavi Alliance Health System Strengthening grants) and additional funding mobilised and/or leveraged from main partners (e.g., Gavi Alliance, UNICEF, WHO, World Bank).
- **Establish and maintain a global top-down costing model to support resource mobilization efforts**, based on costing assumptions adapted to the country context to estimate delivery costs with common categories, to be used for delivery activities across partners. Further elaborate evidence base of future costing work.
- **Set up one holistic tracker with visibility over disbursements and commitments across multilateral and bilateral partners and private foundations** to provide an overview of fund mobilization, disbursement and utilization.

The design of funding envelopes and disbursement channels should emphasize flexibility, agility and the principle of “no-regrets” to deploy funding rapidly during an unpredictable crisis.

- **Ensure no-regret funding is at the disposal of the delivery support mechanism with sufficient funds that can be deployed to the country government within a short lead time** (24 hours to 5 days) during the acute phase of the pandemic response to support accelerated delivery of vaccines and other medical countermeasures. This can be done either through a dedicated delivery fund at the disposal of the delivery support mechanism or by authorizing the delivery mechanism to leverage partners’ funding envelopes, as was done in the case of CoVDP. No-regret funding should be linked to simplified requirements to request funds to allow the funding to be provided in timely manner.
- **Apply no-regret principles to early access funding where possible** (e.g., emergency funding made available by UNICEF and WHO and the Gavi Alliance’s delivery support funding window during the COVID-19 pandemic), for example by tying funding to the quantities of medical countermeasures delivered. The absence of heightened risk appetite may cause high transaction costs in the context of an emergency response with imperfect data and limited ability to forecast needs. Advocate with donors to tolerate higher fiduciary and programmatic risk during emergency.
- **Make sure that resources provided are flexible and non-earmarked and allow for bundling with other health and non-health activities**, i.e., for the resources to support the delivery of medical countermeasures along with other health and humanitarian activities to increase the impact of the funding and minimize the impact on routine service delivery. For example, flexible quick impact funding disbursed during the acute phase of the COVID-19 pandemic allowed for bundling with measles or polio campaigns, malnutrition screening or the identification of zero-dose children.

Funding disbursements should be coordinated across partners and at the country level, with proactive tracking of disbursements and addressing of blockages.

- **Introduce comprehensive operational budgets early on and align on common cost categories to be used for delivery activities across partners**, applying the principles of One Plan and One Budget, with visibility on funding needed for the full plan and for individual and specific delivery campaigns. Core delivery funds managed centrally can be complemented by different funding windows provided by the partners and deployed for different use cases.
- **Establish a funding coordination process, especially to share information on funding allocations to support country readiness and delivery** amongst key donors; identify how different funding channels complement each other and opportunities on how different funding channels can be leveraged to support countries, e.g., some donors have earmarked funding for cold-chain or risk communication and community engagement (RCCE),

while others provide more flexible funds or can quickly reprogram existing funds that are already at country level (e.g., reprogramming of Gavi Alliance health systems strengthening (HSS) grants).

- **Establish or leverage existing donor coordination fora at the country level**, led by the government and as part of the One Team, and based on the comprehensive operational plan and budget, to increase the clarity on funding requests and funding gaps to be filled with regional- and global-level support.
 - **Set up a funding alignment mechanism as needed to clear funding requests sent to the agencies**; leverage dedicated country engagement channels and focal points to validate funding requests.
 - **Track disbursement lead times and utilization across agencies and funding envelopes** proactively to anticipate and solve systemic disbursement bottlenecks.
 - **Proactively identify political funding bottlenecks and use targeted political advocacy** to unblock funding across partners.
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f. Data and monitoring

An interagency framework and governance structure for monitoring the implementation of vaccines and other medical countermeasures needs to be established, and a global-level minimum dataset should be designed based on an understanding of the costs and benefits of collecting detailed data during an emergency.

- **Design, launch and test a coordinated and consolidated (global and regional) mechanism to collect and analyse implementation data as soon as possible after emergency declaration and prior to the introduction of vaccines and other medical countermeasures.** Late launch of such a system enables the proliferation of independent, agency- and level-specific data collection mechanisms, creating challenges in subsequent process alignment.
 - **Establish an interagency implementation data and monitoring governance group** responsible for coordinating and communicating monitoring-related directives and guidance to ensure clear communication lines across and within agencies and across levels; the group should be responsible for and empowered to steward the direction of the space.
 - **Create an interagency monitoring framework** for implementation of vaccines and other medical countermeasures that defines the minimum and optional indicators (including, but not limited to data relating to administration/utilization, supply, safety, delivery financing, policy), reporting frequencies and reporting mechanisms. When developing the framework:
 - **Ensure indicators included for global- and regional-level collection have clear, documented operational use cases** – data collected not linked to specific use cases contributes unnecessarily to country reporting fatigue.
 - **Weigh the costs and benefits of more detailed data** – design of a global-level minimum dataset is an exercise of trade-offs; each additional disaggregation or indicator adds complexity to the monitoring system, leading to additional workload for health workers and data completeness and quality issues.
 - **Accept that establishing a unique database for all implementation data is likely not possible in an emergency context**; instead, ensure a ‘single source of truth’ (i.e., the reference agency) per indicator is enforced – indicator-level single sources of truth should be well documented and access modalities made clear, and ‘single sources of truth’ should be as consolidated as possible.
 - **Embrace complementary, alternative means of data collection when traditional processes are insufficient to understand challenges and barriers to vaccine or other medical countermeasure implementation** – qualitative data gathered can and should be layered on top of directional quantitative figures to provide critical context.
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Delivery support for vaccines and other medical countermeasures requires regular reporting and analysis involving ongoing quality checks, weekly reporting and easily accessed data portals.

- **Prepare for a weekly reporting cadence for key indicators for vaccines and other medical countermeasures during the acute phase and main rollout stages.** A monthly data collection cadence is not sufficient for many indicators during the acute phase of a pandemic response.
- **Ensure data portals permitting access to key collected data are open, transparent, and easy-to-access** – easy data access permits interagency and interlevel data exchange and work to prevent the proliferation of independent, agency- and level-specific data portals. When possible, data should be made available in the public domain.
- **Build in and animate active and regular data quality checks and verifications between organizational levels (country to region to headquarters) to ensure the best quality data are available,** recognizing data reported in a pandemic context can be prone to error. Dedicated country focal points in the acute phase of the pandemic could follow up directly on reporting issues.
- **Define ownership and governance of non-reported data early on,** those collected or ‘scraped’ from official websites, social and traditional media, and other public source. These types of data will likely be increasingly common in future emergencies but frameworks for governing them are limited.
- **Adopt a ‘no-regret’ use of available, sensible data to inform decision-making** – even with quality assurance steps, data collected in a pandemic context may still be imperfect. Given this, data should be treated as the truth until they are proved not to be the truth.
- **Actively work against dashboard proliferation** but recognize that dashboards will sprout up organically; aim to interlink these dashboards to the greatest extent possible.
- **Prepare standard, but adaptive knowledge products and convene regular technical fora for trend monitoring to ensure key analyses and insights are being raised and inserted appropriately into key decision-making processes.** In the case of COVID-19 vaccine delivery, a bi-monthly monitoring review with regional offices and partners was central to tracking preparation and vaccination trends, proactively detecting portfolio-wide implementation bottlenecks and ground truthing reported data.

During emergency responses, existing data systems (health management and logistics management information systems as well as surveillance and safety monitoring systems) should be supported to achieve data requirements, and investment into strengthening these systems should be a key priority during non-emergency periods.

- **Invest in immunization and other medical countermeasures’ monitoring systems during non-emergency periods to ensure systems are functional and appropriately resourced during emergencies** – demands of immunization monitoring systems in the pandemic context exacerbated long-standing system weaknesses resulting from recurrent underinvestment in key system components. **Do not promote major data and monitoring system overhauls during an emergency** unless absolutely necessary but instead support, adapt and build up existing systems to meet data needs. System changes require significant time and financial and human resources, which are often not available during emergencies.
- **Elaborate comprehensive guidance to support countries in adapting necessary monitoring systems,** including the initial global-level minimum dataset (reporting requirements) and the mechanism for reporting.
- **Prioritize deploying direct, country-level technical assistance** to support countries in need to develop monitoring frameworks, establish and/or adapt monitoring systems to collect implementation data and clear potential data backlogs.

- **Support the development of monitoring improvement plans via technical assistance and financing** in countries not reporting on key minimum dataset metrics resulting from technical blockages; where blockages are of political nature, use targeted political advocacy.
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g. Demand planning

In an emergency with constraints on the supply of vaccines and/or other medical countermeasures, the delivery support mechanism needs to actively manage their allocation to support equitable access. Country needs and preferences, delivery strategies, and in-country delivery capacities should inform allocation decisions to create trust in the supply channel and reduce the likelihood of dose rejections.

- **Establish a bottom-up demand forecasting function early on and maintain a dialogue with governments on country priorities and objectives**, and refine successively with more details (e.g., on product preferences and timing of campaigns) to inform dose allocation decisions in line with country preferences.
 - **Set up a cross-sectional demand planning working group early on and as an end-to-end process and to provide end-to-end visibility on the supply of vaccines and other medical countermeasures**, including product type, shipment quantity and delivery dates.
 - **Leverage agencies and partners with experience forecasting demand for vaccines and other medical countermeasures**, such as UNICEF, the Pan American Health Organization (PAHO) and Gavi Alliance. Involve teams along the value chain from procurement, allocation to delivery support and actively leverage regional and country-facing staff for programmatic country expertise, establishing clear SOPs, roles and responsibilities across agencies and teams for data collection and analysis.
 - **Build in process steps to ground truth and triangulate reported demand data with technical experts and delivery partners at country, regional and global levels** to account for quality, completeness and comparability of collected bottom-up data. In an emergency setting, demand planning data is likely imperfect and additional, qualitative insights are needed to avoid misallocation.
 - **Build on the country communication function** in the demand planning process for clear country-facing communication on timelines and requirements.
 - **Keep forecasting flexible and allow regular updates to integrate demand and supply planning into country-level planning processes.**
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h. Knowledge management

Knowledge management and platforms for exchange of lessons learnt, best practices and challenges between countries and partners should be actively used to maximize peer-to-peer learning and to preserve information for archives. During an emergency, there will be heightened need for accelerated sharing of best practices to consolidate and synthesize learnings at the country level.

- **Collect, consolidate and synthesize lessons learnt and best practices** on the delivery of vaccines and other medical countermeasures (e.g., by documenting learnings of countries with early rollout), and **disseminate them with countries and partners in a timely manner to inform implementation** (e.g., successful outreach approaches and practical solutions to delivery bottlenecks). Learnings should be disseminated widely and accessible to a wide range of partners.
- **Maintain a curated and open knowledge repository on key strategic issues** with information sourced through agency and partner channels, updated regularly, and disseminated pro-actively with countries and partners. In

the case of COVID-19 delivery, a compendium of best practices captured learnings sourced from within the agencies and a wide set of partners.

- **Cultivate a community of learning for the delivery** of vaccines and other medical countermeasures and convene **direct connections between countries and partners** to maximize peer-to-peer learning, e.g., in small groups between two or three countries based on pre-selected issues and solutions.
 - **Maintain rigorous knowledge management system to document all steps of the delivery support mechanism**, including tools and guidance, communication with countries and partners, and minutes of meetings. In the case of COVID-19, working across agencies with separate knowledge management systems required dedicated efforts to establish and implement guidelines for documentation in one single place.
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i. Country communications

The delivery support mechanism should have a dedicated country communications team, leveraging partners' channels, to provide countries and partners with updated and accurate information on programmatic and technical developments.

- **Focus on delivery-related communications early on and ensure dedicated country communication channels are in place** for all stages of delivery support providing frequent and clear communication to countries.
 - **Build on existing communication platforms from partners, with focal points for each partner**, to ensure country-facing communication across partners (e.g., on technical and programmatic guidance and announcements) is accurate and synchronized across partners. Leverage joint Q&As and FAQs to maintain talking points on delivery-specific topics that are updated and harmonized across partners. Consider consolidating communications with countries and regions across the agencies to the extent possible, e.g., by linking with regular RWG meetings.
 - **Ensure inclusion of country-level partners on a regular basis, including NGOs/CSOs at the country level, and establish communication pathways** for governments and country-based organizations.
 - **Leverage existing, trusted systems** for in-country communications (e.g., governments, partners at the country level, local media, religious and cultural leaders).
 - **Link communication to the overall decision-making structure** and make it a standing item in key governance meetings.
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j. SPOTLIGHT

Delivery to populations of concern in humanitarian and fragile settings

A delivery support mechanism should put dedicated focus on reaching populations of concern (PoCs) in humanitarian and fragile settings. In such settings, the pandemic response is only one of many priorities of governments and partners and special attention should be paid to ensure PoCs are reached for the pandemic response while protecting the delivery of routine services and other humanitarian interventions.

- **Appoint humanitarian focal point in the delivery support mechanism** for coordination and advocacy to leverage the humanitarian architecture for the pandemic response.
 - **Bundle delivery of vaccines and other medical countermeasures with the delivery of a broader set of health services and humanitarian interventions** (e.g., malnutrition screening).
 - **Ensure availability of flexible funding** that can be leveraged for bundled service delivery and use principle of One Budget for visibility of funding available across partners (including immunization and humanitarian partners).
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- **Ensure mappings of PoCs are effectively considered in operational planning** and that PoCs are reached through campaigns. Leverage technical assistance and support of partners with relevant expertise and networks to reach these populations.
 - **Support coordination with humanitarian partners in-country and their inclusion in the One Team at the country level, and identify international and local partners with the capacity to deliver vaccines and other medical countermeasures to PoCs.**
 - **Work with humanitarian partners to provide information and data on delivery bottlenecks** and the needs of PoCs to better target support and make information available to the One Team at the country level.
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06 — Resources, roles and responsibilities

To ensure efficient resourcing and optimized contracting and recruitment processes during the urgent phase of the delivery support, an administrative system with a high level of flexibility and dedicated operational budget is needed while building on existing coordination mechanisms.

- **For the delivery support mechanism, choose an administrative set up anchored in the multilateral system and with operational presence in countries, and that has administrative flexibility and a dedicated operational budget.** It is important to have lean administrative processes that have been tried in an emergency setting and allow for efficient and flexible resourcing and contracting throughout the response, including the cross-funding of positions across agencies where necessary.
 - **Appoint administrative focal points in different teams of the delivery support mechanism who are familiar with the host organization's administrative system** to facilitate operational resource planning on processes, timelines, and requirements, especially for teams that are led and/or managed by staff seconded from other agencies. A lack of administrative focal points in mixed teams may lead to delays in the resourcing process as identification of resource gaps and resourcing are managed by different teams.
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A formal agreement on resource contribution and allocation should be established and comprehensive resource planning is needed, including surge support requirements and required capacities.

- **Seek balanced representation from all agencies across the delivery support mechanism and functions and rely on leads from different agencies to cover functions that represent their areas of comparative advantage,** e.g., the delivery funding function should have staff from agencies with relevant funding expertise, the country engagement function should have country focal points sourced from all agencies and from the global and regional levels.
 - **Ensure that key positions within the temporary delivery support mechanism are dedicated full-time** so that staff in these positions do not have multiple responsibilities and competing workloads.
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07 — Annex

01 —

Scope and limitations of this report

This report documents the key elements and functions needed for the roll-out of vaccines and other medical countermeasures. This report is not an evaluation of the COVID-19 vaccine delivery model, but instead documents the key functions and elements that were required for vaccine delivery support during the pandemic. The recommendations in this report build on the insights of people closely involved in the response. While this report is intended to inform the design and set up of any future medical countermeasures delivery support platform, any future emergency will come with specific requirements in terms of scope and partners to be included in the response, and will therefore require a unique approach, e.g., for resource mobilization and deployment, technical assistance and advocacy. This report also focuses on the pandemic response and does not include work on preparedness during non-emergency times, e.g., health systems strengthening, investment in data systems, strengthening of in-country coordination structures, regular readiness assessments as part of routine assessments, or the set-up of contingency funds for pandemic preparedness.

02 —

Areas of the delivery model that require further improvement

Challenges encountered during COVID-19 response

Learnings

National Deployment and Vaccination Plans (NDVPs)

- Planning of vaccination plans was difficult due to limited information on vaccine supply; further, many countries had no experience with vaccinating adults and at such scale.
- The development of NDVPs was useful to start planning discussions, but their development and review required significant efforts, whereas plans had limited operational value given the fast-changing supply landscape and pandemic context.
- Routine health systems assessments should be used to conduct bench line readiness assessments in non-emergency periods in order to allow a more focused and targeted readiness assessment during an emergency.
- Frameworks for country-level strategic planning should be agile and flexible enough to integrate evolving knowledge on supply and delivery and a changing pandemic context, focus on the operational (the how) and on areas that require intensive collaboration with the regional and global levels.

Resource mobilization

- The absence of budgetary clarity in the form of country-led operational plans and separate resource mobilization efforts by partners at the beginning of the pandemic resulted in a fragmented funding space.
- Additional efforts were needed to coordinate fundraising and funding priorities across the ACT-A partners without operational One Plans and One Budgets in place.
- Early on, the response lacked timely, sufficient and flexible access to funding for procurement and delivery support to enable rapid access to vaccines and at risk-access to delivery support.
- In particular, at the beginning of the response, fragmentation of the funding space across Alliance partners and beyond resulted in complex funding streams which was only partially addressed over time.

Provision of no-regret delivery funding

- Risk appetite of funding envelopes used during the earlier phases were not sufficiently adapted to a pandemic response, resulting in long disbursement lead times impacting vaccine delivery in-country. No regret funding was only introduced in the acute phase of the pandemic.

- Resource mobilization efforts should be coordinated through existing fundraising platforms and joint fundraising efforts and build on a joint resource mobilization strategy that is tied to a joint resource deployment plan clearly defining roles and responsibilities of different partners and tied to One Plan and One Budget at the country level.
- Funds need to be disbursed in a coordinated manner and against the principle of the One Budget from the beginning, leveraging the comparative advantages of partners.
- Once mobilized, delivery funding should be provided to countries in coordinated manner leveraging the comparative advantages of partners.
- Donors and funding partners should share funding priorities across countries early on to facilitate alignment and coordination.

- Institutional risk appetite should be adapted to the context of the pandemic response. For example, no-regret principles should be used early on, e.g., in early phases of delivery of vaccines and other medical countermeasures.
- Sufficient quick-impact funding needs to be available to support urgent delivery bottlenecks and a channel for quick disbursement (<5 days) needs to be in place to overcome urgent funding bottlenecks; funding needs to be flexible to allow bundling with the provision of other health and non-health activities.

Operational microplans

- Comprehensive operational microplans were introduced relatively late in the pandemic. This resulted in a fragmented planning space in-country and varying degrees of operational readiness to conduct large-scale campaigns.

One Plan / One Budget

- The implementation of the principles of one single, country-owned plan and budget were emphasized in response to a fragmented planning and funding space at the end of 2021. However, the introduction of those principles came after vaccines became available in large quantities and when countries shifted to large-scale rollout – limiting the attention that countries and partners were able to give to planning and budgeting.

End-to-end integration

- The creation of a delivery partnership resulted in more targeted delivery efforts but its setup during the acute phase of the pandemic at times resulted in frictions with existing processes and mechanisms, requiring efforts to clarify roles of different actors and mechanisms in place.
- Funding with a narrow focus on the delivery of COVID-19 vaccines during the pandemic resulted in gaps regarding integration with routine immunization protection measures; advocacy and flexible funding for bundled delivery of vaccines and routine services became an important part of delivery support during the acute phase of the pandemic but was not built into the delivery model from the onset.

Decision-making

- Shared accountability across the agencies before the appointment of a Global Lead Coordinator resulted in decision-making bottlenecks, as responsibilities and accountabilities were not always clearly defined.

- Operational and detailed plans should be introduced early on as soon as a country knows its incoming supply (product quantity and type, timing of delivery). These plans should build on and leverage existing planning mechanisms and follow the principles of One Plan and One Budget, i.e., one country-owned plan and budget that are led by the government, and comprise all aspects of planning for vaccine roll-out, including in humanitarian settings and comprising humanitarian partners.
- The One Budget should integrate funding from the main donors and in-country coordination mechanisms regrouping the main donors should be used for transparency of fund disbursements and funding requests.

- Delivery should be a focus from the beginning and a delivery support mechanism should be embedded into an end-to-end delivery structure (from procurement to delivery support across partners at country, regional and global levels) early on and supported by a well-resourced team with dedicated roles and project management office support to rapidly resolve bottlenecks and ensure agile decision-making.
- The functions of the delivery support mechanism should be designed early, in consultation with relevant stakeholders, and build on existing mechanisms and the principle of subsidiarity to ensure that all existing resources are leveraged and that transaction costs are minimized.
- Funding and the delivery mandate should allow for bundling of activities and take into consideration the protection of routine immunization.

- Delivery should be a focus from the beginning with a delivery support mechanism led by one lead coordinator early on.
- Streamline decision-making for the delivery function under a Global Lead Coordinator, once there is need to for a more targeted and temporary interagency structure.

Provision of technical assistance

- Provision of technical expertise and management support to governments was challenged by the scale of the vaccine rollout, travel restrictions, political commitment and competing priorities at country-level.
- A roster of pre-qualified technical assistance providers should be kept updated for key functions (e.g., microplanning, demand and community engagement); emergency contracting modalities should be in place to quickly contract and deploy technical assistance to countries.
- Targeted use of management expertise to support governments (e.g., EPI programs) as well as regional and global level through embedded support should be considered early and deployed in addition to technical surge capacity.
- A regional surge team should be set up across agencies in a coordinated manner (based on comparative advantages) and deployed to countries early on, if pandemic conditions allow.

Engagement with the humanitarian architecture

- The pandemic response lacked a dedicated focus from the beginning on leveraging humanitarian architecture and actors to reach Populations of Concern (POCs).
- There was also a lack of sufficient funds for the operational costs of vaccination for PoCs, which are often higher due to access constraints and logistical challenges, as well as appropriate delivery approaches for PoCs who have other pressing health and basic needs.
- Engage humanitarian partners from the beginning of the pandemic response.
- Ensure funding mechanisms provide sufficient, adaptable, and timely funding for delivery for PoCs. Funding should be flexible to allow bundling of medical countermeasure with other humanitarian and health activities.
- Provide tailored delivery approaches including bundling of delivery of vaccines and other medical countermeasures with the delivery of a broader set of health services and humanitarian interventions.
- Advocate for reaching PoCs and including these populations in NDVPs and micro-plans as a target population with specific strategies for reaching them.

Engagement with NGOs and CSOs

- Engagement of CSOs/NGOs was often limited to dissemination of knowledge, guidance and documentation of lessons learnt. Targeted engagement of CSOs/NGOs for surge capacity in strategic areas was undermined by challenges to identify and contract relevant partners and only solved to some extent later in the response.
- A roster of NGOs/CSOs with relevant surge and technical capacity should be set up early, linked to the One Team at country-level. Proactive engagement with the One Team and relevant partners is needed to identify surge capacity in strategic areas.
- Memoranda of Understanding with NGOs/CSOs with a large country presence should be set up early to facilitate contracting once support needs become clear.
- Rosters of NGOs/CSOs need to be supplemented by dedicated / earmarked funding to source additional surge capacity at country level.

Organogram of the delivery support model as used during acute phase of COVID-19 vaccine delivery support (COVID-19 Vaccine Delivery Partnership)

