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Introduction

This document shares insights from VillageReach, a nongovernmental organization (NGO), that were gleaned from establishing and operating five COVID-19 vaccination sites in Côte d'Ivoire and Democratic Republic of Congo. Our goal is to help other organizations plan, set up, and run similar sites successfully. We also hope to help others with transitioning to government-provided public health care at the appropriate time.

More broadly, we want to share here things to consider when developing, launching, operating, promoting, and transitioning fixed and outreach—"multimodal"— COVID-19 vaccination sites in any low- or mid-income country. Leveraging the lessons we learned, we hope other vaccine implementers will use this as a practical tool for planning and optimizing such community vaccination efforts so they are strategic, intentional, efficient and, most importantly, effective.



For the five vaccination sites we operated from November 2021 to August 2022, we intentionally chose urban settings in health districts with low vaccination rates. Extremely important in our efforts was partnering closely with national and provincial governments, and with the immunization strategies of the Ministry of Health for the country in which we worked.

What started for us as a fixed-vaccination-site initiative quickly evolved. Recognizing opportunities to make access more convenient and to increase demand for COVID-19 vaccines, our site teams rapidly pivoted to implement a multimodal strategy. This strategy included both fixed vaccination sites and outreach efforts (mobile vaccination teams plus employer-based and community vaccination events). Community health workers (CHWs) supported these efforts by fanning out into the community to engage with people directly to generate demand for COVID-19 vaccines.

Document Organization

This document is organized chronologically, covering the time from when a site is first envisioned to when a government office takes over operations. While this is not a "how-to" manual, we do hope to help efforts succeed throughout each of the following steps:

- **Choosing** We present an overview of the vaccine delivery mechanisms that can work together to reach everyone who wants a COVID-19 vaccine.
- **Planning** We discuss aspects such as leadership, stakeholders, staffing, budget, and communications.
- **Generating Demand** We review strategies to increase demand for vaccines.
- **Operating** We share ideas on how to make the experience positive for clients and what to consider when storing and handling vaccines.
- **Transitioning** We give tips on how to decide when and how to close the site, and on how to integrate with public health care.

This guidebook is intended for everyone interested in planning or running a site, such as:

- Ministry of Health officials for low- and mid-income countries
- Technical implementers, which could include nonprofits from highincome countries (such as VillageReach) or private-sector organizations from countries at any income level
- Foundations that fund vaccine initiatives, such as the Bill & Melinda **Gates Foundation**
- **Global organizations**, such as the World Health Organization (WHO), United Nations Children's Fund (UNICEF), and Gavi, the Vaccine Alliance
- Multi-laterals and bi-laterals, which are organizations run by multiple countries

In any vaccination effort, it is imperative to honor principles of equity, access, and costeffectiveness. Gains made while the site operates can only be sustained if they are integrated into the country's health system. Therefore, considerations offered here should be used only in tandem with the national strategy of the country's Ministry of Health, and must be adapted to local needs and specific situations.



Inequity in Global COVID-19 Vaccine Delivery

For high-income countries, the global COVID-19 vaccination effort began in December 2020. These countries received the majority of COVID-19 vaccine shipments, and immediately launched vaccination efforts using a combination of delivery strategies, including high-throughput sites that relied on an influx of financial and human resources. Meanwhile, many low-income countries did not receive regular vaccine deliveries until July 2021.

Delays and inequities in vaccination shipments to low-income countries were accompanied by increased COVID-19 vaccine hesitancy. Challenges in managing vaccine supply and demand ensued.3

In Côte d'Ivoire and Democratic Republic of Congo, once a reliable supply of COVID-19 vaccines was established, additional obstacles to increasing COVID-19 vaccine uptake had to be faced: insufficient public awareness of the benefits of COVID-19 vaccination, lack of trust in

health systems, inadequate human resources and access to care, and limited capacity to manage supply chains crucial to delivering COVID-19 vaccines.⁴⁻⁷ Both countries were primarily using existing primary health centers and hospitals for COVID-19 vaccine delivery, as opposed to dedicated COVID-19 vaccine facilities.

In November 2021, while many high-income countries had vaccinated more than 60% of their populations, some low-income countries still had COVID-19 vaccination rates of less than 10%.8 At that time, the vaccination rate in Côte d'Ivoire was 11%, and in Democratic Republic of Congo it was less than 1%.8

Given these challenges and low COVID-19 vaccine uptake, stakeholders wanted to explore whether vaccination sites could help increase uptake in urban areas of Côte d'Ivoire and Democratic Republic of Congo. We hope these reflections on our experience can help others succeed.



Choosing a Vaccine Delivery Model

Worldwide, providing COVID-19 vaccines for adults is a big shift for systems that were designed predominantly for young children. In adult populations, COVID-19 vaccines first need to reach people with the highest risk of exposure or severe illness from COVID-19, beginning with older people, people with certain health conditions, and health workers and other essential workers. We found that no single mechanism is sufficient. Multiple vaccine delivery mechanisms working alongside each other must be engaged in order to reach everyone who wants a COVID-19 vaccine.

In this section, we provide information on several options: high-volume vaccination sites, mobile vaccination teams, community-based campaigns and special vaccination events, employer-based vaccination sites, routine public primary health care facilities, and private health care providers. In Côte d'Ivoire and Democratic Republic of Congo, we found that a multimodal approach was needed, combining various strategies.





High-Volume Vaccination Sites

To reach the large number of people who need COVID-19 vaccination, highvolume sites are needed in some areas. These sites can safely serve more than 1,000 people each day. Various large facilities can be converted for this purpose, such as sporting venues, hospitals, convention centers, university campuses, and even parking lots, although indoor spaces are preferable. The space must be large enough to safely accommodate 200 or more people an hour, providing room to queue, vaccinate, and monitor post-vaccination while maintaining physical distancing. In addition, the space must be large enough for training, administration, and setting up logistics, and it must have room to receive and store equipment and supplies. It should be in an area that is easy to get to and where many people pass by. A hospital should be nearby in case of an adverse reaction to the vaccine, and other security and safety factors should also be considered.

High-volume sites often work well when the intended population consists mostly of motivated individuals who can get to the site. Staff at these sites can quickly and efficiently vaccinate many people in a densely populated area when demand is higher than established vaccine access points can meet. While the public nature of these sites may alienate some people, these sites can stay open longer and operate with more convenient hours than can other types of fixed sites.

Establishing high-volume sites requires intensive preparation. Many partners and government entities must be closely involved to plan vaccine deployment, train the workforce, set up the site, provide security, deliver supplies, and administer vaccines in a coordinated fashion.

High-Volume Site Considerations

To determine whether a high-volume site will work best for a given location, consider the following questions:

- Is population density high enough to generate 1,000 clients per day?
- Are other vaccination sites too small or strained to meet demand?
- Is access to vaccination sites limited in the surrounding area?
- Is a large venue available, affordable, and convertible?
- Can the community easily access the site?
 - Does public transportation serve the area?
 - Is there enough space for people to line up outside?
 - Will clients be safe arriving at and leaving the site?
- Can supplies be transported easily to the site?
- Is proper waste disposal available?
- Do local authorities support the plan?

Other Options Besides High-Volume Sites

While high-volume sites may fulfill the vaccination needs of dense urban areas with strong demand for vaccines, other modalities are often needed for an equitable strategy that can deliver to people hardest to reach. Below, we discuss logistics and demand considerations for other options, as well as pros and cons for each. The modes are summarized in Table 1, at the end of this section.

Mobile Vaccination Teams

Mobile vaccination teams have multiple advantages. They can meet the needs of more people, even people who hesitate to get vaccinated, since getting vaccinated at a mobile site requires less effort. They can also target highrisk and less-mobile populations, such as people in prisons or in congregate settings for the elderly. It is also convenient to pair vaccine education with a mobile vaccination effort.

Many different sites can work for mobile vaccination—people's homes, a pop-up site, or even wherever a vaccination vehicle can safely park and accommodate clients. Mobile vaccination requires an appropriate vehicle that can carry supplies, equipment, and signage. The cold chain is maintained using vaccine coolers. While only small batches of vaccines are taken with mobile teams and attempts are made to plan for needed supply, some open vials may be wasted. Staff who can travel are recruited and specially trained for mobile operations, but staff from high-volume sites can also be shifted to this approach.

Community-Based Campaigns and Special Vaccination Events

Sometimes people are most likely to accept vaccines when they are offered at special events or during campaigns in a particular community based on that group's interests. These efforts involve temporary setup at common community gathering spaces such as churches, mosques, sports events, restaurants and bars, markets, or any other place where people gather.

This approach can serve everyone. If community members trust the host, they may be more likely to overcome their vaccine hesitancy.

Hosts can also help meet specific needs, such as translation or easing of religious concerns. Vaccine education can be offered in association with this approach.

Staff will need special training. They must be willing and able to travel with supplies, equipment, and signage, or the host must provide these things. Coolers are needed to carry a medium amount of doses for one-time use; some open-vial wastage may occur.

Employer-Based Vaccination Sites

Temporary vaccination sites at people's place of employment can help people whose work impedes trips to other sites. If employers require vaccination or at least provide vaccination breaks and encouragement, some people can overcome their hesitancy. Staff can be recruited and trained specifically for this kind of site, or the employer may hire or organize contract staff. Vaccine coolers can be used to transport and store a medium supply for use within the day, although some open vials may be wasted.

Routine Public Primary Health Care Facilities

Existing public health care facilities can be efficient venues for vaccinating motivated people who can get to the site, although some people will have trouble getting there and the vaccine-hesitant are unlikely to make the effort. Existing staff manage the workflow and deliver the vaccinations. Existing standard refrigerators can likely be used to store an ongoing supply of small batches.

Private Health Care Providers

Existing private practice facilities use existing staff, standard or ultracold refrigerators, and small to medium batches. They can be useful for vaccinating motivated people who can access the site. They can sometimes help people overcome vaccine hesitancy. However, not all private practices in low- to mid-income countries provide vaccines, and many people may not be able to afford them even if they do.

TABLE 1: LOGISTICS AND DEMAND CONSIDERATIONS FOR PRIMARY VACCINE DELIVERY MODES

Vaccine	Logistics Considerations				Demand Considerations	
Delivery Mode	Setting	Workforce	Cold Chain Capacity	Supply Planning	Best Suited For	Pros and Cons
High-Volume Vaccination Site	Large spacesEasy accessSafe and secure	Special training required	Standard or ultra-cold refrigerators Power source	Receive large quantities Dispense until cleared	Motivated people who can access Interested people with some barriers	Public nature may be alienating Longer and more convenient hours
Mobile Vaccination Teams	Homes, pop-up site, or appropriate vehicles	Special trainingCan use high-volume site staffStaff must travel	Vaccine coolers	Small batches dailySome wastage	Everyone, including vaccine-hesitant	 Can target high-risk populations Requires less effort Pair with vaccine education
Community-based Campaigns/ Special Vaccination Events	 Temporary, at community gathering spaces Transport or host- provision of supplies, equipment, and signage 	Special training requiredMust travel	Vaccine coolers	Medium # doses Some wastage	Everyone, including vaccine-hesitant	 Trusted host increases willingness Host can help ease concerns Pair with vaccine education
Employer-based Vaccination Sites	Temporary, at employment site	Special training or contract staff	Vaccine coolers	Medium # dosesSome wastage	 Motivated people who can access Interested people with some barriers Hesitant, but employermandated 	Employer must encourage attendance and provide breaks
Routine Public Primary Health Care Facilities	Existing public health care facilities	Existing staff	Standard refrigerators	Small batches for ongoing use	 Motivated people who can access Interested people with some barriers 	Hard to access for some Vaccine hesitant not likely to come
Private Health Care Providers	Existing private- practice facilities	Existing staff	Standard or ultra-cold refrigerators	Small batches for ongoing use	 Motivated people who can access Interested people with some barriers Vaccine-hesitant people 	 May not provide vaccinations in all countries May be cost-prohibitive



A Multimodal Strategy

While each delivery mode has its strengths, a multimodal strategy may reach more people. In Côte d'Ivoire and Democratic Republic of Congo, VillageReach hoped that high-volume sites would quickly meet the needs of people in densely populated areas eager to get vaccinated. However, in the first months, daily vaccination at the sites was lower than expected. We often vaccinated fewer than 100 people per day. Two important COVID-19 vaccination uptake barriers were not being addressed:

- Hesitancy Many people mistrusted COVID-19 vaccines because they had limited information or had been exposed to misinformation.
- **Inconvenience** Many who were open to vaccination perceived that their risk of contracting the COVID-19 virus was low. This left them unmotivated to seek vaccination unless it was highly convenient.

Clearly, high-volume sites alone were not enough. We needed to combine them with efforts to increase demand for vaccines, and we needed to make vaccination highly convenient by bringing opportunities to people, so they did not have to come to a site.

In response to these insights, we developed a multimodal vaccine delivery strategy comprising a combination of fixed vaccination sites and outreach efforts. The three components were:

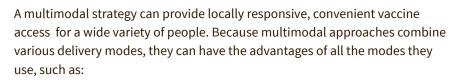
- Vaccination sites at fixed locations
- Outreach efforts including mobile vaccination teams at rotating locations in the community surrounding the high-volume site, and occasional special vaccination events and employer-based vaccination sites
- A CHW mobilization and sensitization campaign



The multimodal strategy can be seen as a "hub and spoke" model, where the fixed site is the "hub" and the outreach efforts are the "spokes."

Advantages of the Multimodal Strategy

Multimodal approaches are especially effective at reaching people quickly and on a large scale. They are important for people who face barriers to accessing health care in general and COVID-19 vaccines in particular. These people may, for instance, be unable leave jobs or other responsibilities during the business hours of existing vaccination clinics. Multimodal approaches are also crucial in resource-constrained settings. The combination of fixed sites, mobile teams, vaccination events, and CHW mobilization streamlines vaccine delivery and results in high throughput.



- **High accessibility** With a multimodal strategy, stationary vaccine sites can be located in busy parts of the city with good transport connectivity.
- Flexibility in point of care location Multimodal approaches give people options, so more of them get vaccinated; they can visit a vaccination site, or have mobile teams come to them.



- - Longer operating hours Compared with existing health care centers, fixed sites that are part of the multimodal strategy can be open more days and longer hours, typically 6 to 7 days/week, 8 hours/day.
 - High-volume site advantages While still remaining agile to reach clients other ways, multimodal approaches capture the advantages of high-volume sites, such as:
 - **Quality of experience:** Exit surveys indicate that clients find highvolume sites welcoming and that they trust the medical staff handling the vaccinations. This creates a positive ripple effect in the community, leading more people to seek vaccinations.
 - Immediate data upload to electronic immunization registries: Onsite data clerks upload vaccination information to electronic immunization registry systems daily, avoiding data reporting backlogs.
 - Individual follow-up for 2nd dose and adverse events: Highvolume sites require a large staff, whose members can use downtime for 2nd-dose reminder phone calls and follow-up with people who experience adverse events after vaccination.



Planning for **Vaccination Efforts**

Whether you choose a single mode of vaccine delivery or a multimodal strategy, careful planning and pre-launch activities are key to the effort's success. The primary areas for preparation are described below, with VillageReach's "lessons learned" incorporated.





Stakeholder Coordination and Collaboration

The first steps to preparing for a vaccination effort are to determine which agencies, groups, and roles should be involved—who the stakeholders are. This is called "stakeholder mapping." You'll want to engage with stakeholders strategically and build trusting relationships with open communication and solid understandings. Admittedly, this crucial initial engagement is time-consuming, and it can be tempting to skip it in an emergency context. However, not engaging early on with stakeholders can lead to unforeseen complications, inefficiencies, and undermining of relationships. Taking the time to do these steps in spite of time crunches will pay big dividends in the long run.

Global and Multilateral Engagement

Coordinating with global stakeholders and multilateral stakeholders (those from multiple countries) is essential in order to avoid overlapping services and to promote efficient use of resources. Consult members of organizations such as the WHO, UNICEF, and GAVI about how to develop a collaborative vaccination delivery plan with complementary strategies, and identify opportunities to partner and share resources. For VillageReach, coordination at the global level led to sharing of information on expected vaccine shipment arrivals and quantities, as well as on how and where

vaccines were already being administered in the country. This global-level coordination also allowed VillageReach to identify and address vaccine delivery barriers and help coordinate the setting of priorities. More locally, VillageReach's engagement with WHO staff in Democratic Republic of Congo led WHO to provide tents to use at the high-volume site, which saved cost and sheltered people from sun and rain. By



increasing client comfort, they made the experience more positive, thereby increasing the likelihood of word-of-mouth recommendations. The tents also helped establish a more definite and noticeable presence.

Essentials During Planning

- Coordinate with stakeholders, including all levels of government and non-state entities, so site setup proceeds with minimal surprises and disruptions for all.
- Involve trusted community leaders in meetings and invite them to the opening ceremony to increase community buy-in.
- Form a steering committee that includes Ministry of Health staff from various levels to set expectations and forge collaborations.

Government Engagement

Engaging strategically with government partners is crucial. You can start by learning the government structure and then identifying individuals or groups responsible for decision-making about the specific vaccine you will deliver at your site. For our multimodal approach, the primary contacts were from the Expanded Programme on Immunization (EPI). Once you identify the responsible person or group, keep them as your primary contact. This will help you identify which approvals are needed and which additional political and administrative authorities you should consult for getting the site approved and resolving administrative bottlenecks.

From our experience, we learned how important it is to get leadership approval early and explicitly. People working at the local level will feel more comfortable supporting the work once there is clear approval from the highest levels. We also had to navigate the overlapping authority of different levels of the government including national, provincial, district, and city leadership. Having champions within the government will help the planning team navigate those complexities.



Establishing these connections may also provide opportunities for your organization to participate in government committees related to vaccine delivery, to provide technical assistance, and to support the national vaccination plan. Participating in these activities can help with mobilizing resources for vaccination sites and ensuring your vaccine site aligns with government vaccine strategy.



Community Leader Engagement

The mayor and traditional leaders have comprehensive understanding of their community, and are trusted by its members. Involve community leaders in meetings about the site. Invite them to the opening ceremony to increase community buy-in. Do outreach, especially with traditional leaders, to increase buy-in before and throughout implementation. This increases community confidence in the efficacy of the vaccine and in the knowledge and goodwill of vaccination site staff.

Collaborative Leadership: The Steering Committee

Forming a steering committee that includes people from across the spectrum of stakeholders allows the leadership team to manage the expectations of everyone at the same time. The steering committee will decide priorities for the vaccination site.

Select steering committee members as soon as you receive approvals for the project. Ideally, the committee members should represent Ministry of Health and other government structures involved in quality, decisionmaking, contracts, human resources, clinical operations, and infrastructure. Representation should include representatives from all levels of the Ministry of Health including national, provincial, district, and city, and local government officials, such as the governor, mayor, or police. Make sure members know they should check in with staff routinely to stay up to date on site operations, and keep them informed of issues, needs, and strategies that prove successful.

In one country, it was hard to establish a steering committee quickly enough, so none was formed. This led to delays and confusion because coordination took place with each stakeholder separately. Taking the time to establish a steering committee would have paid off in the long run by preventing delays resulting from not having coordinated group support for the site.

Getting Approvals

The efforts described above—coordinating stakeholders, engaging community leaders, and forming a steering committee—will provide more knowledge of the organizational structure of the country and connect you with people who can help get the vaccination site approved.

Important Roles at Each Level

- National level Seek approval from decision makers from the Ministry of Health for initial vaccination site plans.
- Provincial level Involve the provincial government head in approving more detailed vaccination site plans.
- Operational or "health zone" level Consult leadership from the main administrative jurisdiction for where the site is being set up on the more specific site details. Request approval from clinical leadership on matters related to staffing, clinical service delivery, and quality.



After you have gained sufficient knowledge of key offices and people, get necessary approvals or buy-in from the main stakeholders at each level. Depending on the geographic location of your project, this might entail formal written approval or verbal departmental support for your initiative. Consult with local authorities to identify the precise level of approval needed to ensure your project is compliant with local regulations. Give all stakeholders ample time to authorize the project and be sure to document authorizations.

Launch Preparations

After approval for the site is received, launch preparations begin. You will need to identify a launch team, which should include clinical and operational leadership from all entities involved in running the site, along with local authorities who need to be consulted regularly.

Overview of Launch Team Responsibilities

- <u>Staffing</u> Recruiting and training clinical and non-clinical staff
- Costs Developing a budget based on vaccination goals and plans
- Communications Building community awareness of the site

These considerations are discussed in more detail below.

Staffing

Staffing is one of the most critical components of vaccination site planning and operations. Starting with knowledge of the funding available and then guided by a carefully thought-out staffing model, you will need to determine which positions are needed and can be paid adequately given your resources. Once the site is up and running, you'll want to hold regular staff meetings and implement procedures for continual staff improvement. This section will get you started.

STAFF FUNDING

Keep your eyes open for any potential partners or funding sources, since multiple sources of funding may be needed to cover staffing costs. The government and other partners, including the private sector, may provide funding for staffing. Be open to different combinations and make sure there is clear written agreement on amount and duration of funding for each position. Some partners may provide staff directly rather than providing funding for positions. Give the partner information on the different roles (clinical, logistical, and administrative), and agree on which partner will be responsible for which roles.

STAFFING MODEL

The complexity of the staffing model depends on the size and complexity of the site. Your throughput target (how many people you'd like to vaccinate each day) should guide your staffing needs. For a small, simple site, the staffing model might be a list of roles, with funding source, duties, and skills and knowledge needed documented for each

position. For larger sites involving more elaborate coordination, your model might need to include an organizational chart to show accountability and how positions coordinate with each other.

Staffing can be filled by a combination of full-time and part-time staff, permanent and temporary employees, and outside consultants or contractors. Consistent, full-time staff are best for quality and consistency of care. However, you might use other staff at certain times.

- Part-time staff may be needed to supplement regular staff during busy times of day, the busiest days of the week, or weekends and holidays when other staff may not be working.
- Specialized staff (for instance, those requiring clinical skills and licenses) may not be available full time, so you may need to engage them as they

are available. For example, doctors, nurses, and pharmacists may have other positions at health centers and be able to work at the vaccine site only on a rotating basis.

- You may want to outsource some positions. For example, you may ask
 the owner of the building or property to provide custodial services, or
 you may contract with an outside company to provide security.
- For positions that require little training, such as greeters or traffic control, you may be able to use temporary employees or volunteers.

See the <u>Example Staffing Models</u> that follows this subsection for the specific models used for vaccine operations in Côte d'Ivoire and Democratic Republic of Congo.

Best Staffing Practices

- **Be flexible** Start with a nimble staffing model that includes staff who can work on site, as well as staff who can conduct outreach and demandgeneration activities in the community.
- **Plan for adequate staffing** Provide enough staff to maintain a welcoming atmosphere. Don't stretch staff too thin.
- **Provide appropriate compensation** Pay staff every day to help inspire exceptional care delivery.
- Build a supportive environment Establish and maintain a culture focused on continuous improvement. Treat mistakes as learning opportunities and reward positive suggestions. Plan formative and summative evaluations (see <u>Staff Training</u>) and follow through frequently.
- Identify opportunities for collaboration Use cross-sector partnerships and networks to share costs. Articulate a shared vision to coordinate and mobilize teams from various sources.
- **Partner with government** Ensure vaccination activities are leveraged to complement the national vaccination strategy.

ROLES

Every vaccination site will have unique staffing needs. In general, staff will fall into four categories:

- Clinical staff Vaccinators, postvaccination observation staff, clinical supervisors
- Data staff Registration, recording agents, data managers and data clerks
- Managerial staff Program and site leadership from each entity involved, site-level managerial staff responsible for specific scopes of work such as monitoring and evaluation, community engagement, logistics, and government liaising
- Operations staff Site operations managers, managers responsible for HR and budget, security agents, waste management officers, cleaning staff, and receptionists/greeters

For smaller operations, responsibilities could be consolidated into fewer roles. A more detailed description of example staff roles is provided in *Appendix 1*.

COORDINATING STAFF MANAGEMENT

Because multiple sources supply staff, staffing must be carefully coordinated so seamless operations result. At ground level, each team should manage its own staff and activities. Then, each team's managers collaborate to address issues.

For example, government team staff could have a government manager—either their regular offsite supervisor or an onsite supervisor—while maintaining connections with offsite government staff either way. However, for safety reasons, an onsite decision-maker must clearly be in charge of clinical decisions and emergencies. An "incident command" structure can clarify the hierarchy. Everyone must know every day which onsite staff member to turn to for important decisions.



When staff from multiple entities work together at a site, you'll need a complex management structure specific to the situation. Each entity needs a clear scope of work.

While collaborating organizations will work together and define roles in various ways, be sure to cover the following functions:

- Clinical oversight A medical professional, often an MD, should be responsible for all immunization activities, including client screening, vaccination protocols, and observation protocols. One person's responsibility may extend across all sites and modalities. Then, someone must oversee clinical operations at each site or for each outreach team to make sure protocols are followed, answer questions, and lead emergency response.
- Programmatic oversight One person must be responsible for overall project coordination and collaboration between partners for all sites and outreach activities. This person ensures that the program is meeting vaccination goals, staying on budget, and operating smoothly. A program manager for each site may also be needed.
- Data and evidence Someone must be responsible for monitoring and evaluating activities to ensure vaccination targets are met, compile and analyze data, keep records, and report to the government immunization registry.
- Social mobilization and communication This person manages demand generation and CHW activities.
- Vaccine logistics This person manages stocks of supplies and vaccines, ensuring the receipt and return of vaccines if they are stored offsite or moved, designing and enforcing cold-chain protocols and so forth.

Example Staffing Models

Each vaccination site will have a unique staffing model. One VillageReach site in Abidjan, Côte d'Ivoire, had 45 staff members from four entities, while a site in Kinshasa, Democratic Republic of Congo, had 32 staff from three entities.

As the vaccine delivery strategy shifted to focus less on the fixed sites and more on outreach efforts, the staffing models shown below changed to include more community health workers and mobile vaccination teams.

As a non-clinical organization, VillageReach mostly relied on government employees to fill clinical roles. These employees already had the prerequisite training and approval to work in government-associated clinical settings. In an emergency response context, we found it much faster to train only people to fill non-clinical roles for logistical and administrative support.

To leverage existing government clinical staff, we collaborated with the Ministry of Health immunization program to recruit clinical leadership from the provincial level and local health zone, such as head physicians and supervising nurses. To identify staff for a vaccination site, the site manager or a delegate contacted health zone supervisory staff, who identified qualified vaccine providers.



Côte d'Ivoire **Staffing Model**



Democratic Republic of Congo **Staffing Model**





Côte d'Ivoire Staffing Model

STAFF TYPE	ROLE	STAFF#
	Medical supervisor	1
Clinical	Vaccinator	8
	Post-vaccination monitoring agent	2
Doto	Data clerk	8
Data	Data analyst consultant	2
	Site director	1
Managarial	Logistics supervisor	3
Managerial	Community sensitization staff	4
	Program manager	1 @ 50% LOE
	Waste manager	1
	Driver	1
	Greeter	3
	Cleaner	3
Operations	Ambulance staff	2
Operations	Site operations manager	1
	Logistician	1
	Budget manager	1
	Administrative assistant	1
	Human resources officer	1
	Total number of staff at one site	45

Maximum throughput: 1,000 vaccinations per day

Coordination between four partners

- 1. National Institute of Public Health (clinical staff)
- 2. Youpougon District Health Directorate (site director, logistics supervisor, community sensitization staff, some operations staff)
- 3. VillageReach (most operations staff, program manager)
- 4. National Ministry of Health (oversight and emergency services)





Democratic Republic of Congo Staffing Model

STAFF TYPE	ROLE	STAFF#
	Clinician	4
Clinical	Vaccinator	6
	Post-vaccination Monitoring Agent	2
	Data Analyst Consultant	3
Data	Output Recorder	3
Data	Data Clerk	4
	Input Recorder	4
	Central Supervisor	3 @ 10% LOE
Managarial	Provincial Supervisor	3 @ 10% LOE
Managerial	District Supervisor	3
	Community Health Worker	10
	Site Operator Manager	1
	Private Security Company	6
	Greeter	2
Operations	Cleaner	3
Operations	Hygienist	2
	Administrative Assistant	1
	Budget Manager	1
	Logistician	3
	Total number of staff at one site	64

Maximum throughput: **500** vaccinations per day

Coordination between three partners

- 1. Kinshasa District Health Directorate (clinical staff, some data staff, most operations staff)
- 2. VillageReach (most data staff, some operations staff, budget and administrative staff)
- 3. National and Provincial EPI (oversight supervision)



STAFF TRAINING

Every vaccination site needs a strong team with good training. In Kinshasa, Democratic Republic of Congo, the site manager provides position descriptions to a health zone representative, who then designates qualified providers for the roles. Seeking agreement among all health authorities on vaccination protocols to follow, and then incorporating those agreed-upon protocols into the training, will help the site succeed. The health zone representative organizes training, which is conducted by the health zone executive team and the site manager under the guidance of provincial supervisors.

Initial training and simulations occur before site launch; refresher and adaptive training occurs during operations; and assessment occurs both during operations and after site closure.

All training should continually emphasize **robust documentation** of vaccination processes, which:

- Helps staff get information quickly
- · Aids memory for workers on site and in the field
- Allows supervisors to update protocols, train people, and choose staff using accurate and current information
- Helps the team identify exemplary approaches and areas for improvement

In initial training, you will need to balance rigor with flexibility. High turnover or use of temporary or part-time staff is likely, so materials and processes should be rigorous enough to support optimal performance but streamlined enough to readily incorporate new staff. Easy-to-understand job aids can help. You can also record training sessions, or create self-guided components.

Simulations give critical hands-on experience for each person so skills are solidified before going public. The team either vaccinates a small group of people or "simulates" vaccination by having staff act as clients without actually being vaccinated. During simulations, supervisors can identify challenges in the overall flow and identify gaps in individual knowledge or performance.

Don't skip refresher training, as repetition is critical to real learning. During refresher training you can also introduce modified procedures in response to inevitable changes, such as a new vaccine, a new age group, altered protocols, a new directive from a partner, or new insights from CHWs. Encourage visits from health officials, who can give feedback that will help staff continually improve. If your site has rotating or new staff, you can incorporate "just-in-time training" into refresher training. For instance, a supervisor can review main elements of each position each morning before the site opens. To know what refresher training

is needed, you'll need to evaluate staff knowledge, behavior, and performance during operations.

Formative (ongoing) assessment

allows staff to improve processes midstream to improve vaccine delivery processes. Areas to assess include:

- · Vaccination coverage (how much of the community is getting vaccinated)
- Stock management (whether supplies are there when needed, wastage amounts)
- Follow-up on adverse events after vaccination
- · Individual skills and behaviors

After site closure, summative (final) assessment encompasses the whole endeavor from start to finish and provides lessons learned to guide future efforts. Summative assessment guides continual improvement in staff training programs, which can then be used at other sites.



Training and Assessment Summary

- 1. Initial training Before site launch; everyone is given training specific to their role, with foresight toward efficient ways to train new staff later.
- 2. Simulation Before site launch; everyone practices their roles in a setting where mistakes don't yet matter.
- 3. Refresher training During site operations; as needed in response to observations, comments, assessments, and changed conditions.
- **4. Formative (ongoing) assessments** During site operations.
 - Exit surveys of clients to:
 - Help staff understand client experiences and adjust accordingly
 - Determine whether vaccination strategy is meeting demographic targets
 - Weekly meetings to:
 - Provide a venue for staff to identify problems and agree on solutions
 - Allow management to convey information to the entire team efficiently and answer questions in real time
- **5. Summative (final) assessment** After site closure; improves knowledge of effective approaches and mistakes to avoid, for use in future efforts



STAFF MEETINGS

Three kinds of staff meetings support continual improvement and help keep everyone engaged, informed, and collaborative, as described below. By maintaining open dialog across both clinical and non-clinical staff, developing issues and expectations can be managed. Site managers can also promote continual process improvement with all staff during meetings.

Progress assessment meetings:

- Responsible party Site operations manager
- Attendees Operational team (e.g., vaccinators, CHWs)
- What Assess progress and address issues
- When End of day and end of week

Program coordination:

- Responsible party Site operations manager, program manager
- Attendees Heads of all entities working on the site (site director, supervisors, and operation, program, and budget managers)
- What Define strategy, priorities, and continual positioning to achieve vaccination goals. Agenda items could include coordination issues from the past week and coordinating new events or improving coordination in the coming week.
- When Weekly, early in the week if possible

Activities review:

- Responsible party Site director and site operations manager
- Attendees Operational team and managerial team (site-level supervisors)
- What Take stock of the week; review successes and share best practices; discuss lessons learned and ways to improve service delivery
- When At end of every week



Cost and Budgeting

Governments, partners, technical implementers and donors often collaborate to set up and operate a vaccination site, and all may contribute, in cash or in kind. Considerable cash (direct contributions) may be needed to secure a location and procure assets. Sometimes, however, in-kind contributions of resources and assets may reduce costs.

For budgeting, four main cost categories should be considered:

- Facilities One-time set up costs, such as insurance, tents, and ambulance
- Clinic preparation supplies One-time costs needed to make the site ready to vaccinate people, such as furniture and computer tablets for recordkeeping
- Clinic operation supplies Recurring expenses for materials needed to operate the site daily; these vary with the number of people vaccinated, and include cleaning and disinfection supplies, bottles of water, syringes, and gloves
- Staffing Recurring labor costs, including government and partner staff. Some staffing costs may be fixed, such as for a site manager. Other staffing costs, such as for clinicians, vary with the number of people vaccinated. In addition to salaries, staffing costs should include per diem (a daily allowance to cover expenses) and other incentives.

In Côte d'Ivoire and Democratic Republic of Congo, some of the biggest costs were large tents used to provide shelter at the main vaccination sites. Partners donated tents for some sites, which reduced costs. Additionally, staffing costs were reduced since all clinical and most managerial and data staff were government employees. Even though government staff receive salaries, VillageReach provided an additional per diem.

Example Costing Checklist

Facilities

- ☐ Tent rental or purchase
- ☐ Insurance services
- ☐ Adverse event hotline
- ☐ Ambulance

Clinic preparation supplies

- ☐ Furniture
- □ Banners or posters
- ☐ Office supplies
- ☐ Office set up, such as internet, computers
- ☐ Cleaning supplies
- ☐ Partition screens
- ☐ Medical beds
- ☐ Clinical supplies

Clinic operation supplies

- ☐ Vaccine transport
- □ Beverages
- ☐ Cleaning supplies
- ☐ Clinical supplies, such as syringes, needles, cotton wool
- ☐ Biohazard waste service

Staffing

- □ Clinical
- □ Data
- □ Managerial
- □ Operations





Communications

Effective and strategic communications are fundamental to a COVID-19 vaccine campaign's success. Misinformation plagues COVID-19 vaccination efforts, so to promote vaccination, communicators must change perceptions using effective messaging shared through the right content channels. These may be printed materials—fliers, brochures, posters, articles, and reports and social media channels, especially for youth. Mass media, such as TV, radio, and billboard, can be powerful for targeting large groups of people.

Keep your audience and your overarching goals in mind as you consider communications strategies with the following groups:

- Stakeholders and technical implementers - Communicate how your approach aligns with national health strategies
- Funders Provide evidence that you use your resources efficiently and effectively
- Community members Motivate community members to get vaccinated

ALIGN WITH THE MINISTRY OF HEALTH COMMUNICATIONS TEAM

By engaging immediately with the Ministry of Health communications officer, you can align your strategy appropriately to increase community confidence and demand for vaccination. In a kickoff meeting, you can learn about existing strategies, communication goals, audiences, and messaging. Often, a joint communications plan is most effective.

Stakeholders, including partners and government officials, may want to provide input on your communications materials. Develop content with sufficient lead time for review and approvals. Working with government officials can require lead time, so be sure to begin the approval process for materials such as press releases at least two weeks before your desired date of release.

Best Communications Practices

 Collaborate with the Ministry of Health to align your communications plan and messaging with the overall strategy.

- Involve the community from the start. Leverage influencers and trusted spokespeople. Religious groups, CHWs, and women's associations can mobilize community members and provide insight into effective communications tactics.
- Understand the drivers of COVID-19 vaccine misinformation and tailor messages to address myths. Teach CHWs and community leaders how to respond to misinformation.
- Adapt your communication strategies for each vaccination site. Target messaging to the intended audience.
- Capture testimonies from people who get vaccinated. Word of mouth is the biggest driver of demand.
- Bring information to the community by selecting effective communications vehicles. Don't expect people to search for it.



DEVELOPING CLEAR MESSAGES

Throughout the pandemic, misinformation has spread as fast as the virus itself. Getting the messaging right can make the difference between accepting or rejecting vaccination.

People need information and instruction, but they also need motivation. You can inform them about how easily the virus spreads and how vaccination reduces risk, and you can tell them where to go to get vaccinated. However, to be effective, you must consider context and culture. With this in mind, Yale Institute for Global Health and UNICEF have developed a Vaccine Messaging Guide with important information about messaging,

including this critical insight:

A growing body of evidence suggests that well-intentioned vaccine promotion content is often ineffective, and that some can actually backfire, decreasing intentions to vaccinate.

particularly in people who are

already hesitant."



Site Launch Communications Checklist

Before launching sites, have communications materials ready to deploy, including:

- One-pagers An overview of the initiative for government partners and country leaders presenting the objectives and goals for the site.
- Flyers One attractive page to raise awareness of the new site in a community. Use short phrases using high-level information: why vaccination is important, site address, hours of operation, and phone or WhatsApp number.
- Banners Hung near the site to attract nearby foot traffic. As for the flyer, make it eye-catching, and include the location, hours of operation, and phone or WhatsApp number.

Vaccination COVID-19

- Press releases Used to announce the vaccination site and related information to the media for amplification across broadcast channels. Align your messaging with Ministry of Health and your other communications, and include why the site is being launched, where it is, and what it can achieve. Include quotes from government officials and partner organizations to promote trust and strengthen credibility.
- TV or radio advertising Public service announcements to reach a broader audience. Use the most effective channels and time slots, as this marketing can be costly.
- Social media Social media platforms such as Twitter, Facebook, Instagram, and TikTok, used to reach audience segments that might not be reached with traditional communications. Encourage people getting vaccinated to be photographed for sharing on social media, which will influence friends and family to get immunized. Provide an interesting and positive backdrop.

Demand Generation

Demand for vaccinations is higher when people trust the safety and efficacy of vaccines enough to actively seek out vaccination. Those who believe COVID-19 can cause serious illness and who trust government and vaccine manufacturers are of course more likely to get vaccinated, while concern about vaccine side effects lowers vaccination demand.

Intentional efforts to boost demand should begin immediately during planning and continue throughout ongoing operations. A good partnership with health district leadership throughout the effort will lead to greater success.





Planning for Generating Demand

A first step in planning for a site is assessing demand levels and access barriers. This can help you determine where to locate the site, which vaccination modes will be most accepted, how to best advertise a site or outreach session, and which messages are likely to be most effective. Assessing audience segments separately can help you design more tailored modes. For example, adults may prefer vaccination at a busy commercial center, while youth may be best reached at school. For people who will accept vaccination but don't prioritize it, bringing vaccinators to workplaces might be most effective.

Frameworks and tools exist to help you develop your strategy. Online you can find the WHO's "Behavior and social drivers of vaccination" (2022) and the FHI 360 COVID-19 vaccine demand creation and advocacy toolkit (2021). You can also consider partnering with an organization that specializes in demand generation.

Generating Demand Before the Site Opens

Activities to generate demand start after planning and assessment are completed but before the site opens. Use the data on local vaccine perceptions and behaviors you collected during planning to tailor your efforts. Start communications and outreach efforts early so the community becomes aware of the site's importance and anticipates its opening.

CHWs can be highly effective partners for demand generation. Many are known and trusted in the community, as they already provide health care services. Most participate in health-promotion activities such as educating families and encouraging vaccination as part of their normal role. Additionally, CHWs

often have deep knowledge of the local context. In areas where CHWs already work, consider connecting with their employer to identify opportunities for collaboration. One option is to provide a daily stipend for CHWs to cover their transportation costs and give them incentive to refer people to the site. You might also provide supplemental training to CHWs so they have updated information on the vaccine to be used, or so they feel confident using strategies such as motivational interviewing, an approach that evidence shows may help people overcome vaccine hesitancy or apathy by exploring their own beliefs and finding their own reasons to change.¹⁰

Strategies Used

The VillageReach vaccination sites used a combination of these strategies:

- Social mobilization CHWs spent time visiting busy areas around the vaccination sites such as markets and bus stops to talk to people about COVID-19 vaccination and pre-register them for vaccination appointments.
- Referrals from testing sites Nearby COVID-19 testing sites referred clients for vaccination.
- **Social media** Clients were encouraged to take a photo of themselves illustrating their vaccination and post online about their experience getting vaccinated.
- Radio advertisements Advertisements for the vaccination effort were played on the radio in areas near the sites.
- Vaccine ambassadors Community and faith leaders, people working close to the sites, and site clients were encouraged to recruit family members and friends for vaccination.
- Partnerships with community groups and businesses Staff arranged for COVID-19 vaccine education sessions with local businesses and groups such as women's associations, and pre-registered participants for vaccination appointments.

Ongoing Generation of Demand

Many demand-generation activities started before the site opens should continue while the site is operating. Collect data periodically to monitor the success and reach of your strategies, and stay open

to making changes as needed.

As examples, in both Côte d'Ivoire and Democratic Republic of Congo, exit surveys of vaccination site clients indicated the CHW-based strategies were more effective at encouraging people to get vaccinated than were radio advertisements or social media. After learning this, our teams adjusted their strategy to focus more on CHW-led efforts, which brought more clients to the vaccination sites.





Site Operations

approach can ensure the vaccination site is designed for with partners, received adequate funding, hired and trained helpful communications, ensured adequate supplies, and set up the site for efficiency, your foundation is set.





Cultivating a Positive Client Experience

A key to the success of your site is the overall client experience, both the clinical and non-clinical aspects. Create a welcoming environment where everyone feels comfortable and safe. Train staff to attend to clients carefully in both practical and empathic ways.

If the client experience is positive, word of mouth will generate more demand.

The client experience begins the moment they see signage outside the premises; make it concise, attractive, easy to read, and respectful of client needs. For instance, the design should clearly communicate when the site is open, so people with busy schedules do not have to search for the information or, worse, show up when the site is closed. Depending on the location and needs of the target population, signage may need to be in multiple languages.

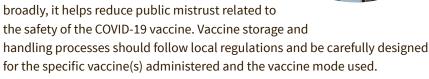


First impressions are important, so be sure to keep the grounds clean. Since vaccination sites may be near busy commerce areas or sporting venues, debris may accumulate. Once people arrive, minimize wait times. Everyone on the team should focus on making sure clients are satisfied. Generally, attend to clients in the order of their arrival. However, you may want to accommodate the elderly, people with disabilities, or others who may have difficulty waiting in line.

Clients are the best source of information about the quality of care. Conduct an exit survey to identify what is working well and what needs to be improved. Data-driven improvements can be targeted and efficient. In addition, survey responses can be used in communications to highlight and quantify progress.

Managing Vaccines

Vaccine management is the most important aspect of vaccination site operations. Vaccines must be stored and handled properly to maintain quality and efficacy. Proper storage and handling also avoids waste, unexpected supply issues, and negative impressions on clients. More



From receipt of vaccines through disposal, management staff must ensure safety, compliance with guidelines, and appropriate data collection. Four areas to consider are:

1. Vaccine supply chain – Consider the supply chain and transportation; typically, the government immunization program supplies vaccines to the vaccination site.

2. Vaccine safety and compliance

- A qualified logistician or clinical supervisor resupplies the vaccination site with vaccines.
- At every step, each staff member maintains the integrity of the cold chain.
- The clinical or site supervisor ensures compliance with guidelines.

3. Injection safety and waste management

- Trained vaccinators administer the vaccine using the correct technique; the clinical supervisor monitors vaccine administration.
- The vaccinator places the self-locking syringes in waste receptacles with the other waste from vaccine administration.

- A sanitation technician collects all the waste from the site and transports it to the nearest sanitary facility where it is destroyed in an incinerator.

4. Vaccination data

- Collected at the entrance and the exit
- Verified by data specialist, who then issues a vaccination card to the client
- Recorded in the government electronic immunization registry





Transitioning Well

The goal of many COVID-19 high-volume vaccination sites is to vaccinate a large number of people and then close. As more of the population becomes vaccinated against COVID-19, services can be integrated into ongoing operations such as health centers and outreach sessions that provide routine immunization services. Best practices and lessons learned from the vaccination site can be integrated into these long-term operations. For more information on how to approach transitioning a vaccination site to government, you can consult the VillageReach **Transitioning Well Framework** and the **Journey to Scale** with Government tool.





Transitioning a Vaccination Site: N'djili Case Study

Transitioning a vaccination site in the municipality of N'djili in the City of Kinshasa, Democratic Republic of Congo, to the government-owned Saint Therese primary health center helped meet a larger goal to integrate COVID-19 vaccination efforts with routine immunization services. The site, initially located in the Saint-Therese community football field near the health center, had achieved the desired success in vaccinating community members, and staff wanted to share strategies with peers in the health center so the knowledge gained could be sustained and carried forward. For example, staff wanted to share the success they had with using CHWs for community outreach.

Practices, procedures, resources, and community attitudes resulting from the response to the COVID-19 pandemic will now benefit other immunization services at the health center. For example, routine immunization had been offered once a week, but now will be available every

day. Parents who bring children for routine immunization services are primed to get COVID-19 vaccinations for themselves. Conversely, parents who come for COVID-19 vaccinations are more aware of the need to stay on schedule with their children's routine immunizations. Offering both services in the same setting benefits everyone. This benefit begins to address the disruptions to essential health services that resulted from the COVID-19 pandemic.



Deciding Whether to Transition a Site

Several factors influence the decision about whether to transition a vaccination site into the routine operations of a primary health center. Transitioning to a health center keeps the site vaccination activities integrated with the government immunization strategy. If the health center being considered is government owned and public, and it is prepared to manage the additional services, further considerations include:

- Staff trained in routine immunization and COVID-19 vaccination are available.
- · Routine immunization is already carried out.
- Capacity is adequate for integrating COVID-19 vaccination.
- There is adequate cold storage for additional vaccines.

We highly recommend developing and implementing a formal change management plan. This plan would include engaging both the vaccination site staff and the health center staff while the transition is underway.

Tips for an effective transition:

- Ensure protocols and best practices are clearly documented and shared with the new team.
- Maintain open lines of communication between the site managers, the head nurse, and all site staff.
- Organize briefings and run simulations to ensure effective coordination of referrals between routine immunization and COVID-19 vaccination services.
- Schedule training sessions so that knowledge is transferred, including training on data collection tools, that includes all site staff, CHWs, and health center staff.
- Foster collaboration and partnership between the vaccination site manager and the head nurse of the public health center for the gradual integration and eventual ownership of services.
- · Set up ongoing evaluation meetings to assess staff who are adapting the new strategies into their routines to help support them in the transition process.



Making Decisions when the Site Closes

High-volume vaccination sites generally operate for a limited time. If the site will not be transitioned to a public health center, the site manager develops an exit plan and repurposes the remaining vaccine supplies properly. The plan should include a strategy for encouraging continuing positive health practices in the community.

The following questions will help in developing an exit plan:

Leadership and Stakeholder Coordination

- Have stakeholders been informed that the site is closing?
- Has an impact report or assessment been shared with the Ministry of Health and head of district?
- Has the steering or technical committee met to discuss ways to integrate routine immunization with the Ministry of Health's plans?
- Is a closing ceremony planned to recognize local and national support?

Infrastructure

- What happens to the vaccination site tents?
- Are there any excess medical supplies?
- Have the new capital or one-off investments been itemized, and what happens to them?
- Will the desks and chairs be sold, or used for a different site?

Budget

- Have expenses been audited to differentiate between predicted and actual?
- Has a financial report been developed and shared with appropriate parties?

· Data-Monitoring and Evaluation

- Have the data clerks collected all the exit surveys?

- Have all the necessary data been captured in the state or national portal?
- Is there a plan to monitor and evaluate the impact of the vaccination effort?

Staffing and Compensation

- Have all the accounts been closed?
- Is there an exit strategy for CHWs?
- When are the last CHWs scheduled to get paid?
- Have all the financial reports been documented to report out to funders?

Dissemination and Amplification Strategy

- Is there a strategy to disseminate the vaccination site work after the site has closed?
- Moving forward, what is the plan for emphasizing the importance of routine immunization?

Integrating with Routine Public Health Care to Promote Positive Behavior

Positive health behavior must be encouraged at the individual, community, and national level. As the site operations draw to a close, CHWs should continue to be particularly intentional about presenting vaccination as a critical health intervention, keeping the following objectives in mind:

- Continue providing information on COVID-19 vaccination and providing referrals to places where COVID vaccination is still available.
- Use multiple strategies to connect with community members such as visiting households door-to-door, conversing with people at busy community locations such as bus stops and markets, and conducting education sessions with groups from businesses and community organizations.



- - Explain why routine vaccination is important and what it can achieve.
 - Encourage people to keep vaccination cards, which will help them remain aware of their vaccination history.
 - Educate community members about the importance of other disease prevention methods such as washing hands with clean water and soap, proper cooking and water filtration methods, and the importance of cleaning and disinfecting objects and surfaces.

Why Vaccination Interventions are **Important in Health Systems**

Vaccination sites can be used systematically to prevent endemic diseases or during epidemics and pandemics. In all cases, vaccination works best when integrated into a strong health system.

Vaccination sites are critical in delivering positive health outcomes on the individual, community, and population levels. Lowering the burden of preventable diseases, vaccines are a cornerstone of a nation's health system. To make vaccines accessible, health systems should leverage CHWs, who can meet people at their point of need. Additionally, state and national stakeholders should recruit influential champions to boost community demand for vaccines.

Primary considerations for health systems:

- CHWs play an important role in deploying vaccines. Therefore, it is important to facilitate their work. They not only provide primary health care services, but they also can bridge the gap between established health information and its expression in positive behavior practices in the community. Additionally, CHWs are the first point of contact for so
- many people because they can respond to public health emergencies. National health systems could benefit from exploring incentives for bringing health care to underserved communities and expanding access through the CHW system.
- · Health systems can digitize vaccination campaigns so the **information can be accessed seamlessly.** Adopting online tools to support planning and monitoring of vaccination campaign projects allows health system staff to create information repositories that easily transfer insights, thereby building on the gains achieved and improving future campaigns.
- Health systems can angle for more vaccination champions by involving a range of non-health actors, such as those in the private sector and civil society organizations, in vaccination awareness campaigns and mobilize resources. These champions are people revered in the community who are trusted because of their power and influence.
- · A high priority must be to address public health misinformation so that people move from being hesitant to being enthusiastic about health interventions. Hotlines should be created to respond rapidly and consistently to rumors. Because public health exercises and campaigns can be severely damaged by the spread of misinformation and harmful rumors, myths must be busted and rumors debunked.



Appendix

APPENDIX 1: STAFF TYPES, EXAMPLE ROLES, AND POSSIBLE FUNDERS

Staff Type	Role	Description	Possible Funder
Clinical	Activity supervisor	 Monitors activities to keep them running smoothly, and supports the director in coordination. Supervises mobilization, vaccination, and client observation. 	Ministry of Health
	Emergency medical services officer	• Consults with clients who experience adverse events after immunization, and transfers them in case of emergency.	Ministry of Health
	Vaccinator	Vaccinates clients.	Ministry of Health
	Post-vaccination monitoring agent	Observes clients after vaccination. Advocates for COVID-19 vaccination in the community to clients so they spread the word.	Ministry of Health
	Mobilizer	Conducts community engagement and drives awareness to attract people to get immunized at the site.	Ministry of Health
Data	Data clerk	In charge of registering clients in the COVID-19 vaccination database.	Ministry of Health
	Evidence manager	Coordinates the data manager's data collection and ensures submittal of required deliverables documenting the performance and functioning of the site.	Technical implementer
	Data manager	Ensures site operations data are collected and processed as needed to produce deliverables and manage performance.	Technical implementer
Managerial	Country lead	Coordinates the technical implementer teams involved in the project and interfaces with the government.	Technical implementer
	Program manager	Coordinates the overall project; ensures activities are implemented properly and that time, cost, and quality objectives are met.	Technical implementer
	Administrative manager	Provides administrative functions for the activities on site.	Technical implementer
	Logistics supervisor	Controls the flow of material, takes inventory, and informs purchaser in a timely fashion about the next orders, to avoid shortages.	Ministry of Health

Staff Type	Role	Description	Possible Funder
Operations	Budget manager	Controls the project budget. Tech	
	Waste management officer	Coordinates with the immunization waste removal teams.	Ministry of Health
	Cleaner	Keeps the site clean.	Ministry of Health
	Greeter • Receives clients for vaccination and guides them to where they need to go.		National Police
			Ministry of Health
			Ministry of Health
	Site operations manager	Supervises all site operations, in close cooperation with specialists and other stakeholders.	Technical implementer
Human resources manager • Manages the site's human resources.		Manages the site's human resources.	Technical implementer



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