

Increasing COVID-19 Vaccine Uptake in Africa

Tatyana El-Kour Independent Researcher 30 March 2022

Question

What has worked to get COVID-19 vaccine nearer to people to ensure that supply turns into 'jabs into arms' in Africa and other low- and middle-income country (LMIC) contexts?

- Consider emerging lessons learned on what has worked to get jabs into arms in Africa and other LMIC contexts.
- Consider a directory of good practice examples on what has worked in Africa and other LMIC contexts.

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The K4D helpdesk service provides brief summaries of current research, evidence, and lessons learned. Helpdesk reports are not rigorous or systematic reviews; they are intended to provide an introduction to the most important evidence related to a research question. They draw on a rapid desk-based review of published literature and consultation with subject specialists.

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1. Executive Summary

This evidence brief comprises of two key sections: the first section focuses on emerging lessons of what has worked to increase COVID-19 vaccine uptake in Africa and other low- and middle-income country (LMIC) contexts. This rapid review draws from evidence released since 2020 from research papers to commentaries, statements, positions papers and grey literature, blogs, newspapers, and other journalism, in addition to key informant interviews with key experts in the field. The section highlights thirteen lessons that continue to emerge in the African and other LMIC contexts as of to-date. They include:

- Lesson one: Independent and trusted information is key to success.
- Lesson two: Getting beyond the mantra where every country is unique.
- Lesson three: Knowledge sharing is pivotal but managing what is shared remains a challenge.
- Lesson four: Data is the greatest asset to COVID-19 vaccination update.
- Lesson five: Innovations are essential and will drive uptake.
- Lesson six: Embrace the multifaceted nature of advocacy, planning, coordination, and leadership.
- Lesson seven: Tackling vaccine hesitance is a key priority.
- Lesson eight: Time is of the essence.
- Lesson nine: Research plays a pivotal role in bridging the knowledge gap across countries, but more work needs to be done.
- Lesson ten: Combination of coordinated approaches and linkages to programmatic interventions is needed.
- Lesson eleven: Community-led approaches are critical with local community empowered to lead.
- Lesson twelve: Trust is vital.
- Lesson thirteen: Investments in human and social capitals are necessary for successful uptake.

The second section presents a tabulated directory of good practice in support of what has worked to get more 'jabs into arms' in Africa and other LMIC contexts. The aim of the directory is to showcase the breadth of work of a wide range of stakeholders, including public and private entities and non-governmental organisations in improving COVID-19 vaccination uptake and to support innovating interventions across Africa to improve COVID-19 vaccine uptake. The examples in Table 1 show, but are not limited to:

- The importance of leveraging digital technologies in improving vaccine update as evidenced by using solar-powered cold chain technologies in resource-limited settings in Sub-Saharan Africa.
- The power of partnerships. Whether creating internal partnerships between colleagues or departments as in the case of ICRC, to large partnerships between governments and organizations, such as the examples provided by Cuba, Bhutan, and Rwanda.
- **Targeted approaches** are needed to expand outreach to young and older populations, men and women, and people with disabilities. Examples from MSF's work with

- supporting vaccination murals to engage men and youth in South Africa is a creative approach to targeting populations with lower COVID-19 vaccine update.
- Community-led engagements should be fostered in combination with other approaches, such as the case of CommCare in Kenya.
- Investing in cash-based incentives may be needed in crisis countries, as in the
 case of Lebanon where MEDAIR paid for transportation costs of Syrian refugees to get
 vaccinated.
- Findings of social and behavioural science data can be useful to design effective interventions as exemplified by the series of BBC Media Action work featuring country variations in Zambia, Nigeria, Bangladesh, Algeria, Libya to name a few.

The application of evidence continues to be challenged by a rapidly evolving context, sparking a need to keep abreast of new resources, research, and interventions to inform the vaccine uptake process. Reasons for success vary according to the country they are based in and are due to several factors:

- Explosion of data on vaccine uptake and rollout in Africa and LMICs with current
 evidence highly focused on supply chain, financial factors, vaccine attitudes, but less so
 on the 'how to' approach to harnessing use of technology, integrating behavioural and
 social insights into programmatic implementation, and accounting for age, gender,
 disability, and vulnerability in pockets of the population.
- Heavy emphasis by research on vaccine hesitancy rather than on what works, or why
 vaccinated people got vaccinated in the first place.
- Coordinated efforts are needed to better make use of data and to hasten data collection, analysis, management, and integration within everyday contexts.
- Mounting evidence suggest that information campaigns should bolster confidence in vaccine safety and alleviate concerns about side effects – a shared concern across various countries within Africa.

2. Emerging Lessons Learned on What Has Worked in Africa and Other LMIC Contexts

Historically, it has been learned that once vaccination levels are high enough to interrupt transmission, we can protect against serious and potentially deadly diseases. The Ebola virus killed more than 11,000 and infected 28,000 people in West Africa alone by 2016 (Wolf et al., 2020) compared to 222,276 deaths due to COVID-19, and more than 8.66 million cases of COVID-19, of which an estimated 40% is attributed to South Africa alone (Statista, 2021). Wolf et al. (2020) indicate that technology played a critical role in COVID-19 vaccine rollout, especially in storage and distribution. Global coordination proved vital to mobilize expertise and funding towards the vaccine, but also to hasten data collection and analysis (Wolf et al., 2020). Both emerge as key learnings from experiences with COVID-19 vaccine uptake in Africa and other LMIC contexts.

Drawing on a range of resources this rapid evidence review highlights thirteen lessons that continue to emerge in the Africa and other LMIC contexts as of to-date on what has worked to increase COVID-19 vaccine uptake. They include:

Lesson one: Independent and trusted information is key to success. Recent evidence continues to emphasise the need for the preparation of accurate and convincing information sources about vaccines, while also getting creative about how to relay such information independently from governments and creating the opportunity for people to play a proactive role and take charge, lead initiatives, and be empowered to examine information critically in terms of evidence, including healthcare workers and community health volunteers. Governments continue to be a source of distrust for people in many countries in Africa except for Rwanda (Robson, et al., 2020; Internews, 2021; IPSOS, 2020; IPSOS, 2021; and The CDAC Network, 2020). The BBC Media case studies (See Table 1) highlight the role of segmentation around views of vaccinations to inform response towards COVID-19 vaccine uptake. According to BBC research, people at risk were more supportive of being vaccinated, including those over 65 years of age and those with comorbidities, and people who were more concerned about COVID-19. Regional differences within Nigeria were also highlighted indicating variable hesitancy rates comparable to testing for COVID-19. People in Nigeria who believed in myths and misconceptions were less likely to get the vaccine. In Zambia, the hesitancy rate was higher, and was also driven by geographical location, with people living in northwest of Zambia were less likely to get the vaccine than other places in Zambia. Women were also more hesitant than men.

Lesson two: Getting beyond the mantra where every country is unique. Several studies have shown that people in Africa are willing to receive vaccinations, provided the vaccines are available at convenience, affordable and accessible (Anjorin, et al., 2021). Vaccine uptake is also governed by the design of the user journey (Kraigsley, et al., 2021; Wolf, et al., 2020). Researchers argue that most of the distribution of vaccine beliefs was similar across countries and that efforts should rather be focused on making it easy for people to get vaccinated and have access to trusted and credible sources of information around it (Wolf, et al., 2020; Wiysonge, et al., 2022; The CDAC Network, 2020; Rajan, et al., 2022). Most importantly is that we should embark on using standard data collection tools while being prepared that responses to those tools may be different in different country contexts. Recent data show the way people behave around data in social media is different and is driven by different motives, i.e., the flavour of conspiracy theories around COVID-19 vaccines reflects the political concerns in that country, such as in Bangladesh and in Nigeria (Internews, 2021; Hagan, 2021).

Lesson three: Knowledge sharing is pivotal but managing what is shared remains a challenge. There is an explosion of data and resources, including even COVID-19 digital trackers that further create noise and shift the focus towards conflicting and unreliable conclusions, and where people themselves are neither equipped to use such tools, nor trained on how to use and synthesize information gleaned from them. Hence, people will opt for not getting vaccinated (Ankomah, et al., 2022). Experts argue that there is certainly a lot out there with data not being used or shared because people do not know about them, have a different expectation on how to collect for, analyse, and use the data sets, or do not have the means to access data (Kraigsley, et al., 2021; and Partnership for Evidence-Based Response to COVID-19, 2021). To make a difference in the COVID-19 vaccine uptake across countries, it is crucial to have a shared repository of all data sets rather than have standalone repositories per funding agency, or driven by donor motives, or organizational philosophy. Examples of such repositories include USAID and the World Bank that host data of their own funded projects, per key informant interviews. Open data repositories should be considered and should be context specific. Per one

key informant, contextual knowledge and field experiences are both key to success in sharing data, in addition to trust (European Investment Bank, 2020).

Lesson four: Data is the greatest asset to COVID-19 vaccination update. Gender data gaps in Africa are highlighted, with a greater need for gender disaggregated data to better track progress towards COVID-19 vaccine update, but more so to capture vulnerabilities within certain sub-groups of women or men who are more vulnerable than others, such as those with disabilities, living with HIV, and sex workers (UN Women, 2021, p. 92 and 95). Much emphasis is made on data quality, segmentation, and surveillance (African Union Development Agency-NEPAD, 2021; Wolf, et al., 2020). In many countries, accurate and up to date demographic data is very hard to get, especially at district and sub-district levels where catchment populations of health care facilities reside or are displaced. Several research papers indicate that planners do not even care to segment data on COVID-19 by first line workers, older populations, or people with disabilities because they neither had appropriate channels to guide them, nor the means to do it. People with disabilities are particularly hard to reach due to their typically lower income and education levels coupled with their limited options to travel. Even when those priorities were put in place, enforcement of data quality and utilization was not done (Wiysonge, et al., 2022; The CDAC Network, 2020; Rajan, et al., 2022).

Lesson five: Innovations are essential and will drive uptake. Innovative multi-media and interpersonal approaches to communicate and engage with all audiences are needed, and a big lesson learned from Rwanda's success (Robson, et al., 2020). Additionally, innovative approaches to bring together multiple disciplines like public health, behaviour change, social mobilisation, and communication insights for maximum impact were key in driving vaccine uptake in South Africa (Wiysonge, et al., 2022). Current initiatives highlight exploring purchasing data from private sector entities (e.g., telecommunication firms) to track mobile phones across borders to monitor potential COVID-19 transmission, and vaccine update regimens. Similarly, instant polls via mobile phones were critical in obtaining risk perception data which, when combined with Geographic Information Technology (GIS) will enable designing interventions with demographics in place. The World Bank is planning to launch WhatsApp game to further understand the behaviour of people around vaccine information to inform the design of information campaigns triggered by the way people behave around technology and media to drive vaccination uptake in a few countries in Africa and other LMIC contexts (European Investment Bank, 2020; World Bank, 2022; and Kanyanda, et al., 2021).

Lesson six: Embrace the multifaceted nature of advocacy, planning, coordination, and leadership. Borse and Ngemara (2020) highlighted how 10 to 20-year delays in the rollout of hepatitis B, rotavirus and other vaccines have been attributed to weak and fragmented regulatory systems that caused approval delays and increased cost of scaling up new health technologies. The United States Pharmacopeial Convention's white paper (2020) proposed immediate actions that national regulatory authorities can take to accelerate COVID-19 vaccine introduction and minimize delays, including the need to establish and strengthen critical regulatory areas to safeguard the quality, safety, and effectiveness of COVID-19 vaccines, given the learnings from the Ebola case in West Africa. Additionally, the paper highlights the opportunity for national regulatory authorities to collaborate with national immunization programs, national pandemic response teams, and public and private health system stakeholders in their countries to introduce vaccines, facilitate access, and foster trust in their communities (The United States

Pharmacopeial Convention, 2020, p. 1 and 7). Tumelty, et al. (2022) provided lessons from Ireland as an exemplary leader in vaccine rollout in Europe with 80% of its population getting vaccinated in record time, and where legal preparedness was key to the success of vaccine rollout. Domestic legal frameworks should be considered as a step forward in increasing in Africa, and many other LMIC contexts as well. The African Vaccine Regulatory Forum, created by WHO in 2006, presents itself as a great opportunity to tap on if it acts as an active regional mechanism to promote human resources capacity, best practices, common technical requirements, and the efficiency and transparency of regulatory processes for medical products directed toward diseases endemic to the continent (World Health Organization Avaref, 2021). Additionally, traditional donor approaches to respond to in-country challenges are very slow, and a multifaceted and multidisciplinary approaches are needed to come up with alternative funding mechanisms to better integrate rapid response activities with larger capacity building programming as well.

Lesson seven: Tackling vaccine hesitance is a key priority. Considerable cross-country variation in vaccine acceptance exists with clusters of hesitancy varying by country, and by rural versus urban status (Kanvanda, et al., 2021), although evidence from BBC research proved to be contradictory and has shown similar hesitance rates in both urban and rural areas within Nigeria (BBC Media Action, 2022). Yet, recent evidence highlights rural residents seem more open to the vaccine than urban, which may be impacted by the increased variety and extremity of media influences received by urban vs. rural (Internews, 2021). Wiysonge, et al. (2022) showed that vaccine hesitancy is a complex and dynamic social process. Investigating the scale and determinants of hesitancy in each setting is crucial to design tailored and targeted strategies. Setting up mechanisms that ensure research teams, and intervention designers have a continuous grasp within communities on the ground is extremely valuable to decreasing vaccine hesitancy (Cooper, et al., 2021; Solis, et al.; 2021).

Lesson eight: Time is of the essence. Almost every research paper and grey literature has emphasized the essentiality of timely action. Researchers argue that we need to learn from humanitarian evidence how to effectively manage time while balancing out quality with fast decision-making in rapidly evolving contexts (The CDAC Network, 2020). Researchers emphasize that the key to successful COVID-19 vaccine uptake is linked with the ability of decision makers to pivot rapidly based on the reality of the situation in each country (Hagan, 2021; Wolf, et al., 2020; Wiysonge, et al., 2022; Rajan, et al., 2022). This would necessitate building capacity within each country on effective management of time at every step of the COVID-19 vaccine journey.

Lesson nine: Research plays a pivotal role in bridging the knowledge gap across countries, but more work needs to be done. The BBC Media case studies (See Table 1) has shown experience from Nigeria on the need to embed social and behaviour change data into the health response, but this has not been happening. Hence, learning from past experiences and recent evidence necessitates finding new ways of using data for action while ensuring that capacity building is in place to train people on how to make use of rapidly generated data for daily action (Hagan, 2021; Wolf, et al., 2020; Wiysonge, et al., 2022; Rajan, et al., 2022). Similarly, there is a clear gap between published research data and use of research findings in designing interventions and linking them to programmatic implementation.

Lesson ten: Combination of coordinated approaches and linkages to programmatic interventions is needed. A key informant highlighted that event-based vaccination approaches require multi-layered and multi-levelled coordination in Tanzania proved effective. For example, football events in select locations in Tanzania showed an average vaccination of 83 persons/day per team compared to 3 person/day at a regular healthcare facility for one week only in February 2022. Similar results were also obtained in Syria as WHO launched vaccine stations in public parks of Damascus where around 400 persons were jabbed/day. Social Science in Humanitarian Action Platform (2020) also emphasized the value of adopting a combination of coordinated approaches in South Sudan, but linkages with programmatic interventions seem to be lacking (Tabong, 2022; and Hall, 2021).

Lesson eleven: Community-led approaches are critical with local community empowered to lead. Dzinamarira, et al. (2021) highlighted some key findings from research in South Africa and Zimbabwe where community preparedness is needed to combat fears and address vaccine hesitancy. Examples of additional community-led practices are also highlighted in Table 1 where combined approaches proved key to successful vaccine rollout in Africa and other LMIC contexts.

Lesson twelve: Trust is vital. There are significant barriers to trust and larger gaps in research understanding how to build trust around vaccines, despite the availability of a large body of evidence from social science research, which needs to be tapped into. Solis, et al. (2021) showed that multi-sectoral commitment to develop trust in vaccines is also needed. Trust does not only concern governments, but trust in family, trust in authorities, trust in the healthcare system and trust in government—all are a pre-requisite for trust in the vaccine (Ankomah, et al., 2022; Search for Common Ground, 2021; IPSOS, 2020).

Lesson thirteen: Investments in human and social capital are necessary for successful uptake. Tagoe, et al. (2021) highlight key learnings to urgently invest in human and social capital. According to World Bank data, healthcare workers enjoy the same level of vaccine hesitancy as the general population while being a little bit more pro vaccine uptake. If healthcare workers are hesitant, we need to help them. In some countries, healthcare workers are provided with a weekly and locally designed cheat sheet on latest evidence behind vaccines to empower healthcare workers with evidence-based information and enable them to spark conversations with their patients.

3. The Directory of Good Practice in Africa and other LMIC Contexts.

Examples have been collected of good practice in support of what has worked to get more 'jabs into arms' in Africa and other LMIC contexts. The aim of the directory is to showcase the breadth of work of a wide range of stakeholders, including public and private entities and non-governmental organizations in improving COVID-19 vaccination uptake and to support innovating interventions across Africa to improve COVID-19 vaccine uptake. The examples in Table 1 show, but are not limited to:

- The importance of leveraging digital technologies in improving vaccine update as
 evidenced by using solar-powered cold chain technologies in resource-limited settings in
 Sub-Saharan Africa, using digital health registry to track vaccination uptake and monitor
 vaccination progress in Rwanda, and using machine learning technology to create a
 messaging service to reach populations at large and in different languages, like what
 WHO has done in collaboration with Praeklet.Org.
- The power of partnerships. Whether creating internal partnerships between colleagues
 or departments as in the case of ICRC, to large partnerships between governments and
 organizations, such as the examples provided by Cuba, Bhutan, WaterAid project in
 Nepal, and OXFAM and Nabad in Lebanon, partnerships strategically harness the
 strengths and abilities to scale innovation and solve COVID-19 vaccine update
 challenges.
- Targeted approaches are needed to expand outreach to young and older populations, men and women, and people with disabilities. Examples from MSF's work with supporting vaccination murals to engage men and youth in South Africa is a creative approach to targeting populations with lower COVID-19 vaccine update.
- Community-led engagements should be fostered in combination with other
 approaches. For example, in Kenya, CommCare used a community-led health model
 and an adapted version of its mobile application to enable community health workers to
 manage workflows for vaccinations integrated with other primary healthcare services
 (family planning, disease diagnosis and treatment).
- Investing in cash-based incentives maybe needed in crisis countries, as in the case of Lebanon where MEDAIR paid for transportation costs of Syrian refugees to get vaccinated. Other examples include incentivizing community health workers with cash to support their outreach efforts.
- Findings of social and behavioural science data can be useful to design effective interventions as exemplified by the series of BBC Media Action work featuring variations in Zambia, Nigeria, Bangladesh, and Somalia to name a few.

Table 1 features best practices and success stories of what has worked in increasing COVID-19 vaccine rollout in Africa and other LMICs.

Organization(s)/Country	Title of Intervention	Key Approaches	Source
Organization(s)/Country WHO in collaboration with Praekelt.Org, using Turn machine learning MSF	Title of Intervention Mobile Applications supporting messaging service Vaccinating People with Comorbidities in Africa	The messaging service provides latest news and information on coronavirus, including vaccines. To receive messages in Swahili, Send "habari" to +41 79 893 18 92 on WhatsApp https://wa.me/417989318 92?text=habari The targeted approach has seen a significant increase in vaccinations among the community in Khayelitsha, South Africa	Source https://www.who.int/news-room/feature-stories/detail/who-health-alert-brings-covid-19-facts-to-billions-via-whatsapp https://www.msf.org/protecting-people-comorbidities-covid-19-vaccinations-south-africa
MSF	Vaccination murals	and resulted in reaching extra 2,238 individuals with comorbidities in a six-week period during January 2022. Vaccination murals on	https://www.mef.org/proto
MISF	v accination murats	community walls were developed to target youth and males as a means of raising awareness about COVID-19 vaccination.	https://www.msf.org/prote cting-people- comorbidities-covid-19- vaccinations-south-africa
WaterAid	Working with government to promote hygiene behaviour change to fight Covid-19 at scale in Nepal through immunization	Effective coordination. Committed leadership. Large community health network trained where more than 23,000 health workers trained during national scale-up of hygiene promotion and rotavirus vaccination introduction.	https://www.hygienehub.i nfo/en/case- studies/nepal-working- with-government-to- promote-hygiene- behaviour-change-to- fight-covid19-at-scale-in- nepal-through- immunisation
International Committee of the Red Cross	ICRC response to COVID-19 in Africa	A snapshot of ICRC activities in several countries within Africa shows need for combined approaches from coordinated response to risk communication and community engagement, to establishing surveillance systems to name a few.	https://www.icrc.org/en/do cument/covid-19-icrc- response-coronavirus- africa

BBC Media Action and Translators without Borders	Misperceptions about Covid-19 persist negatively affecting compliance with safety measures	Importance of utilizing formative research in driving the understanding behind risk perceptions around vaccines.	https://translatorswithoutb orders.org/wp- content/uploads/2021/11/ What-Matters- Humanitarian-Feedback- Bulletin_Issue_53_Englis h.pdf
			https://app.box.com/s/vhf 6wmejns5mqp1g6fxpltc31 vwebdbh
			https://app.box.com/s/asy e4w9ljbvdby3gy5p0jy8a8 59nsmzt
			https://app.box.com/s/71 mlzsylfamoxx7qpfes51ia5 20zca0s
			https://app.box.com/s/vhf 6wmejns5mqp1g6fxpltc31 vwebdbh
			https://app.box.com/s/asy e4w9ljbvdby3gy5p0jy8a8 59nsmzt
BBC Media Action	Learning paper on the media and communication landscape in Somalia	Highlights social norms where no vaccines can be taken without advice from experts.	https://app.box.com/s/71 mlzsylfamoxx7qpfes51ia5 20zca0s https://www.bbc.com/med iaaction/publications-and- resources/research/briefin gs/africa/somalia/covid- learning-2022/
World Health Organization	Social and Behavioral Insights: COVID-19 Data Collection Tool for Africa	This document provides a repository of data collection tools that can be used in implementation research using social and behavioural sciences to drive improved vaccine update	https://apps.who.int/iris/bit stream/handle/10665/343 557/9789290234524- eng.pdf?sequence=1&ms clkid=10fc19aaac5311ec9 512f50256b729a9
Common Service	Common Service Evaluation: What role has the common service played in helping agencies communicate with Rohingya and host communities during the Covid-19 pandemic?	This evaluation finds that the common service has played an important role in informing Rohingya people were instrumental in informing Rohingya people about Covid-19. Getting information out in the right places	https://translatorswithoutb orders.org/wp- content/uploads/2021/10/ 2021-June-Coxs-Bazar- common-service- evaluation.pdf

		(mosques, through face- to-face volunteers) was important, and language and format also played an important role: without communication materials which Rohingya people	
		could understand, knowledge would not have been at the same level as the host community, which has access to nationwide sources of information about Covid-19.	
European Commission. European Civil Protection and Humanitarian Aid Operations	Malawi: Meet the local leader fighting COVID-19 misinformation	"There was a lot of resistance in the area due to certain ingrained beliefs. So, it was important for other leaders and me to step up," Chief Chimlango said. His efforts were promoted by the project 'Support the Rollout of Malawi's COVID-19 National Vaccination Campaign'.	https://ec.europa.eu/echo/ news- stories/stories/malawi- meet-local-leader-fighting- covid-19-vaccine- misinformation_en
The Busara Cener for Behavioral Economics, Common Thread, Save the Children (country office for Kenya, Philippines and Nepal respectively), and Save the Children's Center for Utilizing Behavioral Insights for Children (CUBIC)	The Little Jab Book: A Playbook for COVID-19 Vaccination	research and putting evidence into practice. Conducted quantitative and qualitative research to uncover barriers and enablers to vaccination, and co-created potential solutions with local and national stakeholders.	Kenya https://resourcecentre.sav ethechildren.net/documen t/the-little-jab-book-a- playbook-for-covid-19- vaccination-in-kenya/ Philippines https://resourcecentre.sav ethechildren.net/documen t/the-little-jab-book-a- playbook-for-covid-19- vaccination-in-the- philippines/ Nepal: https://resourcecentre.sav ethechildren.net/documen
CommCare	Lwala Community Alliance: CommCare for Improving Vaccination Rates	Using a community-led health model and a custom CommCare-based mobile application, Community Health Workers (CHWs) register	t/the-little-jab-book-a-playbook-for-covid-19-vaccination-in-nepal/ https://www.dimagi.com/case-studies/lwala-community-alliance/#:~:text=So%20far%2C%20the%20program%20has,a%20population

		each pregnant woman or child under five years old into the formal healthcare system. The application then walks the CHW through the proper workflows for vaccinations, family planning, disease diagnosis and treatment, or a number of other requested services. So far, the program has reached vaccination rates of over 95% across a population of 60,000 people	%20of%2060%2C000%2 Opeople.
European Commission. European Civil Protection and Humanitarian Aid Operations MEDAIR	Supporting the COVID-19 vaccination rollout in remote areas of DRC The Road to COVID-19	people. Community-based strategies crucial to vaccination update in DRC The VaxBus is a specially	https://ec.europa.eu/echo/ news- stories/stories/supporting- covid-19-vaccination- rollout-remote-areas- drc_en https://www.medair.org/pr
	Jabs amidst Fuel Crisis	adapted bus fitted with cold chain and medical equipment which can travel to populations in towns and rural areas. The aim is to increase vaccination rates among vulnerable groups and the surrounding communities, making it possible for them to receive a COVID-19 vaccine closer to home. The bus brings trained nurses on the road to administer the vaccinations in key buildings across the Bekaa Valley, Baalbek and the South of Lebanon. Syrian refugees in vaccine uptake (the what'sapp group information informing where people can go for their vaccine, payment of their transport costs etc	ess/the-road-to-covid-19- jabs-amidst-fuel-crisis/

OXFAM and Nabad	Listening and Responding to Community Perceptions Associated with the COVID_19 Vaccine in Lebanon	Community perception tracker tool was used to better understand the perceptions and believes of crisis-affected communities, particularly in relation to disease outbreaks.	https://www.oxfamwash.o rg/en/communities/comm unity-perception-tracker
The Conversation, UK and Power for All, non-profit organization	Solar Technologies can speed up vaccine roll out in Africa.	In rural areas that are far from the grid, cellular and internet connections are often more difficult to access. But in recent years, solar-powered cell towers have strengthened and expanded telecommunications networks in areas with unreliable power in countries such as Guinea, the DRC and Mali. Offgrid cell towers have also been used to power vaccine refrigerators in settings such as Zimbabwe. These refrigerators also rely on the cellular network to relay monitored temperature data to health facility staff.	https://theconversation.co m/solar-technologies-can- speed-up-vaccine-rollout- in-africa-heres-how- 157274
Department of Health, Cordillera Center for Health Development, Cordillera Administrative Region, Republic of the Philippines	Pasig City: A Covid-19 Vaccination Success Story	Pasig City is the first in the country to reach the milestone of vaccinating 100% of its senior citizens due to commitment of authorities and coordinated planning across stakeholders.	https://caro.doh.gov.ph/pa sig-city-a-covid-19- vaccination-success- story/ Also featured in https://www.who.int/philip pines/news/feature- stories/detail/pasig-city-a- covid-19-vaccination- success- story?utm_source=social &utm_medium=organic&u tm_campaign=Tutok+A2+ LGU&fbclid=lwAR2wy2a UG- tOYuCU7HPGBJFLvcv- rmqLcrPE9VjW8RqyclSZ nZI_IJJWe5c

Cuba	Cuba's vaccine success story sails past mark set by rich world COVID efforts	Cuba developed its own vaccine and targeted most vulnerable 1.9 million people, including healthcare workers and older people.	https://www.theguardian.c om/world/2022/jan/05/cub a-coronavirus-covid- vaccines-success-story https://www.nature.com/ar ticles/d41586-021-03470-x https://www.bmj.com/cont ent/374/bmj.n1912 https://www.thelancet.co m/Journals/laninf/article/P IIS1473-3099(21)00159- 6/fulltext
Ghana	Ghana shares success story in COVID-19 vaccine rollout with Cote d'Ivoire	Stakeholder engagement also played a pivotal role in the successful role out of COVID-19 vaccination campaign in Ghana. Health professional bodies such as the Medical, Pharmaceutical, Nurses and Midwifery, Allied Health as well as the Psychology Associations were all brought to the discussion table to have a broader conversation. Others included the Ghana Academy of Arts and Sciences, Leadership of Parliament and Plenary of Parliament, Religious Bodies Associations.	https://www.afro.who.int/n ews/ghana-shares- success-story-covid-19- vaccine-rollout-cote- divoire
Cote D'Ivoire Government	COVID-19 Vaccines: From rejection to shortage, how Cote d'Ivoire became a model for managing vaccine hesitancy	Government launched nationwide awareness-raising campaign, deployed mobile clinics, and engaged influencers, religious and community leaders	https://www.worldbank.or g/en/news/feature/2021/0 9/07/covid-19-vaccines- from-rejection-to- shortage-how-c-te-d- ivoire-became-a-model- for-managing-vaccine- hesitancy
Rwanda	What governments can Learn from Rwanda's effective rollout	Rwanda's four pillars of success: 1) Whole-of-government coordination. 2) A tailored delivery approaches. 3) Digital data and technology infrastructure. And 4) Proactive communication with the public	https://institute.global/advi sory/vaccinating-africa- what-governments-can- learn-rwandas-effective- rollout https://rbc.gov.rw/publiche althbulletin/articles/read/8 9/Rwanda%20COVID-

			19%20Vaccination%20Success%20Story
World Economic Forum	The Forum's Network Response to COVID-19	- Created a platform facilitating multistakeholder response to COVID-19 involving civil society, government, and businesses - Created COVID-19 Action Platform as a resource - Brought innovative solutions to improve vaccine update through the COVID response Alliance for Social Entrepreneurs.	https://www.weforum.org/impact/one-year-on-how-the-forum-s-networks-have-navigated-the-global-response-to-covid-19
Vaccine Confidence Project	Open source on research, resources, and projects	Provides data-driven resources that are relevant to Africa and LMIC contexts.	https://www.vaccineconfid ence.org/the-confidence- project
			Research: https://www.vaccineconfid ence.org/research-feed
Rwanda	Smart data management key to successful vaccine rollouts	Rwanda capitalized on its digital health registry and rolled out the platform to track covid-19 vaccination update. The registry used to track routine childhood immunization using a QR code and an immutable record of vaccination.	https://www.devex.com/n ews/smart-data- management-key-to- successful-vaccine- rollouts-99753
Bhutan	What the world can learn from Bhutan's rapid COVID vaccine rollout	Critical application of planning, donations, political commitment, and stakeholder engagement Employing medical	https://theconversation.co m/what-the-world-can- learn-from-bhutans-rapid- covid-vaccine-rollout- 168341
		anthropology approach to promote vaccine acceptance.	Rocha, I. C. N. (2021). Employing medical anthropology approach as an additional public health strategy in promoting COVID-19 vaccine acceptance in Bhutan. The International Journal of Health Planning and Management, 36(5), 1943-1946.

			https://onlinelibrary.wiley.com/doi/abs/10.1002/hpm .3191
Financial Times	COVID-19 Vaccine Tracker	Example of how media is involved in raising awareness, advocacy, and data analysis around COVID-19, and where Africa can be highlighted and used, especially with income-based analysis as well.	https://ig.ft.com/coronavir us-vaccine- tracker/?areas=gbr&areas =isr&areas=usa&areas=e ue&areas=are&areas=ch n&areas=chl&cumulative= 1&doses=total&populatio nAdjusted=1
Center for Strategic & International Studies	Beyond COVAX: The Importance of Public-Private Partnerships for Covid-19 Vaccine Delivery to Developing Countries Center for Strategic and International Studies	Evidence-based report on public-private partnerships	https://www.csis.org/analy sis/beyond-covax- importance-public-private- partnerships-covid-19- vaccine-delivery- developing
Vaccine Information Network	New Project Will Examine COVID-19 Vaccine Acceptance in Southern Africa, Recommend Strategies to Promote Vaccination Vaccine Safety and Confidence- Building Working Group	Establishing the Vaccine Information Network in South Africa and Zimbabwe Supported by Schmidt Futures, the Bill and Melinda Gates Foundation, and Aspen Pharmacare and is an excellent example of innovative partnerships where government, international and local academia, and civil society are involved.	https://vacsafe.columbia.e du/news/new-project-will- examine-covid-19- vaccine-acceptance- southern-africa- recommend-strategies
TTEC	Retail pharmacies	Innovative solutions on involving pharmacy and technology sectors to ramp up vaccination update and is applicable in the African context.	https://www.ttec.com/reso urces/strategy-guides- and-trends-reports/retail- pharmacy-vaccine-rollout- success
Harvard Global Nursing Leadership Program	Nurses key to delivering vaccines in developing countries	Role of nursing is key	https://www.hsph.harvard. edu/news/features/nurses -key-to-delivering- vaccines-in-developing- countries/

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