Vaccine-Absorption Blueprint

Contents

Solving the Vaccine-Absorption Problem

As vaccine production continues to accelerate globally and distribution systems such as COVAX begin to ramp up, many countries are finding that delivery – not supply – is now their chief challenge. Going forward, the ability to get shots in arms quickly will be the determining factor in reopening economies and being able to live alongside the virus without disruptive measures and lockdown cycles. This is what we call the vaccine-absorption problem.

Our work assisting governments around the world has highlighted a key set of principles that outlines how a country can establish the best-possible absorption capacity. We call these principles the four S's: settings and supply chains; staffing and equipment; science and data; and strategic communications.

In these slides, we set out how the four S's framework can provide an agile, holistic and forward-thinking approach to building much-needed absorption capacity. We also share financing information and contacts, as well as highlight the importance of continuing to strengthen your other Covid-19 response policies.

Taken together, these recommendations not only offer a path out of the current crisis – they also show how, handled correctly, Covid-19 could present an opportunity to enhance your wider health-care and health-security systems.

Vaccine-Delivery Management and Coordination

Delivering vaccines from port-of-entry into arms requires management and coordination of diverse stakeholders across a range of complex activities. It calls for agile government structures, robust systems and adequate skills, and the participation of nearly every ministry and level of government.

- A vaccine taskforce with a clear framework for decision-making should be responsible for coordination of the rollout strategy. To ensure there is adequate oversight, information-sharing and direction, the taskforce should report directly to the Head of State.

- The scale, speed and complexity of a Covid-19 vaccination campaign calls for leadership beyond the Ministry of Health. Taking a whole-of-government and whole-of-society approach will not only ensure a competent and integrated strategy, but also facilitate a more efficient, transparent and accountable process.

- Partner organisations play an essential role in supporting any rollout, but they require strong direction and coordination from government to ensure their contributions are best serving the needs of the country.

- Although a successful vaccination campaign depends largely on the strength of the strategy, systems and infrastructure in place within each country, governments should regularly engage with regional and continental networks to participate in cross-border vaccine-sharing and reallocation schemes, and to exchange best practices and enhance global advocacy.

- Ensuring a robust management and coordination structure for a Covid-19 vaccination campaign will also contribute to strengthening the long-term institutional capacity of government.

Vaccine-Delivery Management and Coordination:
Case Studies

CROSS-GOVERNMENT COOPERATION IN VACCINE ROLLOUT – RWANDA

To optimise synchronisation of actors and activities, the government of Rwanda established a coordinating mechanism at the national level that brought together decision-makers from each of the relevant offices. Months before the arrival of the first vaccines, the Scientific Advisory Group and National Task Force for Covid-19 vaccination began to meet weekly to establish a rollout strategy, identify gaps and mitigate risks in the delivery chain, and make key decisions. From these decisions, activities were organised across ministries, and regional and local authorities. This committee reports regularly to the Head of State on the status of planning and delivery.

Rwanda's whole-of-government approach was instrumental in the successful transportation of AstraZeneca vaccines from the central distribution hub in the capital Kigali to 14 remote areas of the country within 24 hours – and with little advance notice. In Kigali, the Ministry of Health organised the allocation of vaccines, which were then transferred to hospital vehicles and the Ministry of Defence's helicopters. The Ministry of Defence's helicopters transported the vaccines to district hospitals. From there, with the support of the Rwandan police, the vaccines were distributed to area health centres. This effective cross-government coordination ensured that Rwanda would be ready to begin administering vaccinations across the country the next day.

MANAGING THE EBOLA-RESPONSE STRATEGY – SIERRA LEONE

When Ebola struck Sierra Leone in 2014, crisis response was initially managed through the Ministry of Health. However, this single-ministry approach lacked control, coordination and information, resulting in the delay of critical actions. A second approach entailed an emergency-operations centre, which improved the response but still lacked appropriate authority for coordination, and thus urgency and action. Finally, the National Ebola Response Centre (NERC) was established, chaired by the President. This new structure drew in multiple ministries and supporting partner organisations, and had direct links to district-level command structures. The NERC had the direction, coordination, information/reporting and oversight required to comprehensively manage the strategy and end the epidemic.

Vaccine-Delivery Management and Coordination:
Strategy

Strategy: Establish a whole-of-government management and coordination structure reporting directly to the Head of State.

	Best Practice	Key Considerations	Resources
❏ 1.	Establish a vaccine taskforce that reports directly to the Head of State	✓ Create an agile taskforce that can coordinate cross-cutting inputs, reduce bureaucracy and ensure evidence-informed decision-making ✓ Establish direct, regular communication channels with regional-level structures that will have key inputs regarding "last-mile" logistics and service delivery	• TBI's new Africa Vaccines Programme supports governments in strengthening their vaccine delivery management and coordination structures
❏ 2.	Take a whole-of-government approach	✓ Include all relevant actors in the management and coordination structure as well as in regular consultative processes (government actors may include ministries of health, finance, defence, social services, transport/infrastructure, agriculture, information/technology, public affairs, medicines regulators and local municipalities; non-governmental actors may include WHO, UNICEF, GAVI and partners involved in primary-care infrastructure) ✓ Be transparent, from the decision-making process to data sharing and mitigation tactics	• TBI Lessons from Covid-19 and Ebola for managing future pandemics in developing countries: The Role of Centre of Government
❏ 3.	Manage and maintain control of non-governmental partners	✓ Provide clear direction to partners regarding the specific gaps they can help fill ✓ Harmonise efforts to ensure support is as efficient and effective as possible	• TBI Lessons from how government fought Ebola
❏ 4.	Engage with regional and continental bodies	✓ Exchange best practices and lessons learned in real-time with regional networks ✓ Participate in continent-level advocacy initiatives, which may be especially useful in negotiations with international actors regarding funding, supply allocation and process adaptation	• Health-care after Covid-19: Sir John Bell on reusing Covid-19 medical systems for other health goals
❏ 5.	Strengthen long-term government and health-system capacity	✓ Establish management and coordination structures that are nimble and responsive to evidence-based changes in strategy ✓ Implement systems that enable oversight across responsibilities in order to track both successes and challenges in meeting targets ✓ Equip staff with the resources they need to successfully execute their tasks ✓ Build architecture for future mass-vaccination campaigns and overall health-system resilience	• OECD: Enhancing public trust in Covid-19 vaccination: The role of governments • Ghana and Namibia's knowledge exchange

The Four S's

Framework for vaccine absorption

The Four S's Framework

SETTINGS AND SUPPLY CHAINS	Utilising the largest number of venues in the right areas to reach as many people as possible, as well as ensuring the infrastructure to transport vaccines to each of these settings is in place.
STAFFING AND EQUIPMENT	Recruiting and training the largest number of people possible to safely administer vaccines, while securing an adequate supply of syringes, needles, saline, PPE and safe waste-disposal mechanisms.
SCIENCE AND DATA	Ensuring the strategy evolves based on the latest science, with data-capture and data-sharing systems that allow for tracking of vaccine distribution, administration, safety and side effects.
STRATEGIC COMMUNICATIONS	Underpinning the rollout with clear and consistent public messaging, and community engagement around the vaccination process tailored to the local context and underpinned by easily accessible safety data.

Settings and Supply Chains

Ensuring access

Settings and Supply Chains

Every member of the community must have access to the vaccine, no matter where they are located. Ensuring that no one is left behind while avoiding waste means strategically maximising the number of point-of-care settings, and strengthening the infrastructure needed to transport and store vaccines at those settings.

- Determining suitable points-of-care (where vaccine administration takes place) is influenced by local context, especially cold-chain transport and storage. Cold-chain requirements vary for the different vaccines approved by the World Health Organisation. Some vaccines require expensive, ultra-cold storage. Based on an assessment of existing cold-chain infrastructure, capacity should be strengthened.

- Vaccination sites should be strategically established at a combination of traditional health-care settings and non-traditional sites (to the extent possible, given cold-chain capacity). This will maximise the number of administration sites and people reached without compromising other health services.

- The border can be a barrier to rapidly moving vaccines, from initial delivery to transport around the country. Ensure that customs-clearance arrangements have been made in advance, and that transportation and storage logistics are in place in order to prevent any delay or potential wastage of doses.

- The private sector can play a pivotal role in supporting point-of-care sites and the supply chain. Partnerships with private-sector actors should be explored to facilitate rollout.

Settings and Supply Chains: Case Studies

REPURPOSING VENUES – ISRAEL

Early in the country's rollout, health-maintenance organisations (HMOs), which are responsible for administering vaccines in Israel, set up centres in stadiums, parking lots, school playgrounds and other venues in coordination with the private sector to facilitate mass vaccination. Israel then began to transition away from its early efforts to deliver vaccines at large venues and clinics to mobile vaccination sites instead, aiming to make it easier for those facing logistical challenges. Health officials say they hope to reach those who aren't actively seeking out the vaccine, but who aren't opposed to being immunised if the vaccine is easily accessible.

COLD-CHAIN ASSESSMENT – RWANDA

Based on a cold-chain capacity assessment conducted in late 2020, the government of Rwanda was able to identify areas that would be more suited to certain vaccines than others. On 3 March 2021, Rwanda received 240,000 AstraZeneca and 100,000 Pfizer doses though COVAX. To manage risks to local settings, the government decided to ship AstraZeneca, which requires normal refrigeration between 2° and 8° Celsius, to more remote areas with weaker cold-chain capability. Pfizer, which requires refrigeration of between -25° to -15° Celsius, was distributed in the capital Kigali where the cold-chain infrastructure, including five newly acquired ultra-cold freezers, was better equipped to handle this vaccine. In advance of doses arriving recently, Rwanda ensured it had enough storage with 437 new refrigerators deployed to hospitals and health centres, and the acquisition of refrigerated vehicles and cooler boxes.

Settings and Supply Chains: Strategy

Strategy: Utilise the largest number of settings in the appropriate locations to reach as many people as possible, and ensure the infrastructure to transport vaccines to each of these settings is in place.

	Best Practice	Key Considerations	Resources
☐ 1.	Make customs-clearance arrangements to ensure vaccines are not delayed at the border	✓ Distribute vaccines with a shorter shelf life to sites in closer proximity to the port-of-entry or areas with high-uptake rates	• [Africa CDC Implementation Guide for Covid-19 Vaccines](#)
☐ 2.	Determine a transportation and storage strategy that minimises potential wastage of doses	✓ Mobilise logistics or supply-chain distribution from your military (or other resources, such as the agricultural chain) to supplement traditional health supply-chain systems ✓ Seek approval from vaccine manufacturers to repackage and transport smaller quantities to remote communities, without compromising the quality of the vaccines ✓ Consider geography and climate in rollout strategy, as these factors may influence how and when certain sites can be reached; contingency plans may be needed ✓ Remember to include safe waste disposal in operational planning	• [Africa CDC Framework for Supply-Chain Management](#) • [World Health Organisation Covid-19 Vaccine Introduction Toolkit](#)
☐ 3.	Strengthen cold-chain capacity and other infrastructure as necessary	✓ Conduct a nationwide cold-chain capacity assessment to identify infrastructure gaps ✓ Consider cold-chain suitability when allocating certain vaccine types to localities ✓ Invest in infrastructure-strengthening as part of long-term health-system resilience	• WHO: [Covid-19 vaccination – supply and logistics guidance](#) • WHO: [Immunisation Supply Chain and Logistics](#)
☐ 4.	Establish as many point-of-care settings as needed to strategically reach as many people as possible	✓ Set up point-of-care sites at traditional health-care settings (pharmacies, clinics and hospitals), and non-traditional settings (repurposing of stadiums, markets, places of worship, schools and community centres) ✓ Utilise mobile-vaccination units to serve hard-to-reach populations; use disaggregated demographic data to estimate the number of people that may require door-to-door services ✓ Consult with local municipalities to determine best-fit approaches for local contexts	• WHO: [Ultra-low temperature (ULT) storage and transport for vaccines](#) • World Bank: [Challenges and Opportunities of Supply Chain](#)
☐ 5.	Explore private-sector partnerships	✓ Leverage the private sector for support, including for establishing non-traditional point-of-care settings, operational logistics, managing data, and financing and incentive structures	

Staffing and Equipment

Ensuring quantity *and* quality

Staffing and Equipment

Governments will need to think creatively to ensure vaccination drives don't come at the expense of existing health-care provision. Advance planning is key to ensuring that vaccinators have the right training, the right equipment and the right support.

- For vaccination to take place at scale – without disrupting normal health-care – staff and volunteers will need to be recruited en masse. Governments should not shy away from recruiting from non-traditional sources.

- Vaccination drives require far more than just medical professionals. For every vaccinator physically administering doses, an average of five support staff are needed to help with logistics, registration and community outreach.

- Vaccine delivery requires specialist training – and this should ideally be provided in advance. Training needs to take into account specific storage and handling procedures to prevent spoilage, while doses must be properly certified and tracked by staff.

- For vaccinators to reach a target rate of administering three injections per hour, the right equipment must be in place in advance of doses arriving. Different vaccines will need different equipment and training.

Staffing and Equipment: Case Studies

EXPANDING LEGISLATION – UNITED STATES

In March, vaccine supply in the US grew rapidly, allowing the country to expand eligibility to all adults. To adequately prepare for the large-scale rollout, the government expanded the right to prescribe, administer and dispense the vaccine to various health-care professionals, as well as practitioners with recently expired certifications. Significant effort was also poured into recruiting new staff, including setting up an online portal to recruit volunteers. These efforts meant the US was able to administer a record 4.6 million vaccines daily by mid-April.

TRAINING IN ADVANCE – GHANA

In February, Ghana was able to administer 50 per cent of its COVAX supply within 10 days of receiving it. This early success was largely because staff were trained and took part in simulations in advance of the vaccine supplies arriving.

TARGET SETTING – MOROCCO

Morocco has set itself the target of vaccinating 70 per cent of its population as quickly as possible. To achieve this, it has established 3,000 fixed vaccination centres as well as 7,000 mobile units to be deployed across the country. It has also mobilised 25,000 staff, half of whom were originally urban based, to vaccinate its population of 35 million. More than 50 per cent of the population is now fully vaccinated.

ADAPTING CAPACITY – LATVIA

Latvia initially planned to train 500 administrators to vaccinate its population of 2 million. When the government realised this would not be enough to hit its targets, staff were quickly recruited and retrained. A total of €80 per staff member was allocated to finance training, which was carried out via virtual meetings by university medical staff.

Staffing and Equipment: Strategy

Strategy: Recruitment drives for new staff and volunteers must be complemented by the right training and the right equipment – ideally put in place before large batches of vaccines start arriving.

	Best Practice	Key Considerations	Resources
☐ 1.	Recruit new staff and volunteers to expand vaccine-administration capacity	✓ Recruit existing health-care professionals (paramedics, midwives and dentists) and do not shy away from other suitable sources (medical students, retired doctors and armed forces) ✓ Use disaggregated demographic data to set staff-recruitment targets per district or region to ensure that all eligible priority groups can be vaccinated ✓ Ensure that appropriate numbers of support staff are recruited, in addition to vaccine administrators	• Africa CDC: The Critical Role of Community Health Workers in Covid-19 Vaccine Roll Out • WHO: The role of community health workers in Covid-19 vaccination: Implementation support guide • Strategies for managing acute shortages of PPE
☐ 2.	Ensure an adequate supply of health-care equipment in preparation for the speed and scale of rollout	✓ Order higher quantities of saline, syringes and PPE (for all involved in the rollout – not just vaccinators) than directly related to the number of vaccine doses to avoid wasting them as a result of equipment shortages ✓ Tailor equipment orders to match the specific needs of each vaccine	
☐ 3.	Be prepared to deal with backlogs caused by vaccine rollouts	✓ Develop vaccination strategies in tandem with overall health-care plans and make use of non-traditional staff and settings to minimise disruption ✓ Where possible, recruit vaccine administrators from sectors that won't impact existing health-care provision	
☐ 4.	Conduct training in advance of rollouts and supply surges	✓ Conduct training and simulation exercises in anticipation of large vaccine deliveries ✓ Ensure that staff administering vaccines can maximise doses per vial	
☐ 5.	Ensure geographic coverage of vaccine rollout	✓ Consider relocating urban staff to remote areas for duration of the rollout ✓ Establish mobile vaccine centres to maximise vaccine coverage ✓ Make full use of local resources (community leaders and volunteers)	

Science and Data

Using evidence to stay ahead

Science and Data

The world is still learning how best to combat the virus and the emergence of new variants means your strategy must evolve. An effective vaccination strategy needs to stay on top of the science and be informed by national data sources.

- Keeping up with the emerging science is essential for vaccine rollout.

- Centralised and structured data collection is essential to track vaccinations and vaccine types in order to call and recall patients for multi-dose vaccines, while potentially collating this information for local or international health passes.

- Gathering and sharing data – such as seroprevalence studies (to understand rates of previous infection) or on side effects, breakthrough infections and outcomes, as well as genomic sequencing for the tracking of variants – can inform policy and assist with vaccination strategies.

Science and Data: Case Studies

LEARNING FROM EMERGING SCIENCE – ISRAEL

Israel has launched a world-leading booster campaign in response to emerging evidence that vaccine-induced immunity begins to wane at the six-month mark. By adopting the latest scientific findings into its vaccine strategy, Israel has curbed what threatened to become a fourth wave of the virus with its booster campaign.

DIGITALISING THE VACCINE ROLLOUT – RWANDA

Rwanda has deployed data systems at every step of the vaccination process, from initial allocation of doses to the verification of cold storage using a geographic information system (GIS) tool and the transfer of vaccines to health facilities. Each administered dose has been captured digitally, which not only demonstrates exactly where vaccines are going, how quickly and to whom, but it also creates a reliable record of vaccinations for international travel and the faster reopening of the economy.

BUILDING A DIGITAL VACCINE REGISTRY – SENEGAL

When the first Covid-19 case was detected in Senegal, the country was in the early stages of deploying a new digital Health Management System (HMS) developed by Oracle. There was a risk that in the rush to deliver vaccines, the process would revert to a paper-based system. To avoid this, a local enterprise was engaged to develop a temporary digital app. With that app, people were able to digitally register and report pre-existing conditions, which the Ministry of Health then used to identify and prioritise vaccine recipients. Since then, a formal system has been established, enabling more than 22,000 people to register in the HMS, allowing for the tracking of immunisations and giving the vaccinated population access to virtual travel passes. Proof of immunisation will allow the travel and tourism sectors to reconnect to the global community, facilitating economic recovery. A video on Senegal's experience is [here](#).

Science and Data: Strategy

Strategy: Stay on top of emerging scientific evidence, incorporating it into vaccination strategies. Ensure that vaccine rollouts are supported by rigorous digital data systems.

	Best practices	Key considerations	Resources
☐ 1.	Incorporate emerging scientific evidence into your vaccination strategies	✓ Establish a scientific advisory panel to translate evolving evidence into your strategy ✓ Be open to adjusting plans according to new findings, such as new evidence on mixing vaccines (as recently approved by the FDA in the US) ✓ Monitor population immunity through seroprevalence studies and track variants with genomic sequencing ✓ Track breakthrough infections where possible	
☐ 2.	Build confidence in effective vaccines using evidence	✓ Monitor emerging evidence on long-term vaccine efficacy and take the lead from data when evaluating vaccine candidates (including AstraZeneca, which is affordable and proven to be effective) ✓ Provide accessible, public-facing data on vaccine safety and side effects	• [Africa CDC's CONCVACT, a digital trial consortium](#) • [South Africa Electronic Vaccination Data System (EVDS)](#) • [World Bank: Digital technologies and vaccine deployment: opportunities and challenges](#) • [Data for a Resilient Africa](#) • [Strengthening Gender Measures and Data in the Covid-19 Era](#)
☐ 3.	Invest in digital data systems	✓ Use digitalised systems to allocate, distribute and store vaccines ✓ Use digitalised systems to track and certify individual vaccination status, ideally ensuring interoperability with wider health systems, and with regional and global credential platforms	
☐ 4.	Share data regionally and globally	✓ Track research, evidence and data across the country so that decisions made are in the context of all the relevant information ✓ Data can be shared through publication in medical journals or submitted to repositories in the Africa CDC or the WHO, so that they contribute to global knowledge and assist other countries facing similar challenges	
☐ 5.	Consider conducting seroprevalence and real-world evidence studies that can provide relevant, local data to inform strategy and policy	✓ Invest in genomic-sequencing capacity at national labs to keep tabs on potential variants of concern and understand breakthrough cases ✓ Conduct seroprevalence testing to measure existing levels of disease-acquired immunity and tailor vaccine strategies accordingly	

Strategic Communications

Getting public messaging right

Strategic Communications

Vaccines can't work without people to receive them. Vaccine hesitancy must be combatted through confident, context-specific, public-messaging campaigns.

- Misinformation and skewed risk perception present a growing challenge to vaccine-absorption capacity.

- This is a global concern, but it needs local solutions. Targeted community-engagement strategies that draw on local sources of authority will be key.

- Accessible, understandable data must be at the heart of public messaging. Increasing the reach of accurate information, and building resilience to the spread of misinformation, are more effective strategies than directly challenging scepticism.

- Misinformation isn't the only problem – a general lack of information also breeds hesitancy. In March 2021, a PERC survey of several African countries found that "not knowing enough to make a decision" was the single most important reason behind vaccine hesitancy.

Strategic Communications: Case Studies

PROACTIVE COMMUNICATION – RWANDA

Since its first COVAX shipment arrived, the Rwandan government has led a multilingual information campaign with daily updates on television, radio, social media and in print. These updates are often focused on the vaccination of priority or under-represented groups. Trusted community leaders have also been called on to work at the local level, assisting those invited to vaccination and promoting the benefits of vaccination more broadly.

ALL HANDS ON DECK – ETHIOPIA AND TUNISIA

Every country has different authoritative voices it can draw on to ensure its message is reaching as many people as possible. Religious institutions in Ethiopia and the military in Tunisia have both provided effective channels to disseminate accurate and accessible information on vaccinations.

PUBLICLY ACCESSIBLE DATA – ISRAEL

Building confidence in the vaccination programme requires clearly, consistently and publicly sharing data on its key elements. Israel exemplifies how this should be done. The country regularly publishes vaccine data in whole numbers, rather than as percentage reductions, clearly setting out the benefit-to-risk ratio of being vaccinated.

Strategic Communications: Strategy

Strategy: Underpin vaccine rollouts with clear and consistent public messaging. Focus on tailored community engagement, but ensure that local efforts are centrally coordinated, and complemented by easily accessible data on safety nationwide.

	Best Practices	Key Considerations	Resources
☐ 1.	Develop a centrally coordinated national-communications campaign	✓ Ensure that messaging is clear, consistent and confident about the benefits of vaccination ✓ Provide and publicise easily accessible data on vaccine safety and administration, both locally and globally ✓ Devolve responsibility where necessary to develop targeted local strategies within a central framework	✓ WHO: Communicating risk in public health emergencies ✓ WHO: 10 steps to community readiness: What countries should do to prepare communities for a COVID-19 vaccine, treatment or new test ✓ Africa CDC/WHO Afro Joint Risk Communication and Community Engagement (RCCE) Refresher Training ✓ Namibia's Public Awareness Campaign "Get Vaccinated, Help Kick COVID-19 Out of Namibia" with more details on Namibia's experience here ✓ ONE, UNICEF and African Union join forces with TikTok to strengthen vaccine confidence ✓ US Department of Health and Human Services Vaccine Public Educational Outreach Guide
☐ 2.	Ensure that messaging reaches as many people as possible	✓ Make use of a range of outlets, media and, where applicable, languages ✓ Remain in regular contact with the public and showcase positive outcomes of vaccination, both local and global ✓ Emphasise the relationship between vaccination and economic livelihoods	
☐ 3.	Target low-uptake populations with culturally appropriate campaigns	✓ Draw on diverse sources of local authority (community leaders, religious figures and celebrities) ✓ Tailor campaigns to the specific needs and concerns of each group (for example, safety concerns or logistical issues enabling access) ✓ Gather feedback on community engagement on a rolling basis to be collated and analysed at central level ✓ Ensure hard-to-reach populations are well represented in national messaging campaigns	

Financing

Financing

Financing underpins all the necessities for an expanded vaccine rollout. Whether it is through external or internal sources, countries need to put substantial funding into vaccine rollout efforts to implement their strategies.

- A strategic prioritisation of investment is needed to support absorption capacity to maximise return on investment, avoid duplication and minimise financing gaps to the best extent possible.

- The WHO estimates that the financial cost for service delivery (not including the cost of the vaccine itself) – including at country, regional and global levels – amounts to $3.70 per person for vaccination with two doses.

- So far, COVAX has received commitments of about $1 billion for vaccine delivery and associated costs from donor countries. At least $15 billion has been made available by multilateral development banks such as the World Bank and the Asian Development Bank, some of which will go towards absorption capacity.

- Gavi has committed $150 million to country-level vaccine-delivery plans and health systems, while the International Finance Corporation's $4 billion Global Health Platform is supporting private companies to deliver vaccines to developing countries. This includes investment in vaccine manufacturers to facilitate expanded production of Covid-19 vaccines in low- to middle-income countries (LMICs), with production reserved for emerging markets, to address potential bottlenecks and support the mapping of Covid-19 vaccine-manufacturing capacity.

- Funding from the international community will be insufficient to bring about herd immunity through vaccination in LMICs. African governments, therefore, need to consider how they can finance the Covid-19 vaccine through domestic-resource allocation, including budget reprioritisation, user fees, vaccine bonds, tax hikes and levies, and private-sector support.

Financing: Case Studies

REPRIORITISING BUDGET – ANGOLA AND SOUTH AFRICA

The authorities in Angola have approved a vaccination plan, and earmarked $217 million (roughly 0.24 per cent of GDP) to cover vaccination rollout to 20 per cent of the country's population. The funds from the general state budget will be for operational costs and strengthening the cold chain. Similarly, South Africa's National Treasury had to reprioritise its programmes to procure vaccines, with $412 million allocated to the Department of Health; $6.3 million to the South African Medical Research Council; $152 million to provincial health departments; and $3.1 million to the government-communications agency. National Treasury may still tap into the national-contingency reserve and emergency-reserve fund.

PUBLIC-PRIVATE PARTNERSHIP – SOUTH AFRICA

South Africa is using public-private co-financing arrangements whereby medical-insurance providers are subsidising public purchases of the vaccine. Legislation has also been amended to allow medical schemes to finance vaccines for those without private-medical insurance. In addition to medical-aid schemes, companies such as mining firms may contribute funds so their workers can be covered. The government has also amended the Medical Schemes Act to ensure that Covid-19 vaccination has become a prescribed minimum benefit, implying that medical aids are required to cover the cost of the vaccine for all members.

Holistic Covid-19 Response

Holistic Covid-19 Response

Covid-19 requires a holistic approach and a focus on multiple aspects of the pandemic simultaneously. Beyond distribution of vaccines, governments need to continue strengthening parallel Covid-19 response policies.

- Testing and subsequent surveillance remain important backbones of any approach when imposing public-health measures. Governments need to expand testing facilities, and implement the systematic use of antigen-detecting rapid-diagnostic testing as a supplemental surveillance tool to determine whether to tighten or relax public-health mitigation measures, allowing for targeted restrictions rather than blanket measures. Antigen-detecting rapid-diagnostic tests may also alleviate pressure on PCR resources used for genomic sequencing to identify emerging variants, and laboratory resources that provide other essential health services.

- Genomic sequencing is essential for keeping an eye on potential new variants that could unravel progress on immunity.

- Covid-19 treatments are being developed, with high-income countries already placing orders for those in the pipeline. African governments should engage with developers and manufacturers now so as not to fall behind in the queue as treatments are produced on a mass scale.

- While Covid-19 has put African countries in a dire situation, it is also a window of opportunity to enhance wider health and health-security systems, strengthen institutions, and nurture local vaccine and treatment manufacturing for longer-term sustainability.

Holistic Covid-19 Response: Strategy

Strategy: Strengthen and invest in Covid-19 mitigation measures beyond vaccines.		

	Best Practices	Key Considerations	Resources
☐ 1.	Ramp up testing and surveillance	✓ Prioritise availability of equipment for testing ✓ Go beyond walk-in-testing to more targeted, regular, strategic testing to identify breakout areas ✓ Use digital tools to enhance surveillance and track the virus	• [How to Scale up Antigen Rapid Diagnostic Testing in Africa](#) • [WHO Africa initiative to enhance community screening for Covid-19](#)
☐ 2.	Increase genomic sequencing	✓ Sequence at lease 5 to 10 per cent of cases to identify emerging variants and track those already identified ✓ Utilise antigen-detecting rapid-diagnostic tests (Ag-RDTs) to alleviate pressure on PCR resources used for genomic sequencing	• [Tech Solutions for Global Genomic Sequencing and Surveillance](#) • [Merck Will Share Formula for Its Antiviral Covid Pill](#)
☐ 3.	Procure treatments	✓ Engage with manufacturers that have Covid-19 treatments in the pipeline (for example, Merck and Eli Lily) ✓ Facilitate mass-clinical-trial testing of emerging treatments	• [Vaccinating the World in 2021](#) • [Gen Sequencing analytics software](#) • [GISAID](#)
☐ 4.	Build back better	✓ Encourage and facilitate local vaccine manufacturing. Governments need to explore how to support existing African facilities to participate in the production of Covid-19 vaccines by creating incentives for the sector, and by seeking to integrate the capabilities of different countries into the global production chain ✓ Evaluate the performance of current institutions working on health responses, and close gaps to deliver better for existing as well as future crises	• [New Variant Assessment Platform (NVAP)](#) • [World Bank Covid-19 Operational Fast Track Facility](#) • [Global Fund Resources for Treatment and Oxygen Equipment](#)
☐ 5.	Strategically vaccinate key populations to minimise mortality, maintain essential services and minimise viral transmission	✓ Vaccinate health-care workers, clinically vulnerable people and dense urban populations to minimise illness and mortality, maintain essential services and reduce viral transmission	