






Equal access of COVID-19 vaccine distribution in Africa: Challenges and way forward

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Abstract

The World Health Organization (WHO) in Africa and Africa Center Disease Control (Africa CDC) urge the international community and different countries in Africa to ensure sustainable and concrete action to ensure equal and easy access to the COVID-19 vaccines, as different countries in Africa are still struggling to develop a safe and effective strategy to ensure equal vaccine distribution, if available. Africa CDC has called on the international community to come together to help Africa with COVID-19 vaccines to make equal the vaccine distribution among African countries as many cannot afford the vaccine costs due to the level of poverty and other negative factors. The African Union has endorsed the need for Africa to develop a framework to actively engage in easy accessibility to COVID-19 vaccines, which will allow different countries in Africa to take easy steps that will strengthen the local vaccine distribution system, building workforce skills and knowledge, and enrich outreach services in Africa. The article discusses the need for equal access in the distribution of COVID-19 vaccines in Africa, the challenges, and the necessary recommendations that can help to mitigate these challenges.

KEYWORDS

accessibility, Africa, COVID-19, equity, sustainability, vaccines

1 | PERSPECTIVE PIECE

1.1 | Introduction

COVID-19 has adversely affected people, families, communities, nations, and regions around the world.¹ To date, COVID-19 has resulted in about 3.2 million deaths globally and more than 150,000 deaths in Africa.^{1,2} The pandemic has caused an imbalance in the health and economies of Africa, and therefore, signifies that the

health sector and the economy have a strong correlation to mitigate action on equal health measures, testing, therapeutics, and efficient and effective vaccines available to Africans to curb the menace of COVID-19.

Currently, three effective vaccines are found to be effective against COVID-19, which include Pfizer, Moderna, and Oxford-AstraZeneca vaccine.² Earlier, different countries have adhered to physical distancing, hand washing, and hand sanitizers protocols, isolation/quarantine to reduce the spread of the COVID-19, these

measures have caused serious effects on the economy and social life of the people in the world^{3,4} hence, vaccination becomes the expedient eradication strategy. The article discusses the challenges and way forward to having equal access to COVID-19 vaccine distribution in Africa.

2 | CHALLENGES

The COVID-19 vaccines' equal access depends on vaccine availability where and when they are needed, being contextually and culturally appropriate, quality-assured, safe, efficacious, and affordable.⁵ The challenges facing the equal access and distribution of the COVID-19 vaccine in Africa depend on the following discussion. In the past, most African countries have suffered delayed and unequal distribution of vaccines, which were because of tremendous demand, high costs, scarce manufacturing capacity, and poor global and continental allocation procedures. Delay and unequal access and distribution were experienced in this COVID-19 pandemic, where African nations had difficulties accessing essential medical supplies protective coverings, ventilators, and good testing equipment.⁶

African countries introduced social distancing and other interventions at the start of the COVID-19 pandemic, which appeared to slow the virus's spread.⁷ Simultaneously, the COVID-19 pandemic and many of the measures aimed at protecting people's health pushed many African families into poverty. The capacity of African countries to fund vaccine procurement and distribution, which is needed to end the pandemic, is now being hampered by these dynamic challenges. Most African countries are dependent on the COVAX facility, a co-financing vaccine acquisition program set up to ensure equal access to purchase vaccines due to these complex challenges.

COVAX is a platform set up to help with the design, development, and production of COVID-19 vaccine candidates, as well as the pricing. According to GAVI, by joining COVAX, all participating countries, regardless of economic status, would have equal access to COVID-19 vaccines once they are fully developed and confirmed to be both safe and reliable.⁸ Infectious diseases spread across continents, so it is important to make arrangements for equal access and funding for the COVID-19 vaccine's successful delivery in all countries but not all the countries in Africa have sustainable vaccines that can help to vaccinate their populations as this remain a huge challenge to all Africa countries. Many African countries' population exceed the number of vaccines distributed from GAVI and this causes confusion in terms of the priority to who will be given the vaccines, and in addition to the level of the network, the connections that a normal citizen in Africa must have before having access to quality health and vaccine have struck the health system for equal distribution and access of COVID-19 vaccines.

As a result of the pandemic, the capacity of high-income countries (HICs) to donate vaccines to African countries is now stretched, restricting their ability to assist LMICs, the majority of which are African countries, in obtaining COVID-19 vaccines. Before the

demand for equal vaccine access, most HICs have made arrangements to obtain vaccines.⁹ These countries will prioritize their citizens over universal health care because they have planned ahead of time for the vaccines they will need.¹⁰ This decision would restrict the number of vaccines available to African countries that depend on HICs to combat disease outbreaks on the continent.^{11,12}

Most African countries' healthcare facilities lack the infrastructure needed for vaccine distribution, and many of them are located in difficult-to-reach areas.^{10,11} From the time the vaccines are transported from the manufacturers till they are administered, vaccines must be kept at a constant, cold temperature.¹² Due to the lack of these facilities in Africa, the number of vaccines available to a given country is limited, resulting in unequal access to vaccine distribution. Other dynamic issues, such as vaccine hesitancy, misinformation, and insurgencies in many Africa nations, also impede equal COVID-19 vaccination and distribution across the continent.¹³

Vaccine hesitancy is a big challenge to equal access to COVID-19 distribution in Africa as a COVID-19 herd immunity of 80%–95% is expected.¹⁴ As opposed to a higher acceptance of 54% in the United States, African countries have recorded lower acceptance.^{7,14} For example, Cameroun has an acceptance of 15% among youth adults due to confusing information, anti-vaccine campaigns on social media; negative perceptions of the pharmaceutical industry; concerns about the reliability or source of vaccines; and cost to individuals.⁷ The established access to COVID-19 Tools (ACT) Accelerator is a framework aimed at accelerating the development, production, and equal access to COVID-19 vaccines and technologies. Unfortunately, this framework did not take care of the socio-political issues of African nations, which is expected to promote an equal share of the vaccine in Africa.^{6,7}

In the global scene, it is commendable that the COVID-19 Vaccines Advance Market Commitment (COVAX AMC) has made giant strides by distributing around 40 million doses of vaccines in around 102 countries/facilities after just 42 days of launching distribution in Ghana.⁸ Meanwhile, the GAVI, CEPI, and WHO-led initiative has only been run in a donor model, similar to the modern aid relationship between rich and poor countries, which until now has not sustained development in lower-income countries.¹⁴

3 | WAY FORWARD

African countries regardless of their developmental or economic status should have equal access and sustainability to the COVID-19 vaccines. For this to be achieved, Africa needs a clear, transparent, and broadly accepted framework and method for accessibility, proper allocation, and sustainability of the COVID-19 vaccines. The framework and method should guide the fair allocation and equal access of the vaccines. To ensure fair, equal, and prompt access to the scarce COVID-19 vaccines, the World Health Organization gave three important deliverables that include all-inclusive principles, acceptable framework, fair and equal mechanisms of the COVID-19 vaccines distribution.¹⁵

In tandem with the idea of an all-inclusive right to the COVID-19 vaccine, this article stands for and advocates for an equal policy in the distribution of the vaccine. Although it might be very clear that there are differential quantities and vulnerabilities of African regions to the SARS-CoV-2 virus, it is expedient that global policymakers, governments, researchers, and individuals take note of the proximity that every nation and populations should come together, have a rethink and place a reformation strategies that could eradicate unequal access and distribution of the vaccine.¹⁶ This argument is borne out of the globalization and global-village analytical lenses and the argument that the globe continually becomes homogenized and that factors, including public health challenges in a region, would/can affect other regions.¹⁶

Prior expectation suggests that COVID-19 vaccines will be limited due to high demand and insufficient manufacturing capacity.¹⁷ Though the vaccines are available in most developed nations, timely delivery and equal access in African nations are not in sight. There is a need for African based framework for accelerated and equal distribution of COVID-19 vaccines and technologies to Africa.

Furthermore, as new COVID strains continue to emerge and supplies from the COVAX Facility reducing due to waves in other countries, initiatives like COVAX and ACT must advocate to reduce the Machiavellian stronghold on COVID-9 vaccines intellectual properties and hindered geographical production of the vaccine in African nations.¹⁸ There is an urgent need to replace the neoliberal “donor” and investment opportunity model with a shared-test-of-humanity that sees COVID-19 as a public health challenge and not profiteering and seeking reciprocity of benefits adventure by developed countries.¹⁸ Developed nations should be willing to lend an intellectual helping hand for the production of vaccines in Africa countries, without a doubt, this would increase the relevance of vaccine production to regional epidemiological contexts, as well as provide a specific response to the new strains of the virus that emerges in Africa region.

Improving the quality of health care centers in Africa would be a positive strategy for ensuring equal access to COVID-19 vaccines. To reduce the disease burden on the continent, there is a need for capacity building and technical assistance to assist the healthcare service and delivery in Africa. African CDC and other supporting bodies can also obtain Artek, a distribution solution that preserves vaccines at very low temperatures without energy and can be transported around with ease.¹⁹ At the same time, HICs and donor organizations should keep donating vaccines to African countries. To fight vaccination misconceptions and hesitancy, African governments should now be planning ambitious vaccine awareness programs and patient involvement. They should also devote ample resources to ensuring vaccination coverage in all regions, such as sending security forces to accompany immunization staff to security-vulnerable areas.

Since 2018, UNICEF has been purchasing and installing solar-powered fridges to store vaccines in different countries, in collaboration with governments and with funding from Gavi, the Vaccine Alliance.¹⁹ This concept should help Africa healthcare systems and workers in rural areas that are unable to conduct routine vaccination

in places with inadequate power supply and cold storage facilities.^{14,19}

Vaccine hesitancy can be addressed when governments, public health institutions, and local stakeholders provide evidence-based COVID-19 risk and vaccine communication. Considerable efforts must be made to target the highest-risk and lowest-acceptance populations. The priority should be given to elderly people, pregnant women, and children. A strategic communication response plan on the COVID-19 vaccine that debunks wrong information, misinformation, and nonfactual statements made on social media by individuals and by political and community leaders should be implemented. Furthermore, vaccine communication should focus optimally on community structures and community engagement.

Also, the production, distribution, and accessibility of the vaccine would serve as a test for the achievement of the Sustainable Development Goals seeking a wholesome development for all global populations and this requires that all countries remain committed as signatories to the Agenda 2030. Although rich nations must not be held accountable for the misfortunes of poverty-ridden regions like Africa; however, Western nations must hold African leaders accountable respectfully and diplomatically, and must be utilized to seek an all-inclusive sustainable development, including herd immunity from COVID-19.

The agencies, institutions, and stakeholders should consist of mostly Africans and should be African-centric. Utilizing this strategy will help to tackle some salient African issues and barriers to equal access and sustainability of the COVID-19 vaccines. COVID-19 vaccines should address epidemiological factors and the need of the most vulnerable Africans especially the health front-liners, social care workers, the aged, and those with terminal diseases. This will prevent infection, reduce mortality, reduce morbidity, and promote optimal care. It was recommended that COVAX should be administered fairly and equally to all countries until 3% of each country are protected from COVID.²⁰

4 | CONCLUSION

African agencies, institutions, and stakeholders need to collaborate for effective, efficient, and equal access to the COVID-19 vaccines to African citizens. There is also a need for responsive and inclusive regulatory and procurement approaches to achieve all-inclusive principles for effective and equal access to quality-assured COVID vaccines, without any barriers or disunity. These initiatives will allow easy access to the best vaccines to contain COVID-19 in Africa. The all-inclusive principles resonate with human rights to access the highest attainable standard of health without distinction of race, religion, political belief, economic or any other social condition and to achieve these principles for vaccine distribution, COVID-19 vaccines must be available, accessible, affordable, of assured quality, and appropriate for all Africans.

CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

AUTHOR CONTRIBUTIONS

All authors contributed to the conceptualization, writing, and revisions of the paper.

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