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Letter to the Editor

COVID-19 vaccine rollout: will it affect the rates of vaccine hesitancy in Africa?



As of 14th January 2021, of more than 92.7 million COVID-19 cases (with 1,986,900 deaths) reported worldwide, Africa accounts for 3,157,992 cases, approximately 3.4% of the global COVID-19 burden.¹ Earlier, owing to non-availability of safe and effective vaccines, experts recommended non-pharmaceutical interventions as the most effective public health interventions against COVID-19. However, safe and effective COVID-19 vaccines are now available, but will Africans be willing to be vaccinated?

In times of disease outbreaks and pandemics, vaccination is a crucial public health intervention that stands at the juncture between an individual's decision and community immunity. As a result, the success of a vaccination program lies in the people's level of acceptance. Vaccine hesitancy, which is the reluctance to accept available vaccines,² has been listed by the WHO as one of the top ten threats to health and well-being in 2019.³ Some champion studies point out that vaccine hesitancy is driven by cultural, social, historical, political, and individual factors such as emotions, values, risk perceptions, knowledge, or belief.^{4,5} Interestingly, Africa is a continent with multicultural patterns, and this diversity in cultural beliefs and practices spreads across different states, nations, races, tribes, and ethnic groups.⁶ Sociocultural and demographic influences thrive in Africa owing to the culture and social structure, where people are strongly influenced to believe or accept what others do or expect them to do.⁶ Undoubtedly, this sociocultural complexity has contributed immensely to sporadic vaccine hesitancy in Africa. Hence, like all vaccines,² hesitancy to COVID-19 vaccines is also expected to vary ultimately, in different contexts, as well as in different patterns.⁷

Recent experiences with the polio vaccination program in Nigeria, cholera immunization in Mozambique, tetanus vaccination in East and West Africa, and measles-rubella vaccination in Zimbabwe have shown that even well-planned vaccination programs can be crippled rapidly when uncertainties about vaccine safety and efficacy arise. Similarly, the recent Ebola vaccination experience in some African countries pointed out that the introduction of new vaccines as a crucial public health intervention strategy can be met with sociocultural, religious, and political resistance.⁸ Although the current pandemic has offered us a unique opportunity to reflect on the importance of vaccination, challenges that may derail the successful launch of the COVID-19 vaccination program in Africa are gradually emerging.⁹ One of the major challenges is the rapid spread of anti-COVID-19 vaccine information and normalization of dangerous myths by uninformed and uneducated

Africans, who lack basic media literacy skills and education to figure out if sources of information are credible.⁹ These challenges increase the odds of COVID-19 vaccine refusal, which could even detrimentally affect the rates of acceptance of other vaccines.⁷ Therefore, the current efforts toward successful COVID-19 vaccine rollout in Africa should be carefully strategized to avoid high rates of vaccine hesitancy.

Recently, a survey that studied people's perceptions on COVID-19 vaccines was conducted in 15 African countries (Burkina Faso, Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Gabon, Kenya, Malawi, Morocco, Niger, Nigeria, Senegal, South Africa, Sudan, Tunisia, and Uganda) by the Africa Centres for Disease Control and Prevention in partnership with the London School of Hygiene & Tropical Medicine and Orb International.¹⁰ Sample sizes of about 1000 people, with a mix of genders and age-groups from both urban and rural populations, served as a national representative of each country. The results showed that about 80% of the people are willing to accept COVID-19 vaccine once it is available and considered safe and effective.¹⁰ Although the overall results were encouraging, there were significant regional differences across Africa. Ethiopia and Niger recorded the highest willingness—94% and 93%, respectively—whereas only 65% and 59% of the surveyed people in Senegal and Democratic Republic of the Congo, respectively, would be willing to take a vaccine.¹⁰ If compared with other areas of the world, the results show tremendous levels of willingness.¹¹ However, there is concern that vaccine opponents could influence the 'fence-sitters' who are still uncertain about whether they will eventually accept it.¹¹

Undoubtedly, antivaccine activists, encompassing social influencers and religious, traditional, and political leaders, are prepared more than ever to campaign against COVID-19 vaccines in Africa. Currently, a wide range of misinformation and conspiracy theories are making rounds that COVID-19 vaccines will be used to moderate the rising global population, inject microchips to track people's daily lives,¹² and spread COVID-19 across Africa, where COVID-19 caseloads have been unexpectedly low. Most susceptible to this antivaccine information include people from North Africa, men, younger people, and those who believe that the risk of the disease is exaggerated.¹² The current antivaccine information trends are gaining worrying traction, which could lead to an acute increase in vaccine hesitancy rates in Africa. For that reason, all potential hindrances to vaccine acceptance need to be proactively addressed using culturally and linguistically proficient communication

strategies, which are focused on involving sociocultural influencers, engaging community leaders, targeting vaccine rumors,⁹ and carrying out grassroots sensitization, particularly in the hard-to-reach rural areas where about 56.4% of Africans reside.¹³

Although COVID-19 vaccines are still not fully rolled out in Africa, it is equally vital to understand better the population's and subgroup's concerns and sociocultural factors that may affect the rates of COVID-19 vaccine hesitancy in Africa. In a similar vein, because Africa is largely religious,¹⁴ evidence-informed sensitization strategies should also include places of worship such as churches, mosques, temples, and synagogues. As widespread campaigns to distribute COVID-19 vaccines in Africa are expected to be slow, possibly in the second quarter of 2021,¹⁰ it is highly likely not going to be mandatory for the public. This is why experts and analysts are increasingly interested in people who might reject COVID-19 vaccines based on safety concerns and people who might refuse vaccination services because they believe it is inconvenient to get vaccinated, especially in the hard-to-reach rural areas.⁹

The COVID-19 vaccination program is considered Africa's largest-ever immunization program,¹¹ and people will be asked to get vaccinated voluntarily, possibly in a way that they have never been asked before. Therefore, it is paramount to understand how people plan to reject COVID-19 vaccines and the reasons behind their decision. Accomplishing this will help identify types of effective communication and awareness campaigns that might successfully convince people to accept vaccination services. Furthermore, it is vital to equip vaccinators and healthcare providers with strong interpersonal and communication skills and relational approaches to support their effort in addressing trust issues that might prevent vaccination compliance in communities and households.⁹ Finally, the largest immunization drive in Africa's history is right around the corner, and failure to tackle religious, cultural, or other context-specific concerns related to COVID-19 vaccines will result in escalating rates of vaccine hesitancy in Africa, which could mean a very long road to normalcy. Clearly, more work is needed to quell infodemic that undermines public health intervention in Africa.

Author statements

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

Author contributions

O.C.E. conceptualized and wrote the first draft of the manuscript, with an important contribution from I.Y., H.O., N.C.E., and N.-D.O. All the authors read and approved the final manuscript.

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