

## **EFFECTIVENESS OF SOCIAL MEDIA ON COMMUNICATING THE IMPORTANCE AND SAFETY OF COVID-19 VACCINATION IN NIGERIA: A STUDY OF RESIDENTS OF ENUGU METROPOLIS**

By

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### **Abstract**

*The study assessed the effectiveness of social media on communicating the importance and safety of COVID-19 vaccination in Nigeria, with a focus on residents of Enugu metropolis. There is growing evidence of vaccine delays or refusals due to a lack of awareness on the importance, trust on safety, or effectiveness of vaccines, alongside persisting access issues. The study was anchored on the Health Belief model and the survey research method was employed in the execution of the study. The researchers found out among others that Nigerians have great exposure to social media campaigns on COVID-19 vaccination. The researchers also found out that a lot of Nigerians did not perceive the COVID-19 vaccination as safe, hence their unwillingness to be vaccinated. The researchers however, recommended among others that persuasion campaigns may be especially useful in nations where herd immunity thresholds are not met. A strong communication system that engages the public on problems of trustworthiness and safety can help boost COVID-19 vaccination uptake and build confidence in current routine immunisation programs, many of which have been disrupted due to the COVID-19 pandemic.*

**Keywords:** Effectiveness, Social Media, Communicating, Importance, Safety, COVID-19, Vaccination.

### **Introduction**

Over time, social media has evolved into an active technological tool as well as a news and communication medium for Nigerian citizens. Access to mobile telephones, particularly among digitally aware youths, has made information distribution as simple as snapping a finger (Obi-Ani, Anikwenze & Isiani, 2020). Social media engagement has quickly become a valuable supplement to current research and best practices. Social media is interactive and reciprocal, and it may target and reach a wide range of audiences. It allows for the construction of platforms for real-time listening and feedback, as well as enhanced direct interaction (U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2020).

As a result, health communication is the art of using the media to notify the public about a disease outbreak and educate them about symptoms, prevention, and treatment

(Oparaugo & Salihu, 2020). Audiences are encouraged to take action to improve their health by engaging in healthy behaviors through public health communication. Reduce infections and protect yourself and others are among the COVID-19 prevention guidelines; people searched for these guidelines and tips for themselves and shared them with others (Ekezie & Bosah, 2021). As media consumption patterns evolve, the risk of misinformation increases due to the vast amount of unregulated user-generated content on social media (Stecula, Kuru & Jamieson, 2020). As the number of social media platforms and the volume of user-generated content grows, the danger of encountering disinformation grows as well. A safe, globally deployed immunization program with a wide range of therapeutic and socioeconomic benefits would most likely be the long-term solution to COVID-19 (Shaffer-Deroo, Pudalov & Fu, 2020). It is important to remember that vaccination is one of modern medicine's greatest triumphs and, aside from clean water and sanitation, the most significant human intervention (Adebisi, Alaran, Bolarinwa, Akande & Lucero-Prisno, 2021).

In order to decrease the rate of infection and death linked with the coronavirus illness (COVID-19), which has continued to threaten human existence around the world, vaccinations have been developed (Anorue, Ugwu, Ugboaja, Nwabunze, Ugwulor-Onyinyechi & Njoku, 2021). The goal of COVID-19 vaccine social media messages is to raise audience awareness and understanding of health hazards, as well as information and attitudes concerning vaccine safety. While the rapid development of COVID 19 vaccines is a remarkable feat, vaccinating the entire world has numerous hurdles, from production to distribution, deployment, and, most crucially, to acceptability (OECD, 2021). The ability of governments to explain the benefits of vaccination and to provide vaccinations safely and effectively is crucial to public confidence in vaccines. This can be accomplished using social media sites, particularly Facebook.

### **Statement of Problem**

There is growing evidence of vaccine delays or refusals due to a lack of awareness on the importance, trust on safety, or effectiveness of vaccines, alongside persisting access issues. Among a multiplicity of factors influencing vaccine decisions, key drivers of public confidence in vaccines can be identified as awareness on the importance, trust on safety, and effectiveness of vaccines, along with compatibility of vaccination with religious beliefs. In a time of misinformation especially on social media, strategic information and communication is required throughout social media platforms for a better health education. Therefore, government, through its various agencies like the Nigerian Centre for Disease Control (NCDC) and others must use the media in general and social media in particular to reach a teeming population of Nigerian youths who now mostly consume news from social media platforms.

### **Objectives of the Study**

The objectives of the study are:

1. To find out whether Nigerians are exposed to social media campaign on COVID-19 vaccination.
2. To find out the level of knowledge of Nigerians about the COVID-19 vaccine.

3. To determine Nigerians' sources of information about COVID-19 vaccine.
4. To ascertain Nigerians' perception on the safety of COVID-19 vaccine.
5. To determine if Nigerians are willing to be vaccinated against COVID-19.

### **Research Questions**

The following questions have been raised to guide the study:

1. Are Nigerians exposed to social media campaign on COVID-19 vaccination?
2. Are Nigerians knowledgeable about the COVID-19 vaccination?
3. What are the sources of information to Nigerians about COVID-19 vaccine?
4. Do Nigerians perceive the COVID-19 vaccination as safe?
5. Are Nigerians willing to be vaccinated against COVID-19?

### **Overview of COVID-19 Pandemic**

Coronavirus disease (COVID-19) is an infectious disease that causes respiratory infections ranging from a simple cold to more serious respiratory problems. It began in December 2019 at the Hunan seafood market in Wuhan, China, where live bats, snakes, raccoon dogs, and other wild creatures were sold (Shereen, Khan, Kazmi, Bashir& Siddique, 2020), and the World Health Organization designated it a pandemic on March 11, 2020. (WHO, 2020a). An Italian man who landed in Nigeria on February 25, 2020 became the first victim of the virus. After developing symptoms of the illness, he was brought to an Isolation Centre in Yaba, Lagos (NCDC, 2020).

Despite the fact that COVID-19 affected practically every continent on the earth, climatic conditions had a key part in defining the pandemic's global impact, taking into consideration the specific characteristics of each region (ACDC, 2020). The disease's symptoms, however, were the same regardless of race or age. Newspapers were reporting death rates at a dizzying pace, making it a particularly hard period in human history(WHO, 2020b).

The rapid spread of COVID-19 is being explored at all levels of human endeavor due to the serious repercussions it has for all persons affected around the world. COVID-19 is now causing major public health, social, and economic disruption in practically every country in the world, including Nigeria. The mere surface of this pandemic has thrown the entire world into pandemonium, defying all scientific processes(Burell, Howard & Murphy, 2016).

### **COVID-19 Vaccine and Vaccination**

Public opinion on COVID-19 and measures such as vaccination vary widely, as does access to information (Josiah & Kantaris, 2021). Controlling the COVID-19 pandemic will require a safe and efficient vaccination. 23 vaccines had progressed to Stage 3 clinical trials as of June 25, 2021 (WHO, 2021a), and more than a dozen had been licensed in multiple countries (COVID-19 Vaccine Tracker, 2021). Pfizer-BNT162b BioNTech's vaccine, for example, has been licensed in around 90 countries, while Oxford-ChAdOx1 AstraZeneca's nCoV-19 vaccine has been approved in 115 countries (McGill COVID-19 Vaccine Tracker

Team, 2021). However, global vaccine distribution remains unequal at the moment, with much of the current supply going to high-income countries(Wouters,Shadlen, Salcher-Konrad, Pollard, Larson, Teerawattananon & Jit, 2021).

The majority of vaccines are administered via injection, however others are administered orally (by mouth) or via nasal spray (WHO, 2020c). Vaccines, like any other medication, can have minor side effects like a low-grade fever or pain or redness at the injection site. Mild responses fade away on their own after a few days. Serious or long-term adverse effects are relatively uncommon. Vaccines are constantly checked for safety in order to detect rare adverse reactions (WHO, 2020c). The delivery of health services, including routine vaccinations, has been disrupted around the world as the world grapples with the COVID-19 pandemic, particularly in Nigeria, Africa's largest economy and most populated country(UNICEF, 2021a).

The majority of vaccines are given by injection, however others are given orally (by mouth) or through nasal spray (WHO, 2020c). Vaccines, like all medications, can cause modest adverse effects such as a low-grade fever, discomfort, or redness at the injection site. Mild reactions usually diminish away after a few days. Serious or long-term negative consequences are infrequent. Vaccines are regularly monitored for safety in order to discover unusual side effects (WHO, 2020c). As the world grapples with the COVID-19 pandemic, health services, including routine vaccinations, have been disrupted around the world, particularly in Nigeria, Africa's largest economy and most populous country (WHO, 2021b). According to Usigbe (2021), the Secretary to the Government of the Federation, Mr. Mustapha, the goal of the vaccine distribution is to have enough vaccines for 70% of Nigeria's 200 million people by 2022.

### **Conspiracy Theories and Misinformation**

Despite the use of social media for communication of information, we are as well wary of the great threat it poses in sharing of fake news through unconfirmed sources. During the outbreak of the Ebola virus disease, news circulated online that salt water helps prevent the disease. Many Nigerians bought into this idea and ended up being killed, not by the virus itself, but by their excess consumption of salt (Oparaugo, 2021, p.81).

Conspiracy theories and misinformation are widely disseminated on social media. Dubious beliefs like electoral fraud, COVID-19 vaccine safety, and Satanic pedophiles in charge of the government, for example, quickly transit social media platforms, bypassing censorship and feeding the algorithms that support them (Enders, Uscinski, Seelig, Klofstad, Wuchty, Funchion, Murthi, Premaratne & Stoler, 2021). Understanding beliefs in misinformation, antiscientific assertions, and conspiracy theories has become a critical field of inquiry for scholars since they contribute to harmful medical, social, and political results (Jolley, Douglas, Leite & Shrader, 2019; Douglas, Uscinski, Sutton, Cichocka, Nefes & Ang, 2019). Understanding who is most likely to believe such claims, for what reasons, and through what processes is critical to effectively limiting the spread and influence of dubious ideas (Enders & Uscinski, 2021).

COVID-19 has been surrounded by misinformation and conspiracy theories since the start of the pandemic until the discovery of the vaccine. To begin with, individuals were led to believe that the COVID-19 epidemic was caused by the 5G network. Second, many were misled into believing that the vaccination was a plot by the Anti-Christ to inject hazardous substances into humans, thereby fulfilling the mark of the beast (666) prophecy. Also, some men have reported losing their erections after receiving the COVID-19 vaccine, while others have claimed that the vaccine can alter a person's DNA. There's also a viral video circulating that says immunization causes the human body to develop electrical capabilities, allowing it to light electrical bulbs and magnetize metallic items on the body.

While COVID-19 spreads quickly and aggressively throughout the world, many societies have also seen the spread of other viral phenomena such as misinformation, conspiracy theories, and general mass suspicions about what is really going on (De Connick, Frissen, Matthijs, d'Haenens, Lits, Champagne-Poirier, Carignan, David, Pignard-Cheynel, Salerno & Genereux, 2021). During the COVID-19 epidemic, researchers in Canada, England, the Philippines, Hong Kong, New Zealand, the United States, and Switzerland explored how exposure to and confidence in information sources, anxiety, and depression are linked to conspiracy and incorrect beliefs.

The spread of COVID-19 coincided with the launch of the 5G network misinformation during the pandemic then it dovetailed with other pre-existing conspiracy theories such as vaccine misinformation. Celebrities and politicians such as Senator Dino Melaye were some of those who propagated this conspiracy theory when he called for the stop in the installation of 5G network cables in Nigeria.

### **Use of Social Media Communication to Influence the Acceptance of COVID-19 Vaccine**

We live in a digital age where we are constantly bombarded with data. In one sense, the Internet has made us more linked than ever, but in another, we appear to be detached in fundamental ways. We are constantly surrounded by information in this new digital era, the majority of which is reliable and the majority of which is unverifiable (Ugwuanyi, 2017). Users of social media for health communication include the general public, patients, health professionals, and health organizations. Social media is used for health communication to provide health information on a range of conditions; provide answers to medical questions; facilitate dialogue between patients and between patients and health professionals; inform users and general public of outbreak of diseases such as Ebola, Lassa fever, COVID-19, etc., symptoms of such diseases, preventive measures, possible ways to contract them, reduce stigma, etc (Oparaugo, 2021, p.80).

Social media has evolved into an active instrument for participation and communication, allowing for the distribution of both reasonable and implausible (mis)information. Because of its ability to engage audiences in multi-way conversations and exchanges, the use of social media may have expanded dramatically during the COVID-19 global crisis. During disease outbreaks, however, erroneous posts often outnumber genuine and essential public health information, resulting in mixed messages (Ogoina, 2015). The transfer in information evaluation load from professional gatekeepers to individual users is



another unforeseen consequence of social media. As a result, individuals play a key part in the development, production, diffusion, and re-production of misinformation.

The National Primary Health Care Development Agency campaigned for the acceptance of vaccine in a video uploaded on Facebook with voice over and subtitles in English, Igbo, Hausa and Yoruba languages. The video features Honourable Minister of Information and Culture, Alhaji Lai Muhammed and Honourable Minister of Communications and Digital Economy, Isah Pantami, being vaccinated, with Nigerians reacting in the comment section.

Also, the World Health Organization (WHO) African Region on Facebook posts a message designed to influence the acceptance of COVID-19 vaccine among Africans. The message reads: Getting vaccinated against COVID-19 could save your life. Unvaccinated people have at least 10 times higher risk of death from COVID-19 than vaccinated people. Vaccines work to save lives. Don't delay. Get vaccinated against COVID-19 as soon as it's your turn. In another post by the World Health Organization made on 9<sup>th</sup> May, 2022, said billions of people have been safely vaccinated against COVID-19. All the ingredients in COVID-19 vaccines have been rigorously tested and found to be safe.

### **Empirical Review**

In a study by Josiah and Kantaris (2021) titled *Perception of COVID-19 and Acceptance of Vaccination in Delta State Nigeria*, they found out that 76.6% of the respondents knew about the vaccines in development, 53.9% were aware of Nigeria's interest in rolling out the vaccine and 48.6% were willing to accept the vaccine. A statistically significant relationship at  $p < 0.05$  was observed between vaccine acceptance and gender, religious affiliation, education, employment status, income, knew a person with COVID-19, self-reported susceptibility to COVID-19, and individual agreement with effectiveness of government COVID-19 interventions.

In a study by Solis-Acer et al (2021) titled *COVID-19 Vaccine Acceptance and Hesitancy in Low- and Middle-Income Countries*, it was found out that the availability of single-dose vaccines could be advantageous in settings with high vaccination demand but relatively low-capacity healthcare systems, as is the case in many low and medium income countries.

In another study by Anorue, Ugwu, Ugboaja, Nwabunze, Ugwulor-Onyinyechi and Njoku (2021), titled *Communicating COVID-19 Vaccine Safety: Knowledge and Attitude Among Residents of South East, Nigeria*, findings indicated that respondents are apprehensive of taking the COVID-19 vaccine and just a very few of the respondents (26.1%) agreed that media messages on COVID-19 vaccine is very assuring and convincing as regards human safety; 42.4% disagreed on the safety of COVID-19 vaccine safety messages.

Although Malik, McFadden, Elharake and Omer (2020), in their study *Determinants of COVID-19 Vaccine Acceptance in the US*, found a 67% acceptance of a COVID-19 vaccine, there were noticeable demographic and geographical disparities in vaccine acceptance. Before a COVID-19 vaccine is introduced to the U.S., public health officials and

policymakers must prioritize effective COVID-19 vaccine-acceptance messaging for all Americans, especially those who are most vulnerable.

De Figueiredo and Larson (2021) in their study, *Exploratory Study of the Global Intent to Accept COVID-19 Vaccinations*, found out that intent to accept a COVID-19 vaccine appears to be polarised in Poland and Pakistan. In these two countries, as many respondents state they would “definitely” accept the vaccine (21.0%, 17.7–24.4 and 31.8, 28.7–35.1, respectively) than would “definitely not” accept it (19.6%, 16.5–23.0 and 33.7, 31.1–36.1, respectively).

### **Theoretical Framework**

The study is anchored on the Health Belief Model. One of the first frameworks for understanding health-related behavioral change is the health belief model (Becker, 1974). HBM was created in the early 1950s by a Social Scientist at the US Public Health Service to better understand why people don't use disease prevention techniques or screening tests to detect disease early. It is one of the most extensively used models for understanding health behaviors, and it is used to explain and forecast individual changes in health behavior.

It demonstrates a deliberate decision-making process (Peterson & DiClemente, 2000). According to the model, two primary factors determine a person's likelihood of adopting a recommended health-protective behavior. First, the person must feel vulnerable or endangered by the disease or condition, and the condition must be quite severe. Second, the person must feel that the benefits of adopting the recommended preventative measure outweigh the perceived barriers (or costs) of doing so (IOM, 2002). Over the last decade, the health belief model is thought to have been employed more than any other health-related behavioral change paradigm (Peterson & DiClemente, 2000).

In the context of the current study, if Nigerian citizens regard COVID-19's third wave as a severe public health threat, everyone would be inclined to get the vaccine. However, if Nigerian folks believe the condition is typical, they are likely to react negatively. This explains why social media, particularly Facebook, has been deemed the most effective technique for motivating Nigerian individuals to get the COVID-19 vaccine in order to stop the disease from spreading.

### **Methodology**

The researchers adopted the survey research method for the study. This method allowed them to assess the perception, opinions, awareness, knowledge and practices of Nigerians on social media, particularly Facebook, towards the COVID-19 vaccine.

### **Population of the Study**

The population of the study is 820,000. This is the number of the residents of Enugu metropolis, which is the area of study.

### **Sample/Sampling Technique**

The sample size is 400 and was determined using the Taro Yamane statistics formula. The researchers used the cluster sampling technique to execute the study.

### **Instrument/Distribution**

Questionnaire was the measuring instrument. The researchers administered the copies of the questionnaire to respondents in the study area.

### **Data Analysis**

The data for the study were analyzed using Tables, Frequency and Simple Percentage formula.

**Research Question 1:** Are Nigerians exposed to social media campaign on COVID-19 vaccination?

**Table 1:**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Yes	380	100%
No	0	0%
<b>Total</b>	<b>380</b>	<b>100%</b>

**Source:** Field Survey, 2022.

The above table indicates that 380 (100%) of the respondents said they were exposed to social media campaign on COVID-19 vaccination. This implies that all the respondents were exposed to social media campaign on COVID-19 vaccination.

**Research Question 2:** Are Nigerians knowledgeable about the COVID-19 vaccination?

**Table 2:**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Yes	360	94.74%
No	20	5.26%
<b>Total</b>	<b>380</b>	<b>100%</b>

**Source:** Field Survey, 2022.

The above table indicates that 360 (94.74%) of the respondents said they were knowledgeable about the COVID-19 vaccination, while 20 (5.26%) of them said they were not knowledgeable about the COVID-19 vaccination. This further indicates that majority of the respondents were knowledgeable about the COVID-19 vaccination.

**Research Question 3:** What are the sources of information to Nigerians about COVID-19 vaccine?



**Table 3**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Radio	0	0%
TV	40	10.52%
Social Media	340	89.48%
Newspaper/Magazine	0	0%
<b>Total</b>	<b>380</b>	<b>100%</b>

**Source: Field survey, 2022.**

The above table indicates that 0 (0%) of the respondents had radio as their source of information about COVID-19 vaccination, 40 (10.52%) of them had television as their source of information about COVID-19 vaccination, 340 (89.48%) of them had social media as their source of information about COVID-19 vaccination and 0 (0%) of them had newspaper/magazine as their source of information about COVID-19 vaccination. This implies that majority of the respondents had social media as their source of information about COVID-19 vaccination and none of them had radio or newspaper/magazine as their source of information about COVID-19 vaccination.

**Research Question 4:** Do Nigerians perceive the COVID-19 vaccination as safe?

**Table 4**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Yes	140	36.84%
No	240	63.16%
<b>Total</b>	<b>380</b>	<b>100%</b>

**Source: Field survey, 2022.**

The above table indicates that 140 (36.84%) of the respondents perceived the COVID-19 vaccination as safe, while 240 (63.16%) of them did not perceive the COVID-19 vaccination as safe. The table therefore, shows that majority of the respondents did not perceive the COVID-19 vaccination as safe.

**Research Question 5:** Are Nigerians willing to be vaccinated against COVID-19?

**Table 5**

Responses	Frequency	Percentage (%)
Yes	100	26.32%
No	280	73.68%
<b>Total</b>	<b>380</b>	<b>100%</b>

**Source: Field survey, 2022.**

The above table indicates that 100 (26.32%) of the respondents said that they were willing to be vaccinated, while 280 (73.68%) of them said that they were not willing to be vaccinated. The table, therefore, shows that more of the respondents were unwilling to be vaccinated.

### Discussion of Findings

Five research questions were raised and all were analysed. The data analysed were done using the simple percentage formula.

The first question on the questionnaire was on the exposure of Nigerians to social media campaigns, to which the result of the analysis showed that all of them are exposed to social media campaigns on COVID-19 vaccination. Members of the general public, patients, health professionals, and health organizations are all part of the users of social media for health communication. Social media is used for health communication to provide health information on a range of conditions; provide answers to medical questions; facilitate dialogue among patients and between patients and health professionals; inform users and general public of outbreak of diseases such as Ebola, Lassa fever, COVID-19, etc., symptoms of such diseases, preventive measures, possible ways to contract them, reduce stigma, etc (Oparaugo, 2021, p.80).

The second question was on the awareness of Nigerians on the COVID-19 vaccination. The result of the analysis revealed that 360 of them represented by 94.74% were knowledgeable about the COVID-19 vaccination. Public opinion on COVID-19 and measures such as vaccination vary widely, as does access to information (Josiah and Kantaris, 2021). Controlling the COVID-19 pandemic will require a safe and efficient vaccination. 23 vaccines had progressed to Stage 3 clinical trials as of June 25, 2021 (WHO, 2021a), and more than a dozen had been licensed in multiple countries (COVID-19 Vaccine Tracker, 2021).

Question number three was on the sources of information to Nigerians about COVID-19 vaccination. The result showed that none of them had either radio nor

newspaper/magazine as their source of information, while 40 of them represented by 10.52% had television as their source of information about COVID-19 vaccination, and 340 of them represented by 89.48% had the social media as their sources of information about COVID-19 vaccination. This further implies that a lot of them had the social media as their sources of information about COVID-19 vaccination. Because of its ability to engage audiences in multi-way conversations and exchanges, the use of social media may have expanded dramatically during the COVID-19 global crisis. During disease outbreaks, however, erroneous posts often outnumber genuine and essential public health information, resulting in mixed messages(Ogoina, 2015). The National Primary Health Care Development Agency campaigned for the acceptance of vaccine in a video uploaded on Facebook with voice over and subtitles in English, Igbo, Hausa and Yoruba languages. The video features Honourable Minister of Information and Culture, Alhaji Lai Muhammed and Honourable Minister of Communications and Digital Economy, Isah Pantami, being vaccinated, with Nigerians reacting in the comment section.

Question four was on the perception of Nigerians on the safety of the COVID-19 vaccine, to which 140 (36.84%) of them agreed that it is safe, while 240 (63.16%) of them said it is not safe. It therefore, means that majority of Nigerians still doubt the safety of the vaccine. Conspiracy theories and misinformation are widely disseminated on social media. Doubts about the safety of the COVID-19 vaccine, for example, and Satanic pedophiles in charge of the government, for example, move social media platforms quickly, escaping censorship and feeding the algorithms that encourage them (Enders, Uscinski, Seelig, Klostad, Wuchty, Funchion, Murthi, Premaratne and Stoler, 2021). Understanding beliefs in misinformation, antiscientific assertions, and conspiracy theories has become a critical field of inquiry for scholars since they contribute to harmful medical, social, and political results (Jolley, Douglas, Leite & Shrader, 2019; Douglas, Uscinski, Sutton, Cichocka, Nefes & Ang, 2019). Understanding who is most likely to believe such claims, for what reasons, and through what processes is critical to effectively limiting the spread and influence of dubious ideas(Enders & Uscinski, 2021).

The fifth and final research question was on the willingness of Nigerians to take the vaccine, 100 respondents (26.32%) said they were willing to take the vaccine, while 280 of them (73.68%) were unwilling to be vaccinated. It means that many Nigerian are not still willing to be vaccinated. The delivery of health services, including routine vaccinations, has been disrupted around the world as the world grapples with the COVID-19 pandemic,

particularly in Nigeria, Africa's largest economy and most populated country (UNICEF, 2021a). Nigeria received over 4 million doses of the COVID-19 vaccine on March 2, 2021, thanks to the COVAX Facility, a collaboration between CEPI, Gavi, UNICEF, and WHO (UNICEF, 2021b). The arrival was a watershed moment in the effort to ensure equitable distribution of COVID-19 vaccinations around the world, in what would be the world's largest vaccine procurement and supply operation.

### **Conclusion and Recommendations**

The COVID-19 pandemic was the first to be nearly "livestreamed" on social media and digital channels. It is vital that health communicators around the world become more aggressive in addressing COVID-19 risk communication difficulties, with immunization and societal COVID-19 resilience likely to be the most effective methods of prevention. Identifying factors that may influence the uptake of new COVID-19 vaccines can help to inform effective immunisation policies and programs. In many linked domains, social learning mechanisms and norm setting are major drivers of behavior. Positive social signals about vaccines may assist alter social norms toward even greater immunization acceptance and uptake in the general population. Social media platforms can help build public trust in the COVID-19 vaccination by communicating its safety, but social media messaging about the vaccine's safety were insufficient and unconvincing. Persuasion campaigns may be especially useful in nations where herd immunity thresholds are not met. A strong communication system that engages the public on problems of trustworthiness and safety can help boost COVID-19 vaccination uptake and build confidence in current routine immunisation programs, many of which have been disrupted due to the COVID-19 pandemic.

In Nigeria, social media is critical for educating, sensitizing, and persuading citizens to embrace the COVID-19 vaccine.

We have a critical role to play as media specialists and educators in informing social media users about the necessity of vaccination.

Users of social media should refrain from sharing false information regarding the vaccine. Before publishing or reposting information regarding the vaccine on social media, consumers should double-check the facts.

## References

- Adebisi, Y.A., Alaran, A., Bolarinwa, O., Akande, W., & Lucero-Prisno, D. E. (2021). When it is available, will we take it? Social media users' perception of hypothetical COVID-19 vaccine in Nigeria. *Pan African Medical Journal*, 38(230). 10.11604/pamj.2021.38.230.27325
- Africa Center for Disease Control (ACDC). (COVID-19) research and development priorities for COVID-19 in Africa. Policy paper; 2020. Available from <https://africacdc.org/download/policy-paper-research-and-development-priorities-for-covid-19-in-africa/#>. Accessed March 6, 2021.
- Anorue, L.I., Ugwu, A.C., Ugboaja, S.U., Nwabunze, U.O., Ugwulor-Onyinyechi, C.C., & Njoku, C. (2021). Communicating COVID-19 vaccine safety: Knowledge and attitude among residents of South East, Nigeria. Retrieved from [https://www.dovepress.com/search\\_results.php?search\\_word=Communicating+COVID19+Vaccine+Safety%3A+Knowledge+and+Attitude+Among+Residents+of+South+East%2C+Nigeria](https://www.dovepress.com/search_results.php?search_word=Communicating+COVID19+Vaccine+Safety%3A+Knowledge+and+Attitude+Among+Residents+of+South+East%2C+Nigeria)
- Burrell, C., Howard, C. R., & Murphy, F. (2016). *Fenner and White's medical virology*. 5th ed. United States: Academic Press.
- De Connick, D., Frissen, T., Matthijs, K., d'Haenens, L., Lits, G., Champagne-Poirier, O., Carignan, M., David, M. D., Pignard-Cheynel, N., Salerno, S., & Genereux, M. (2021). Beliefs in Conspiracy Theories and Misinformation About COVID-19: Comparative Perspectives on the Role of Anxiety, Depression and Exposure to and Trust in Information Sources. *Frontiers in Psychology*. <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.646394/full>
- De Figueiredo, A. & Larson, H.J. (2021). Exploratory Study of the Global Intent to Accept COVID-19 Vaccinations. *Communications Medicine*, 1(30).
- Douglas, K. M., Uscinski, J. E., Sutton, R. M., Cichocka, A., Nefes, T., & Ang, C. S. (2019). Understanding conspiracy theories. *Polit. Psychol.* 40, 3–55. doi: 10.1111/pops.12568
- Ekezie, W. & Bosah, G. (2021). Demographic representation of COVID-19 social media and information engagement in Nigeria. *Population Medicine*, 1(3), . <https://doi.org/10.18332/popmed/137087>
- Enders, A.M. & Uscinski, J.E. (2021). Are misinformation, antiscientific claims, and conspiracy theories for political extremists? *SAGE Journals*. 24(4), page(s): 583-605.
- Enders, A.M., Uscinski, J., Seelig, M. I., Klofstad, C. A., Wuchty, S., Funchion, J. R., Murthi, M. N., Premaratne, K., & Stoler, J. (2021). The relationship between social media use and beliefs in conspiracy theories and misinformation. *Nature Public Health Emergency Collection*. [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8262430/pdf/11109\\_2021\\_Article\\_9734.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8262430/pdf/11109_2021_Article_9734.pdf)

- Jolley, D., Douglas, K. M. Leite, A. C., & Shrader, T. (2014). Belief in conspiracy theories and intentions to engage in everyday crime. *British Journal of Social Psychology*, 58(2)
- Josiah, B.O. & Kantaris, M. (2021). Perception of COVID-19 and Acceptance of Vaccination in Delta State Nigeria. *The Nigerian Medical Journal*.
- Malik, A.A., McFadden, S.M., Elharake, J., & Omer, S.B. (2020). Determinants of COVID-19 vaccine acceptance in the US. *E-Clinical Medicine*. 26:100495. Epub 2020/08/25. pmid:32838242; PubMed Central PMCID: PMC7423333.
- McGill COVID19 Vaccine Tracker Team (2021). COVID-19 Vaccine Tracker; <https://covid19.trackvaccines.org/vaccines/>
- NCDC. (2020). Twitter @NCDCgov. Retrieved 14 July, 2020.
- Obi-Ani, N.A., Anikwenze, C., & Isiani, M.C. (2020). Social media and the Covid-19 pandemic: Observations from Nigeria. *Cogent Arts and Humanities* 7(1)
- OECD (2021). Enhancing public trust in COVID-19 vaccination: The role of government. OECD Policy Responses to Coronavirus (COVID-19). Retrieved from <https://www.oecd.org/coronavirus/policy-responses/enhancing-public-trust-in-covid-19-vaccination-the-role-of-governments-eae0ec5a/>
- Ogoina, D. (2015). Behavioural and emotional responses to the 2014 Ebola outbreak in Nigeria: A narrative review. *International Health*, 8(1).
- Oparaugo, B. & Salihu, N.A. (2020). The mass media and public health communication in Nigeria during the covid-19 pandemic. *The Beam: Journal of Arts & Science*, 13(1), 1-10, Umaru Ali Shinkafi Polytechnic, Sokoto, <https://uaspolysok.edu.ng/thebeamjournal/articles.php?ids=view&jid=304&pp=2011011>
- Oparaugo, B. (2021). Social media and health communication during the Covid-19 pandemic: Impacts, prospects and challenges, in D.J. Kalita & A.R Adam (Eds). *Impact of Covid-19 on Economy, Business, Education and Social Life*. Pune, India: KD Publications. Pp. 77-84.
- Peterson, J.L. & DiClemente, R.J. (2000). *Handbook of HIV Prevention*, pp.3–48. New York: Kluwer Academic; / Plenum Publishers.
- Schaffer-Deroo, S., Pudalov, N. J., & Fu, L.Y. (2020). Planning for a COVID-19 vaccination program. *JAMA*, 323(24);2458-2459.
- Shereen, M.A., Khan, S., Kazmi, A., Bashir, N., & Siddique, R. (2020). COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses. *Journal of Advanced Research*, 24, 91–98. <https://doi.org/10.1016/j.jare.2020.03.005>



- Solis-Acer, J.S. et al (2021). COVID-19 vaccine acceptance and hesitancy in low- and middle-income countries. *Nature Medicine*, 27, Pp. 1385–1394
- Ugwuanyi, S.U. (2017). Influence of fake news on public perception of Nigeria's online newspapers. *Global Journal of Human-Social Science: Arts & Humanities – Psychology*, 17(5), 4-13
- UNICEF (2021a). UNICEF Nigeria and Facebook test effectiveness of immunization messages in Nigeria. Retrieved from <https://www.unicef.org/nigeria/press-releases/unicef-nigeria-and-facebook-test-effectiveness-immunization-messages-nigeria>
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (2020). The Health Communicator's Social Media Toolkit. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office of the Associate Director of Communication. Accessed November 28, 2020. <https://www.cdc.gov/healthcomm...>
- WHO. (2020a). <http://www.who.int/news-room/q-a-detail/q-a-coronaviruses>. Retrieved April 14, 2020.
- World Health Organisation (2020b). Teleconference of the R & D Blueprint GMC. Pneumonia of unknown etiology in Wuhan China. January 20, 2020. Available from: <https://www.who.int/publications/m/item/gcm-teleconference-on-pneumonia-of-unknown-etiology-in-wuhan-china-note-for-the-records>. Accessed March 4, 2021.
- World Health Organisation (2020c). Novel Corona virus. (2019-Ncov) situation report-1. World Health Organization; January 21, 2020. Available from <https://apps.who.int/iris/handle/10665/330760>. Accessed March 5, 2021.
- World Health Organization (2020c). Coronavirus disease (COVID-19): Vaccines. Retrieved from [https://www.who.int/news-room/q-a-detail/coronavirus-disease-\(covid-19\)-vaccines?topicsurvey=v8kj13\)&gclid=CjwKCAjw49qKBhAoEiwAHQVTo5TNkXBKOFLCKkBVthbSDfDfF-cZECdD129vMVucMXjFUHkUSsiPKxoCZ-4QAvD\\_BwE#](https://www.who.int/news-room/q-a-detail/coronavirus-disease-(covid-19)-vaccines?topicsurvey=v8kj13)&gclid=CjwKCAjw49qKBhAoEiwAHQVTo5TNkXBKOFLCKkBVthbSDfDfF-cZECdD129vMVucMXjFUHkUSsiPKxoCZ-4QAvD_BwE#)
- WHO (2021). Ten threats to global health in 2019. Accessed on January 12, 2021.
- World Health Organization (2021). Draft landscape and tracker of COVID-19 candidate vaccines. <https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines>
- Wouters, O.J., Shadlen, K. C., Salcher-Konrad, M., Pollard, A. J., Larson, H. L., Teerawattananon, Y., & Jit, M. (2021). Challenges in ensuring global access to COVID-19 vaccines: Production, affordability, allocation and deployment. *Lancet* 39(7), 1023–1034.