

## EXAMINING THE AVAILABILITY OF COVID-19 VACCINES IN NIGERIAN PRIMARY HEALTHCARE FACILITIES DURING POST-COVID-19 ERA: IMPLICATION FOR SOCIAL WORK PRACTICE

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### Abstract

*The emergence of COVID-19 pandemic generated a lot of concern worldwide as global activities were called to a halt. This led to a race for vaccine development, which proved to be a more efficient measure to curb the wide spread of the virus. As a result, the study examined the availability of COVID-19 vaccines at the various vaccination centres in Nsukka primary health care facilities during the post-COVID-19 pandemic Era in Nigeria and its implications for social work practice. The study adopted an explorative and descriptive research design. An in-depth Interview guide was the instrument for data collection. Furthermore, 12 healthcare professionals constituted the sample size of the study. Thematic analysis was employed for the data analysis. The findings of the study show that COVID-19 vaccines are available at the various vaccination centres in Nsukka healthcare facilities. However, the following factors militated against the availability of COVID-19 vaccines in some health facilities: lack of funding, transportation, and staff shortages. The unavailability of COVID-19 vaccines leads to vulnerability and the risk of being infected. The study concludes that the following measures can be taken by the government in collaboration with social workers to improve the availability of COVID-19 vaccines in primary healthcare facilities in post-COVID-19 era: provision of adequate funds, transportation, and awareness creation on the availability of COVID-19 vaccines. The study therefore recommends that social workers influence policy formulation and implementation to make the COVID-19 vaccine a routine immunization exercise in primary healthcare facilities in Nsukka Local Government Area.*

**Keywords:** Availability, Covid-19 Vaccines, Primary Healthcare, Social work Practice, Nigeria

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### Introduction

The outbreak of corona virus (COVID 19) generated a major concern globally as the need to develop immunity over the virus was highly important. Measures were put in place to curtail the widespread of the virus, but it was not efficient. This led to a need to engage pre-clinical and clinical trials to develop a safe and effective vaccine to avoid adverse effects on the masses (Rahman & Shaban, 2020). Post pandemic normalcy never returned until a safe and effective vaccine became available and a global vaccination campaign was successfully introduced (Hussain, 2021). Within the space of 18 months, an extraordinary scientific achievement was made as there was a development, testing and approval of several COVID 19 vaccines (World Health Organization, [WHO, 2022]). The production of these vaccines took places mostly in western countries and were sold in order of US\$2 to US\$37 per dose of

which many western countries like United Kingdom, Australia either offered the vaccines to their citizens for free or subsidized the fee to encourage greater COVID 19 vaccination (WHO, 2021). To this effect, in April 2021, WHO reported that more than 87% of the vaccine doses had been allocated to either the high income countries or the upper middle income countries which was a challenge to low income countries like Nigeria (WHO, 2021). In a bid to salvage this situation, the access to COVID-19 Tools Accelerator (ACT-A) Vaccines Pillar (COVAX), led by WHO, a global COVID-19 vaccination strategy was developed by the main global immunization partners. The goals were to protect individual and public health and to minimize societal and economic impact, by focusing vaccination efforts on reduction of mortality, hospitalisation and severe disease. Based on the set goals and strategic plans, COVAX set out to provide vaccine supply fairly and equitably by deploying two billion doses to vaccinate at 20% of each country's population by the end of 2021 (WHO, 2021 & WHO, 2022). Various research institutes funded by governments, philanthropists, and pharmaceutical firms actively create and tested the most effective COVID-19 vaccine (Harapan, et al 2020). In as much as there was a challenge of inequitable distribution of the vaccines which falls in line with challenges to be tackled by COVAX, they ensured that 20% of each country's population received the available vaccines. To this effect, millions of COVID 19 vaccines were delivered to different countries by COVAX as of August 2021 (United Nations, 2021). With the arrival of these vaccines globally, came the issue of vaccine hesitancy. Peoples attitude to vaccine acceptance was attributed to lack of trust in its efficiency, fear that adverse effect may spring out after taking the vaccine. This was further tackled through thorough education and sensitization of the importance of getting immunity over the COVID19 virus through social media with the involvement of political leaders and public figures (Babatope, Ilyenkova & Marais, 2023). While it is recognized that hypothetical choices may not always reflect real-life behaviour/decision, it is imperative for stakeholders (for example government agencies/policymakers, non-governmental organizations, social workers and health care workers) to still do more in ensuring that COVID 19 vaccines are constantly available at the different distribution centres in each local government as well as promoting health education to address the misconceptions bordering on the available COVID-19 vaccines. This may go a long way in improving probable low vaccine uptake (Fadda, Albanese & Suggs, 2020).

Social work is a practice-based profession and an academic discipline that promotes social change and development, social cohesion, and the empowerment and liberation of people. Principles of social justice, human rights, collective responsibility, and respect for diversities are central to social work. Underpinned by theories of social work, social sciences, humanities, and indigenous knowledge, social workers engage people and structures to address life challenges and enhance well-being (International Federation of Social Workers [IFSW], 2014). The need to enlighten the public on the availability of vaccines against the pandemic is a wakeup call for all social workers. Social workers work with human beings with health, physical, behavioural, social and psychological challenges. COVID-19 presents a lot of these challenges (Westhuizen, Brey & Warner, 2022). Social workers work in hospitals, prisons, schools and other relevant organizations across the country. COVID-19 is a health problem that affects the health status as well as the psychological status of COVID-19

patients, thus necessitating the services rendered by social workers. Social workers enlighten the general public on the severity of the COVID-19 pandemic. They help also to reduce the nature of fear through sensitization on the necessity of vaccination in communities (Westhuizen, Brey & Warner, 2022; Weng, 2022). Several studies had been carried out in the recent past on vaccination against COVID-19 such as Africa Centres for Disease Control and Prevention [AFCDPC] (2020) on the development of COVID-19 vaccines and access strategy; Akinkuotu (2021) studied COVID-19 and the Nigeria lacked space to store vaccine; Bajak & Heath (2021) studied national system to prioritize COVID-19 vaccines. While most of these studies focused on the development and access to COVID-19 vaccines, none have investigated availability of COVID-19 vaccines in primary health care system in the post-COVID-19 era and its implication to social work practice. Hence, this study was designed to void that gap.

The theoretical orientation of this study was anchored on Health Belief Model. It was developed in the early 1950s by social psychologists Irwin M. Rosenstock, Godfrey M. Hoch Baum, Steven S. Kegeles, and Howard Leventhal at the United States (US). The model looks at the relationship between people's belief and health actions (Rosenstock, 1974). This explains the government efforts to make provision of the COVID-19 vaccines to curb the wide spread of the virus due to the negative effects it has on the country. This action proves that the government believes that making the vaccine available will be beneficial to the country as a whole. The theory explains that people will try to perform behaviours that will be of benefits to them, this model emphasizes on the important of proper awareness of the available COVID-19 vaccines and the benefits of the vaccine constant availability at the vaccination centre. The government's actions towards ensuring that the COVID-19 vaccines are available in the vaccination centres to ensure the citizens are immunized as against the virus explains the relationship between beliefs, attitudes, and behaviours. This theory emphasis is on the need for proper awareness of the availability of the vaccines at the different vaccination centres and the need to be vaccinated.

### **Methodology**

The study adopted an explorative and descriptive research design. The area of the study is Nsukka L.G.A of Enugu State. Nsukka is a town and a local Government Area in Enugu State. The study area has a land mass of 1,810 km<sup>2</sup> and lies within latitudes 6°45'N and 7°00'N, and longitude 7°15'E and 7°30'E of the Greenwich meridian with a total population of 309,633 comprising of 149,241 males and 160,392 females. Nsukka Local Government is made up of 15 communities, which include Nkpunanor, Iha n'Owere, Nru, Alor Uno, Anuka, Ede-Oballa, Edem, Eha-Alumona, Ibagwa Ani, Obimo, Obukpa, Okpaligbo, Okpuje, Okutu and Opi. Specifically, Nsukka urban is a town that is made up of three prominent communities namely; Nkpunanor community, Iha n'Owere community and Nru community. Each community is composed of many other smaller villages and clans. There are other towns which share common boundaries or border with Nsukka such as Obollo-Afor, Enugu Ezike and Uzo Uwani etc (Enugu State Government, 2015). Nsukka L.G.A is chosen for this study because it is well known by the researcher. Nsukka Local Government Area has an area of 1,810 km<sup>2</sup> and a total population of 309,633 comprising

149341 males and 160392 females (National Population Commission, 2006). The target of this study is both male and female health professionals in urban and rural areas of Nsukka Local Government Area health care centres. These set of people were used because they are the ones that can give details on the availability and level of acceptance of COVID-19 vaccine as well as give the challenges faced in the distribution of the available vaccines in Nsukka. The sample size for this study was 12 health care professionals, consisting of 5 medical doctors, 5 nurses and 2 practicing social workers. Furthermore, the study employed multi-stage sampling technique. This entails successive selection of towns, medical health care centres and respondents that are involved in the study using systematic sampling technique and simple random sampling. Simple random sampling by balloting was used in selecting one community in Nsukka Local Government Area. All the medical health care centres within Nsukka were written in a piece of paper, folded and placed in a ballot box; after which they were shuffled. The researcher did a blind pick of the primary health care centres within Nsukka. Simple random sampling by balloting was used to select the doctors, nurses and practicing social workers in health care centres in Nsukka. A purposive sampling technique was used to select a total of 12 health care professionals in Nsukka Local Government.

The instrument for data collection was In-dept Interview Guide. The researcher conducted the interviews with the help of two research assistants. The interviews were carried out through face-to-face interview with the respondents. The IDIs was duly recorded and taped with electronic device. The interviews with each respondent lasted between 10 to 20 minutes. Furthermore, qualitative method of data analysis was used in analysing the data. The qualitative data (IDI) was transcribed and translated into English language. Care was taken to ensure that both verbal and non-verbal expressions were captured in ways that actually reflected the mind sets of the respondents. Also, emphasis was placed on the interpretation and description of what was actually said by the respondents.

## Results

### Socio- Demographic characteristics of respondents

#### Demographic characteristics of participants for Nsukka health care workers

AGE	GENDER	MARITAL STATUS	RELIGION	OCCUPATION
47	Female	Married	Christian	Community health worker
44	Female	Single	Christian	Community health worker
58	Female	Married	Christian	Community health worker
45	Female	Married	Christian	Community health worker
33	Female	Single	Christian	Community health worker
44	Female	Married	Christian	Community health worker
47	Female	Married	Christian	Medical social worker
40	Female	Married	Christian	Medical social worker
44	Female	Married	Christian	Medical social worker
45	Male	Married	Christian	Medical social worker
47	Female	Married	Christian	Medical doctor
52	Male	Married	Christian	Medical doctor

### **Substantive issues of the study**

In this section, the major findings of the analysis were discussed under themes. The major themes to be discussed are; I) : how available is the COVID-19 Vaccines and to find out the extent to which the public are aware of its availability (ii) the factors responsible for the unavailability of COVID-19 vaccines in health care facilities in Nsukka local government area ( iii) the risks associated with COVID-19 vaccine hesitancy (iv) strategies adopted towards improving COVID-19 vaccine acceptance among residents of Nsukka LGA and v) the implications of the study findings to social work practice. Nevertheless, some of these themes had sub-themes for a more precise interpretation of the data.

### **Extent to which the vaccines are available and public awareness**

Data analysis shows that COVID-19 vaccines are always available in all vaccination centres in Nsukka health care facilities. However, the analysis was discussed in 3 sub themes; community health worker, medical doctors and social worker. Social worker's knowledge on the availability of COVID-19 vaccine. Data analysis revealed that among the 4 medical social workers, 3 are aware and believes that the COVID-19 vaccine is available in Nsukka health facilities especially in their work place. One participant during the interview session does not affirm completely to the availability of the vaccine. A medical social worker indicated thus: 'I categorically have not come across people taking the vaccine in medical centre. It's not a teaching hospital where you have the fillers of the vaccines being administered to the patients or people that will like to take the first or second jab is likely to be seen at teaching hospital but for here, I've not seen crowd of people coming here to take their vaccine. I didn't come across it since COVID-19 came and fizzled. Almost 5% of the population may have taken COVID 19 vaccine and most of them may have taken it outside Nsukka; probably Lagos or Abuja before they migrated here in Nsukka' (IDI 1: Medical Social Work).

### **Knowledge of Medical Doctors**

Data analysis shows that both participants interviewed affirmed that COVID-19 vaccines are available and readily distributed to those who request for it. One of the participants thus said, 'Medical centre happens to be one of the centres for COVID-19 vaccination and so many other vaccines. The vaccines are always available. We didn't really work this year due to the strike. Many people have taken the vaccines especially those who have gone for service. It has been made available so much. When we started recently, we printed and pasted a banner in every department that we are giving out vaccines. We also made a banner and pasted it in front of medical centre to direct people where we are giving out COVID-19 vaccine. Like I have earlier said, the vaccine is presently very available in Nsukka LGA. Pfizer, Johnson and Johnson are precisely available. People are still receiving the vaccines till now'. (IDI: Medical doctor, female 47yrs)

### **Knowledge of the community health worker**

Data analysis reveals the amongst the 6 community health workers interviewed, all participants stated that COVID-19 vaccine is currently always available in Nsukka vaccination centre since it. One of the respondents indicated thus, 'Ehnn.....the vaccine has been available, even up till now it's still available. People come to take vaccines here. It's not

something you will say it's not available. It's not something you will say people are not aware of. People are aware of it. The problem we have is that so many people are afraid of taking it, but it's available at the medical centres even in health care centre, it is available.' (IDI: CHW, female, 44yrs).

#### **Factors responsible for the unavailability of COVID-19 vaccines in health care facilities in Nsukka local government area**

Factors that could inhibit the availability of COVID-19 vaccines in Nsukka vaccination centre were enumerated in this section based on the discussion with the research participants. Although since COVID-19 vaccine became available in Nsukka vaccination centre, it is almost always available in various centres. If it's unavailable in a centre, it will definitely be available in other centres. Factors such as funding, transportation, insufficient staff were mentioned. Although, most participants do not believe any factor can hinder the unavailability of the vaccine because it's almost always available. These factors are discussed in subsections;

##### **Funding**

From the findings, the participants explained that funding is one of the major challenges faced in making sure that the COVID-19 vaccine is constantly available in all COVID-19 vaccination centre. Some of the respondents mentioned insufficient funding as challenge in financing transportation of the vaccine from Enugu to the different vaccination centres, recruiting and payment of new and willing staffs to aid distribution and ensure accountability to ensure the vaccines are always available.

A respondent indicated thus, 'I can't really say there will be any factor that will hinder the availability of COVID-19 vaccine in medical centres because I believe it comes every day. If there will be any factor that will hinder it being available, I will say the resources and finances need to making the vaccines ready when people when they need it. If it's the vaccines being provided in medical centres here, it's always available'. (IDI: Medical social worker, female, 40yrs). A community health worker also pointed out thus, 'When we started, so many workers declined because it cost us a lot because we started and no payment last year. We buy data, sit from morning to 4pm browsing with personal data. When there is no payment, you don't find joy doing the job and when they do, they pay small. You spend more than they pay. We transport ourselves for training. Finance is needed for the availability and distribution of the vaccine'. (IDI: CHW, female, 58yrs).

##### **Transportation**

The vaccine is almost always available but in rare cases transporting the vaccine from Enugu to the vaccination centres in Nsukka can hinder the availability of the vaccine in the various vaccination centres. In support of this, a medical doctor added; 'Means of transportation can make the vaccine to be unavailable in this vaccination centre as the vaccine is gotten from Nsukka health centre. If it's not in health centre, then it's not in Enugu. When request for the vaccines have been made to due authorities, transporting it may be a minor challenge'. (IDI: Medical doctor, female, 47yrs)

### **Insufficient staff**

Having enough willing health worker, will ensure that the vaccine is available as there will be division of labour. The staffs will be assigned different task to ensure proper account is taken, the vaccine is properly stored to avoid it expiring amongst others. A health worker thus said. 'When we started, so many people declined because it cost us a lot because we started and no payment last year. This can be salvage by ensuring that the government recruit and train health workers (IDI: CHW, female, 33yrs).

### **Risks associated with COVID-19 vaccine hesitancy**

Most respondents stated that if the vaccines are not available and evenly distributed, it will make them vulnerable to contracting the virus. A medical doctor added thus; 'The tendency of so many people contracting it will be high. Wide spread of the virus since the virus is already in the air. The sickness will be all over.' (IDI: Medical doctor, male, 52yrs). Also, a medical social worker added thus: 'Due to lack of knowledge of the availability of the vaccine, people who may have contracted the virus outside Enugu without taking the vaccines, those who are predisposed to contracting the virus, may not survive it especially those with underlying health condition, elderly as they lack knowledge of the vaccine availability and vaccination centres'. (IDI: Male, 45yrs). Few of the participants are indifferent about it because they don't know the population of people who have taken it and those who have not taken it. A community health worker indicated thus: 'I think that the vaccine not being available don't stay that much. If it's not available this week, it will be available next week. There are some vaccinations centres around that will have it. It's not all the facilities in Nsukka that will not have it. I don't think there is any risk associated to the vaccine unavailability'. (IDI: CHW, female, 47yrs). Most of the participants affirmed that the unavailability of COVID-19 vaccine can lead to put the public at risk of contracting COVID 19.

### **Strategies adopted towards improving COVID-19 vaccine availability in health care facilities in Nsukka LGA**

The findings from the study stated out few strategies to help in improving the availability of COVID-19 vaccine in health care facilities during post-COVID-19 era. Most participants suggested that the government should pull in more funds in the health sector to train willing health workers, finance speedy transportation and make awareness on the available vaccine to ensure the services are enjoyed and the vaccines don't expire. A medical social worker explained thus, 'Government should be able to fund researchers to be able to produce these COVID-19 vaccines locally and reduce dependency on the Western shipment of the vaccine which most times gets expired before it gets here. Also, the government's responsibility of providing the basic amenities for the masses especially in the medical health system should be up and doing and it should be put into consideration in the budgetary'. (IDI: Medical social worker, male, 45yrs).

### **Implication to social work practice**

The study findings through discussion with participants explained that social workers have a role to play in ensuring COVID-19 vaccines are always available. All participants identified

several roles. These roles include; broker, educator, creating awareness. For instance, one of the medical social workers said; ‘If you find out that the vaccine is not available, and people who need to take the vaccine. We will meet them to find out the challenge they have that makes it difficult for it to be available and intervene even if it means liaising with Nsukka health centre where it comes from. Whatever challenges they tell us are faced in getting the vaccine determines what we can do to ensure it’s available. Although so far, I have not heard that there are people who need the vaccine and it’s not available to them. We’ve not had that experience here in the medical centre’. (IDI: Medical social worker, female, 44yrs)

A community health care said that: ‘The roles they can play is that, let them be aware of when the vaccines are about to finish or finished and take necessary procedures by applying for mobility on time for them to go and collect the vaccine. Finance can also affect the availability of COVID-19 vaccine because we need money to look for vehicle to transport the vaccines from Enugu to Nsukka health centres. (IDI: CHW, female, 40yrs). Also, a medical social worker stated that; ‘If it wasn’t available, that’s when we can do something about it. If it’s not available, we as social workers can go to the health centre to make them know that we need a centre here. I believe it’s in our place to let the health centre to create a centre in medical centre if it’s not available because it will be easier for staffs and students to access the vaccine than going to the health centres to get vaccinated’. (IDI: Medical social worker, male, 45yrs).

### **Discussion of findings**

The main goal of this research is to assess the availability of COVID-19 vaccines in health care facilities in Nsukka local government area during Post-COVID-19 and the implication for social work engagement. One major finding from this research is that COVID-19 vaccines are free and available. Johnson & Johnson is specifically available in Nsukka vaccination centre. Also, distribution of COVID-19 vaccines is headed by the immunisation team which consists mainly of health workers. However, the study also helps to ascertain the factors responsible for the unavailability of COVID-19 vaccines in some health care facilities in Nsukka local government area. Although COVID-19 vaccines are readily available, they tend to have few factors that can influence its unavailability such as finance to fund transportation of the vaccine from Enugu to Nsukka health centre and finally to the various vaccination centre in Nsukka, including Ihe ward. Another factor is transportation issues; when the vaccines are not transported in due time, it affects the availability of COVID-19 vaccine and insufficient staffs. Castillo, Dintrans and Maddaleno (2021) in their finding reported that government has a major role to play in making sure that the COVID-19 vaccines are equitably distributed to different vaccination centre.

The study also revealed the effects of unavailability of COVID-19 vaccines in health care facilities in Nsukka local government area. One negative effect that stand out is that the public will be exposed to the virus and in extension spread it across the community. Similarly, Duroseau, Kipshidze and Limaye (2023) carried out a study on the impact of delayed access to COVID-19 vaccines in low- and lower-middle-income countries. Their study revealed that delay in receiving COVID-19 vaccines was associated with an increased toll on cumulative cases and mortality in low- and middle-income countries. Furthermore,



although some medical professionals have no idea of the effects because they believe that an estimate of 50% of the people in Nsukka have not been vaccinated and they are living fine. The study also identified strategies that can be adopted to improve the availability of COVID-19 vaccines in health care facilities in Nsukka local government area pointing out the role's government could play in ensuring that COVID-19 vaccines are readily available in all vaccination centre in Nsukka. The study pointed out the need for the government to invest more in the health sector (Ajibo, 2020), provide sufficient funds to pay staff, provide transportation when needed for easy distribution of the vaccine to the vaccination centre and recruit and train health workers. Similarly, a study by Freed (2021) on actionable lessons for the United States COVID-19 vaccine program, collaborated with the forgoing result. The findings of their study underscored the imperativeness the US government financial investment on health sector vaccine production and distribution in health care facilities.

#### **Implication of the findings to social work practice in Nigeria.**

The study revealed the roles of social work professionals in improving the availability of COVID-19 vaccines in health care facilities in Nsukka local government area during post-COVID-19 era. The findings stated that social workers work collaboratively with the healthcare practitioner in ensuring that the vaccine is readily available. This is done by informing appropriate authorities to restock the vaccine when the quantity has reduced, enlightening the public on the need to access enjoy the welfare services to ensure the available vaccines don't expire or become wasted. Also, the social workers should liaise with Nsukka LGA health centre, gathering important information which will be used to sensitive the public on the various vaccination centre and time for distribution. Schoch-Spana et al, (2021) in their findings explained the need to get informed on the benefits of COVID-19 vaccination as well as the various vaccination centres.

#### **Conclusion**

The current study sought to investigate the availability of COVID-19 vaccines in Nsukka health care facilities and its implication to social work practice. The study found out that COVID-19 vaccines are available at the vaccination centres, and they are free. Therefore, there is need for public awareness of its availability as well as the various vaccination centres for easier access. Findings from the research shows that social workers are knowledgeable about their functions in ensuring that the vaccines are available and accessed by the public. Finally, the findings from this research shows the several roles social workers can play in the health setting and in ensuring the vaccines are available, properly stored, distributed to the public to help curb the widespread of COVID-19. Therefore, social workers should be fully involved in ensuring the spread of COVID-19 is curtailed.

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