

BOOK CHAPTER | COVID-19 Hesitancy

**COVID19 Hesitancy in an Infodemic Age -
Insight from the Field****Odirichukwu, Simon Peter Chimaobi**Imo state Ministry of Health
Primary Health Development Agency**E-mail:** sodirichukwu@gmail.com**Phone:** +2348034226244**Abstract**

COVID19 remains a present and potential threat in today's digital and conventional world. It poses serious threats not only to health and survival but it also comes with undertones that are political, economic, social, financial and technical. Unfortunately, despite the global drive towards ameliorating its effect through the distribution of vaccines and its uptake, so many people globally remains hesitant about whether to be administered the vaccine or not. This is fueled by information garnered through offline and sources – now popularly referred to as infodemic. Some of the causes are lack of information through advocacy, mobilization, sensitization, lack of technical know how on the side of health workers, lack of trust of the side of the government and so on. This chapter elucidates some of the issues surrounding COVIDVaccination and Vaccines. Recommendations were made based on the training, inferences and experiences of the author on the Field.

Keywords: COVID-19, Field, Health, Vaccination, Hesitancy, Infodemic**Introduction**

The last two decades has seen tremendous growth in the World Wide Web (WWW). The rapid growth and adoption of internet technology and the emergence of web 2.0 has transformed the world into a global village where people can easily get in touch with one another, and exchange information in multimedia format including goods and services electronically, in real time, from any point of the globe to another, hence the notion of "e" [4]. This important technological development which has far-reaching implications on the way business is conducted has created virtual business portals known as e-commerce sites as a novel business model that has replaced the traditional brick-and-mortar shops [4].

The ubiquity of the WWW has also enabled changes in several aspects of traditional commerce: lower barriers of entry for setting up virtual business; considerable reduction in geographical barriers; access to a wider market; unique pricing mechanisms such as "name your own price," (e.g., priceline.com) asynchronous auctions are now possible.

Immunization

Immunization is the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. Vaccines stimulate the body's own immune system to protect the person against subsequent infection or disease. This term is often used interchangeably with vaccination or inoculation [6].

According to World Health Organisation (WHO), immunization is a proven tool for controlling and eliminating life-threatening infectious diseases and is estimated to avert between 2 and 3 million deaths each year. It is one of the most cost-effective health investments, with proven strategies that make it accessible to even the most hard-to-reach and vulnerable populations. It has clearly defined target groups; it can be delivered effectively through outreach activities; and vaccination does not require any major lifestyle change.

The major goal for the World Health Organization is the global control of certain infectious diseases [6]. The risk of epidemic outbreaks of these diseases is related to many factors including population mobility, changes in human behaviour, social organization, climate, agricultural practices, and medical and public health practices.



Fig 1: Alhaji Hassan a police officer receiving COVID-19 vaccine during the flag-off of the second phase covid-19 vaccination at FMC Jabi, Abuja.j

Source: <https://www.afro.who.int/news/nigeria-records-another-milestone-launches-second-phase-covid-19-vaccination>

Purpose of Immunization

The major reasons for the introduction of vaccines or immunization are:

- To reduce or completely remove from the system (world), the presence or availability of infecting microbes or microorganisms from circulation.
- To improve the immune system of the host.

These are targeted at protecting the individual and control the spread of disease.

History of COVID19

Accordingly to the GCM teleconference of WHO, on December 31, 2019, the World Health Organization (WHO) was formally notified about a cluster of cases of pneumonia in Wuhan City, home to 11 million people and the cultural and economic hub of central China [2]. By January 5, 2020 about 59 cases were known and none had been fatal [2]. Ten days later, WHO was aware of 282 confirmed cases, of which four were in Japan, South Korea and Thailand [3]. There had been six deaths in Wuhan, 51 people were severely ill and 12 were in a critical condition. The virus responsible was isolated on January 7, 2020 and its genome shared on 12 January [3]. The cause of the severe acute respiratory syndrome that became known as COVID-19 was a novel coronavirus, SARS-CoV-2 virus [1].

Importance of immunization

Control of Vaccine-preventable diseases

The viruses and bacteria that cause illness and death still exist and can be passed on to those who are not protected by vaccines. This is one of the reasons why vaccinations is the key to healthy living.

Vaccine keeps one healthy

The Centers for Disease Control and Prevention (CDC) recommends vaccinations throughout one's life to protect against many infections. Skipping vaccines or vaccination leaves one vulnerable to illnesses such as COVID19, pneumococcal disease, flu, and HPV and hepatitis B, measles, yellow fever etc.

Vaccines are equal to diet and exercise

The major role of diet and exercise to the health of any person is equivalent to that of vaccine. Vaccines play a vital role in keeping one healthy. Vaccines are one of the most convenient and safest preventive care measures available.

Vaccination can mean the difference between life and death

Vaccine-preventable infections can be deadly, so the role of vaccine in keeping one alive can not be over emphasized. Therefore vaccines is the bridge between life and death in vaccine-preventable diseases.

Vaccines are safe

The WHO and other agencies has a robust approval process to ensure that all licensed vaccines are safe. Potential side effects associated with vaccines are uncommon and much less severe than the diseases they prevent. In Nigeria the agency saddled with such responsibility is the NAFDAC.

Vaccines will not cause the diseases they are designed to prevent

Vaccines contain either killed or weakened viruses, making it impossible to get the disease from the vaccine. Though it is important to note the that handling of the vaccine will play a major role here, because when instructions are not followed, the resultant effect might be disastrous.

Young and healthy people can get very sick, too

Infants and older adults are at increased risk for serious infections and complications, but vaccine-preventable diseases can strike anyone. If you are young and healthy, getting vaccinated can help you stay that way.

Vaccine-preventable diseases are expensive

Diseases not only have a direct impact on individuals and their families, but also carry a high price tag for society as a whole.

Vaccine-preventable disease is like a chain reaction

Controlling of community transmission of infections or disease. Adults are the most common source of pertussis (whooping cough) infection in infants which can be deadly for babies. When you get vaccinated, you are protecting yourself and your family as well as those in your community who may not be able to be vaccinated.

You are important to be around

Millions of adults get sick from vaccine-preventable diseases, causing them to miss work and leaving them unable to care for those who depend on them, including their children and/or aging parents.

Obstacles/impediments

Lack of knowledge and understanding of the training of health workers.

Knowledge is power. As new or novel microorganisms are evolving, research and new methodology are evolving in tackling the effect of such in the society. According to **Le Chatelier's principle** "when any system at equilibrium for a long period of time is subjected to a change in concentration, temperature, volume, or pressure, the system changes to a new equilibrium, and this change partly counteracts the applied change [5]. Majority of the health workers, hardly understand the principles in handling COVID19 situations ranging from sample collection, treatment, administration of vaccines and the route of the vaccine. In such situations one can not give what he or she don't have. Health workers more especially those involve in COVID19 vaccination should be well trained, tested and trusted before going to the field.



Fig 2: Obstacles to COVID-19 Vaccination

Source: <https://www.opml.co.uk/blog/meet-challenges-rolling-out-covid-19-vaccination-low-middle-income-countries>

Advocacy

Advocacy simply implies the public support for or recommendation of a particular cause or policy. One major cause of the COVID19 vaccine hesitancy is lack of advocacy. Advocacy helps to bridge the gap between learned and the unlearned, the known and the unknown. COVID19 being a novel virus, are not known to people, because of this there should be meeting point for people to know more about the advantages of COVID19 vaccination and its positive effect to the government, the society and individuals.

Mobilization

There is a popular saying that "if you don't say where you are, people will not know where you are" Mobilization is the key to the success of COVID19 vaccination in Nigeria. Information is the key, many people in the rural areas are not mobilized to spread the information about the deadly effect of COVID19 and advantageous effect of the vaccines to both individual and the community. Mobilization involves money, most times the State Mobilization Officers complains of lack of fund to carry out their duties. The state orientation agencies are not even better on this, as they are like dead or moribund department of government, who knew nothing to do at situations like this COVID19 pandemic era. More should be done on the aspect of Mobilization, mostly among the rural dwellers who might not have access to information and facts about COVID19 vaccination and the workability of the vaccine.

Religious believe

Nigerians are known to be religious, be it Christians, Moslems or Traditional worshippers. Have we faired better with religion? That will be discussion for another day. COVID19 vaccine hesitancy could be attributed to some religious beliefs where some group of religious leaders pass information to there congregants tell them that COVID19 vaccine carries a sign of anti-Christ of 666. This has really caused more harm than good to the fight against the dreaded COVID19 disease. Some religious leaders, also hesitate the taking of vaccines because they believe that the vaccine will change their genome, affect their mRNA. This will to them affect the genetic composition of any individual who takes the COVID19 vaccine.

Lack of trust on the side of the government

There is a total lost of trust between the citizens and the government. Since the inception of the COVID19, the citizens had believed that those in leadership of the nation are not to be trusted. One of the villages my team and I went for COVID19 vaccination vehemently rejected the vaccination because they said, during the era of lockdown and the sharing of the palliative, the government never sent any thing to them to survive. How can the same government who never cared for their survival during the lockdown, incidentally turn around to love them by giving them vaccines. I got a quote from one elder from the community which reads " Beware of emergency friends". That means the government is now emergency friend because they (government) wants to kill them, slowly with chemicals in the name of vaccine.

Believe of the absence of COVID19 in Nigeria.

Another wonderful experience is that, many people are of the view that COVID19 is not in Nigeria. The first question one asked is, have u seen anyone suffering COVID19 in Nigeria? Some group of people believed that the virus is not in the country, for that reason why should they take vaccine for a disease that is not around. There is an erroneous believe that the virus can not survive the high temperature in Nigeria. For this reason, to them it makes no sense for them to take the vaccine since the virus cannot survive here. Fact or myth? That is left to be answered.

Vaccine production and time:

So many people said that the time it took to produce the vaccine is too short compared to other vaccine-preventable diseases. Some are saying that before they will take the vaccine, they will watch the effect on those who have been vaccinated.

A friend of mine, whom I told about that the vaccine, asked “ have u taken the vaccine” I replied yes. He said let me watch u for the next 6months.

Effects on fertility and potency

Many young people are afraid of taken the vaccine because, they are of the view that taking it will have negative effect on their sex life and reproduction. In one of the villages a man ask me if the vaccine will effect his sex life negatively, my reply was that such has not been reported, he said in that case his wife can go ahead to take the vaccine, so that in an event where she fail to get pregnant, he can go ahead and get another wife.

Social media effect

The social media has done more harm than good on the issue of COVID19 vaccine hesitancy. People had made it as point of duty to disseminate falsehood about COVID-19 virus and vaccine. It started with the vaccine causing blood clotting, to that of people who took the vaccine to been magnetic and electric bulb lits on the site of vaccination. Some said those who took the vaccine will die after some days. Why is this falsehood thriving? Simply because of misplaced priority on the side of those handling the situation.

Sensitization

People are expected to know of things that are going on in the world today. The role of the media both print, electronic, cultural (local) and so on are very important. Many people are ignorant of the existence of COVID19 and the administration of COVID19 vaccine. When people are ignorant of the disease, they will also be ignorant of any form of prevention. The government, individuals and cooperate organisation to do more in sensitizing the public on the dangers of hesitancy to COVID19 vaccination.

Recommendation

The only thing that doesn't have solutions on this planet earth is death, for that very reason the issue of COVID-19 vaccine hesitancy can be handled with good approach. As the issues are enumerated above, the solution are also in sight. The training and retraining of health workers will help in proffering solutions to the issue of COVID19 hesitancy. This can be done by the trainers having one on one practical lessons with the health workers. It is important the health worker are updated with the working of the various vaccines being administered to people. It beats my imagination when a patient will ask some questions about COVID19 to a health worker, who will simply response, we were told that there is COVID19. Some will also join the crowd in saying that virus and disease is a scam. Half-baked knowledge is deadlier than illiterate.

The advocacy is very important to cushion the effect of COVID19 vaccine hesitancy and that of any other vaccine. There should be strong bridge between the known and the unknown. This can be achieved through regular meetings with leaders of thought, the kingmaker, the clergy and other religious leaders whom the people trust. Such meeting point will solve the problem of COVID19 vaccine hesitancy.

Mobilization, mobilization, mobilization, this is rallying point to end COVID19 vaccine hesitancy. In mobilizing people, they are truly informed. Hinterlands and other suburbs where means of communication are easily fetched, government agencies should do a mass mobilization through village heads, market leaders, town announcers and other means commonly used in reaching the people. At the meeting point, well trained and educated health staff will use their local means of communication to inform them of the dangers of the COVID19 and it variants. Also talk to them on the practices that will help to stop and control community transmission of the disease. The health workers should also be mobilized, both financially and instrumentally.

A situation where a health worker will not be adequately mobilized with working tools, it most time lead to them asking questions whether the COVID19 exist. The government through the ministry of health and the donor agencies should do their best in making sure that health workers are well treated and fully mobilized.

The government and other agencies should look into the activities of some religious leaders who go about preaching and dishing out falsehood about COVID19 and the advent of 666. This has put a lot of people into the earlier grave. This is because they believe and trust their leaders without knowing that most of their leaders knew nothing about health and research, just their religious dogma. The government should improve in the relationship between them and their citizens. One major cause of the hesitancy today is lack of trust from the government to its citizens. When people do not trust the government they will go all out to resist any thing from the government including the covid-19 vaccine. How can the government do such, it is through transparency. The government should be transparent in their dealings with the people. Most of the things being done by the government about covid-19 is shrouded in secrecy, that makes the citizens uncomfortable with what comes from the government.

The government should strive to bring the citizens closer to know the workings of the government since the saying goes, the people are the government, and the government are the people. Since many people are having different views about the presence of the virus in Nigeria, it is worth doing that their understanding should be handled with a lot of conviction. National orientation agencies, should help in translating the jingles about COVID-19 into all the languages in Nigeria. This will enable it sink into the brains and understanding of the doubters. This also takes us to the power of mobilization and advocacy in tackling COVID-19 hesitancy in Nigeria.

Last time, it was announced that over 1 million doses of COVID-19 vaccine in Nigeria had expired. Removing or withdrawing such vaccines from the cold room and drug storage centre will help. Again when such drugs are destroyed, it should also be made public so that at the point of destruction of the vaccine people will bear witness to that. How will this approach help, when people are convinced that the expired vaccines are out of circulation, they will be convinced that what they will be taking after that will be the vaccines that are still active, effective and viable.

Our genetic scientists, gynecologist and other family health medicines should come out with strong defense with proves that the vaccine do not have any teratogenic effect on the new born. Also, defend the effect on sperm and ovary production in humans. Social media, can be controlled on the way and manner they disseminate fake news concerning the covid-19 virus and vaccine. The major problem and the major cause of hesitancy of covid-19 vaccine is the negative power of social media. The social media is the burrow pit for fake news about covid19, on this part I support regulation of the social media, this will help to cushion the negative trend it is taking covid19 to.

Conclusion

In conclusion, the covid-19 vaccine hesitancy will be a thing of the past very soon with right people in right positions, qualified and well-trained staff occupying sensitive positions in the handling of covid-19. Advocacy, mobilization and sensitization, should be carried out by the authority, through the release of funds, and also monitor the proper use of the funds to achieve the goals to tackle the pandemic. Those in charge of logistics, should and must ensure that the vaccine reach the various destinations on and in time longer enough before the expiration. The religious centers and social media should dish out original and an adultrated information about COVID19 vaccine and vaccination. This is time for meritocracy not mediocrity. Man know man does not and can not work in the presence of the challenges posed by the novel **SARS-CoV-2 virus**.

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