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ACCESS TO INFORMATION AND AWARENESS OF COVID-19 IN DISADVANTAGED RURAL COMMUNITIES IN NIGERIA: THE PLACE OF THE LIBRARIAN

By

Faith Ogechi Ikpe
Ikpefaith44@gmail.com
&

Joyce Awajioboroinyem Barth-Nengia CLN
Department of Library and Information Science
School of Information and Communication Technology
Captain Elechi Amadi Polytechnic
Rumuola, Port Harcourt
ajoyce985@gmail.com

Abstract
Information, especially health information is indispensable. Rural communities particularly the disadvantaged areas are the worst hit in situations where crucial information on the deadly disease is lacking. This paper investigates access to health information in disadvantaged rural communities in the face of a ravaging COVID-19. It investigates the information structures, the extent of awareness of the pandemic, awareness of its symptoms and preventions, channels of information and problems hindering access to information to disadvantaged rural communities and the role librarians can play in bridging the gap. The study found that the structure of disadvantaged communities is critical and isolates them. However, they are aware of COVID-19 through town criers, churches and radio messages, but have limited understanding and reservations on the matter due to the elitist way the information was delivered which negates rural techniques of information delivery. Thus, further repackaging of COVID-19 information to the communication level of disadvantaged rural communities is required. The paper concludes that the absence of librarians whose modern training incorporates special features on rural information dissemination is a misnomer. Against the background of poor financial disposition of libraries to support librarians in this numerous task. The paper recommends that librarians should develop the will to work in difficult terrains, apply lobby and advocacy strategies to key into the chain of funds from international community at least on contingency cases and re-equip themselves in the skills of rural information dissemination etc.
Keywords: Information, COVID-19, Library and Librarians.

Introduction

The recognition of information as power, strength, weapon and the fourth factor even in the line of production in addition to land, labour and capital; re-echoes its importance in the present world order. The bedrock for all kinds of development in varying societies is information (Ezeani, 2013). Information is what one has that is useful for decision-making. It illuminates and removes fears and doubt, anxiety and ignorance. Though timeless, information needs to form the gap between what one knows and what one ought to know. Rural communities are the home of nuclear families who live together and share common goals and aspirations for the development of all. They are commonly located in rural, sparsely populated areas that require

greater infrastructure and care (Haddix, Zoldoske, Longley, & Green, 2013). Though sparsely populated, they form the majority when compared to the number of communities that exist countrywide. Instances are countries such as the United States. Nigeria, India and most third-world countries with a high level of disadvantaged communities abounding in illiteracy as a result of the information gap. From observation and records, it is evident that very minimal attention has been given to the provision or meeting of the information needs of rural communities in general and the disadvantaged rural communities to be specific, especially in third world countries. Workers or agents of rural -development programmes seem to be scarce. They are supposedly meant to interact with these people living in the disadvantaged community and learn their way of life. But in practice, they are lacking. The situation is different in developed countries where there is a growing recognition that disadvantaged communities have the right to know and receive an acceptable degree of information (Meyer, 2003).

Accessibility to information by both urban and rural communities forms part of Nigeria's development plans. However, there is always an emphasis or drift towards its support for government propaganda and many programmes that are not fully relevant to the development of rural communities. There is another tendency that information received by rural dwellers is either not reliable or distorted in the process of transmission (Harande, 2009). This unhealthy situation constitutes a major impediment, which keeps the rural communities in Nigeria and other developing countries far away from development indices.

Most rural dwellers are farmers who live below the poverty line, lack basic social amenities, suffer abject poverty and can afford neither radio nor television. Thus, they are vulnerable to so many avoidable hazards. Unless the information is taken to their doorposts, they may not access it. Getting them informed requires a well-formulated system which includes classrooms, distance learning capability, drama, outreach programs graphics etc (Haddix. Zoldoske, Longley & Green, 2013).

The following research questions guided the discussion in this paper:

1. What information structures exist in disadvantaged rural communities in Nigeria?
2. What is the extent to which people living in disadvantaged rural communities in Nigeria are aware of COVID-19?
3. What is the extent of awareness of the disadvantaged rural communities' inhabitants on the symptoms of COVID-19?

4. What is the extent of awareness on the prevention of COVID-19 by people living in disadvantaged rural communities in Nigeria?
5. What are the channels or sources through which people living in disadvantaged rural communities in Nigeria receive information on COVID-19 pandemic?
6. What are the impediments to COVID-19 information delivery in disadvantaged rural communities in Nigeria?

COVID-19 Overview

Coronaviruses are a large family of viruses that can cause illness in animals or humans. In humans several known coronaviruses, cause respiratory infections. These coronaviruses range from the common cold to more severe diseases such as Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS), and COVID-19 was identified in Wuhan, China in December 2019, caused by the virus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), a new virus in humans causing respiratory illness which can be spread from person-to-person. Early in the outbreak, many patients were reported to have a link to large seafood and live animal markets, however, later cases with no link to the market confirmed person-to-person transmission of the disease. Additionally. Travel-related exportation of cases has occurred.

COVID-19 is primarily transmitted from person to person through respiratory droplets. These droplets are released when someone with COVID-19 sneezes, coughs, or talks. Infectious droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. A physical distance of at least 1 meter (3 ft) between persons is suggested by the World Health Organization (WHO) to avoid infection. Although some WHO member states have recommended maintaining greater distances whenever possible (WHO, 2020). Respiratory droplets can land on hands, objects or surfaces around the person when they cough or talk, and people can then become infected with COVID-19 from touching hands, objects or surfaces with droplets and then touching their eyes, nose, or mouth. Recent data suggest that there can be the transmission of COVID-19 through droplets of those with mild symptoms or those who do not feel ill. Current data do not support long-range aerosol transmission of SARS-CoV-2, such as seen with measles or tuberculosis. Short-range inhalation of aerosols is a possibility for COVID-19, as with many respiratory pathogens. However, this cannot easily be distinguished from “droplet” transmission based on epidemiologic patterns. Short-range transmission is a possibility, particularly in crowded medical wards and inadequately ventilated

spaces (WHO, 2020). Certain procedures in health facilities can generate fine aerosols and should be avoided whenever possible.

A wide range of symptoms for COVID-19 has been reported. These include Fever or chills, Cough, Shortness of breath or difficulty breathing, Fatigue, Headache, Nasal congestion or runny nose, Muscle or body aches, Sore throat, new loss of smell or taste, Nausea or vomiting and Diarrhea (WHO, 2020). The estimated incubation period is between 2 and 14 days with a median of 5 days. It is important to note that some people become infected and do not develop any symptoms or feel unwell. It is important to note that COVID-19 is a new disease, therefore there is limited information regarding risk factors for severe disease. In some cases, people who get COVID-19 can become seriously ill and develop difficulty breathing. These severe complications can lead to death. The risk of severe disease increases steadily as people age. Additionally, those of all ages with underlying medical conditions (including but not limited to heart disease, diabetes, or lung disease) appear to be at higher risk of developing severe COVID-19 compared to those without these conditions. As more data become available, additional risk factors for severe COVID-19 may be identified.

There are several ways to prevent the spread of COVID-19 infection. These include: Avoid touching your eyes, nose and mouth, avoid close contact with people who are sick, remember that some people without symptoms can still spread the virus, stay at home when you are sick, cover your cough or sneeze with a tissue, then dispose of it properly, use a face covering when physical distancing is difficult or when going into closed spaces, physical distancing should be at least 1 meter (3 ft), clean and disinfect frequently touched objects and surfaces, perform hand hygiene with soap and water or use alcohol-based hand rub, hand rub should contain at least 60% alcohols and hand washing should be done for at least 40-60 seconds based on who's recommendations. Currently, care for patients with COVID-19 is primarily supportive. Care is given to patients to help relieve symptoms and manage respiratory and other organ failures. There are currently no specific antiviral treatments licensed for COVID-19, however many treatments are under investigation. Remdesivir, which is also an investigational drug, received Food and Drug Administration (FDA) emergency use authorization for the treatment of hospitalized patients. Finally, no vaccine is currently available.

The Library and Information Professional as a skilled Information Provider

Library and information professionals supply relevant information to the community. It is in the domain of public librarians to supply relevant health information needs to all rural

communities, especially the disadvantaged ones. The provision of valid information to the people. Is the heartbeat of librarianship, hence a common goal of all library and information professionals. The perception of traditional librarianship comes into conflict with modern realities and logic. This is because. Technology has come to accept MacAlister's concept of shooting information into the homes of those who need it. Where technology is absent, the library and information professionals are under obligation to package and physically shoot relevant information to the recipients as we have in rural communities.

Today's librarians strive to incorporate new philosophies and techniques to meet the need of increasing users of information than ever before (Ezeani, 2013). Thus, Hendrix (2010), in his suggestions for areas of re-thinks; added service and community (all community service) among other options. These he summed up as the core features of modern and future libraries. The development of such competencies as the packaging of specialized information products to communities (especially disadvantaged communities), the capability to improve information services in response to the changing needs of patrons anywhere they are found, acquisition of techniques to deliver relevant and reliable information as well as interact with patrons to determine need and satisfaction (feedback) etc; were pointed out [Ezeani 2013, citing Daniels 2012 and Canadian Association of Research Libraries 2010].

The librarian is not the only information-providing personnel in this era. As a result, he/she tries to remain relevant through alternative library services that are no longer limited to the walls of the library. In a situation such as ours where disadvantaged rural dwellers neither have a library nor understand the need to consult the library as most of them are illiterates, the library and information professional tends to be in hibernation as they brood on how best to approach the situation even under the financial crunch. Thus, it would have been most appropriate at this juncture to employ the services of a Mobile library intended to take library services to disadvantaged communities such as children in local schools, hospital patients, prison inmates, and the aged. The walking impaired, etc with a mobile library, the librarian is properly equipped to take a further step in meeting the information needs of her community, on one hand, and to remain relevant on the other hand.

Extension services may also be important here, where libraries, through story hours, film strips, films, quiz competitions, etc, sensitize children on COVID-19 and its preventive measures. The use of demonstration vans, dry lectures, customized audio-visual materials, exhibitions, electronic media and photographs is in line with the distribution of leaflets, billboards, stickers,

customized T-shirts, pamphlets, posters and books as the majority of disadvantaged rural dwellers are illiterate. Identifying with stakeholders such as school teachers, mass media (Newspapers, radio, television adverts), local churches and traders, village priests, village heads, social welfare officers, community leaders, bars and marketplaces is ideal. Other access points are water collecting points, health workers, trading stores and salons ete, this will complement and facilitate the effort of government to stop to spread of COVID-19 in our society and provide a platform for the librarian to exercise a continuing and domineering sense of relevance. However, to achieve an effective result, the librarian has to consider the education and literacy level of the targeted disadvantaged rural group, the language they speak, the hours at which they would be better reached, and their market days. Community meeting days, etc. This is the only way an understanding of the peoples' way of life can be achieved and information delivery tailored to their optimal reception (Achebe, 2010; Nworu & Ugwuogu, 2010; Ochogwu, 2010).

Methodology

The study applied the descriptive survey method to access points of view, characteristics features or facts concerning the population of study as a base for generalization (Nworgu, 2006). Five disadvantaged rural communities located in Andoni Local Government Area, Rivers State, South-South, Nigeria were investigated. These are Muma, Udung-ama, Afaradi, Agbakoroama, Ayama and Okorolo.

These communities were chosen based on some observed deprivations such as disadvantaged terrain, lack of accessible roads, shallow waterways, lack of electricity, health centres, schools limited or absence of mobile communication network etc. which hampers effective delivery of information to locations. The choice of six communities is based on observed similarities and characteristics of disadvantaged communities. Hence, the assumption that these communities may well represent the others found elsewhere. The population of the study is 120 comprising Of 20 people in each community. The samples were randomly picked and interviewed using an adaptation of general interview guides but with sight modified to suit the required purpose of attracting responses from an illiterate population. Thus, the COVID-19 Awareness in Disadvantaged Community Interview Guide (Cov-ADCIG) instrument and the COVID-19 Awareness in Disadvantaged Communities Checklist (Cov-ADCC) were applied Although the population was not stratified, there was gender consideration to effects balanced and accurate simple opinion using a purposive sampling technique The research was guided by interview

questions that tested clear understanding of COVID-19 mode of transmission, symptoms and prevention, questions that provided responses on channels used to deliver information to the communities. The observation checklist observes phenomena, gadgets and structures such as radios, mobile phone networks, schools, roads, health centres etc. Data were analyzed from weighted responses from the adoption of Likert four-point scale using frequency tables, and percentages.

Result of Findings and Discussions

Research Question 1: What information structures exist in disadvantaged rural communities in Nigeria?

Table 1: To identify information structures that exist in disadvantaged rural communities in Nigeria.

Community	Primary School	Secondary School	Health Centre	Mobile Network	Road/Water Way	Radio Signal	Transport	Occupation
Afaradi	1	-	-	Partial	Track musty, Tidal/water way	present	Boat/canoe	Fishing, present farmer, petty traders.
Ayama	1	-	1	Partial				
Muma	1	-	-	Partial				
Udung-Ama	-	-	-	Partial				
Agbakoroama	1	-	-	Partial				
Okorolo	1	-	-	Partial				

Table 1 presents the observed information structures in the communities studied. All the communities except one had a primary school, no secondary school, only one had health centres, partial telecommunication signals were observed in all in the communities. While frequency-modulated FM) radio signals of multiple radio stations broadcasting from within and outside the (state of the study were observed. Transport Trekking is common in all the communities. Mode is by motorized boats and canoes. Bushing, mashing or tidal waterways which the road network is poor with tracks, inhibit most modes of transport. One common element observed is that the dwellers are peasant farmers, fishermen and pretty traders are libraries found in these areas.

Research Question 2: what is the extent to which people living in disadvantaged rural communities in Nigeria are aware of COVID-19?

Table 2: Extent of Awareness of COVID-19 in the Disadvantaged Rural Communities.

Community	Aware		Not Aware	
	F	%	F	%
Afaradi	18	90	2	10
Ayama	20	100	-	-
Muma	19	95	1	5
Udung-Ama	13	65	7	35
Agbakoroama	17	95	3	15
Okorolo	20	100	-	-
Total	**107**	**89**	**13**	**10.8**

Table 2 indicates that most inhabitants of the disadvantaged rural communities studied are aware of the disease called COVID-19 107 respondents (89%) only a fraction seems not to have heard of it 13 respondents (10.8%). This reveals that disadvantaged rural communities and the general public were well-targeted for COVID-19 information dissemination.

Research Question 3: What is the extent of awareness of the disadvantaged rural communities Inhabitants on the symptoms of COVID-19?

Table 3: The extent of awareness of the symptoms of COVID-19

Symptoms	Aware		Not Aware	
	F	%	F	%
Fever Chills	2	1.6	118	98
Cough	13	10.8	107	89
Shortness of Breath or Difficulty Breathing	99	82.5	21	17.5

Fatigue	3	2.5	117	97.5
Headache	-	-	120	100
Nasal Congestion or Runny Nose	22	18	98	81.6
Muscle or Body Aches	21	21	99	82.5
Sore Throat	1	.08	119	99
New Loss of Smell or Use	-	-	120	100
Nausea or Vomiting	19	15.8	101	84
Diarrhea	11	9	109	90.8
Total	**191**	**14%**	**1,129**	**85.5%**

Table 3 clearly shows that the inhabitants of disadvantaged rural communities despite they are aware of COVID-19 are not aware that the following symptoms (WHO, 2020) fever or chills, cough, fatigue, headache, nasal congestion or running nose, muscle or body aches, sore throat, the new loss of smell or taste, nausea or vomiting and diarrhoea are signs of COVID-19as most of them always experience most of these symptoms on regularly basis before the breaking out of the COVID-19 pandemic.

Research Question 4: What is the extent of awareness on the prevention of COVID-19 by the people living in disadvantaged rural communities in Nigeria?

Table 4: Extent of Awareness on the Prevention of COVID-19

Preventive Tips	**Aware**		**Not Aware**	
	F	**%**	**F**	**%**
Avoid touching your eyes, mouth and nose	4	3	116	96.6
Avoid close contact with people who are sick	111	92.5	9	7.5

Perform hand hygiene with soap and water or use alcohol-based hand rub	102	85	18	15
Clean and disinfect frequently touched objects and surfaces	6	5	114	95
Cover your cough or sneeze with a tissue then dispose of it properly	11	9	109	90.8
Stay at home when you are sick	11.8	98	2	1.6
Use a face mask when physical distancing is difficult.	9	7.5	111	92.5
Always maintain physical distancing when in public places.	17	14	103	85.8
Total	**278**	**29**	**582**	**60.6**

From Table 4 above, it is clear that the people living in Nigeria's disadvantaged rural communities are not aware of the prevention tip of COVID-19 due to lack of information at their disposal as indicated by 582 respondents (60.6%) average,

Research Question 5: What are the channels or sources through which people living in disadvantaged rural communities in Nigeria receive information on COVID-19?

Table 5: Channels to which Disadvantaged Rural Community People are Informed of COVID-19

Community	Radio		TV		Health workers		Church		School		Mobile Phones		Town Crier		Library	
Afaradi	13	65	6	30	-	-	18	90	11	55	5	25	25	20	-	-

Ayama	14	70	9	45	13	65	19	95	9	45	3	15	15	15	-	-
Muma	10	50	4	20	-	-	17	85	11	55	6	30	17	17	-	-
Udung-Ama	9	45	3	15	-	-	16	80	4	20	3	15	20	20	-	-
Agbakoroama	11	55	2	10	-	-	17	85	8	40	4	20	20	20	-	-
Okorolo	7	35	1	5	-	-	14	70	6	30	7	35	18	18	-	-
Total	**64**	**53**	**25**	**20.8**	**13**	**10.8**	**101**	**84**	**39**	**32**	**28**	**23**	**110**	**91.6**	**-**	**-**

Table 5 shows that bulk of the information on COVID-19 was delivered by town criers, churches, radio broadcasts and jingles, schools, television broadcasts and phone calls respectively. There was no influence from the library in the dissemination of information to these communities.

Research Question 6: What are the impediments to disadvantaged rural communities in Nigeria COVID-19 information delivery in disadvantaged rural communities in Nigeria?

Table 6: The impediments to information on COVID-19 delivery in disadvantaged rural communities in Nigeria.

Community	Medical Jargon	Medical Information on COVID-19 usually inhibits rural ways of life	Method of Delivery	Language of Delivery	Lack of Fund

	F	%	F	%	F	%	F	%	F	%
Afaradi	18	90	16	80	13	65	18	90	18	90
Ayama	19	95	17	85	14	70	18	90	20	100
Muma	20	180	15	75	10	50	17	85	17	85
Udung-Ama	18	90	14	70	9	45	19	95	18	90
Agbakoroama	16	80	17	85	11	55	19	95	19	95
Okorolo	18	90	13	65	9	45	17	85	16	80
Total	**109**	**90.8**	**92**	**76.6**	**66**	**10.8**	**108**	**90**	**108**	**90**

Table 6 affirms that problems exist as a result of the difficulty of perfectly understanding the medical parlance employed by the medical workers to communicate with the people. They also affirm that the people believe that most medical information tends to inhibit traditional practices and way of life, information delivery method was not spared as respondents were not comfortable with the way COVID-19 information was presented to them using jingles and announcements on radio and television. Respondents also faulted the language of presentation which most often was English and pidgin English mixed with corrupt vernacular by ad hoc staff and mass media presenters and there is no financial assistance to disadvantaged rural communities to help them understand and use rural information dissemination techniques to repackage and disseminate information in their local dialects.

Implications of Findings

Findings in the six rural communities reveal many phenomenal disadvantages. Although these communities have primary schools, they are not worth calling schools in a modern sense. These communities lack health centres, accessible roads, secondary schools and the dwellers are peasant farmers, fishermen and petty traders. No reliable means of transport. This reflects the description of Haddix et al., (2013) and other scholars on disadvantaged rural communities. This implies that any information worker-including the librarian- that ventures into the provision of information to these communities must be prepared to blend into these conditions.

Despite these disadvantages, it is encouraging to find the six communities displayed a high level of awareness as a result of the major activities of the town criers. The perception by rural people that Medical information inhibits their way of life shows distrust and can breed resistance. This is dangerous and needs to be erased from their mind as a matter of urgency.

Furthermore, the high rate of dissatisfaction with the use of medical nomenclature and methods of information delivery is connected to the high level of illiteracy in these communities. It simply means that disadvantaged rural communities will further be isolated and disadvantaged when elitist media and methods are used to communicate to them instead of dissecting information to their level of understanding. In the same vein, situation where the language of information delivery is vague, and there are no follow-up activities to campaigns, implies that effective communication and feedback principles are negated. Also, lack of funds, collaboration and training with locals on how best to infuse Indigenous dialect to disseminate crucial health information aborts the motive of any information to disadvantaged rural communities. Therefore, the librarian with the skill of information repackaging is needed to bridge the gap.

Conclusion

The importance of health information to all societies was buttressed in the face of a ravaging disease. The study explained and accessed health information on COVID-19 to the disadvantaged rural communities 10 justify the need for active participation of library and information professionals. An assessment of the structures of disadvantaged rural communities, level of awareness of COVID-19, channels in which information was delivered and the impediments to effective COVID-19 information delivery in the disadvantaged communities studied was made. The study found that the structures in disadvantaged rural communities tend to be universal and critical with most amenities lacking, and tend to be more disadvantaged when they have been deprived of the right to access health information. Although findings show a high level of awareness of COVID-19 which came from the quantum of funds sunk into the publicity campaign by World Health Organization (WHO) and assistance from donor countries to Nigeria, the study found that lacunas exist in the mode of communication which affects understanding and perception of disadvantaged rural people on COVID-19 disease. The cause, therefore, is traced to the wrong approach by mass media and health workers that formed the major channel of dissemination.

The study concludes that the library and information professionals possess the skills to bridge the gap, their deficiencies notwithstanding. The library and information professionals could not key in to access funds meant for information dissemination on COVID-19 through the Information Ministry as a result of lack of skills in the act of lobbying and advocacy (Osuchukwu, Anyadiegwu, Ench & Nzewi, 2014). Thus, they had no linkages and alliances

that could enable them to access funds and so neglected such linkages including affiliations with Government agencies and international organizations such as WHO, UNICEF, EU Commission assistance from donor agencies etc. The Health sector made an impact having received most of the international funding for COVID-19 libraries need exhibit to drive outdoor services to rural communities to be able to make justifiable cases and claims for funds, especially during emergencies as the present COVID-19 pandemic. In doing so, they will be able to change direction by incorporating new philosophies, technology, place and service to community.

Recommendations

We therefore recommend active collaboration of all information agents with rural people and their chains of communication to simplify information for them which will remove distrust and bias.

The participation of library and information professionals is ideal being that they possess skills and methods of outreach as mobile libraries with services such as film shows, drama, radio programme sponsorship, campaigns and meetings embedded in local community dialects for effective communication The mobile library scheme need be resuscitated Secondly the library and information professional must be versatile, evolving philosophies, a politician, a lobbyist and an advocate (public relations expert). He or She should be able to place him/her strategically and meander his or her way into the corridors of power and or influential people in various communities and towns with the aim of fund-raising and influencing policies There is need to achieve structural changes in key library areas like funding It is recommended that the flow of internal and external supports or special funds meant for publicity and awareness creation on special issues should be targeted and traced.

The need to train new breed librarians on communication skills at various levels (including rural communication strategies) will produce dual benefits for the library and information professional whose modern challenges expose him/her to documentation and dissemination of rural Indigenous knowledge, way of life and exposition of Indigenous people to modern health hazards as COVID-19 disease. Therefore, Library Schools should develop the active study of traditional information chains to evolve a workable transmission and dissemination channel to

disadvantaged rural communities; while retraining of practicing librarians is needed to fulfil their entrepreneurial and social contract objective to society.

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