

## **Investigating Media and Communication Techniques for Campaigns against Malaria Infections in Cross River State, Nigeria**

**Stanislaus Iyorza<sup>1</sup>, Bassey Nsa<sup>2</sup>**

<sup>1</sup>Department of Mass Communication,  
University of Calabar, Cross River State, Nigeria.

\*e-mail: [stanisiyorza@unical.edu.ng](mailto:stanisiyorza@unical.edu.ng)

<sup>2</sup>Department of Communication Arts  
Univeristy of Uyo, Akwa Ibom State, Nigeria.

e-mail: [orjighstan@gmail.com](mailto:orjighstan@gmail.com)

### ***ABSTRACT***

There is no doubt about the surge in the cases of malaria infections and other diseases in Nigeria despite the huge investment in media and communication campaigns to reduce the spread. The objective of this paper is to assess the media and communication techniques used in campaigns against malaria infections in Nigeria, identify the loopholes and search for possible solutions to existing challenges associated with media and communication. The study adopted the survey research design using quantitative method to elicit data from the study population. The total study or sample population was 643 respondents. The questionnaire was used to reach out to the respondents for the quantitative research. The quantitative data collected was analyzed using simple tables and percentages. Findings indicated that the media channels and communication techniques in the preventive/curative campaigns against malaria infections in Nigeria include use of limited number of media for a large population and use of scientific and sophisticated medical terms in communicating the malaria campaigns among other challenges. The study concludes and recommends that sponsors, donors and partners in the intervention of malaria spread in Nigeria should partner with communication agencies that should suggest use of multi-media approaches and correct interpretations of scientific terms in the preventive and curative malaria campaigns in Nigeria.

Keywords: Campaigns; Communication; Malaria; Media; Techniques.

### **INTRODUCTION**

It is expedient to research newer strategies for communicating the prevention of ever rising cases of killer infectious diseases in Sub-Saharan Africa because the use of modern media alone appears to be grossly inadequate in this direction. Research shows

that electronic media channels specifically have been challenged by inadequate power supply and lack of quality programme for disease prevention. Okpoko (2014) states that media information for interventions in the cases of Malaria and other diseases are inadequate, even as media coverage on TB and other diseases is scantier. Another study on media and health communication conducted by Okpoko and Aniwada (2017) posits that health interventions on illness are available but the less use of other media such as posters, billboards, associations, meetings, school, counseling and workshops renders most health interventions redundant and ineffective.

Observably in Nigeria for instance, the over reliance on radio, television and billboards for communicating health prevention has shut out other reliable media from playing complementary roles in the campaign against the spread of diseases. A study carried out in Cross River State, Nigeria by Iyorza and Bassey-Duke (2016) found out that other media of communication such as drama, posters, handbills, newspapers, magazines, and film/cinema were not significantly employed in the campaign for disease prevention like radio, television and billboards. Iyorza (2018, Rethinking Nigeria's Development Using African Traditional Communication Media...)’s studies on African Traditional Communication Media opines that the use of town halls and village square meetings, associations and events involving folklores, traditional songs and dances (Institutional and Demonstrative, Communication media) are very effective but untapped in the quest for information transmission on disease prevention and cure in Nigeria.

Worst still, the advent of social media platforms is yet to address the inadequacies of other available communication media in the disease preventive campaigns. In Sub-Saharan Africa, Batta and Iwokwagh (2015) shares the opinion that social media are little used for health promotions, implying that the inadequate use of social media platforms for health communication in Nigeria is due to the citizens’ interest in other social and entertainment communications and political exchanges than in health communication, which is assumed to be part of the reasons behind Nigerian media’s less attention to preventive strategies in the cases of deadly infectious disease such as Malaria, Lassa fever, Cancer, diabetes, Ebola virus among other diseases. Children and women are the most vulnerable and they lie helplessly in hospitals and herbal homes and continue to feed unhealthily.

In fairness, Akpobo (2015) states that Nigeria’s media and communication efforts have contributed to the success of some health programmes especially in the efforts to eradicate Malaria, polio, the awareness on family planning and the containing of the Ebola virus. Studies indicate that mass media awareness campaign on the Ebola virus diseases in Nigeria was effective. This is not so with Malaria, according to the World Malaria Report (2020)’s recent analysis from Nigeria, an optimized mix of interventions in the country could avert tens of millions of additional malaria cases and thousands of additional deaths by the year 2023, compared with a business-as-usual approach. A better targeting of malaria interventions and resources – particularly in countries like Nigeria, where the disease strikes hardest – will help speed the pace of progress towards our global malaria targets.

Despite the mixture of failures and successes of media and communication in disease prevention in Nigeria, key infectious diseases such as Malaria are still prevalent

as evident in the WHO World Malaria Report (2020), which indicates that twenty-nine countries accounted for 95% of malaria cases globally. Nigeria (27%), the Democratic Republic of the Congo (12%), Uganda (5%), Mozambique (4%) and Niger (3%) accounted for about 51% of all cases globally. The cases of other diseases too appear to be on a steady rise. According to Federal Ministry of Health, Department of Public Health, National AIDS/STI Control Programme (2010), the prevalence rate of HIV/AIDS in Nigeria rose from 1.8% in 1991 to 4.1% in 2010 amidst heavy media campaigns for prevention; approximately 7 million persons died with an average of 280,000 getting infected and another 203,000 dying daily, with other 7 million children becoming orphans due to loss of parents to the disease. In the case of Ebola virus disease, World Health Organization Reports (2014) indicate that despite media campaigns for prevention, the outbreak led to 16,000 infected people and nearly 7,000 deaths. As at December 13, 2014, Liberia had recorded 3,290 Ebola deaths, Sierra Leone, 2,033, Guinea 1,518, Mali 6, Senegal 1 and Nigeria 7.

Egbunike (2011) remarks that Malaria is presently endemic in Sub-Saharan Africa and its outbreak in Congo is responsible for a very high infant mortality, killing more than 3,000 children in Africa daily. There is no doubt about the continuous transmissions in the cases of Malaria infections and other diseases in Nigeria despite the huge investment in media and communication campaigns to reduce the spread. The media and communication campaigns are part of interventions sponsored by the state and federal government agencies, including donors and partners. The problem in this study is the inherent media and communication gaps in the preventive and curative campaigns against Malaria alongside the continuous transmission with estimated 97% population of all Nigeria's geographical zones at risk of Malaria infection rising cases in Nigeria.

## OBJECTIVES OF THE STUDY

The objectives of this paper include to:

- i. Identify the media channels and communication techniques used in malaria preventive and curative campaigns in Nigeria.
- ii. Find out the challenges of efficacy in media channels and communication techniques in malaria preventive and curative campaigns in Nigeria.
- iii. Suggest effective media and communication techniques for malaria preventive and curative campaigns in Nigeria.

## RESEARCH QUESTIONS

The following questions are designed for this study:

- i. What are the media channels and communication techniques used in Malaria preventive and curative campaigns in Nigeria?
- ii. What are the challenges of media channels and effective communication in Malaria preventive and curative campaigns in Nigeria?
- iii. How can the media and communication techniques be effective in Malaria preventive and curative campaigns in Nigeria?

## REVIEW OF LITERATURE

### Media Channels and Communication Techniques

The commonest word yet under used is the term ‘medium’, considered as ‘media’ in its plural form. Ike (2005) defines ‘media’ as those institutional structures that foster the rapid transmission of standardized information to relatively large audience through some mechanized channel or medium while Haralambos & Holborn (2008) refers to ‘media’ as technologies such as Television, DVD and Information and Communication Technologies (ICT); print (newspapers, books, magazines); visual (Television and film) aural (radio), organizations, such as BBC or News International, people who work with such organizations, for example news reporters, editors and producers and modes of disseminating messages to audiences e.g. film shows within a cinema complex, football matches shown on satellite television in crowded pubs or in people’s houses.

The term media has undoubtedly received various interpretations by different users who consider any platform, channel or means of transmitting ideas, knowledge or information as a medium (Andrew 2002; Andrew 2010; Ayeni & Odey 2016). Consequently, ‘media’ refers to technology or humans and anything that can aid the communication process (Andrew 2015). Characteristically there exists the human media and technological media which include the likes of mass and interpersonal media. Others include interactive media, network media and the new media. Incidentally, the media types identified above are products of modernism and post-modernism; periods that are characterized by research, industrial revolutions, technological innovations and more sophisticated developments.

According to Iyorza (2014, Basic Broadcasting...), media channels are historically characterized by three periods namely: the pre-modern era, the modern era and the postmodern era. The pre-modern was characterized by developed knowledge from intuition or beliefs in spiritual prowess; the greatest antagonist of science. Communication techniques were quite primitive with the use of town criers’ voices and sounds from the drums and gongs. Community meetings, village square meetings and age grades were integral media of communication during the pre-modern times.

The modern era ushered in media with unique characteristics of the time. Modern media were products of research and scientific discoveries including radio, television, film, magazines and billboards. Modern media channels have incidentally been among the most preferred for health and other development interventions, specifically with the view to minimizing the spread of infectious diseases like Malaria, HIV/AIDS and Lassa fever. Nigeria, the West Africa Sub-Saharan country; the most populous black nation in the world and the ‘giant of Africa’ may lose her popularity if death rates from diseases like malaria and Lassa fever remains at all-time high. Communications have assumed more curative than preventive approaches, but a more effective strategy and approach for preventive campaign is begging for attention.

The postmodern media are characteristically based and operated on computer and new technology. The postmodern media are described as the new media which Iyorza, Ojorgu and Anwetin (2020) define as the internet and the interplay between technology, images and sound. The new media is concerned with producing content in a way that gives authors a full range of communication opportunities, from coding websites, writing articles and press releases, creating images, videos and audio as well

as info-graphics. They are divided into sub categories such as websites, blogs, chat rooms, emails and social media (Whatsapp, Facebook and Tweeters).

Okpara, Anyanwu and Inyang (2013) identify five categories of campaign media namely the broadcast media (radio and television), the print media (newspapers, magazines, direct mails and specialties), the Point-of-Purchase media, the out-of- home media (outdoor media, non-standardized signs and transit media) and others (film, directories and skywriting). Media channels have their advantages and disadvantages. The pre-modern traditional media for example, are closer to the rural people and communicate messages in a way the audience can understand and easily comply but they lack the ability to reach out to a mass audience at a time. The use of signs and symbols in oral communication under the pre-modern traditional media may not be easily comprehended by the younger generation resident in the rural areas. The above observations appear to be addressed by the position of Wilson (2006)'s fact that communication can be said to be a process by which information is exchanged between individuals through a common system of symbols, signs and behaviour.

Okpara, Anyanwu and Inyang (2013) describe the modern media as advantageously cheap, popular, flexible and with wide coverage, frequency and appeal to the literate population while disadvantages range from visual deficiency in the case of radio, message cluttering, and susceptibility to power, poor production qualities and lack of appeal to the less- literate. The post-modern media, also known as the new media, enjoy the global appeal as global media. Global media, according to Iyorza (2014, *Global Media and Neo-colonialism...*) refer to channels of communication that can market information, adverts and entertainments to audience around the world. Iyorza and Ekwok (2014, *Global Media and Cultural Hybridization...*) also describe the post-modern media as global channels with capacity and ability to transmit information and general knowledge across territorial boundaries to other parts of the world and to exert influence on the behaviour of subscribers. Some of the major disadvantages of global media channels including social media platforms include using them as means of fraud and deception, means of circulating of fake information and means of inciting inter-ethnic or tribal tensions.

Communication techniques are strategies employed by communicators to deliver their messages. They are not necessarily the means but the method of displaying and presenting the information. The pre-modern techniques of communication included rhythm, dance and dramatization. Belch and Belch (2001) enumerate techniques for communicating campaign messages in the modern media to include straight sell or factual message, scientific/technical evidence, demonstration, comparison and dramatization. Other techniques include use of testimonials, use of slice of life, use of animation, use of personality symbol, use of symbol and use of humor. The techniques for post-modern communication are not complete departures from the modern techniques; the difference is in the medium and its peculiarities.

## **MEDIA AND COMMUNICATION OF PREVENTIVE AND CURATIVE CAMPAIGNS FOR MALARIA IN NIGERIA**

The World Health Organization reports (2017) states that malaria is a life-threatening disease caused by parasites that are transmitted to people through the bites

of infected female *Anopheles* mosquitoes, which infected 216 million persons in 91 countries in 2016, an increase of 5 million cases over 2015, with a total funding for malaria control and elimination reaching an estimated US\$ 2.7 billion in 2016. Taming Malaria in Nigeria therefore demands creating more awareness on curative to more intensification of preventive campaigns. Larson (1992) explains campaigns as involving a systematic and predictable flow of persuasive information to prepare the target audience, to gain support for a cause or idea or to convert people towards promoting an idea. Preventive campaigns are media content (messages) that focus on discouraging the target population against negative behavior or encouraging them towards positive attitudes that will make them stay healthy. Singhal and Rogers (2003) corroborated that in South Africa, the use of media-mix has been effective in the reduction of infections.

In Nigeria, Bassey (2019) states that radio is more grassroots oriented but both radio and television transmit more of government's political programmes. Besides, the use of electronic media is greatly challenged by adequate power supply while the use of newspapers, magazines and bill boards continue to be challenged by the low literacy level, especially among the rural dwellers. Haralambos and Holborn (2008) remarked that Africans were among the least users of internet between 2000 and 2007, with percentage of 14.2. However, there exist many malaria preventive and curative campaigns in the Nigerian media. Apart from the radio and television, newspapers and magazines have also, though scantily, advertised a number of malaria drugs as curative campaigns. Non-Governmental Organizations have been at the helm of sponsoring preventive campaigns in the mode of encouraging Nigerians to sleep inside insecticide treated nets and drain all stagnant water around their environments to discourage mosquito breeding sites.

In Cross River State of Nigeria for example, Dream Boat, an NGO has collaborated with international donor agencies to launch several malaria preventive campaigns, encouraging the use of insecticide treated mosquito nets. Major means of communicating the campaign messages have been bill boards, radio drama and community drama in the rural areas. Communication techniques used in most rural interventions include the adoption and use of familiar faces in the community plays to give the audience a sense of belonging and the use of terms and language that are familiar to the people.

According to Iyorza (2018, *Re-thinking Nigeria's Development...*), the Traditional African media are less expensive, easily understood by the locals and credible and are scarcely used for malaria preventive and curative campaigns in Nigeria today. They are influential to Africans and have more assured relevance to Africans despite the existence of the modern media. Characteristically, their communication techniques which include dancing, demonstration and rhythmic voicing according to are effectively valuable. On radio and television, malaria curative communication techniques in Nigeria observably take the forms of dramatization, use of popular personalities and scientific evidence or a combination of all.

Popular actors from the Nigerian film industry such as Pet Edochie, Chika Okpara and Imeh Bishop (a.k.a. Okon Lagos) have featured in the promotion of some malaria drugs and malaria curative campaigns on Nigerian television channels. The nature of communication has been quite dramatic and almost magical as characters are

presented as ill and healed almost immediately after administration of the drugs. Sadly, the film industry has not been anywhere in the malaria preventive and curative campaigns. The film industry in Nigeria appears to be more entertainment based.

## **THEORETICAL FRAMEWORK**

All media and communication techniques aimed at achieving desired effects such as persuasion and change in the cultural, political or economic behaviour of an individual operate on existing media effects and communication theories. The investigation of the challenges militating against the efficacy of media and communication techniques in the campaigns for malaria prevention and cure is therefore examined within the framework of the Sense Extension Theory. The problem of inefficacy is associated with both dependent and independent variables of the study which is against the tenets of the Sense Extension Theory.

According to Nwagbara (2006), the Sense Extension Theory is also known as the Marshal McLuhan's theory of 1964, based on his ideology that "the medium is the message." The theory holds that the media channels have personal and social consequences which are an extension of the audiences' senses, and that the media channels have the ability to shape and control the scale and the form of human association and action. Larson (1992) captures Marshal McLuhan's exact words as he puts it: "the message of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs or, in briefer terms, the medium is the message".

The theory implies in the context of this study that media channels and their communication techniques used in malaria preventive and curative campaigns reflect the realities that cause malaria and advise the audience to work against the causes and accept the cure as projected. The theory further implies that the consumers of the campaign messages are bound to accept or reject the message appeals based on the self-knowledge of the audience and the prevailing conditions within their society. The theory also implies that the malaria preventive and curative campaign messages are an extension of our human senses.

## **METHODOLOGY**

The study adopted the survey research design using the quantitative method to elicit data from the study population. The study population comprised literate persons of 18 years and above in Cross River State, Nigeria. According to City Population (2016), the state has a population of 3,866,300. Out of this, a simple random sampling technique was used for the quantitative aspect of the study and the key research questions were administered through a *Media Channel and Communication Techniques in Malaria Campaign* Questionnaire. The questionnaire was designed with ten (10) questions and divided into two sections; Section "A" sought to find out personal information about the respondents with relevance to the key issues of the study while Section "B" addressed key research questions.

A total of 1000 copies of the questionnaire were distributed to respondents in tertiary institutions during the first quarter of the year 2020 shortly before the commencement of the Covid-19 Lockdown. More copies were administered to persons on the streets, in their shops and in churches after worship services with the help of

research assistants. At the end, only a total of 643 copies of the questionnaire were retrieved from the research respondents. The quantitative data collected was analyzed using simple tables and percentages while the qualitative data collected was simply analyzed based on the responses of the participants.

## DATA PRESENTATION AND ANALYSIS

**Table I: Personal Information of Respondents**

Age Bracket	Frequency	Percentage
18 – 25	253	39.3%
26 – 35	126	19%
36 – 45	104	16.8%
46 – 55	97	15.1%
55 and above	63	15.1%
<b>Total</b>	<b>643</b>	<b>100%</b>
Educational Qualification	Frequency	Percentage
OND/NCE	84	13.1%
Undergraduate	214	33.3%
B.Sc./B.A.	206	32%
M.A	43	6.7%
Ph.D	23	3.6%
Others	73	11.3%
<b>Total</b>	<b>643</b>	<b>100%</b>
Occupation	Frequency	Percentage
Student	266	41.4%
Business	122	19%
Civil Servant	112	17.4%
Farming	39	6%
Others	104	16.2%
<b>Total</b>	<b>643</b>	<b>100%</b>

Table I above indicates that majority of the respondents in the study were young persons between the ages of 18 – 25 and 26 – 35 years. This age bracket of respondents is assumed to be mostly exposed to media of communication such as radio, television and film and as such their experiences and responses can be dependable. The table also indicates that Ordinary National Diploma (OND), National Certificate in Education (NCE) candidates and university undergraduates constituted the majority of the population of this study. This is also indicative of the fact that the respondents had the basic literacy requisite or educational qualification to offer their views in this study. The table clearly confirms that the students comprised the largest number of participants in terms of occupation, followed by business persons and civil servants among others.

**Table II: Media Channels and Communication Techniques Observed in Malaria Campaigns by Respondents**



Media Channels/Communication Techniques	Frequency	Percentage
<b>Pre-modern Media Channels</b>		
Town-crier (Use of Gongs and Human Voice)	2	0.3%
Songs/ballads (Use of Rhythms, Story lines )	0	0%
Story telling (Story lines)	0	0%
<b>Modern Media Channels</b>		
Television/Radio (Sponsored Adverts/Jingles)	463	72%
Magazine/Newspaper (Print Advert)	35	5.4%
Billboard/Posters (Electronic/Print Adverts)	122	19%
<b>Post-modern Media</b>		
Social Media (Whatsapp, Facebook, Twitters)	21	3.3%
Email (Direct texting)	0	0%
<b>Total</b>	<b>643</b>	<b>100%</b>

Media channels are categorized into three based on the periods of their existence. Table II above shows that modern media (radio, television, newspapers, magazines, billboards and posters) and their communication techniques of dramatization and straight delivery with jingles and many more are mostly used for malaria preventive and curative campaigns in Nigeria. The table shows clearly that the pre-modern media category and the post-modern media category including the popular social media platforms have not been maximally utilized for malaria preventive and curative campaigns despite their proven vibrancy.

**Table III: Challenges of Understanding and Complying with the Appeals of Malaria Media Campaigns**

Challenges	Frequency	Percentage
Use of Scientific language in communication	135	21%
Existing information on traditional cure for malaria	67	10.4%
Unbelievable claims of prompt healing about advertised malaria drugs	131	20.4%
Lack of basic motivational needs to comply with preventive and curative campaign messages	286	44.5%
Myths/Familiarity with malaria treatment/cure	24	3.7%
<b>Total</b>	<b>643</b>	<b>100%</b>

Table III shows that the media audience may be willing to comply with the appeals of the malaria preventive and curative campaigns but lack of motivational needs such as money to buy expensive and fleeting insecticides, community availability of insecticide treated mosquito nets (where they are not offered freely) and ventilated airy housing accommodation among other factors such as absence of electricity inhibit the effort of the people to comply with malaria prevention strategies advertised on the media communication channel. Secondly, the table shows a problem with one of the communication techniques which is the use of some scientific terms, though in rare cases, that do not have local alternatives, especially on posters at primary health care

centres. The use of unfamiliar terms inhibits comprehension of the communication messages. Again, the table shows that the exaggeration of sudden curative prowess of some malaria drugs creates an aura of doubt in the minds of the audience. In addition the table shows that existing information in some informal media channels about available native or traditional methods of curing malaria could impede the audience compliance to appeals from preventive and curative malaria campaigns.

## FINDINGS/DISCUSSIONS

The following findings are deduced from the above analysis:

### *i. Limited media channels for Malaria prevention campaigns.*

Findings reveal that there is limited use of media channels for malaria prevention campaigns. Various media of communication such as radio, television, newspapers, magazines and billboards exist and are in use, but even amongst them are the commonly used radio and television channels from the participants' point of view. This confirms Iyorza and Bassey-Duke (2016)'s view that radio and television are the most preferred media for social and behaviour change communication campaigns in Cross River State, Nigeria. Also, findings show clearly that media channels used for preventive and curative campaigns in malaria are limited further to the modern media. The pre-modern media and the postmodern media platforms such as the social media appear to have been ignored in the campaigns against malaria in Nigeria notwithstanding their strengths.

### *ii. Neglect of African traditional media for malaria prevention campaigns in rural areas.*

Findings show that the African traditional media channels have been ignored in the use of campaigns for malaria prevention in Nigeria. African traditional media, according to Iyorza (2018, *Rethinking Nigeria's Development...*), include town criers and their wooden or iron gongs, traditional musical songs, legends, myths and proverbs, and are common and effective means of communication in Africa. The confinement of malaria preventive and curative campaigns to modern media (radio and television among others) is observably an operation targeted mostly to the literate urban dwellers. Television strives on electric power in Nigeria and most rural areas are yet to enjoy the rural electrification project of the Federal Government. This implies that the relegation of traditional African media to the background of the media campaigns against malaria will render the messages almost ineffective to a greater number of Nigerians who are resident in the rural areas and who would have been privileged to access the available traditional media easier than the modern media.

### *iii. Less exploration of the new media*

New media channels of communication are under-utilized in the communication of preventive campaigns against malaria as findings show. New media, according to Iyorza and Abu (2020) is a catch term used to define all that is related to the internet and the interplay between technology, images and sound, including websites, blogs, chat

rooms, e-mails, social media (Facebook, YouTube, Whatsapp, Twitter etc.), DVD and CD-ROM media. New media technologies are concerned with producing content in a way that gives authors a full range of communication opportunities, from coding websites, writing articles and press releases, creating images, videos and audio as well as info-graphics. Findings indicate that the new media platforms are little put to use for preventive campaigns against diseases. They are used rather more for entertainment and social interactions.

*iv. Problem of interpreting scientific terms in the transmission of malaria prevention and curative campaigns.*

Findings show that most Malaria preventive campaigns on electronic and print media, especially those on posters at the health care centres are broadcast in English with the inclusion of technical and scientific terms such as “plasmodium”, “Lumafantrin” etc. Only very little of the messages are interpreted yet in very few local languages. Statistics show that 60% of Nigerians are illiterates and do not understand complex or scientific terms such as *plasmodium parasite* that cause malaria. There is a problem of interpretation of scientific terms used in most campaigns against the spread of malaria.

*v. Myths about native methods of malaria treatment using herbs.*

Findings show that myths about native methods of malaria treatment using herbs actually exist as respondents have indicated that the factor is significantly responsible for challenges against malaria preventive and curative campaigns. In the absence of adequate campaign messages such as in the rural areas, the people develop their ideas and depend on their beliefs, especially in the area of curative approach to malaria. Findings show that most Nigerians believe in the dangerous nature of malaria, but believe also in the myth that certain herbs laced with dry gin and some whisky can cure malaria even faster than some scientifically established drugs. They do not seem to understand how dangerous some concoctions may be to their bodies as there is no forum to warn them against some negative side effects. This is one of the major factors militating against the efficacy of preventive campaigns against malaria in Nigeria. Others believe that malaria can be healed through some spiritual means.

*vi. Hyperbolic appeals in malaria curative campaigns.*

Many malaria curative campaign messages in Nigeria appear to be exaggerated in terms of cure as findings show. The appeals and claims for cure appear magical and questionable in the adverts. For example, some curative campaigns in favor of drugs claim cure of malaria in very few hours.

## CONCLUSION/RECOMMENDATIONS

Modern media channels and their communication techniques mostly adopted for malaria preventive and curative campaigns against continuous Malaria infections in Nigeria have achieved limited effects. Common among the communication techniques used in Nigeria media are dramatization, comparison, demonstration or a combination of all. This study inferentially concludes that the continuous transmissions and infections in malaria in Cross River State and Nigeria as a whole is partly caused by the restriction of media campaigns to modern media channels such as radio and television and the

neglect of pre-modern media such as town criers and town-hall meetings as well as neglect of maximum use of post-modern media such as social media platforms namely Whatsapp, Facebook and Tweepers. Also, the uses of technical terms and exaggerated appeals in the communication strategies of the malaria prevention and curative campaign messages do not appeal to the comprehension needs of majority of Nigerians who are less literate and resident in rural areas of the country. In addition, the availability of herbs and the people's firm belief in their curative ability militates against media and communication techniques in the campaign for malaria prevention and cure.

This study therefore recommends the adoption and sustainability of media-mix approach in preventive and curative malaria campaigns in Nigeria. It involves a combined use of selected pre-modern, modern and post-modern media channels of communication for intervention in the campaigns for prevention and cure of malaria in the country. Inference from the study findings suggests that media-mix method might just be a solution. Belch and Belch (2001) define media mix as the use of available wide variety of media and media vehicles in a campaign. It is a combination of advertising or promotional channels used for campaigns in support of goods, services or ideas. Media scholars have argued however that the use of media mix in any intervention should be determined by the nature of the idea, the size of the intervention budget and the size and characteristic of the target audience. Media-mix increases coverage, reach and frequency levels while improving the likelihood of achieving overall communication, marketing and behaviour change goals.

Secondly, the study recommends the massive use of the new media, especially social media channels such as Whatsapp and Facebook, for campaigns against malaria infections. With the number of new media users on the rise every day, the adoption of the social media platforms for preventive campaigns against malaria would reach out and sensitize a large number of persons thereby encouraging a downward slope of the curve in malaria infections in Nigeria.

Finally this study recommends that media planners and communication professionals responsible for designing messages with technical and scientific terms in disease prevention or awareness campaigns should evolve simple words that are related to the respective languages of the target audiences; perhaps terms that are not derogatory but easily associated with common trends among the people. This call for a common ground at designing more comprehensible messages especially for the majority rural poor in Nigeria will help the audience to remember slogans in campaigns easily.

## REFERENCES

- Akpobo, O. (2015). Mass media: Health communication imperative for sustainable health development in Nigeria. *Mgbakoigba: Journal of African Studies*. [www.ajol.info](http://www.ajol.info).
- Andrew, E. H. (2002). Integrating World Civilizations Through Multi-Polar Communications. *Ndunode: Calabar Journal of the Humanities*, 3(2).
- Andrew, E. H. (2010). Visual and Theatrical Elements in Two Emerging Nigerian Carnivals. *Critical Interventions*, 4(1), 62-76.

- Andrew, E. H. (2015). Essential elements of spatial definition in theatre architecture. *Department of Theatre and Media Studies, University of Calabar, Nigeria*, 32.
- Andrew, E. H. (2015). Linearity versus Contiguity: Examining the Perception of Time And Space In Ibibio Culture, Nigeria. *A Journal of Theatre & Media Studies*, 1(1).
- Ayeni, Q. O., & Odey, V. E. (2016). Theatre and social criticism in African literature: socio-cultural consciousness in Alachi's "Dilemma of Oko". *Lwati: A Journal of Contemporary Research*, 13(3), 62-74.
- Bassey, A. (2019). Radio political campaign messages and grassroots mobilization of the electorate: A study of the 2015 governorship elections in Cross River State, Nigeria. (Doctoral dissertation).
- Batta, H. & Iwokwagh, N. (2015). Optimizing the digital age health-wise: Utilisation of new/social media by Nigerian teaching hospitals". *Procedia - Social and Behavioral Sciences*. 176:175-185. [www.researchgate.net](http://www.researchgate.net).
- Belch, G. & Belch, W. (2001). *Advertising and Promotion; An Integrated Marketing Communication Perspective*. New York: McGraw Hill.
- City Population (2016). *Cross River State in Nigeria*. [www.citypopulation.de](http://www.citypopulation.de).
- Egbunike, N. (2011). New media and health communication: Communication strategies in malaria control in Nigeria". *Cultural Identity and New Communication Technologies: Political, Ethnic and Ideological Implications*. Eds. D. Ndirangu Wachanga. Ibadan: Information Science. 197-212.
- Federal Ministry of Health, Department of Public Health, National AIDS/STI Control Programme (2010). *Technical Report on 2010 National HIV Sero-prevalence Sentinel Survey*. Abuja: FGN.
- Haralambos, M. & Holborn, M. (2008). *Sociology: Themes and Perspectives*. 7<sup>th</sup> Ed. London: Harper Collins.
- Ike, N. (2005). *Dictionary of Mass Communication*. Owerri: Book-Konzult.
- Iyorza, S. (2014). *Basic Broadcasting and News Reporting Techniques*. Calabar: Graphic Frame.
- Iyorza, S. (2014). Global media and neo-colonialism in Africa: the socio-ecological model solution to Nigeria's development efforts". Eds. Kingsly Owete et al. *Freedom, Self-Determination and Growth in Africa*. Berlin- Germany: Media Team IT Education Centre. 1-18.
- Iyorza, S. (2018). Rethinking Nigeria's development using African traditional communication media for national orientation. *Calabar Journal of Liberal Studies (CAJOLIS)*. 20(1):345-360.
- Iyorza, S. & Bassey-Duke, V. (2016). "Perception of social and behaviour change communication media in Cross River State, Nigeria". *Journal of Theatre and Media Studies. (JOTAMS)*. 1(2): 298-307.
- Iyorza, S. & Ekwok, L. (2014). Global media and cultural hybridization in the 21<sup>st</sup> century Nigeria". Ed. Neda Khan. *Journal of Social Sciences (JSS)*. 3(3): 408-416. <http://www.centreofexcellence.net>.
- Iyorza, S., & Abu, P. (2020). Nigerian television drama series and audience reactions: A seismology evaluation". *Journal Sosialisasi*. 1(1). <https://ojs.unm.ac.id/sosialisasi>.
- Iyorza, S., Ojorgu, L. and Anwetin, L. (2020). New media and Journalism: How citizens complicate Nigeria's unmarketable identity. *Taraba Journal of Communication*. (in press)
- Larson, C. (1992). *Persuasion: Reception and Responsibility*. 6<sup>th</sup> Ed. Belmont: Wadsworth.
- Nwagbara, E. (2006). *Sociology of Mass Communication*. Lagos: El-Sapphire.

- Okpara, G., Anyanwu, A. & Inyang, J. (2013). *Marketing Communications*. Owerri: Avan Global Publications.
- Okpoko, C. & Aniwađa, E. (2017). Issues in malaria communication in Enugu, South East Nigeria'. *Mediterranean Journal of Social Sciences*. 8 (1). <http://www.mcser.org>.
- Okpoko, C. (2014). Issues in health communication in third world countries. Ed. N. Okoro. *Contemporary Readings in Media and Communication Studies*. Enugu: St. Benedette Publishers Ltd. 122-132.
- Singhal, A. & Rogers, E. (2003). *Combating AIDS: Communication Strategies in Action*. New Delhi: Sage Publications.
- Wilson, D. (2006). *Fundamentals of Human Communication*. Ibadan: University Press
- World Health Organization: Ebola Response Roadmap Situation Report 1 (2014). [www.who.int](http://www.who.int).
- World Malaria Report (2020). *20 years of Global Progress and Challenges*. Geneva: World Health Organization. Retrieved from <https://www.who.int/teams/global-malaria-programme>.