Roll Back Malaria Media Campaigns and the Use of Malaria Safety Measures in Abakaliki, Suburbs of Ebonyi State, Nigeria

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ABSTRACT: *Malaria is one of the leading causes of hospital attendance in all age groups in virtually all parts of Nigeria. In response, the federal government through the Roll Back Malaria programme has launched series of media campaigns aimed at curtailing the scourge in the country. This study investigated Roll Back Malaria (RBM) Media Campaign and the Use of Malaria Safety Measures in Abakaliki, Suburbs of Ebonyi State, Nigeria. Descriptive survey research design was adopted. Pregnant women, nursing mothers and malaria patients formed the nucleus of the study population. Using purposive sampling technique, a total of 180 copies of questionnaire were administered on respondents the respondents. Descriptive statistics and chi-square test of independence were used to analyse generated data. Results indicate that 97% of the respondents were exposed to Roll Back Malaria Media Campaigns, and the exposure has influenced their attitude towards the use of Malaria Safety Measures in the area. The study recommends for a more streamlined approach for a routine monitoring of the use of those safety measures, particularly in areas where low successes were recorded. This could be spearheaded by government instituted community health educators and area focal persons.*
KEYWORDS: *Health, Media Campaigns, Malaria, Roll Back Malaria, Safety Measures.*

I.   INTRODUCTION

Malaria remains one of the major public health diseases in sub-Saharan Africa, contributing significantly to high morbidity and mortality rate in the region (Narasimhan and Attaran, 2003; UNESCO, 2008; Federal Ministry of Health, 2011). In Nigeria, more than 90% of the total population was estimated to be at risk of the endemic, while approximately, 50% of the population suffer from malaria each year with children under five years of age and pregnant women representing the most vulnerable (FMOH, 2011; Orimadegun, Fewole, Okereke, Akinbami and Sodeinde, 2012).

Over the years, the Nigerian government and the international community have initiated several interventions to combat the scourge, but such efforts have often met with some setbacks, especially in inducing behavioural changes among the target population (Jacobson and Chang, 2005). In 1998, WHO, World Bank, UNDP and UNICEF initiated the Roll Back Malaria programme, with the goal of halving malaria deaths in 2010 (Narasimham and Attaran, 2003); and in April 2000, over 20 African Heads of State met in Abuja, Nigeria to sign the Roll Back Malaria programme and partner with the international community to address the scourge. In October 2003, the Nigerian government appraised efforts aimed at Implementing the nation's Roll Back Malaria initiatives and identified the need for a comprehensive Behaviour Change Communication (BCC) strategy. This was aimed at achieving consistent, integrated and appropriate BCC Interventions across all the main RBM technical strategies (FMOH, 2004).

According to a World Health Organisation's document entitled "World Malaria Report" (2015), there were an estimated 438, 000 malaria deaths worldwide, and 90% of these deaths occurred in the African Region, including Nigeria. This statistics goes to show that Malaria affects millions of people worldwide, but it is endemic mainly in Sub-Saharan Africa, and amounting to a major health challenge in the continent (Ogundipe and Obinna, 2010).

In concurrence to the above submission, the Nigeria Malaria Fact Sheet, cited in Ebong (2014), notes that Nigeria has more reported cases of malaria and deaths more than any other country in the world. This is further. A 2005 United Nations report observes that despite various declarations by African governments in the 1990s and complementary effort promised in the main contents of the DGs target, Malaria [and Tuberculosis] has continued to rampage the endemic regions of sub-Saharan Africa, and the economic impact resulting from its burden is overwhelming.

Further studies suggest that malaria is responsible for 60% outpatient visits to health facilities, 30% childhood death, 25% of death in children under one year and 11% maternal death in the country (National Malaria Control Program NMCP, 2008). According to a 2009 UNICEF report, an estimated 250,000 children under the age of five die every year in Nigeria due to the disease. The scourge accounts for an average of 300,000 deaths a year (MDG, 2010 and Jimoh, 2007). It currently accounts for nearly 110 million clinically diagnosed cases per year, and 30 percent of hospitalizations in the country. Nigeria bears about a quarter of the disease's burden in Africa, including a significant number of the one million lives lost per year in the region, with children and pregnant women as the most vulnerable (Jimoh, 2007).

Other studies have shown that about 132 billion Naira or about $879 million are lost annually in form of treatment costs and prevention of the scourge in the country, including the financial worth of man-hours looses resulting from the scourge (Amajor, 2011). It is however difficult to say categorically the magnitude of the problem and how it is changing through time, because the people have become so used to malaria that many of those who become sick with the ailment do not visit healthcare facilities and are therefore not captured in the available statistics (Jimoh, 2007).

Beyond the health dimension, malaria leaves untold social and economic consequences on people and nations alike. It causes great misery to sufferers, and adversely affects the social and psychological well-being of individuals, families and the nation at large (Amodu, 2008). Both behavioural and non-behavioural factors account for the prevalence of malaria in Nigeria. Some cultural practices, which promote mosquito breeding and mosquitoes' access to the people, and the failure of at risk populations to use technologies required for effective treatment, control and prevention of malaria promptly and appropriately etc. have been implicated for the continued prevalence of malaria in these parts (FMOH, 2008). Added to the list is "lack of political will and commitment, poor perception of the magnitude of the malaria burden and poor treatment seeking behaviours of individuals and communities" (NMCP, 2008).

The problem became more aggravated following the evolution of the parasites and vectors that are resistant to medicines and insecticides (NMCP, 2008, p.6). The geographical or ecological conditions of our region have been advanced as being very conducive for mosquitoes and the subsequent presence of plasmodia. It is therefore pertinent to understand the dynamics and implications of these factors to enable us design appropriate intervention programmes for tackling malaria in Nigeria (FMOH, 2008).

A systematic review of articles on barriers to the effective treatment and prevention of malaria in Africa over three decades by Maslove et al (2009), revealed that lack of understanding of the cause and transmission of malaria constitutes the most critical barrier to malaria prevention (74.4%), followed by reports on the use of ineffective prevention measures (30.8%), and the belief that malaria cannot be prevented (17.9%). They also noted that the belief that a child with convulsion could die if given an injection or taken to hospital (25.6%). These belif systems, no doubt, constitute a major barrier to the treatment of childhood malaria.

Indeed, and as reported by Maslove et al (2009), any successful effort at prevention and treatment of malaria in Africa must take cognizance of the overall social and cultural contexts, namely their values, belief systems and norms. This is where communication intervention becomes intrinsically very relevant to enable us educate them on the causative factors of malaria, as well as the treatment regimens.

It is further believed in some quarters, that home management of malaria along with public information and Pre-Packaged Drugs (PPDs) can help to reduce malaria morbidity and mortality in children. The PPDs ensure that full treatment course is taken by patients and at the right time. Other initiatives used to combat the disease in the communities are: Role Model Mothers, use of Patent Medicine Vendors (PMVs) and other Community Health Volunteers (NMCP, 2008).

Furthermore, Nigeria in collaboration with other African countries, signed the Declaration and Plan of Action in 2000 to reduce the burden of the disease by half in the year 2010. Among the actions identified are: prompt diagnosis and treatment with effective medicines, distribution of insecticide-treated nets (ITNs) to achieve coverage of populations at risk (especially children under age five and pregnant women), indoor residual spraying (IRS) to curtail transmission, and prevention of malaria in pregnancy through intermittent preventive treatment (IPT) (NPC, NMCP, and ICF International, 2012).

A number of communication avenues through which malaria has either been prevented, treated or controlled have been identified by Ebong (2015). Among them are seminars, community outreach events and radio talk shows. These avenues aim essentially at encouraging communities to comply with instructions during IRS campaigns and to take personal protective measures against being bitten by malaria-infected mosquitoes. It is instructive to note that two strategic plans have been adopted to control the scourge of malaria in Nigeria since the beginning of this decade. The first covers the period 2001-2005, while the second covers the period 2006-2010.

Nevertheless, in response to the new global direction on malaria control, the latter was revised in 2008 to cover the 2009-2013 periods. The aim is to scale up the interventions to accommodate not just the

biologically vulnerable groups such as pregnant women and children, as outlined in the earlier plan, but also all at risk populations. The overall goal is to reduce by half the morbidity and mortality attributed to malaria in Nigeria by 2013 and to minimize its socioeconomic effects (NPC, NMCP, and ICF International, 2012, p.4). It must be stressed here that the Roll Back Malaria (RBM) programme is very strategic in the treatment of malaria in Nigeria. This is because its interventions are not only comprehensive, but also target all the populations at risk of malaria. They include: prompt and Effective Case Management, Intermittent Preventive Treatment of malaria in pregnancy, and Integrated Vector Management including the use of Insecticide Treated Nets (ITNs), Indoor Residual Spraying (IRS) and Environmental Management (Amajor, 2011).

The efforts so far made in Nigeria to curb the menace of malaria, particularly policy and plan initiation, appear commendable. However, there seem to be a wide gap between such policies/plans and their implementation. This is because the ailment has continued to be a major health issue in the country despite the huge resources, human and material, injected in the project. Hence, the need to address the issues that impede the success of the various plans of action and keep people more informed about the way out, using strategic communication, has become increasingly apparent. It is worthy to note that to be successful; many malaria control efforts require community participation, which in turn depends on individuals' knowledge and awareness of the disease (Dhawan, 2014).

It must be stressed that the main contents of the control programme, revolve around advocacy, behaviour change communication and social mobilization. In essence, the strategic frameworks for malaria communication have been developed to ensure adequate awareness and utilization of interventions in Nigeria. Given the above scenario, therefore, one is inclined to ask if media awareness messages or campaigns against the disease are not properly communicated to Nigerians. Furthermore, how do we improve the process of healthcare delivery on malaria using the media of communication? Consequently, this study seeks to examine the awareness and knowledge of Roll Back Malaria media campaign so far in Nigeria, evaluate the effectiveness or otherwise of media campaign, and subsequently determine the way forward.

II. METHOD AND PROCEDURE

The study was conducted in Abakaliki suburbs of Ebonyi State, South East, Nigeria. The population of the study areas was 717,291 according to the 2006 Nigerian census (FRN 2009). Descriptive survey design was adopted. The core of the study population was pregnant women, nursing mothers and malaria patients. A segment of the general public was also studied. Purposive sampling technique was employed in the selection of the respondents. Data were gathered using interviewer administered questionnaire, meant to determine how the RBM media campaign has influenced the use of malaria safety measures among the sampled population. Face-to-face interview was equally used to elicit information from the target respondents. Using sample size calculator for the survey system (www.surveysystem.com/sscalc.htm), with confidence level of 94% and margin of error of 6%, the calculated sample size was 180.

Presentation Of Data

Table 1: Social Demographic of Respondents Variables

Age groups	Frequency	Percentage
< 25	33	18.3
26-35	68	37.7
36-40	50	27.7
41-50	29	16.1
Gender		
Male	53	29.4
Female	127	70.5
Educational level		
Primary	35	19.4
Secondary	67	37.2
Tertiary	56	31.1
Others	22	12.2
Marital Status		
Married	85	47.2
Single	55	30.5
Divorced	11	6.1
Widowed	19	10.55
Separated	10	5.5
Employment status		
Employed	82	45.5
Unemployed	47	26.1
Self employed	21	11.6
Student	19	10.5
Others	11	6.1

The table above points that the study involved various strata of the population, with each strata adequately represented.

Table Two: Respondents' awareness and knowledge of RBM media campaign on the use of malaria safety measures.

Variables	n=180	
	Yes	No
	n%	n%
Awareness of RBM media campaign	164 (91.1)	16 (8.8)
Influence of RBM media campaign		
Insecticide-treated bed nets (ITNs	152 (84.4)	28 (15.5)
Indoor residual spraying (IRS)	81 (45)	99 (55)
Intermittent preventive treatment (IPT)	69 (38.3)	111 (61.6)
Artemisinin combination therapies (ACTs)	88 (48.8)	92 (51.1)

Data above, indicate high rate of audience exposure to Roll Back Malaria Media Campaigns among the sampled population, and that the campaigns have greatl influence on their attitude to safety measures against the scourge.

Table 3: Analysing regularity of RBM media messages

Variables	ITR	IRS	IPT	ACT
	n(%)	n(%)	n(%)	n(%)
Regularly	103 (57.2)	33 (18.3)	17 (9.4)	27 (15)
Occasionally	47 (26.1)	78 (43.3)	50 (27.7)	25 (13.8)
Rarely	27 (12)	88 (48.88)	47 (26.1)	23 (12.)
Not at all	74 (41.1)	58 (32.2)	17 (9.4)	31(17.2)

Table 3 buttress that there is high exposure to RBM media campaigns among the respondents.

Table 4: Preferred medium for the RBM message

Variables	N =180	
	Yes	No
	n(%)	n(%)
Radio	111(61.1)	69(32.7)
Television	92(51.1)	88(48.8)
Newspaper	85(47.2)	95(52.7)
Magazines	71(39.4)	109(60.5)

Table 4 implies that RBM campaign messages are indeed, disseminated in varying media outlets – radio, television, newspapers, magazines.

Table 5: Change of perception on the use of malaria safety measures

Variables	ITN	IRS	IPT	ACT
	n%	n%	n%	n%
Strongly Agree	88(48.8)	23(12.7)	18(10)	61(33.8)
Agree	69(38.3)	37(20.5)	33(18.3)	41(22.7)
Disagree	21(11.6)	69(38)	43(23.3)	57(31.6)
Strongly Disagree	09(5)	13(27.3)	22(34.0)	26(39.1)

Data in table five, affirm that RBM media campaigns, have relatively strong influence on attitude of respondents towards safety measures against malaria.

III.   DISCUSSION OF FINDINGS

Results of this research revealed that majority of the respondents in the research location are female. This can be understood with the fact that they constitute a higher percentage of the study population with few male respondents drawn from the general public and malaria patients. The result also shows that the study population is well educated. Investigating the knowledge level of respondents is important because, education broadens people's limit, makes them have a sharper understanding of issues, and influences the acceptability or otherwise of health communication. This submission is in agreement with the views of Nyunt (2015) in their study of Behaviour Change Communication (BCC) in Myanmar in which they found that there is a close relationship between higher education level and knowledge of malaria. Consequently, higher percentage of persons with good knowledge of malaria utilized RBM media campaign message.

The study also wanted to establish the relationship between health communication intervention, education and employment status. It argued that level of education and employment status influences access to media messages on health. Some other scholars, among them, Diala (2013); Martins (2011); Menaca (2013) and Pell (2011) are unanimous that, the social and cultural contexts in which health communication occurs are widely diverse … For instance, Pell (2011) specifically contends that, although a number of studies link mosquito bites with malaria, other factors were could also play a role. Such factors as exposure to heat, poor hygiene, poverty, dirty water, evil spirits (in some parts of Ghana) and lack of blood in Central Uganda and humidity, rain and cold in Burkina Faso, etc, were all linked to malaria infections.

Therefore, in designing media health messages, the variables of levels of health literacy, education and other demographic factors that can influence effective communication must be considered (Grilli, Ramsay and Minozzi, 2002).

Furthermore, findings in this study revealed that the awareness and knowledge-base on malaria safety measures is high in the study locations. A number of factors account for this development. First, is the high level of educational attainment by the research population and second, the availability of variable media of communication which publicise the message of the malaria safety measures.

Different adverts on the interventions are run in a variety of ways in the media to encourage people to seek the malaria safety measures for their health benefits. Few examples include: advert on the need for pregnant women to register at any nearby health care centre in order to receive IPT, get tested and get free ITNs. Another good example is the advert on school pupils' absenteeism due to malaria, which stresses on the need for parents to provide treated nets for their children to sleep under without waiting for the government at all times. Again, is the advert on a WHO approved ACT drug known as arthmal, an anti-malarial drug that can cure malaria within three days, after which a doctor should be consulted if symptoms persists.

These adverts run almost every day as commercials in the radio and television majority of them are sponsored by State Ministry of Health and the Roll back malaria partners. Perhaps this is explainable against the fact that malaria, even though a household name in these parts, the interventions put in place to combat its scourge were mainly popularized via conventional media of communication. It must be stressed that the high level of awareness of malaria in the study areas is mainly but not limited to the broadcast media only. Other channels such as newspapers, magazines, etc, also contribute to this development.

Findings also showed that RBM malaria intervention programmes in the area are in tandem with international practices. This is to say, that, there are variable interventions to address malaria malady in Nigeria which as revealed in the study has changed the perception of Ebonyi people on the application of the malaria safety measures.

However, malaria control and treatment in many countries, including Nigeria, are provided by the informal private sector (mainly shops) especially for the poorest (DFID and UK Aid, 2010). In Nigeria, for instance, ACTs are administered in pre-packaged, age-specific and colour coded blister packs to buyers by trained patent medicine Vendors (PMVs) who are the closest source of medicines to treat malaria for a great majority of the people (DFID and UK Aid, 2010). Nevertheless, self-medication is a common practice.

Although a greater percentage of the study population claimed to be aware of and to have been influenced by the intervention, further enquiry revealed that some people had limited knowledge on how to access the interventions and treatment regimens. Insecticide treated bed nets (ITNs), indoor residual spraying and ACTs are the more commonly known interventions.

Nevertheless, oral evidence revealed that some people may know about a health intervention, but may refuse to utilise it because of the perceived inconvenience(s) of applying or using the intervention, hence the need for Behavioural Communication Change (BCC). Being aware of the interventions presupposes that "knowledge about transmission of infection and how to protect oneself against it is…necessary" (Revised NTBCP, 2005), in any attempt to adopt appropriate remedial actions.

IV.   CONCLUSION/RECOMMENDATIONS

Free information flow is central to the success of any strategies to combat malaria. Thus, media campaigns on RBM has played efficient role in creating awareness of the scourge among the studied population; it has, as well, influenced their attitude towards the use of malaria safety measures. However, there is need for a more streamlined approach to a routine monitoring of the use of those safety measures, particularly in areas where low successes were recorded. This could be spearheaded by government instituted community health educators and area focal persons.

List Of Acronyms Used
RBM – Roll Back Malaria
ITNs – Insecticide Treated Nets

IRS – Indoors Residual Spraying
PMV – Patient Medicine Vendors
IPT – Intermittent Preventive Treatment.
PPD – Pre-Packaged Drugs
ACTs – Artemicinin Combination Therapy

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