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The Role of Poverty and Household Economic Conditions to the Treatment of Malaria in Zamfara State North West Nigeria

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Abstract: Malaria in Nigeria and Africa remains most important health problem. It remains a vital public health fear of our time. This paper seeks to focus on the role of poverty and economic factor to the treatment of malaria among peoples of Zamfara state in North West Nigeria. Poverty and economic factors are obviously connected to health threat, as well as the threat for malaria. It is now well recognized all over the world that malaria cases of morbidity and death rates are honestly linked with poverty and economic status of the society. Qualitative research was used for this to interview participant of the research in order to seek their perception and experiences about malaria and economic problems. Semi-structure interview was used as instrument for this study. Interview was conducted with 10 respondents that participated in the study. Finding of this study shows that poverty and economic situation and the people's background not only play a critical role to the contribution of malaria but as sole reasons dictating the prevalence of the disease within the community

Keywords: *Poverty, economic condition, malaria treatment, Zamfara state, Nigeria*

1. Introduction

Malaria in Nigeria and Africa remains most important health problem. It remains a vital public health fear of our time. According to Olusegun et al. (2012), malaria prevalent causes frequent suffering to human society and influences tremendously, unkind and gigantic burden on human population. It has been stated that out of the more than one million deaths caused by malaria worldwide, 90% take place in sub-Saharan Africa (WHO, 2012). World Health Organization (2012) and World Bank (2009) stated that malaria disturbs 3.3 billion persons equivalent to half of global population. WHO (2010) stated that, malaria is a public health problem of global concern because of its high economic burden on the nation, high pervasiveness of morbidity and mortality in children, pregnant women and individuals with weak immune systems (Ansah et al., 2013; Coulibaly et al., 2013; WHO, 2008; FMH, 2005). Malaria is directly accountable for 20% of infant deaths in Africa (WHO, 2009). It is also a principal cause of death in Nigeria where it is more prevalent (WHO, 2011). It is clearly understood that both adults and children are at risk of malaria in Nigeria (FMH, 2007; Odimegwu, 2007)

According to the World Health Organization report (2010), 56% of the world population lives in malaria endemic regions. According to the report, each year 300-500 million cases of malaria occur and more than one million people die of malaria annually, with Africa bearing the brunt of the disease (Wang et al., 2013). Therefore, malaria is the most prevalent and most destructive parasitic disease of humans in Africa having a harmful effect to the general members of the society (Acharya & Acharya, 2013; Allen et al., 2013; Abdullahi, 2013; WHO, 2012; WHO, 2011; WHO, 2010; WHO, 2009; NPC and ICF Macro, 2008; FMH, 2007). Additionally, Abdullahi (2011) stated that malaria is a prime etiological factor that slowed down the economic growth in the continent of Africa as a result of lost productivity or income associated with illness or death and other damages associated with the disease. Furthermore, Alaba (2005) confirmed the impact of malaria in children with implication for the productivity of women caregivers in Nigeria (Musoke et al., 2013; WHO, 2010; FMH, 2007; Odimegwu, 2007; WHO/UNICEF 2005).

Similarly, Nigeria carries the greatest burden and consequences of malaria epidemic among countries in the world (WHO, 2010). Nigeria with population of over 140 million people according to 2006 census, almost everyone in the country is at risk for malaria transmission except the minority (NPC and ICF Macro, 2008).

According to National Malaria Control Program in Nigeria (2005), malaria is the major cause of morbidity and mortality, especially among children below age of five. Malaria is a social and economic problem in the country, which consumes millions of dollar from government and other stakeholders in the form of various control attempts (FMH, 2007). In Nigeria alone, malaria is the causes of over 50% outpatient's attendance and 40% of hospital admissions, 30% of child mortality and 10% of maternal mortality (WHO, 2012; WHO, 2011; WHO, 2010; FMH, 2007).

This paper seeks to focus on the role of poverty and economic problems to the treatment of malaria among peoples of Zamfara state in North West Nigeria. Poverty and economic factors are obviously connected to health threat, as well as the threat for malaria. It is now well recognized all over the world that malaria cases of morbidity and death rates are honestly linked with education and economic status of the society. The lesser the position of individual in the society the higher the rates malaria cases in that individual and his society. In malaria endemic countries, the deprived members of the society are excessively at threat and danger for the disease, and while there is general consensus about this relationship, there is less agreement about the way and causes of this relationship. Hence this paper was set to explore the contribution of education and economic factors on malaria control among people of Zamfara state in North West Nigeria.

2. Literature Review

Malaria is confined almost exclusively to developing countries, in particularly Sub-Saharan Africa and Southern Asia, the poorest regions of the world. According to World Health Organization (2005), 58% of the malaria deaths occurred in the poorest 20% of the world population, a high percentage than for any other disease of major public health concern (WHO, 2005). However, poor people are less able to prevent infection or afford effective management of the illness. In Africa, malaria is largely a disease of the urban and rural populations. The communities of the teeming urban poor and rural communities are home to some of the poorest of the poor in Africa. Evidence has continued to demonstrate that preventive strategies adopted at curbing the spread of malaria, such as insecticide-treated bed nets, are not reaching the poor (Alaba, 2005). Studies in many African countries show that poor children lack access to sleep under ITN and treatment. For example the Kenyan demographic and Health survey showed that less than 7 percent of children described as living in households at the lowest wealth index quartile, sleep under an insecticide-treated bed net, compared with 35 percent of children in the top wealth quartile households (WHO, 2011). In Tanzania, poor children were less likely to receive anti-malarial febrile than children from wealthier families (WHO, 2010). Similar findings have been reported for Chad, Uganda, Nigeria and Niger Republic (WHO, 2011). A household's survey in Malawi and Togo focused on low income households whose mean annual income was $115 and where the cost of malaria prevention and treatment represent about 20 percent of their annual income (WHO, 2013).

According to World Bank (2009), societies where malaria prospers most have prospered least. The global distribution of per capita gross domestic product (GDP), estimated for purchasing power, shows a striking and unmistakable correlation between malaria and economic factors. According to McMichael & White (2010), poverty is concentrated in the tropical and subtropical zones, the same geographical boundaries that most closely frame malaria transmission. That malaria and economic status are intimately related is beyond contestation. In fact, malaria-endemic countries are not only poorer than non malaria-endemic countries; they also have lower rates of economic growth (WHO, 2009). Countries in which a large proportion of the population lived in regions with *Plasmodium Falciparum* experienced an average growth in per capita of 0.4, whereas average growth in other countries was 2.3 (WHO, 2009). The relations of malaria and economic can be thus captured. It is also possible that the malaria-economic status relationship is at least partly spurious, with the tropical climate causing poverty for reasons unrelated to malaria. There is causal link between malaria and underdevelopment much more powerful than is generally comprehended. Federal Ministry of Health in Nigeria (2007) has acknowledged that poverty itself can be held accountable for some of the malaria transmissions recorded in the poorest countries. In the other way round in which malaria impedes economic growth and aggravates poverty among people, the causal link is equally powerful. But based on recent economic studies, it is clear that even at $5/dose, there are not sufficient funds in the health sector of most malaria prone developing countries to cover the expected cost of malaria vaccination alone. What will happen is that elites will be protected and the disease will continue with the poor (WHO, 2010).

3. Methodology

Qualitative research was used for this to interview participant of the research in order to seek their perception and experiences about malaria and economic problems. Sekaran (2003) discourse that qualitative research design incorporate extensive use of verbal and developing full information on comparatively few cases. It is also provide accurate information from social event and picture conclusions from available data. The reason for qualitative study was to disclose and make details on the phenomena and to achieve in-depth understanding of the research subject. In this current study it was set to achieve in-depth understanding on the household economic situation and malaria cases in general in Zamfara state North West Nigeria. Semi-structure interview was used as instrument for this study. Interview was conducted with 10 respondents that participated in the study. Among the interviewee are household members across the state and some few malaria control stakeholders. Stakeholders that participated in the interview include staff from Zamfara state Roll Back Malaria (RBM) office, respondents from Non Governmental Organisations (NGOs) and respondents from community and household members were also interviewed respectively.

Interview Protocols: Designing interview protocols is very vital for researchers that are going for qualitative research method. The main of this is to guide the researcher to conduct the interview successfully without any difficulty. Therefore, some tips provided for conducting interview were adapted and strictly adhere by this study and they are as follows:

- Start with your script
- Collect consent form
- Use some types of recording device and only take brief notes so you can maintain eye contact with your interviewee
- Arrange to interview your respondents in a quiet, semi private place
- Be sure that both you and the interviewee block of plenty of interrupted time for the interview
- Have a genuine care, concern and interest for the person you are interviewing
- Use basic counselling skills to help your interviewees fell heard
- Keep it focused
- Listen, listen and listen
- End with your script.

Thematic Analysis: According to Ibrahim (2012) thematic analysis is a technique for classifying, evaluating, and exploring as well as reporting patterns in the data that simply classify and explained data in detailed facts. This process of thematic analysis involved the familiarising yourself with your data, that is transcribing data reading and re-reading. This is follow by generating initial codes in a systematic fashion across the entire data set, after that searching for themes by gathering all data relevant to each code, next is to reviewing themes checking in the themes work in relation to the coded, defining and naming theme and overall story the analysis tells; generating clear definitions and names for each themes and finally producing report (Ibrahim, 2012).

4. Findings and Discussion

Interview was conducted with malaria control stakeholders and members of the community on various ways people's economic condition and status contribute to malaria control in Nigeria. Among the participants interviewed was an NGO personnel working on malaria control activities in Zamfara state. The respondent stated that a lot of people in their community leave their children and other family members without treatment due to the poor economic condition and background. The responded mentioned that issue of poor economic background has greatly contributed in influencing people behaviour on treatment seeking. He stated that:

Economic condition has a lot of impact. Because economic status actually if you don't have the money you definitely that is why many people they are not afford to take their child to go, their sick people to hospital because of lack of money. So definitely they are living their children sick without taking them to any hospital or treatment. So actually economic status actually contribute. Some people actually even get to die without necessary action due to poor economic condition of our people. So actually poor economic status contribute.

In a very divergent view, a respondent from Zamfara state malaria control office stated that economic issue is not a subject of worry in respect to current malaria control programs in terms of control and preventive mechanisms due to the free distribution of malaria control and prevention commodities. The respondent averred that:

So you see as a result of availability of drugs, economic status is not an issue. But if let say there is no intervention it must be an issue. But due to the intervention of our collaborating agencies both at local and international level there is availability of control measures for the treatment and prevention of malaria. Those commodities are provided free at our facility centers. To my knowledge the issue of I don't have this or that to get malaria prevention or treatment may not even arise since those commodities are there and provided free.

Interview with old household respondent in the community stated during the interview that malaria is just a disease of the poor. According to him during the interview they are suffering with malaria just because they are poor. Because many of the people that are suffering from the disease are economically less privileged members of the society who are unable provide for their good shelter for protection against the mosquito and also who are not afford for the treatment of the disease when infected. To me poverty is the major cause of malaria, because poor people are more prone to it and lack resources to treats the infected person. For example I sleeps were mosquito is plenty because I am poor. All this dirt you see in our surrounding is places were mosquito breed and we have nothing to do. Some time when we are or some of the family or community member are sick we lack means for treatment. To me this is a serious challenge that we need not hide for our self. Interview with one respondent about the issue of contribution of economic factors on the malaria control among the community member informed to the researcher that issue of poor economic background is what sometimes make him to not going or taking his subject to the hospital for treatment or provide any alternative prevention. The respondent stated in his own words in the following statement:
Like me for examples believe me some time was just because I lack means to provide treatment for myself and my dependent is the reason for not seeking for the treatment. Because sometime I am even struggling for the food to eat. In that case I just leave every to God because I have nothing to do.

According to household respondent the issue of economic situation and background not only play a critical role to the contribution of malaria but as a sole reason dictating the prevalence of the disease within the community where he lives. According to the respondent during the interview poor household lack the purchasing power to provide for their family members the basic necessity of live including basic health provision. The respondent in his own words expressed during the interview that:
If you look at the bad economic situation of your people including myself you understand that is the genesis of health condition we found our self. Many of us in this community lack what is called basic things for life. We lack means to provide at least a minimum standard of living. So as result of our poor housing condition mosquito as an agent of malaria transmission must be available. As a result of our in ability to provided treatment to our self and family members when we are sick we must also faced with serious disease episode. We also lack ability to provide protection which consequently results to the prevalence. This finding is consistence with literature about the role play by economic factor to the prevalence and increases of malaria cases among poor household members. For example studies in many African countries show that poor children lack access to sleep under ITN and treatment. For example the Kenyan demographic and Health survey showed that less than 7 percent of children described as living in households at the lowest wealth index quartile, sleep under an insecticide-treated bed net, compared with 35 percent of children in the top wealth quartile households (Mugisha & Arinaitive, 2003). In Tanzania, poor children were less likely to receive anti-malarial febrile than children from wealthier families (Schellenberg et al., 2003).

In consistent with above findings another respondent from NGOs working on malaria control and prevention in Zamfara state informed to the researcher during an interview with him that, in the rural areas where majority of the population is concentrated are suffer most with different economic difficulty. The respondent lamented that those economic difficulties make it not possible for those societies to offer health prevention and treatment. According to him people in such areas has to struggle on daily basis for them to provide or supply the family on their consumption need. He stated that family facing such difficulty hardly to concentrate on providing health priority to their members. The respondent mentioned that:

You see that based on our regular visit and activities in areas of the state make us to understand the situation people are into with regard to economic problems and how those problems makes them to face many life challenges. You see many of them are struggling day by day to earn what to survive every day. We have contact with many of them and they told us the situation. And you know since we spend long time on that work help us to understand what happen since before they told us. So we just ask them to confirm.

Consistent with the above finding interview with household head member in Zamfara state reveal similar information on the poor economic situation and malaria cases. The respondent reveals that household in their area are facing with the problem of not providing adequate care of health needs of their people. He mentioned that this lack of economic means to provide health responsibility at time needed caused serious setback to the socio-economic of the people in the state. The respondent stated during the interview that:
Many of people here I am telling you are not quite enough to provide basic health needs to the people under his authority. As result you a lot of consequences are there. Because if somebody is sick suffering with illness such as malaria he need an urgent intervention, but if there is no intervention due one problem or the other like economic lacking you see you have nothing to do. The consequences was that the patient will continue to suffer and you as a household head and rest of the family members have no rest in mind till after he recover of whatever else.

Those finding shows that people in such areas are not are able to provide basic need provision including health services. This is consistent with FMH in Nigeria (2007) that poverty itself can be held accountable for some of the malaria transmissions recorded in the poorest countries. In the other way round in which malaria impedes economic growth and aggravates poverty among people, the causal link is equally powerful. In this case only those that are economically vibrant are able to be protected with malaria while those that are economically less privileged continue to suffer.

5. Conclusion and Recommendations

The result from the finding of this study reveals that community of this study leave their children and other family members without treatment due to the poverty and poor economic condition and background. It is also found out that economic difficulties make it not possible for those societies to offer health prevention and treatment as peoples in the area has to struggle daily to attained basic needs for survival. In general, poverty and economic situation and the people's background not only play a critical role to the contribution of malaria but as sole reasons dictating the prevalence of the disease within the community where those people are live. This study draws the attention of authority and government concern to implement the policies and programs that assist community to cater for basic social need like health prevention and treatment. There is need also to provide a comprehension health provision to the people because healthy society is among the basic focus need to ensure by any responsible government or authority. This study recommends further research using mixed method approach to validate and confirm the result of this study.

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