

Malaria as a Cause of Morbidity and Mortality: A Socio-Economic Overview

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Abstract

Malaria is one of the most severe public health problems worldwide. It is a leading cause of morbidity and mortality in many developing countries especially in sub Saharan African countries where the burden of the disease is high. This paper aims to provide discussion on the socio-economic overview of malaria morbidity and mortality. Base on the existing literature the paper discusses the link between malaria and poverty and revealed varied evidence between malaria incidence and socio-economic status with some articles showing strong linkages of malaria deaths among those with poor socio-economic background. The political economy of health theory is use to understand those relationship between socio-economic status and malaria and how these parameters interact. Focusing on the links between socio-economic status and malaria morbidity and mortality this paper concludes that malaria morbidity and mortality is correlated with people socio-economic status.

Keywords: malaria, socio-economic, morbidity, mortality, overview

1. Introduction

Malaria is a global health challenge and remains a cause of morbidity and mortality. Africa bears the brunt of the disease. Malaria in Nigeria and Africa remains most important health problem. It remains a vital public health fear of our time. According to Olusegun (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 and high incidence of morbidity and mortality.

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. 2011). 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, 2011). 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. Malaria is a social and economic problem in the country and is the major cause of morbidity and mortality (WHO 2012). This paper is sought to discuss the socio-economic influence on malaria on morbidity and mortality. The paper consists of introduction, socio-economic influence on malaria, malaria and poverty, the theory of political economy of health and conclusion.

1.1 Objective

The objective of this paper is to provide a general discussion on malaria as a cause of morbidity and mortality an overview of socio-economic influence with literature and theoretical backing.

2. Socio-economic Influence of Malaria on Morbidity and Mortality

Malaria a disease of parasite that are extend by a bite of a mosquito causes 300 to 500 million medical cases and responsible for over one million deaths in every year (WHO 2011, WHO 2010; WHO 2009; WHO 2008; WHO/UNICEF 2005). Based on our assumptions morbidity and mortality of malaria is what may likely make people to perceive the seriousness and disease vulnerability. Individual information and knowledge about severity or seriousness of the disease make him/her to perceive the difficulty a disease would create to his life in general. This perception may probably influence their behavior to treatment.

The description of malaria severity in terms of morbidity and mortality which also causes many difficulties to household members has been documented by several studies conducted by individual researchers and health organizations in different part of the world and especially in malaria endemic countries. For example Azizi M (2013) explains brief historical viewpoint of malaria in Iran and concludes that malaria as a severe social illness ages back to earliest periods of human history. For hundreds of years, malaria has been a fatal disease associated with high morbidity and mortality that greatly crushed the socioeconomic position of endemic nation state (Azizi, 2013). However, its contributory factor stayed unknown until the last ten years of the 19 century. Mostly affected are children in sub Saharan Africa under the age of five who dying almost 3,000 daily.

In Africa alone, malaria is a leading cause of about 20 percent of all infancy deaths (WHO, 2012). A statement by World Health Organization indicates that some children suffer a sharp harass of harsh malaria that consequently results to unconsciousness and deaths. Other consequences include relentless anemia and it is also a foundation of low delivery weight as a result of mother's womb virus.

According to World Health Organization (WHO 2012; WHO 2011; WHO 2010; WHO 2009; WHO 2008; WHO 2007; WHO 2006; WHO 2005) malaria is to blame and foremost causes of 30 percent to 50 percent of all outpatient call to hospital and health services and also causes up to 50 percent hospital admission in sub Saharan Africa (WHO, 2012). Furthermore malaria is a major contributor to the increased motherly morbidity and mortality. National Malaria Control Program (2005) stated that malaria make sick and kills more kids in Africa mainly children of sixteen months after delivery. These consequences make World Health Organization to reports that Africa is now at a critical stage of malaria cases as the disease are sapping its development process (WHO, 2012).

Using Nigeria as a case study Olusegun et al (2012) carried out a study to examine the high maternal and child mortality in Africa. According to the study there is high rate of maternal and child deaths in most part of developing countries (Olusegun et al 2012). The study concludes that mothers and their children are more prone with highest risk dying in several African countries. Olusegun et al (2012) further stated that world mortality burden among women are highest in Africa. As stated also in this study North West (Zamfara state included) bears the highest maternal and child mortality in the country. Therefore, looking into this trend a concerted effort of various kinds must be employed to solve or reduced the occurrences (Olusegun et al 2012). Based on this high trend of malaria in North West does it serve as pointer for the people within the region to perceive it as seriousness health challenge which in turn influence their role on health seeking behavior? This is the question need to be answer by research as this study is set to carry out.

In some places it is well known that people have the behavior for using some services to control malaria but still the disease is increasing causing high morbidity and mortality rate. The question of the effectiveness of those services needs to bring in. For example in Dakar, Senegal Diallo et al (2012) conducted a study to identify the burden of malaria and found out that malaria prevalence is high among children fewer than five years of age and it is also responsible for 79.5% of women visit to health care services (Diallo et al 2012). If people are going to hospital and other medical services for malaria cases but there is still high rate case reporting there must be something wrong with the effectiveness of those services.

More so, Mubyazi et al (2012) stated that the fragile Tanzanian health care system fails to curtail infant and maternal mortality rate. These consequently result to high deaths of maternal and infant in Tanzania. It is further stated that 90% of these deaths are attributed to malaria (Mubyazi et al 2012)). If health care provided is not solved the problem of malaria cases as witnessed in Tanzanian case there is possibility of people to decide benefit of participating into health behavior as stated by health belief and rational choice theory.

In United Republic of Tanzania, World Health Organization (2011) stated that malaria account for more than 30% death among children less than five years of age. Steketee et al (2010) reveals that malaria infection affects more than 30 million people and among them 5.5 million children are at higher risk (WHO, 2011). On the other hand Henry et al (2011) averred that maternal and child health in Nigeria is among the worst in the world. According to Doctor et al (2011) the cases of maternal mortality in Nigeria is concentrated in the northern part of the country especially in three northern states of Zamfara, Yobe and Katsina. The study (Doctor et al 2011) confirms the situation in an interview conducted among women attending antenatal care (WHO 2011; Doctor et al 2011). Studies from those areas also confirmed that malaria cases are at alarming stage despite using some hospital or clinical services.

Akachi and Atun (2011) conducted a study in sub Saharan Africa to investigate the effect of malaria control on child mortality and found out that around 8.8 million people mostly children below the age of five die annually as a result of infectious diseases. Malaria accounts for 60% of the whole cases (Akachi & Atun 2011). In the same vain World Health Organization malaria report in 2010 indicates that many countries in sub Saharan Africa will hardly achieve the Millennium Development Goals (MDGs) target four (4) and five (5) to reduce child mortality rate and also maternal mortality respectively (WHO, 2010).

Several malaria endemic countries experience disease consequences and our assumption is that perceiving vulnerability of disease is one of the more powerful perceptions in prompting people to adopt healthier behavior. The following findings from different countries reveal that malaria susceptibility is found in several countries. For example World Health Organization (2011) report malaria in Benin republic like many other nations in sub Saharan Africa causes 70% of child deaths in the country. Equally malaria in Kenya is the major reason for visit to hospital and other health care facilities. In Kenya also, malaria is responsible for the death of younger children below the age of five (WHO, 2011). Similarly, in Malawi World Health Organization (2010) through Roll Back Malaria initiative also in (2010) reveals that malaria is the cause of disease illness and death in the country. In Mopti town and Sevare, Mali Rose-wood et al (2010) conducted a study among health care seeking children to examine the malaria morbidity trends. It has been reported that malaria is associated

with death of children less than five years of age and responsible for outpatient visits to hospital. If People in those areas with malaria vulnerability perceived it as threat to them, than there is likelihood for them to adopt healthier behavior.

Still on the issue of perceiving disease susceptibility and its role of influencing people to take health behavior to reduce the risks, Okeibunor et al (2010) carried out a study in Enugu Nigeria and averred that the situation of maternal mortality in Nigeria in general remains a major concern as statistics available reveals that the country maternal deaths rank second in the world after India. Similarly, In Kenya World Health Organization (2010) report that, high morbidity and mortality cases are caused by malaria. Okafor et al (2007) stated that due to the malaria morbidity there is a loss of productivity, loss of value of work, days and loss of person (WHO 2010; Okafor et al 2007).

Similarly, Sharma (2009) in India stated that there is an estimated seventy 70-100 million malaria cases in the country and estimated 90% of the Indian population is at high risk of the disease. According to National Population Commission and ICF Macro (2009), Nigeria bears the greatest burden of malaria in the world because one third of the world's malaria deaths occur in the country (Amzat, 2011). Malaria has contributed to the country's infant and under-five mortality standing at 75 deaths per 1000 live births (NPC and ICF, 2009).

Furthermore, studies by WHO (2008), Desai et al (2007), WHO/UNICEF (2005), Snow et al (1999) found out that almost one million people died in sub Saharan Africa. According to Snow et al (1999) there is evidence that this consequences continue to increase significantly as a result of the drugs failure and massive mosquito resistance to anti malarial treatment. On the other hand Rowe et al (2007) conducted a study to evaluate disease control efforts on mortality in sub Saharan countries. He stated that malaria causes 350 to 500 million clinical disease burden and responsible for over million deaths in those countries (FMH 2007; NMCP 2005; WHO/UNICEF 2005; Kimbi et al 2005).

Absence of service provision and poor quality may be among the reason for people to seek the services provided and therefore affect their health seeking behavior. Sharp et al (2007) reveals that malaria is the number one cause of disease in Mozambique. It is also causes 40% consultation to medical professional, accounting for 60% paediatric illness and one of the major contributors to deaths in hospital (Sharp et al, 2007). According to World Health Organization (2005) communities in rural areas who are poor frequently suffer most from malaria than communities in urban centres as a result of poor mosquito prevention, lack of means to health services, poor knowledge of malaria risks and lack of fund to own preventive mechanism like insecticide treated bet net (WHO, 2005).

Similarly World Health organization (2005) reported that infectious diseases such as malaria kill a child in every three (3) seconds in the world. Most of the children died are from sub Saharan Africa and other developing nations. According to World Health Organization (2006), malaria in Nigeria is the cause of one in four deaths evidence in infants and young children; and, badly for each 10 women that die around childbirth one is caused by malaria and the disease is rampant especially among poor households, in slums and unhygienic environments (WHO, 2006). Moreover, World Health Organization (2005) there are 10.8 million death in the world annually mostly among children of five years of age. These incidences according to global health report by World Health Organization are from low and middle income countries.

According to Alaba (2005), the apparently stubborn drift of this old scourge has deteriorate poverty in households and turn down national economic output, resulting on make stronger loss of productive period, attack and death (Alaba, 2005). Alaba (2005) described that malaria is endemic throughout Nigeria and more than half of the country's population is living below poverty line worsens the economic burden of the disease (Alaba, 2005). As a result many people may not be able to pay for the newly drugs because of the poverty and therefore affecting their health behavior. This section as the heading imply look at malaria vulnerability in terms of morbidity and mortality which is influence by socio-economic factors and to our assumption how it serve as factor that prompt people to adopt health behavior. Because our assumption that the grater the perceived risk, the greater the likelihood of engaging in behavior to decrease the risk.

3. Malaria and Poverty

It has readily been stated and accepted that malaria is a disease of poverty, with several studies exploring the relationship between socio-economic status and malaria and how these parameters interact. The disease is confined almost exclusively to developing countries, particularly in sub-Saharan Africa and southern Asia. A recent studied showed that though a significant minority of people from lower socio-economic status did prioritize and buy insecticide treated nets (ITN) and other malaria control services the richest socio-economic status were four and half times more likely to purchase ITN and other control measures than lower socio-economic status (Howard et al., 2003).

Other studies have found similar findings where, though the poorest segments of society were doing many things to protect themselves from being bitten from mosquitoes, which included purchasing bed nets,

mosquito coils, and repellent and insecticidal sprays, their status still prevented them from doing as much as their richer neighbors (Ahmad 2012). Treatment seeking behavior for malaria has been linked with socio-economic status. In one study, it was found that self diagnosis was practiced more by the poorer households, while the least poor used the patent medicine healers and community health workers less often for diagnosis of malaria. The least poor also used the patent medicine dealers and community health workers less often for the treatment of malaria (Uzochukwu & Onwujekwe, 2004). This indicate that there is strong relationship between socio-economic status and malaria morbidity and mortality because many household lack means to provide proper preventive measures.

In another study, it was shown that the least-poor were significantly more likely to rely on laboratory tests for diagnosis and to visit hospitals when seeking treatment for presumptive malaria, while the most-poor, in contrast, were significantly more likely to seek treatment from traditional healers or community-based health workers (Onwujekwe et al. 2005). These studies show how socio economic status can influence the seeking of diagnosis and treatment of malaria. The lack of financial resources prevents the poor from accessing malaria laboratory diagnosis and forces them to rely on self diagnosis and traditional healer. When illnesses such as malaria occur people may decide to seek for health care only if they afford to pay for the services. That is to say if people with powerful economic status fall in sick their economic position is what prompt them to urgently look for effective care and treatment. However, those that are poor may likely not seek any treatment care. This must be link with associated cost that may likely not affordable to them because of their poor economic position.

4. Theory: Political Economy of Health

Though underutilized in the field of health behavior and health promotion, the political economy theoretical framework provides a valuable context in which to consider the economic and political determinants of health. With the assumption of unequal distribution of resources, wealth and power, this framework can be particularly useful when considering the health status of historically marginalized groups. It enables health behavior research and practice to extend beyond the common focus on individuals or the community, and to consider how external structures and environment impact health behavior. This theory asserts the strong link between capitalism and health, such that health status and the organization of health care are the results of a capitalist economy and class relations. According to political economy of health those considered to have low economic worth to the society would have unequal access to health care services and delivery (Gusau 1992). This theory posits that capitalism and imperialism have direct effects on people underdevelopment, economic status, and their health. Political economy of health takes a critical, historical approach to analyzing the relationships between health status and political economic and social institutions throughout the world, with particular emphasis on the detrimental health effects created and sustained by specific political economic approach (Ityavyar & Gusau 1990). Political economy of health explicitly addresses social determinants of health and disease, including the structural barrier to people living healthy lives. Focusing on the links between socio-economic status and malaria morbidity and mortality political economy of health advocates that malaria morbidity and mortality is correlated with people socio-economic status (Ityavyar & Gusau 1990)

5. Conclusion

In conclusion this paper tinted a general overview of the socio-economic status poverty and malaria morbidity and mortality. The paper explicitly discusses the association between malaria morbidity and mortality and stated by several studies that malaria is a disease of poverty. That is why the disease is more rampant and vulnerable in developing countries that believe to be suffering from extreme poverty. The paper also uses political economy of health to explain those relationships between socio-economic status and malaria and how these parameters interact. Focusing on the links between socio-economic status and malaria morbidity and mortality this paper concludes that malaria morbidity and mortality is correlated with people socio-economic status.

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