International Journal of Science and Research (IJSR)
ISSN (Online): 2319-7064
Index Copernicus Value (2013): 6.14 | Impact Factor (2013): 4.438

# Challenges Facing Implementation of Malaria Control Activities in Eldoret Municipality, Kenya

**Juley-Anne Bochaberi Mokua**

[1]MPH, School of Public Health, College of Health Sciences, Moi University, Eldoret, Kenya & Senior Public Health Officer, Uasin Gishu County, Kenya, P.O. Box 5071-30100, Eldoret

**Abstract:** ***Malaria is a potentially deadly disease that kills more than a million people each year, mainly young children and pregnant women, yet it is preventable and curable. There have been concerted efforts by the government, Non-Governmental Organizations and individuals to combat malaria in Kenya. However, such efforts have failed to achieve the objectives due to lack of adequate resources such as trained health human resource and budget allocations for malaria programmes. Hence, unsatisfactory implementation of malaria programmes in Eldoret Municipality. It is apparent that those efforts directed towards malaria control programmes have achieved very little success as large numbers of people in Eldoret Municipality are being affected by malaria. Consequently, one of the limitations in the effort to eradicate malaria is uncoordinated efforts at the Municipality level and inability to interpret health policies on the ground for effective implementation. This has been greatly hampered by lack of expert personnel at the Municipality level. This study sought to examine the challenges facing implementation of malarial activities in Eldoret Municipality. The study used a case study design and census for selection of participants involved in malaria control activities in Eldoret Municipality. Both primary and secondary data was collected using structured and semi-structured questions and interviews for primary data and examination of records for secondary data. Processed data was analyzed and presented in percentages and frequency tables. The study found out that the number of personnel employed in the health sector within the municipality is very low hence, unable to address the needs of people in the Municipality and this poses a major human resources crisis in the health sector leading to low diagnosis of malaria and those few available are not well motivated to perform their duties0.+ The study recommends that for malaria treatment to be effective, there is need for employment of more health personnel, adequate training for the personnel, supervision and follow-up in achieving a change in perceptions and practice. Additionally, there is need to maximize the support provided by other stakeholders such as Non-Governmental Organizations and other international partners in implementation of malaria control programmes in Kenya. Finally, there is need to seal the existing gap between policy on malaria control and reality in actual implementation at the Municipality level.***

**Keywords:** Challenges, Malaria Control, Eldoret Municipality, Kenya

## 1. Introduction

Malaria remains one of the major threats to public health and economic development in Africa. It is estimated that three million deaths result from malaria throughout the world, with Africa having more than 90% of this burden (Breman et al., 2004). It is a potentially deadly disease that kills more than a million people each year, mainly young children and pregnant women yet it is preventable and curable. On global scale malaria is the most prevalent infectious disease affecting humans: malaria parasites now infect over 500 million people every year, killing up to 2 million and causing at least 100 million cases of acute illness. Its importance as a public health problem is reflected by the staggering toll malaria extracts in illness and suffering (Campbella, 2006).

Malaria poses an enormous health and economic burden in Kenya, being a leading cause of morbidity and mortality in the country. 25 million out of a population of 34 million Kenyans are at risk of malaria, it accounts for 30-50% of all outpatient attendance and 20% of all admissions to health facilities and an estimated 170 million working days are lost to the disease each year (MOH, 2001). Malaria is also estimated to cause 20% of all deaths in children under five (MOH, 2006) with the most vulnerable groups to malaria infections being pregnant women and children under 5 years (DOMC, 2009).

Recognizing this fact, the government of Kenya in consultation with local and international stakeholders developed the Kenya National Malaria Strategy (KNMS). The goal of the KNMS was to reduce the level of malaria infection and consequent death by 30% by year 2006, and to sustain the improved level of control to year 2010. Whilst there remain challenges in malaria control, significant successes have already been achieved through implementation of various malaria control interventions (DOMC, 2009).

Despite such considerable progress in malaria control over the past decade, malaria remains a serious problem--particularly in Kenya and other Sub-Saharan countries, where about 90% of clinical cases occur. Malaria, either alone or in combination with other diseases, is estimated to kill between 1.1 and 2.7 million people worldwide each year, and over 2.4 billion remain at risk (WHO, 2000).

In Kenya like many other parts of the world, malaria is not only a major threat to public health, but is a major impediment to development through excessive public health costs, lost productivity and impaired individual growth (Campbella, 2006). According to Snow et al., (2008) the Millennium Development Goal (MDG) to halt and begin to reverse the incidence of malaria is unlikely to be met and over 40% of the world's population is at risk. In the country, Kisii, Transmara, Nandi, Uasin Gishu, Trans Nzoia, Kericho and Bomet districts are traditionally regarded as susceptible to malaria epidemics. These regions are virtually all situated at the Highlands West of the Rift Valley (KMD, 2008). The use of IRS as a lead intervention in averting malaria epidemic in the highlands is has been a priority for the

Ministry of Health. The Division of Malaria Control has been implementing a timed and well coordinated Indoor Residual Spraying (IRS) campaigns in the 16 districts classified as Highland Epidemic Prone which includes region where Eldoret Municipality is found. Malaria elimination can be expected to bring substantial benefits, among them contribution to improvement of the overall socio-economic situation and living standards of the population, and to strengthening of the health system.

Overall, over 25 million Kenyans are at risk of malaria. It is the biggest childhood killer with an estimated 34,000 children under five dying each year. It contributes to 30 to 50 percent of outpatient visits at health facilities and 19 percent of all hospital admissions. Malaria represent significant economic burden with an estimated 170,000 million working days a year lost due to malaria illness. In addition each Kenyan family spends about US$ 20 annually for treating malaria. It is estimated that malaria reduces the Kenyan GDP by one percent annually (DOMC, 2007). Malaria disrupts the daily patterns of the lives of our people, the livelihood of families and often causes misery when people die from this preventable disease. All Kenyan households are affected by the financial hardship caused by malaria. It is estimated that 170 million working days are lost each year because of malarial illness, which in turn affects the country's economy, leading to increased poverty (Menendez, 1999).

It is therefore important to do everything possible to stop malaria from denying Kenya and Africa its future," said the Minister (DOMC, 2007). As the saying goes prevention is better than cure. It is understood that far less money would be spent in preventing malaria than treating it. Realizing this, the Kenya government has come up with strategies to control the spread and acquisition of malaria. However, there have been various obstacles impending malaria control activities.

People living in areas permanently affected by malaria develop partial immunity to the illness. In such individuals, infection leads to illness and inability to work or attend school, but it is unlikely to prove fatal. Young children do not yet have such partial immunity, whilst pregnant women lose whatever immunity they had, leaving them vulnerable to the worst affects of the disease. That's why most malaria deaths are in children under five years and in pregnant women (GlaxoSmithKline, 2003). It has been estimated that direct and indirect costs to prevent and treat malaria can be as high as 25% of household annual incomes. This perennial economic burden has a devastating impact on the ability of people to rise out of poverty (Sambo, 2007).

Despite various intervention put in place by the Kenyan government on implementation of malaria control activities, little has been achieved. Failure of these interventions is attributed to underlying issues discussed in this paper. This paper is an outcome of one of the objectives that aimed at identifying and analyzing the challenges facing the implementation of malaria control activities in Eldoret Municipality.

## 2. Research Methodology

This research was a case study. A case study is an in-depth study of a particular situation or group. It involves the collection and presentation of detailed information about that particular situation or group. It is a method used to narrow down a very broad field of research into one easily researchable topic. The target population was all the officers involved in implementation of malaria control activities in Eldoret municipality who were fifty (50) in number. Since the implementing officers within Eldoret municipality were few, they were all included in the study after they agreed to participate. Purposive sampling was used in selecting respondents. Data was collected using pre-tested self administered questionnaires which collected data on social demographic information, trainings undertaken, malaria control activities and challenges faced in the implementation of malaria control activities.

## 3. Finding and Discussions

**Malaria Phenomenon**

The past decade witnessed unprecedented efforts to control malaria, including renewed political and financial commitment and increased availability of both old and new strategies and tools. However, malaria still represents a major health burden, particularly in Africa. Important challenges such as the fragility of many health systems, the rise of insecticide and drug resistance, and particularly the expected decline both in funding and in the coverage of key interventions if they are not replaced as needed, urgently need to be addressed. Further research and development is also becoming increasingly crucial. Among other needs, common methodologies for estimating and tracking the malaria burden, new strategies to measure transmission, better understanding of immunity, and increased knowledge of the mechanisms and effects of resistance to drugs and insecticides stand out. The ongoing efforts in research and development for new anti-malarial drugs, more sensitive point-of-care rapid diagnostic tests and new insecticides need further innovation and substantial strengthening. Clearly, efforts should focus not only on *Plasmodium falciparum* but also increasingly on *Plasmodium vivax*, the neglected human malaria parasite. Addressing these challenges in a comprehensive and timely way will allow us to sustain the gains made so far and make further progress in control and progressive elimination.

## 4. The State of Malaria Control in Eldoret Municipality

***Social Demographic Factors***

In Eldoret Municipality, the study found out that 75.6% of the respondents were males, whereas 24.4% were females denoting more male employs than females hence, gender imbalance. Forty percent of the respondents had attained secondary school certificate as the highest level of education. Majority of staff in this category were involved in clerical jobs within the municipality particularly, in the department of public health. About 58% of the respondents had attained post secondary education. This category had

been involved in the implementation of malaria control activities.

The study found that only insignificant numbers 2.2% of respondents had qualifications beyond undergraduate degree and were mostly involved in designing and planning malaria interventions in Eldoret Municipality. Through informal discussions, the study found that most of the respondents had been involved in the implementation of malaria control activities in the Municipality for more than 6 years. One of the factors that lead to low recruitment of qualified staff is as highlighted by one of the key informants that: "*We are allocated small budgetary in the health sector as well as availability of few trained health professionals in the country, hence unable to carry out our activities as required."*

***Malaria Control Activities Undertaken in Eldoret Municipality***

The study was interested in understanding the malaria control activities carried out by the Eldoret Municipality. The activities are highlighted in Table 1.0 below:

**Table 1:** Malaria control activities undertaken

| Activity | Frequency | Percent (%) |
|---|---|---|
| Distribution of malaria drugs | 16 | 37.2 |
| Distribution of treated mosquito nets | 30 | 69.8 |
| Health education on malaria control to the community | 33 | 76.7 |
| Indoor residual praying of households | 28 | 65.1 |
| Distribution of IEC materials on malaria control | 29 | 67.4 |

The malaria control activities undertaken in Eldoret Municipality include the distribution of treated mosquito nets (69.8%), distribution of IEC materials on malaria control (67.4%) and provision of health education on malaria control to the community (76.7%) among others. However the implementation of these activities was not as efficient as expected. The implementers were faced by various challenges as shown in Table 2.0 below:

**Table 2:** Challenges in the implementation of malaria control activities

| Challenge | Frequency | Percent (%) |
|---|---|---|
| Lack of funds | 27 | 62.8 |
| Lack of supplies | 36 | 83.3 |
| Inaccessibility of some areas | 10 | 23.3 |
| Lack of proper data | 17 | 39.5 |
| Poor perception by the | 16 | 37.2 |

Some of the challenges the officers faced when implementing malaria control activities included; lack of supplies (83.7), lack of funds for undertaking activities (62.8%) and lack of proper data from implementing partners (39.5%) among others. Officers reported that despite the challenges they faced they were able to undertake malaria control activities. Some of the ways in which they deal with the challenges include; informing supervisors who would then advice on what to do, ask for donation of drugs and other supplies from the central government and other partners, continuous education on proper record keeping, requesting the business community to assist and prioritizing activities as per the available funds.

Data collected from key informants also indicated that the burden of malaria still remains high, partly because of weak municipality management capacity, poor coordination, inadequate monitoring, and lack of adequate training of key staff in the health sector in the Municipality. One of the key informants quipped that:

The Municipality health system is weak in translating malaria policies at operational activities, hence posing challenges during interpretation and implementation process (Male, 45 years). From the evidence above, it is clear that there is a gap between policy on malaria control activities and the reality in actual implementation at the Municipality level. This is reflected in the low number of activities observed that are targeted to address the burden of malaria in the Municipality.

**Table 3:** Stock Outs of Commodities

| *Commodity* | *Frequency* | *Percentage (%)* |
|---|---|---|
| Anti-malaria drugs | 19 | 44.2 |
| Long lasting treated mosquito nets | 12 | 27.9 |
| Mosquito control insecticides | 21 | 48.8 |

The respondents we asked whether they experiences stock outs of commodities in the municipality. Forty four percent of the respondents reported to have experienced stock outs of various anti-malaria control drugs, twenty seven percent of the respondents indicated that they experienced shortages of long lasting treated mosquitoes nets, whereas 48% of the respondents reported that they lacked mosquito control insecticides in the last three months as indicated in Table 3.0 above.

***Implications of Malaria Control Activities***

Findings of the study indicate that there have been concerted efforts by the government and its institutions including municipalities to combat malaria in Kenya. However, such efforts have failed to achieve the objectives due to lack of adequate resources such as trained health human resource, budget allocations for malaria programmes particularly at the municipality level. Hence, poor implementation of malaria control programmes. It is apparent that those efforts directed towards malaria control programmes have achieved very little success as large numbers of people in Eldoret Municipality are being affected by malaria. Consequently, one of the limitations in the effort to eradicate malaria is inability to interpret health policies on the ground for effective implementation. This is due to lack of expert personnel at the Municipality level.

**The Significance of Mitigating the Challenges Facing Malaria Control Activities**

The most vulnerable groups to malaria infections are pregnant women and children under 5 years of age (DOMC, 2009). Eldoret municipality is found within an area prone to malaria epidemics and pregnant women and children less than five years of age are most vulnerable due to reduced or lack of immunity to malaria. By identifying the challenges facing implementation of malaria control activities it will be possible to achieve better control levels and hence protecting the vulnerable groups from malaria and its associated

impacts. The recommendations of the study will assist policy makers and implementers to determine areas that need more attention so as to scale up control activities and achieve the desired control levels. The study results may be used to inform advocacy, priority-setting, policy development, planning, implementation, and evaluation of national prevention and control programs and help in mitigating the challenges of implementing malaria control activities not only in Eldoret Municipality but also in the whole country.

## 5. Conclusion and Recommendations

The study concluded that the number of personnel employed in the health sector within the municipality is very low hence, unable to address the needs of people in the Municipality and this poses a major human resources crisis in the health sector leading to low diagnosis of malaria and those few available to not have the personal drive to perform their responsibilities. The study recommends that for malaria treatment to be effective there is need for employment of more health personnel to carry out malaria control activities. Additionally, there is need to maximize the support provided by other stakeholders such as Non-Governmental Organizations and other international partners in implementation of malaria control programmes in Kenya. There is need for further research on socio-cultural factors impeding malaria diagnosis in the Municipality. There is also need for more research on the kind of strategies that can be employed to link people from grassroots and the national government in implementing malaria prevention and control activities.

## References

[1] Attaran, A, (2000). *Promises once, promises twice: a view on the Abuja Declaration and a new opportunity for African malaria control*, An Issues Framework for the "Roll Back Malaria for African Prosperity" meeting Center for International Development at Harvard University, 29-30.
[2] Breman, J, Alilio, M, & Mills, A. (2004), *Conquering the Intolerable Burden of Malaria: What's New, What's Needed: A*
[3] *Summary*, American Journal of Tropical Medicine and Hygiene., 71(2):1–15
[4] Campbell, C. C. (2006). Malaria: an emerging and re-emerging global plague FEMS Immunology & Medical Microbiology 18 (4) 325–331:DOI: 10.1111/j.1574-695X.1997.tb01063.x
[5] Cibulskis, R. E, Bell, D, Christophel, E, Hii, J, Delacollette, C., (2007), *Estimating Trends in the Burden of Malaria at Country Level* American Journal of Tropical Medicine and Hygiene., 77(6): 133–137.
[6] DOMC, (2006). *Malaria Control Notice Board*, Ministry of Health issue 1
[7] DOMC, (2007). *Malaria Control Notice Board*, Ministry of Health issue 3
[8] GlaxoSmithKline, (2003), *Facing up to the Challenges of Malaria*, vol 2
[9] Kenya Meteorological Department, (2008), *Malaria in Kenya*, Panet Kenya
[10] Lambert, P.H, (2003), *Malaria: Past and Present*, nobelprize.org
[11] Menendez C., (1999). Priority areas for current research on malaria during pregnancy. Annals of Tropical Medicine and Parasitology, 93S: 71-74.
[12] Sambo, L. (2007). *Defining and Defeating the Intolerable Burden of Malaria III. Progress and Perspectives*, American Journal of Tropical Medicine and hygiene, 77 (6).
[13] Snow W.R, Guerra C. A, Mutheu J.J. Hay S.I (2008).
[14] International Funding for Malaria Control in Relation to Population at Risk of Stable Plasmodium falciparum Transmission. PloS Medicine. 5(7).
[15] WHO, (2008). World Malaria Report, Geneva Switzerland.