# CONTRIBUTION OF HEALTH MEDIATED CAMPAIGN SLOGANS AGAINST MALARIA IN TANZANIA: A CASE OF M-ZINDUKA

CAMPAIGN

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## A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN MASS COMMUNICATION OF THE OPEN UNIVERSITY OF TANZANIA

#### CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania (OUT) a research thesis entitled, '*The contribution of health mediated campaign slogans against malaria in Tanzania*' in partial fulfillment of the requirement for the award of a degree of Master of Arts in Mass Communication of the Open University of Tanzania.

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Date

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I, **Jacqueline Peter Mosha**, do hereby declare that, the work presented in this dissertation is original and it has never been presented and will not be presented to any other university or institution for a similar or other degree award. Where other people's works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfillment of the requirement for the degree of Master of Arts in Mass Communication.

Signature

Date

## DEDICATION

I would like to dedicate this dissertation work of mine to my perfect daddy, the late Comrade Peter Heri John Kishari Turuki Mosha. He used to encourage to always study hard and never to give up even when I am confronted with difficulties. May the Almighty God continue keeping his soul in an everlasting life of eternal peace.

#### ACKNOWLEDGEMENT

I would like to express my gratitude to the Almighty God for His blessings to me which made my studies a manageable undertaking.

I would like to extend special thanks and appreciation to my supervisor, Dr Darius Mukiza for his guidance and supervision.

I would also wish to extend my sincere thanks to the surveyed officials and residents of the areas where I undertook my survey. I gratefully acknowledge the support and assistance provided by them while in the course of data collection. Since they are many and hence, virtually impossible to thank each of them individually, let me take this opportunity to thank them all them as a whole in this space.

Lastly, but not the least, I would like to thank and appreciate the support given by my beloved mother Hyacintha, and younger sister, Pamella, during the difficult time when I was in need of their assistance and prayers.

#### ABSTRACT

This study sought to assess the contribution of health mediated campaign slogans against malaria in Tanzania. Specific objectives are: To examine, the extent to which M-Zinduka campaign has contributed towards reduction of malaria transmission; the effectiveness of the strategies used and the challenges facing its implementation. A case study research design was employed by using questionnaire, interview guide as data collecting tools. Simple randomly sampling technique was used to select residents in Magomeni Ward Kinondoni District, as study area. A sample size of 60 respondents was reached for data collection. The major findings of the study reveals that first, M-Zinduka has created a sense of awareness to people with regard on how to prevent, control malaria; second, it had been used to distribute mosquito nets to the residents and third, it had offered counselling, guidance on the control, prevention of malaria. It had been educating people on environmental management, helped the reduction of death rate among Tanzanian children below 5-years, pregnant women. Its implementation towards reduction of malaria transmission has been hindered by lack of sufficient funding, resistance among some reluctant peoples to attend diagnosis, taking medication, lack of interest; awareness. The study has recommended, among other things, that community participation; involvement should be enhanced to ensure them be part of the communication, intervention programmes at every level. Moreover, it has recommended anti-malaria strategies to include the environmental management of mosquito breeding, resting sites, operation of water resource development projects, the central government to frequently distribute mosquito nets, allocating sufficient funds; qualified health workers to rural-remote areas to sensitise its members on malaria control, prevention.

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### LIST OF ABBREVIATIONS

- AIM Action and Investment to end Malaria
- GMP Global Malaria Programme
- GTS Global Technical Strategy
- LLINs Long Lasting Insecticide Nets
- MAIERA Malaria Eradication Research and Development Agenda
- NGOs Non-Governmental Organisations
- PMI Presidents Malaria Initiative
- RBM Roll Back Malaria Partnership
- SPSS Statistical Package for Social Sciences
- WHO World Health Organisation

#### **CHAPTER ONE**

#### **INTRODUCTION**

#### 1.1 Introduction

This chapter provides the background to the study, problem statement, research objectives and research questions. It also presents significance and justification for this research, the scope and delimitations of the study.

#### **1.2 Background of the Study**

During the past decades, there have been many efforts among international organisations, local and international NGOs, governments and other stakeholders towards eradication of malaria which has been and remains as a threat against human's existence especially in the developing countries of Africa, Latin America and Asia (Uddenfeldt et al., 2014). There have been a lot of initiatives at the global level in the last decade which has led into reduced deaths caused by malaria. However, the reported cases relating malaria amount to 219 million per year, which in turn leads up to 600,000 deaths per year.

Today, malaria is still the most common parasitic disease posing a major threat to human lives (WHO, 2017). The reported deaths are usually caused by *Plasmodium falciparum*. The victims are largely children who are below the age five, especially in African Continent.

According to the World Health Organisation (2009) the health mediated campaign slogan involves a state of physical and mental efforts to support healthy behaviours

and healthy communities using communications media such as radio, television, print and the Internet. Also, Ogden (2007) define health mediated campaign as the intentional placement of educational content into entertainment communicated through media including television, radio, music or theatre.

Different scholars have defined malaria differently. The USAID (2013) has defined malaria as a disease caused by a bite of a certain type of mosquito. Malaria as a disease leads into periodic fever for any affected person, its symptoms include shivering, headache and cold (USAID, 2013). Moreover, WHO has defined malaria as a life threatening diseases usually spread by anopheles mosquito. Malaria can be easily treated and controlled depending of community effort, awareness and availability of health services in an area.

With its prevalence in most of the tropical areas, the disease causes death to more than 2.3 million people per year especially for those living in the Asian Continent. This is due to the fact that the disease leads into wide spread morbidity, and unnoticed problems related to *Plasmodium vivax*. Likewise, it leads into more economic challenges that require global action in order to counter resultant burdens to the affected communities. Malaria is related to poverty and to ensure effective control and eradication of the scourge, it is important to focus on sustained poverty alleviation (Widmar et al., 2009).

There has been many campaigns concerning the prevention and control of malaria at national and global level, at the global level there is malaria day campaign which aims at sensitising the global community concerning the dangers posed by the diseases as well as the prevention and control measures to be taken by the global community.

In 2008 the government of Brazil introduced health mediated campaigns on prevention and control of malaria which was known as "*Anopheles gambiae* galvanising malaria control", the campaign it sparked proved to Brazil that an effective national public health response to the disease was possible (Coura et al., 2010). This campaign was effective as it helped to reduce malaria cases in the country.

The Brazilian Government announced in October 2009 that it would reduce malaria cases by 2016 to half the number seen in 2009 and half the mortality by 2015 and it has been successful in reducing not only the cases, but has also managed to cut down the incidence of death caused by this malaise. At the national level these include Presidents Malaria Initiative (PMI) campaign in Tanzania which aimed at the extent to which the PMI was able to reduce the number of deaths caused by the scourge (USAID, 2013) and malaria prevention mass campaigns in communities for children under five, the case of long lasting insecticide treated nets strategy whereby the main objective was utilisation of Long Lasting Insecticide Nets (LLINs) for prevention of malaria for children under five and which is done through mass campaign in the different communities in Tanzania.

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With all these campaigns, there has been a change of the strategies and approaches. For example, following assertions and plans when the Gates Malaria Forum in October 2007 was formulated and bolstered by the World Health Organisation (WHO), not exclusively was another period of malaria initiative campaigns for worldwide wellbeing activity managed through education, presentations, researches and general sensitisation programmes which encouraged communities to cooperate in a considerable way. They did this by:

- i) Creating coordinated control and eradication programmes and
- Connecting effectively in the research and development (R&D) plan required for intestinal sickness eradication as set by the malaria eradication research and development agenda malLERA process (WHO World Malaria Report, 2009).

They likewise focused on the understanding that the eradication of malaria cannot be accomplished through the existing instruments; rather, it requires a compressive R&D process for the advancement of new tool and methodologies which will ensure ultimate end of malaria (Widmar et al., 2009).

The efforts on the campaigns against malaria have led to a decrease in malaria infections and deaths by 4.3 million of lives saved. A total of 55 countries achieved the World Health Assembly target of a 75 per cent reduction in their malaria burden by 2015.

Although these campaigns are useful, they remain weak due to lack of continuity and sustainability in relations to the objectives of ending malaria in the world. This, it should be noted, is due to the fact that most of these campaigns are not sustainable, the consequence of which is the resurgence of malaria (Ogden, 2007).

To ensure effectiveness of these campaigns, Global Technical Strategy (GTS) was established by the WHO Global Malaria Programme (GMP) which was implemented in collaboration with World Health Assembly in 2015 (Pluess et al., 2010). This went together with the subsequent adaptation of the Global Malaria Action Plan by the Roll Back Malaria Partnership (RBM), called Action and Investment to end Malaria 2016-2030 (AIM) with the aim of ensuring we have a malaria free world which started in 2015.

It is under the umbrella of these two initiatives that the worldwide network, pioneers and activist together with national programme administrators focuses towards achieving the objectives of preventing and controlling (Unger et al., 2016).

Tanzania as one of the countries which have been highly affected by malaria and a number of measures has been taken to make sure that the disease comes to an end (Roxburgh, Taylor and Murebwayire, 2009). Among of the efforts taken by the Government of Tanzania towards the eradication of malaria includes campaigns such as *M-Zinduka* campaign which was launched in February 2009, Zinduka! Malaria Haikubaliki ("Wake up! Malaria is Unacceptable!" in Swahili) it was launched as a national umbrella campaign in Tanzania designed to bring together many different partners and activities for malaria prevention and control under one

recognisable logo. However, it is not clear the extent to which the campaign has been successful towards eradication of malaria in the country.

#### **1.3** Statement of the Problem

This study seeks to examine the contribution of health mediated campaign slogans against malaria in Tanzania context. Several studies have been conducted concerning campaigns against the scourge. Mboera et al., (2012) conducted a study on uncertainty on malaria control slogans in Tanzania cross roads and challenges for futures interventions. The aim of the study was to understand the government campaigns towards the control of malaria in the country, and it was found that the implementation of the campaign experienced many challenges and hence, became less effective due to low level of understanding of the community members as in some community mosquito net distributed for malaria prevention were used for fishing instead ad some of the recipient did not use them at all, therefore malaria was not controlled as expected.

Kalam (2015) carried out a study on evaluation of malaria prevention mass campaigns in the community for under five years children, the case of long lasting insecticide treated nets strategy in Wete District and others in Zanzibar. It was found that the campaigns were more successful and effective especially when the local community and their leaders are engaged. Moreover, in February 2009, Tanzania launched the M-Zinduka campaign in efforts to eradicate malaria. The campaign also aimed at creating a sense of awareness and educating citizens on how to control the malaria in the country (Uddenfeldt et al., 2014). However, it is not known to which extent the campaign was successful in ensuring behaviour change among people in Tanzanians communities. Therefore, this study aims at filling this gap by conducting the scientific study to understand the effectiveness of Zinduka campaign.

#### **1.4** Objectives of the Study

#### 1.4.1 Main Objective

The main objective of this study was to assess the contribution of health mediated campaign slogans against malaria in Tanzania.

#### **1.4.2** Specific Objectives

- i) To examine the extent to which M-Zinduka campaign has contributed towards reduction of malaria transmission.
- ii) To examine the effectiveness of the strategies used during the implementation of M-Zinduka campaign towards reduction of transmission of malarias.
- iii) To examine the challenges facing the implementation M-Zinduka campaign towards reduction of malaria transmission.

#### 1.5 Research Questions

This study was guided by the following research questions;

 To what extent has M-Zinduka campaign contributed towards reduction of malaria transmission?

- To what extent the strategies used during the implementation of "M-Zinduka" campaign are effective towards reduction of transmission of malaria?
- iii) What are the challenges facing the implementation of "M-Zinduka" campaign towards reduction of malaria transmission?

#### **1.6** Significance of the Study

This study aims at examining the contribution of health mediated campaign slogans against malaria in Tanzania. Therefore the study is significant to different stakeholders in many ways.

To the Media: The findings of this study is useful to the media as they provide a clear understanding of the effectiveness of health mediated campaigns towards the control and prevention of malaria in the developing countries like Tanzania. This is due to the fact that the present study provides different strategies employed from different parts and the extent to which those strategies and campaigns have been successful or not.

**To NGOs and Partners (Donors):** Organisations like NGOs benefits from the findings of this study whereby it provides insights on the usefulness of malaria campaigns and slogans used to sensitise communities on the methods and strategies of prevention and control of the disease. The findings of this study will pave the way on how Tanzanian communities can handle the spread of malaria and other challenges relating to prevention and control.

**To the Government and Policy Makers:** The findings of the research provide more details concerning the effectiveness of malaria campaign and related slogans used in the process for prevention and control of malaria the disease in Tanzania. Therefore, through the information, Members of Parliament and the Government of Tanzania is in the position of coming up with the best polices which can be used to educate and provide a framework on how such campaigns can be implemented in the society towards control and prevention of malaria.

**To Academic Institutions:** The findings of the present study used as point of references to students wishing to pursue studies of the similar nature as they are in the position of getting new knowledge and information needed to conduct their studies as well. Also, teachers use the findings of this study to educate students concerning the spread, preventions and control of malaria in Tanzania.

**To Future Researchers:** The findings of this study offer new insights and knowledge to the students and scholars who are intending to conduct related studies on mediated health campaign slogans towards prevention and control of malaria in the society. Similarly, the findings of this study are used as point of reference for all future researchers.

#### **1.7** Scope of the Study

This study was confined itself towards examining the contribution of health mediated campaign slogans against malaria in Tanzania. Specifically the study covered on the extent to which M-Zinduka campaign has contributed towards reduction of malaria transmission, the effectiveness of the strategies used during the implementation of M-Zinduka towards reduction of transmission of malaria and identification of the challenges facing the implementation M-Zinduka campaign towards reduction of malaria transmission in Kinondoni District Dar es Salaam. There are so many anti-malaria campaigns but the researcher preferred to do the M-Zinduka campaign.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

This chapter comprises the literatures relating to the present study whereby the focus is on the studies conducted by other researchers on health mediated campaign slogans against malaria from around the world, Africa and Tanzania. Furthermore, the chapter provides the theories used to guide the study, definitions of key terminologies, theories used, empirical literature, research gaps and theoretical framework.

#### 2.2 Theoretical Arguments and Conceptual Definitions

#### 2.2.1 Meaning of Malaria

Menendez, Kahigwa and Hirt (2009) define malaria as an infectious disease caused by protozoan parasites from the Plasmodium family that can be transmitted by the bite of the Anopheles mosquito or by a contaminated needle or transfusion. Falciparum malaria is the most deadly type. The symptoms of malaria include cycles of chills, fever, sweats, muscle aches and headache that recur every few days. There can also be vomiting, diarrhoea, coughing, and yellowing (jaundice) of the skin and eyes. Persons with severe falciparum malaria can develop bleeding problems, shock, kidney and liver failure, central nervous system problems, and coma.

According to Smith et al., (2012) malaria is a serious, sometimes fatal, disease spread by mosquitoes and caused by a parasite. This disease is a significant health

risk in the world and especially in the developing countries of Africa, Asia and Latin America. The patient can experience flu like symptoms that include high fever and chills.

Once an infected mosquito bites a human, the parasites multiply in the host's liver before infecting and destroying red blood cells. Malaria can be treated and controlled with early diagnosis. However, some countries lack the resources to do this effectively. Malaria is a common and life-threatening disease in many tropical and sub-tropical areas. There are currently over 100 countries and territories where there is a risk of malaria transmission, and these are visited by more than 125 million international travellers every year (Pluess et al., 2010).

Human malaria is caused by four different species of Plasmodium: P. falciparum, P. malariae, P. ovale and P. vivax. Humans occasionally become infected with Plasmodium species that normally infect animals, such as P. knowlesi. As yet, there are no reports of human–mosquito–human transmission of such "zoonotic" forms of malaria (WHO, 2009).

#### 2.2.2 Health Mediated Campaigns

Hodgetts and Chamberlain (2007) define health mediated campaign as activities which involves supportive social settings in which people are able to engage in critical dialogue with trusted peers that ideally lead to the development of actionable understandings of obstacles to their health and well-being, and strategies for tackling these at the individual, community or macro-social levels. Also, Ogden (2007) defines health mediated campaign as the intentional placement of educational content into entertainment communicated through media including television, radio, music or theatre.

According to Campbell et al., (2011) health mediated campaign involves initiatives to encourage healthy behaviours and healthy communities using communications media such as radio, television, print and the internet. These include didactic health education campaigns which target vulnerable groups with information about health risks; community strengthening approaches which seek to promote health-enhancing social participation in vulnerable communities; and health advocacy approaches which target powerful decision makers who have the economic and/or political power to tackle and transform unhealthy social environments (Campbell and Scott, 2011).

#### 2.2.3 Slogan

Rodriguez (2003) defines a slogan as a catchy phrase or series of words used to help the audience to remember a certain message. Organisations create slogans to use in various campaigns efforts in hopes that the phrases will stick in people's minds. That way, when an audience needs a service offered in the society, that they will choose the product or service that is top-of-mind from slogan recognition.

According to Stevenson (2010), slogans are used to convey a message about the product, service or cause that it is representing. It can have a musical tone to it or written as a song. Slogans are often used to capture the attention of the audience it is trying to reach. If the slogan is used for different purposes, often it is written to be

memorable/catchy in order for the audience to associate it with the service it is representing. A slogan is a vital aphorism or expression utilised as a part of a faction, political, business, religious, and other setting as a tedious articulation of a thought or purpose, with the objective of convincing individuals from the general population or a more characterised target group. The Oxford Dictionary of English (2012) defines a slogan as "a short and striking or essential expression utilised as a part of advertising." A slogan typically has the qualities of being critical, exceptionally memorable and convincing to the group of people (Ke and Wei, 2013).

#### 2.3 Role of Health Mediated Campaigns in sub-Saharan Africa

Freire's (2013) contends that manageable and long term changes of human behaviour concerning health issues depends on the health mediated campaigns slogans whereby individual behaviour change is well on the way to happen when individuals work all in all to comprehend and handle the social conditions that put their wellbeing in danger. Against this foundation, different types of mediated campaigns have been implemented to ensure change for basic reflection, exchange and social capital development.

In perfect conditions, such reflection, discourse and dialogue empowers individuals to form understanding and knowledge into the connections between awareness and health management, an expanded feeling of responsibility to challenge the negative effects of social inequality on individual health in the society. Health mediated campaigns creates a sense of accountability among members on the community, and this has increased in recent years due the advancement of technology whereby individuals, groups and organisations in Africa have created health communication medias such as websites, blogs, and social media pages whereby they discuss different slogans concerning the spread and control of malaria. Health related sites and online dialogue fora (message sheets, diaries, messaging platforms and websites) are useful for those facing disease are developing consistently in ubiquity. Some exploration portrays these as positive pages for help, solidarity and activism, profoundly for engaging the community about health matters (Orgad, 2014).

Health mediated campaigns help to console affected individual in the African context despite the fact that people lack proper culture of sharing their experience. In recent years there have been a lot of changes as individuals are now able to come forward and share their experience on the respective diseases. During the implementation of malaria related campaigns, members of the community come forward to tell their stories concerning the prevention and control of malaria. Orgad (2014) argues that these positive possibilities are limited by the tensions and contradictions inherent constraints from wider social structures. Orgad (ibid) found that health mediated campaigns in Nigeria are constructed within unwritten rules, dictating that stories should focus on hope, optimism, success and survival, discouraging scripts that did not fit in, such as stories of hopelessness, anger, death and broader social discontent.

#### 2.4 Malaria in Tanzania

In Tanzania, malaria is the leading cause of morbidity and mortality (de Savigny et al., 2004). Tanzania has a population of 44,928,923 people; this is according to the 2013 national census. In Tanzania, malaria affects approximately 11 million people,

causing 17 thousand deaths annually. And 100% of the population is currently considered at risk of infection, with 67% who are more vulnerable compared to others (USAID, 2016). In Zanzibar, the malaria burden was dramatically reduced between 2000 and 2007 due to distribution of Artemisinin-based combination therapies (ACTs) and insecticide-treated nets through public health facilities.

Outpatient malaria diagnosis decreased by 77% and overall deaths in children decreased by 50% (Bhattarai et al., 2007). This means that Zanzibar appeared to be on course to meet WHO targets by 2010 and was one of four areas in the world that had turned the malaria trend effectively (World Malaria report, 2009).

#### 2.5 Theory Guiding the Study

#### 2.5.1 Two-Step Theory

This study used the two-step theory. This theory was developed by American sociologist Paul Felix Lazarsfeld, in 1941 at Columbia University in New York. It states that individuals form their opinions under the influence of others such as leaders in the respective society who are also influenced by mass media. Based on this theory, ideas are communicated from mass media to the leaders and then to the general community or society. Therefore, leaders in the society who receive ideas from the mass media pass their own interpretation of information from the actual media content.

At first the theory was used in studying social influence that states that media effects are indirectly established through the personal influence of opinion leaders. A majority of the people receive much of their information and are influenced by the media secondhand, through the personal influence of opinion leaders (Paul, Bernard Berelson, and Hazel Gaudet (2008).

This theory was found useful in this study due to the fact that it shows how mass media have been useful in influencing the behaviour of people in Kinondoni towards the prevention and control of malaria especially during the implementation of Zinduka malaria campaign in which mass media such as radio, televisions and newspapers were used as means of communication and sending message to the society. The two-steps theory provides information on the role of leaders in the society towards changing the opinion, perception and behaviour of individuals.

The theory shows the extent to which political leaders who took part in the implementation process of Zinduka malaria campaign were useful in creating a sense of awareness to the residents of Kinondoni District. Creating a sense of awareness is useful towards prevention and control of malaria. Similarly, two-step flow theory is useful for the researcher in the position of understanding the extent to which mass media has been used in educating residents of Kinondoni on the dangers posed by malaria. The theory shows the extent to which mass media stand as a tool of changing individual mindsets and perception towards disease.

Through this theory the researcher is in the position of understanding the impact of mass media of educating the community and how it has helped to prevent and control malaria during the implementation of Zinduka malaria campaigns in Kinondoni.

#### 2.6 Empirical Literature

Thomas (2016) conducted a study on the effectiveness of mainstream media campaign towards malaria control interventions in Madagascar. The methods adopted by the study were survey research design and it covered the duration from 2012 up to 2014 it involved a sample size of 3340 respondents. The findings of the study revealed that there was a decrease of malaria cases to 4841 compared to 6760 at the commencement of the survey.

Timoth et al., (2010) conducted a study on perceptions of malaria and use of longlasting insecticide-treated bed nets (LLINs) in a rural Kenyan community. Qualitative interviews were conducted with 34 IPC participants who received LLINs as part of a comprehensive prevention package of goods and services. With improved understanding and clarification of the direct (mosquitoes) and indirect (e.g. stagnant water) causes of malaria, it is likely that LLIN use can be sustained, offering effective household-level protection against malaria.

Mboera et al., (2012) conducted a study on uncertainty on malaria control slogans in Tanzania crossroads and challenges for future interventions; the study used case study research design whereby four regions which include regions of Coastal, Tanga, Morogoro and Mtwara were selected and it involved 650 respondents who were selected trough simple and purposeful sampling. The study found that Tanzania is in a crossroads when it comes to the implementation of malaria campaigns and it was recommended that the country should introduce new antimalarial treatments and establish an effective malaria control strategy. USAID (2013) conducted a study on the effectiveness of the Presidents Malaria Initiative (PMI) campaigns in Tanzania which aimed at the extent to which the PMI was able to reduce the number of deaths caused by malaria. The findings of the study revealed that there were some improvements in the reduction of malaria related deaths in the respective regions as more people became aware and conversant with the methods of malaria prevention.

Kalam (2015) carried out a study on evaluation of malaria prevention mass campaigns in the community for children who are under five on the basis of the use of long lasting insecticide treated nets strategy in Magharibi District in Zanzibar. The study outcome shows that the mass campaign led to the increased use of long lasting insecticide nets (LLINs) among residents in the selected area. And this, according to the study findings, was due to the increased level of awareness among residents, along with the fact that LLINs were made more available than ever before as well as the strong support from local government and community leaders for the campaign. The study recommended that more periodic campaigns are needed to keep the community awake and hence being able to take necessary measures aimed at prevention and control of malaria.

#### 2.7 Research Gap

From the literature review, we noted that different studies have been carried out concerning the campaigns on prevention and control of malaria in Tanzania and other parts of African and the world at large. For example, Kalam (2015) carried out a study on evaluation of malaria prevention mass campaigns in the community for under-five children and the impact of LLINs strategy in Magharibi District in Zanzibar.

The USAID (2013) conducted a study on the effectiveness of the PMI campaigns in Tanzania which aimed at the extent to which the initiative was able to reduce the number of deaths caused by malaria.

Timoth et al., (2010) conducted a study on perceptions of malaria and use of longlasting LLINs in a rural Kenyan community and others. However, all these studies focused much on the use of medically treated mosquito nets which is different from Zinduka health mediated campaigns which was wider in terms of coverage and focused more of educating the community members and changing their behaviour, perception and their approach towards prevention and control of malaria in Tanzania.

Likewise, some of these studies were carried outside Tanzania which means that they were conducted in countries which are different from this country in terms of geographical settings, political, socio-cultural settings and economic aspects. Also there are different campaigns which have been conducted and there are no clear evidence concerning which campaign is more effective than the other and malaria is still common in Tanzania and other developing countries.

Likewise, since the implementation of Zinduka malaria campaign in Tanzania, there is no further research which has been conducted specifically focusing on how such campaigns have been successful towards prevention and control of malaria in the country. Therefore, it was important to conduct this study in order to understand the extent to which Zinduka campaigns have been successful in the control and prevention of malaria in Tanzania.

#### **CHAPTER THREE**

#### **RESEARCH METHODOLOGY**

#### 3.1 Introduction

The chapter contains research design of the study, sampling techniques, information gathering strategies, sample estimate, data analysis techniques and in addition, validity and reliability of that information to be utilised.

#### 3.2 Study Area

According to O'Meara (2010) an area of study is inter-disciplinary fields of research and scholarship pertaining to particular geographical area, national/federal or cultural regions. The study was conducted at Magomeni Ward which has a population of 22, 616 (Tanzania Census Results, 2012) people located in Kinondoni District in Dar es Salaam Region (Tanzania Census Results, 2012). The selection of Magomeni Ward in Kinondoni is due to the fact that, the district is among those which the health mediated campaign slogans against malaria in Tanzania has been implemented (UNICEF, 2015).

The campaign on "M-*Zinduka*" was hugely implemented in Magomeni Ward, Kinondoni District in Dar es Salaam (UNICEF, 2015). Therefore, the researcher was in the position of collecting relevant information concerning the contribution of health mediated campaign slogans against malaria in Tanzania.

Likewise, the researcher is more familiar with the respective areas hence it would be easy to interact with the residents.

#### **3.3 Research Design**

The study used both quantitative and qualitative methods approach.

Kothari (2004) defines research design as the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedures.

The study used a case study design of "Zinduka! Malaria Haikubaliki!" (Kiswahili for "Wake up! Malaria is Unacceptable!") That was a national umbrella campaign which was launched on February 2009.

The reasons of selecting the Zinduka campaign as a case study is due to the reason that the campaign worked to increase people's awareness about malaria, the importance of keeping their environment clean and what they should do to prevent malaria by, for instance, sleeping under treated mosquito nets, detecting and treating malaria early; and ensuring antenatal care for pregnant women and the child with below five years of age.

#### 3.4 Population

Best and Kahn (2008) have observed that population is a group of individual who have one or more characteristics in common that are of interest to the researcher. In this study, sampled population constitutes residents of Magomeni Ward in Kinondoni District and Government officials who are health practitioners at Magomeni Hospital who are familiar with malaria campaigns, as well as officials working in NGOs such as Johns Hopkins University, Population Services International, Tanzania House of Talent (THT) and USAID Programme against Malaria. The population from different organisations such Johns Hopkins University, Population Services International and USAID Programme Against Malaria are considered or targeted in this study due to the fact that they are among the ones who funded the campaigns in collaboration with the Government of Tanzania.

The study also included the government officials from Magomeni Municipality Health Department who are specifically engaged in malaria prevention and control initiatives from Kinondoni District. Government officials are considered a population due to the fact that the whole campaign was initiated and coordinated by the Government of Tanzania. Likewise, doctors from Magomeni Hospital were included as they participated in the campaigns as councillors and they provided education and conducted malaria diagnosis to the residents.

#### 3.5 Sample and Sampling Procedure

Adam et al., (2008) define sample as a subset of the general population. Sample is a little gathering of respondents drawn from a population in which the researcher is occupied with picking up data and reaching inferences (Kothari, 2004).

As a rule, a proper selection of a sample is one of the criteria which reflect almost similar characteristics as those of findings which would be obtained if the whole universe would be surveyed, thus the larger the sample, the more reliable the sample result would be (Chand et al., 2007). In this study the researcher employed probability sampling and non-probability sampling techniques whereby with regard to probability sampling — simple random sampling was used to select respondents who share similar characteristics; in this case, residents of Magomeni Ward in Kinondoni who are not officials were selected through the use of simple random sampling, while on non-probability sampling, a purposive sampling was used. Purposive sampling technique was used to select respondents based on the basis of specified qualities such as leadership, respondents who hold position like managers and directors as well as doctors in relation to their level of participation in the implementation of Zinduka Malaria Campaign as they are considered more informed (key informants) due to their positions.

#### 3.5.1 Sample Size

Sample size is a sub-population to be studied in order to make an inference a reference population. The larger the sample size, the more the research findings are. Or, one can say, sample size is a small group of respondents drawn from a population in which the researcher is interested in gaining information and drawing conclusions (Charles, 2005).

A sample of 60 respondents was used, 20 out of which were picked randomly and 40 were purposively selected from the study area.

The study used simple random sampling to select 20 respondents who are residents of Magomeni Ward in Kinondoni District.

Also, purposeful sampling was used to select leaders such as managers and directors (top officials) who were at the level of participation in the implementation

of M-Zinduka campaign as they are considered more informed and are at the key positions to provide relevant information.

The researcher purposely selected 40 staff/officials from the Government and NGOs who are doctor in-charge and nurses on duty at Magomeni Hospital, Kinondoni Municipal Medical Officer and Assistants Municipal medical and health officers, and educational specialist and Health Communications Officer dealing with malaria. Twenty were workers of Kinondoni Municipal Health Department and Magomeni Hospital staff members and 20 from NGOs respectively. These conveniently were found at Kinondoni Municipal and at Magomeni Hospital respectively.

The selected sample size was interviewed and given questionnaire based on the quantitative reasons as the aim was to collect opinions and views on the campaign. However, this was done in consideration of the limitation of time and financial constraints facing the researcher but also the researcher thought to minimize errors in the findings.

As the sampling size was determined using non statistical method depending on the number of employee's at different levels. This was done in consideration of the limitation of time and financial constraints facing the researcher (Mbura, 2007). The simplest rule states that  $N \ge 50+5m$  where m is the number of independent variables and N is the number of cases. Given our 2 independent variables the size of sample meeting this criteria should be 50+5(2) = 60.

 Table 3.1: Sample Size

Categories	Sample to be Selected
Staff/officials from Government authorities (Kinondoni	20
Municipality Offices and Magomeni Hospital)	
Staff/officials from NGOs (Johns Hopkins University,	20
Population Services International, Tanzania House of Talent	
(THT) and USAID)	
Residents of Magomeni Ward	20
Total	60

Source: Researcher (2019.)

#### **3.6 Data Collection Methods**

According to John Dudovskiy (2011), data collection is a process of collecting information from all the relevant sources to find answers to the research problem, test the hypothesis and evaluate the outcomes. The study used questionnaire and interviews as methods of data collection.

#### 3.6.1 Questionnaire

A questionnaire is essentially a structured technique for collecting primary data. It is generally a series of written questions for which the respondents has to provide the answers (Bell, 2009). The study used questionnaire because of its advantages. The advantages of questionnaires include increased speed of data collection, low or no cost requirements, and higher levels of objectivity compared to many alternative methods of primary data collection. The questionnaire was distributed to 20 respondents including the doctor in-charge and nurses on duty at Magomeni Hospital; Kinondoni Municipal Medical Officer and assistant municipal medical and health officers and educational specialist and health communications officer dealing with malaria; workers at Kinondoni Municipal Health Department and Magomeni Hospital employees and NGO employees.

However, questionnaires have certain disadvantages such as selection of random answer choices by respondents who don't properly read the questions. Moreover, there is usually no opportunity for respondents to express their additional views on the matter raised by the researcher due to lack of relevant questions (John Dudovskiy (2011).

#### **3.6.2 Interviews**

According to Boyce and Neale (2006) an in-depth interview is qualitative research technique which involves conducting intensive face-to-face interviews with a small number of respondents to explore their perspectives on a particular idea, programme or situation. Interview guides was used to collect primary data from respondents, especial key informants, such as Government officials, managers and directors from NGOs and other partners who participated in this study. These officials were in the position of providing relevant information concerning the effectiveness of Zinduka campaigns.

#### 3.7 Data Analysis

According to Braun and Clarke (2006), data analysis is a process of inspecting, cleansing, transforming and modelling data with the goal of discovering useful information, informing conclusions, and supporting decision-making. Quantitative data analysis was done using statistical package for social sciences (SPSS).

#### **3.7.1 Thematic Analysis**

Braun and Clarke (2006) define thematic analysis thus: "A method for identifying, analysing and reporting patterns within data." Thematic analysis was used due to the fact that it is the best strategy for qualitative data analysis and is simple to use while allowing for flexibility in the researcher's choice of theoretical framework.

Likewise, thematic analysis can be used with any theory used in the study like two step theory. Through this flexibility, thematic analysis allows for rich, detailed and complex description of field data (Braun and Clarke, 2006).

#### 3.8 Reliability and Validity of Data Collecting Instrument

#### 3.8.1 Data Validity

According to Adam et al., (2007) validity implies to well-grounded or something which is justifiable, being meaningful and relevant. This means that validity of instrument of data collection involves the ability of instrument to be tested. And according to Kothari (2004), data validity implies the degree to which an instrument measures what it is planned to measure, for the case of research work validity focuses on the instruments of data collection such as questionnaires. This means that questionnaires should be designed in the manner that they can generate the quality data in relation to the research objectives.

According to Enon (2008) validity focuses on the method or an instrument (device) utilised as a part of the research instrument by making sure that the tool for data collection is right, and genuine. Significant validity in this way infers what is

needed to acquire is what is being measured. In this way, if whatever is utilised as a part of the research empowers to deliver what is needed to be created then there is validity. Validity in research may suggest precision of instrument, strategy (strategies), and validity of the research report.

#### **3.8.2 Data Reliability**

Towards ensuring reliability of data and the end goal to guarantee validity and reliability, the researcher made sure that measures are taken to upgrade the reliability of the considerable number of instruments and techniques of managing the instruments and additionally the study utilised different instruments of data collection such as questionnaires, interviews and documentary reviews.

In this investigation, the instrument was tested before they were used in data collection in the field. For example, the questionnaire was tested with the researcher distributing a few copies of the questionnaire for pretesting in order to determine the correctness of the instrument and to examine if it can be used to collect the required data as per the researcher's objectives.

#### **CHAPTER FOUR**

#### **RESEARCH FINDINGS, ANALYSIS AND DISCUSSION**

#### 4.1 Introduction

This chapter presents, interprets and discusses data collected from different sources whereby interview and questionnaire methods were used. A total number of 60 people were interviewed and given copies of the questionnaire.

The findings are arranged and presented according to the research specific objective.

#### 4.2 Demographic Information of Respondents

This section gives the background of respondents. It describes the gender of respondents, education level and their work experience.

#### 4.2.1 Respondents by Gender

On the basis of gender, 34 (57%) out of 60 respondents were male while 26(43%) out of 60 respondents were female. The table below represents this data clearly.

 Table 4.1: Gender of Respondents

Sex	Frequency	Percentage (100%)
Male	34	57
Female	26	43
Total	60	100

Source: Field Data, 2019

#### 4.2.2 Respondents by Age

According to the age of respondents, the data indicates that 20 (33%) of the surveyed residents are aged group between 41 and 50, followed by 18 (30%) of the surveyed residents aged between 31 and 40 while 12 (20%) of the surveyed residents have

are aged between 51 and 60, 6 (10%) of all surveyed residents are aged between 21 and 30 while and the remaining 4 (07%) of the surveyed residents are aged 61 and above. This implies that a majority of the surveyed students are aged between 41 and 50. The table below represents this data more clearly.

Age (years)	Frequency	Percentage (100%)
21-30	06	10
31-40	18	30
41-50	20	33
51-60	12	20
61 and above	04	07
Total	60	100

 Table 4.2: Age of Respondents

Source: Field Data, 2019

#### 4.2.3 Respondents by Level of Education

The data indicates that a majority of the respondents 15 (34%) were bachelor's degree holders followed by 13 (20%) of all respondents attained high school certificates while 12 (18%) of all surveyed residents were master's degree holders, 12(18%) of the surveyed residents attained Ordinary Level certificates while the remaining 08 (10%) of the surveyed residents were diploma holders. This implies the majority of the surveyed residents were of higher education level. The table below represents this data more clearly.

Level of Education	Frequency	Percentage (100%)
Ordinary level	12	18
High school	13	20
Diploma	08	10
Bachelor's degree	15	34
Master's degree	12	18
Total	60	100

 Table 4. 3: Level of Education of Respondents

Source: Field Data, 2019

#### 4.2.4 Respondents by Working Experience

Regarding respondents' work experience, the data indicates that 21(35%) of them have been working for 11-20 years followed by 20 (33%) of respondents who have been working for 20 years and above, while 11(19%) of respondents have been working for 6-10 years and the remaining 08 (13%) of respondents have been working for 1-5 years. This implies that the majority of the surveyed residents have had a long period being in work. The table below represents this data more clearly.

**Table 4.4: Work Experience of Respondents** 

Period	Frequency	Percent (100%)
1-5 years	08	13
6 - 10 years	11	19
11-20 years	21	35
20 and above	20	33
Total	60	100

Source: Field Data, 2019

## 4.3 Objective One: The extent to which M-Zinduka Campaign has contributed towards Reduction of Malaria Transmission

The first objective aimed at finding out the extent to which M-Zinduka campaign has contributed towards the reduction of malaria transmission. Data to answer this objective was collected by using in-depth interviews with respondents and answers to the questionnaires issued to respondents in Magomeni Ward.

Major findings were:

- i) Awareness creation to people in the community on malaria control;
- ii) Information dissemination on how to prevent and control malaria;
- iii) Participation in the Diagnosis and Treatment of malaria;

- iv) Prevention and control malaria to the residents through distribution of mosquito nets;
- v) Counseling and guidance to members in the community and
- vi) Environment management for malaria control and prevention.

**Data from Questionnaires:** The study question 1 was: How would you rate the extent to which M-Zinduka campaign has contributed towards reduction of malaria transmission?

# Table 4.5: The Extent to Which M-Zinduka Campaign has contributed towardsReduction of Malaria Transmission

Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
alaria campaign has created a sense of ess to people in the community through the mass media such as newspapers, radio and ons on how to prevent and control malaria.			$\checkmark$	ν
M-Zinduka malaria campaign employed education and information dissemination the public on how to prevent and control malaria.			$\checkmark$	□ √
Zinduka malaria campaigns made use of mass media to encourage many people to participate in the diagnosis and treatment of malaria as means of prevention and control.			$\checkmark$	$\checkmark$
Zinduka malaria campaigns distributed mosquito nets to the residents towards the prevention and control of malarias.				
Counseling and guidance were being provided to members in the community against control and prevention of malaria.			$\checkmark$	
More people were educated on how to control and prevent malaria such as environmental management.			$\checkmark$	$\checkmark$

Source: Field Data, 2019

This study wanted to find out the extent to which M-Zinduka Campaign has contributed towards Reduction of Malaria Transmission. 20 respondents were provided with the questionnaires. 18 out of 20 respondents strongly agreed with the campaign that it contributed to the reduction of malaria in their community on all aspects indicated in the table, while two (2) out of 20 respondents agreed on five (5) aspects as indicated in the table. Table No. 4.5 describes more these data.

**Data from interviews:** A total of 40 respondents were interviewed. The following are answers.

#### 4.3.1 Awareness Creation to People in the Community on Malaria Control

About M-Zinduka malaria campaign created awareness to people in the community on control of the scourge, 14 out of the 40 respondents we picked in Magomeni Hospital gave answers to the interview questions and revealed that, through the use of mass media such as newspapers, radio and television, people heard news bulletins and advertisements on the campaign and to a great extent, they became aware of M-Zinduka campaign on how to prevent and control malaria.

For example, one of the respondents said:

"I remembers one day I read a feature article about M-Zinduka malaria campaign from a Kiswahili newspaper. The feature was about how the disease is spread as well as how it can be treated, and how people are connected with health mediated malaria campaign slogan to create awareness so that they can prevent, eradicate and control malaria in the community: It was from that day; I became aware and knew about the M-Zinduka malaria campaign."

Another respondent within the area said:

"I like listening to the radio, and it happened one day I heard a song which emphasised people in the community to prevent and control malaria by using mosquito treated nets because the disease is very dangerous to people's lives, and especially to pregnant women and children: But funny enough, apart from the nice words, the song mentioned M-Zinduka malaria campaign and how it created awareness to people in the community on how they can prevent and control malaria."

Another respondent said:

I got information regarding malaria control through television on which there was a public dialogue made by a doctor regarding malaria control measures and the doctor mentioned the M-Zinduka malaria campaign and how it helps in creating awareness to people in our community especially when he urged the public to keep our environment clean: Really, I like the campaign as it was the first time to hear, it was very crucial."

From the findings, the researcher note that people's awareness influences their attitude and actions towards malaria prevention and control. With awareness, it is easier to control the incidence of malaria. Thus, expansion of public awareness on malaria prevention and control is very crucial.

The researcher believes that awareness through media, made the respondents became aware of the M-Zinduka malaria campaign and how it helped people to prevent and control malaria by using treated mosquito nets especially for pregnant women and children from getting malaria, but also to frequently clean their environment to in order to destroy mosquito breeding grounds.

The researcher supports the response by all the respondents who strongly agreed with the argument that M-Zinduka Malaria Campaign has created a sense of awareness to them through the use of the mass media such as newspapers, radio and television on how to prevent and control malaria. The campaign has created a sense of awareness to community Members.

To the researcher, this implies that, to a large extent, M-Zinduka has created a sense of awareness to community members on malaria control as seen from the findings showing that all the respondents strongly agreed on the efficacy of the campaign. The researcher agrees with Kalam (2015) who found that mass media such as newspapers, radio and television lead to an increase in the level of awareness among the people on prevention and control of malaria.

#### 4.3.2 Information Dissemination on How to Prevent and Control Malaria

From Magomeni Kanisani, 10 out of 40 individuals who responded to the interview questions said that M-Zinduka campaigns helped in information dissemination on how to prevent and control malaria. They revealed that during the time when M-Zinduka campaign was under way, the messaging technology was not so very well known to people, but M-Zinduka managed to make sure that its campaign reaches many people through their E-Zinduka mobile phones messaging.

For example, one of the respondents said:

"To a large extent, M-Zinduka campaign has helped me to know how to prevent and control malaria as it has been disseminating education and information news in the community through E-Zinduka messaging technology, pamphlets and brochures as well as through documentaries and talk show programmes on television. The information dissemination by M-Zinduka campaign was very powerful and made huge changes to the community." In its effort to ensure that people in the community gain knowledge on how to prevent and control malaria, M-Zinduka campaign has managed to prevent and control malaria in the country through information dissemination and people in the country through their E-Zinduka messaging technology, and now people are familiar with preventive and control measures and how they should make use of them in preventing and controlling malaria in their daily life.

Another respondent at the area said:

I got the M-Zinduka malaria information very clearly through their messaging system and at the same time I enjoyed the entertainment performed by the youth during the campaign.

M-Zinduka campaign use the youth to perform plays carrying malaria messages – Theatre in education basically in entertainment (Edutainment) was employed in effort to ensure people in the community easily gained knowledge on how to prevent and control malaria while offering entertainment to the audience.

From the above findings, the researcher realised that increased coordination at all levels is essential for raising the overall status of communication within malaria control programme to community members. This is because a well-planned and executed communication programme can contribute to achieving malaria prevention and treatment goals in a wide ranging ways such as providing knowledge to help individuals, families, groups, organisations and communities play active roles in improving and protecting their health. The researcher believes on the effective communication within malaria control programmes, ensure that communication becomes an integral element of prevention and treatment efforts; increase the overall effectiveness of communication programmes; and contribute to the building of an essential evidence base and sharing of best practices.

Effective communication programmes are based on analysis of the context in which change takes place. This means that family decisions about prevention and treatment are potentially affected by actions of community volunteers, public and private providers, aspects of the health system structure itself, and health policies.

Effective programmes also look at the need for improving relationships across different levels of the system. To the researcher, this study uses communication as an overarching term to describe a planned process for influencing actions or responses among specific groups of people.

The researcher supports the view that people strongly agreed that M-Zinduka campaign had been employing education and information dissemination to the public on how to prevent and control malaria.

To the researcher, this implies that through information dissemination, M-Zinduka malaria campaign has managed to prevent and control the disease. The campaign was most powerful and vocal. It brought so many changes in the society.

There researcher further agrees with Timoth et al., (2010) who found that offering effective education and information dissemination to household-level has a significant impact on the protection against malaria.

#### 4.3.3 Participation in the Diagnosis and Treatment of Malaria

A total of 16 respondents out of 40 from Magomeni Makuti area who responded to the interview question revealed that in prevention, control and reduction of malaria, M-Zinduka malaria campaigns has helped people in the community to participation in the diagnosis and treatment of malaria.

For example, one of the respondents said:

"Since the campaign took place in their area, I regularly go to health centres to for checkups. My family members do the same too: In the past I was not aware that before taking any malaria medication, one should be tested first for the disease. But through the learning I acquired from M-Zinduka, I only seek take medication after being tested and diagnosed positive."

Another respondent at Magomeni Makuti area said:

"To a large extent M-Zinduka campaign has reduced incidence of malaria transmission through use of mass media which encourage people to get malaria check-ups and get treatment upon being diagnosed positive."

The researcher believes that community participation as one of the strategies for malaria control promotes self-awareness and confidence, which enables the people to examine problems and to think positively about the solutions. Malaria prevention must go hand in hand with community participation hence increased utilisation of mass media necessary to decrease malaria morbidity and mortality as it helps to disseminate information to people in the community which in turn creates awareness to people towards prevention and treatment of malaria.

Community participation through harnessing local initiatives, local resources, and community mobilisation and giving a sense of ownership in the control of this major health problem will play a vital role. It increases the sense of control over issues that affect the lives of community members in this case the scourge of malaria.

The use of the mass media has been found to be an effective way of disseminating information to the community regarding malaria control and treatment by using insecticide treated bed nets which have been shown to be the most cost-effective prevention method against malaria as they are more effective in preventing bites than untreated nets reduce the transmissions of malaria within individuals by both repelling and when they land on the net killing mosquitoes that have come to feed on a asleep person.

Research findings revealed that M-Zinduka campaign has managed to reduce incidence of malaria transmission through the use of mass media to encourage many people to participate in testing and treatment of malaria.

Researcher believes that people strongly agreed the argument that M-Zinduka campaign had been made use of mass media to encourage many people to participate in the diagnosis and treatment of malaria as means of prevention and control.

This implies to the researcher that the campaign has managed to reduce incidence of malaria transmission through the use of mass media to encourage people to participate in the diagnosis and treatment of malaria.

To the researcher diagnosis and treatment are very important in prevention, reduction and eradication of malaria in Tanzania, in a way that, if the disease is diagnosed in a person, it can be easier to treat because people have already received health mediated campaign slogans about the disease and that will make it easier to prevent, reduce and eradicate it in the near future.

The researcher agrees with Thomas (2016) who found that there was decrease in cases thanks to early diagnosis and treatment of malaria as means of prevention and control.

## 4.3.4 Malaria and Prevention and Control for Residents through Distribution of Mosquito Nets

In this approach, a total of 15 Magomeni Suna Bondeni respondents out of 40 respondents consented that through the distribution of mosquito nets, there is high level of achievement in prevention and control of malaria in their area as a result of M-Zinduka heath mediated slogan campaign.

For example one of the respondent said that:

"In their area malaria prevention and control have been achieved due to the distribution of mosquito nets courtesy of M-Zinduka malaria campaign. I have realised that the M-Zinduka malaria campaign effort has helped people to manage reduce incidence of malaria transmission through the use of distributed mosquito nets." Another respondent at Suna Bondeni said:

"I did not have mosquito nets before, and I used to sleep without it, but through M-Zinduka campaign, I have more than one mosquito nets and I use them every day. I and my family cannot sleep without mosquito nets."

This researcher notes that sleeping under an insecticide-treated net is the most widely adopted preventive measure against malaria. The nets of this kind are effective because in the majority of malaria-endemic regions of the world, the female mosquito that transmits malaria only bites at night.

Due to their effectiveness as a vector control method, the researcher supports and recommended that every person at risk from malaria in identified areas should use insecticide-treated nets.

However, this researcher believes that it is important that high coverage of insecticide-treated nets is continued, even in the face of significant reductions in malaria rates, otherwise the disease could resurge.

The researcher notes that continuous distribution systems often operate through antenatal clinics, schools or private providers, is important in providing an interrupted supply of nets to replace those that are lost or damaged.

Researcher supports the residents who strongly agreed with the argument that M-Zinduka malaria campaign had been distributing mosquito nets to the residents towards the prevention and control of malarias. This gives the researcher the view that M-Zinduka malaria campaign has managed to reduce the incidence of malaria transmission through distribution of mosquito nets to the residents.

To the researcher malaria prevention by distributing mosquito nets relates with reduction and eradication of malaria in Tanzania, in a way that, the M-Zinduka health mediated campaign slogans about the distribution of treated mosquito nets in the society, used as a very perfect means of fighting and even ending the disease, which largely help people prevent, reduce and eradicate the scourge in the country.

The researcher in agreement with Mboera et al., (2012) who found that anti-malarial treatment as well as distributing mosquito nets to the residents is effective malaria control strategy.

#### 4.3.5 Counseling and Guidance to Members in the Community

Through counseling and guidance to members in the community, 16 residents from Magomeni Hospital out of 40 respondents who were interviewed responded to the questions revealed that M-Zinduka malaria campaign helped them to prevention and control malaria by following the health guidance given during the campaign.

For example one of the respondents said that:

"Through counselling and guidance offered by M-Zinduka has led to reduction of incidence of malaria transmission. In most cases counselling and guidance offered by M-Zinduka has managed to reduce incidence of malaria transmission because people now have knowledge of the disease and how to prevent and treat it." Another respondent at Magomeni Hospital said:

"I agree that the counselling and guidance offered by M-Zinduka malaria campaign has managed to **reduce** the incidence of malaria transmission, and that happened because most of the people were easily reached by the campaign through the mass media."

This researcher sees counselling as the professional advice and guidance given to a person (client) by a trained person (usually counsellor), in order to enable the client to explore, discover and clarify ways of living more positively, satisfactorily and resourcefully in society.

Through counselling, a patient/client is empowered and enabled to understand and solve his or her own problems relating to the treatment and prevention of malaria This researchers finding revealed that the counselling and guidance offered by M-Zinduka campaign has led to a reduction in incidence of malaria transmission.

Researcher supports interviewed people who strongly agreed with the positive view of respondents that M-Zinduka had been offering counselling and guidance to members in the community on the control and prevention of malaria.

This allows this researcher to conclude that M-Zinduka has managed to reduce incidence of malaria transmission by way of counselling and guidance to members of the surveyed communities.

To the researcher, counselling and guidance, helps in prevention, reduction and eradication of malaria in Tanzania, because, through health mediated campaign slogans, people are in a good position of knowing about the disease and how bad it is, and at the same time they get updates on how to prevent, reduce and eradicate it. The researcher agrees with the USAID (2013) report that revealed that there were some improvements in the reduction of malaria related deaths in the surveyed regions as more people became aware of the methods of the prevention of malaria.

#### 4.3.6 Environmental Management for Malaria Control and Prevention

Again, 18 out of 40 respondents interviewed at Magomeni Fundikira area revealed that M-Zinduka malaria campaigns helped in environmental management that is beneficial in the areas of malaria control and prevention.

For example, one of the respondents said:

"Through education on environmental management by M-Zinduka malaria campaign, there has led to a reduction in the incidence of malaria transmission. Mostly, M-Zinduka has been offering education on environmental management aimed at enabling people to control and prevent malaria."

Another respondent at Fundikira said:

"Through the use of mass media such as newspapers, radio and television, people became aware of M-Zinduka campaign on how to prevent and control malaria as they are now able to manage and keep their environment clean so that they control also prevent malaria."

This researcher also notes that besides the use of insecticide-treated mosquito nets, other complimentary measures including suitable housing structures and environmental management that reduce breeding of malaria vectors can be implemented at the household level to control the scourge.

Environmental management consists of installing and maintaining drains, removing pools of stagnant water, managing vegetation, irrigating intermittently, and altering rivers to facilitate faster flow of water. Multiple studies have shown that the reduction of mosquito-breeding habitat through environmental management has significantly decreased mosquito abundance in surrounding areas.

Hence, with a focus on community-level environmental management as a component of malaria control, it becomes crucial to determine existing beliefs regarding the link between malaria and the environment, and how these beliefs relate to environmental management practices.

As the findings revealed, education on environmental management offered by M-Zinduka malaria campaign has led to reduction of incidence of malaria transmission. This researcher shares the same view with the residents who strongly agreed that M-Zinduka malaria campaign has managed to educate people on environmental management to control and prevent malaria.

This implies to the researcher that M-Zinduka malaria campaign has managed to reduce incidence of malaria transmission through educating people on environmental management.

To this researcher, environment management relates with prevention, reduction and eradication of malaria in Tanzania, just because, dirty environment attract and create a big chance for mosquitoes to live and produce their eggs and as a result, malaria mosquito insects attack human beings and disseminate its viruses then malaria erupt because of such dirty environmental area. Therefore, health mediated campaign slogans on environmental management, can help people in preventing, reducing and eradicate malaria in Tanzania.

The researcher supports USAID (2013) report that revealed there were some improvements towards reduction of malaria related deaths in the respective regions as more people became aware concerning the prevention of malaria.

## 4.4 Objective Two: The Effectiveness of the Strategies used during the Implementation of M-Zinduka towards Reduction of Transmission of Malaria

The second objective aimed at finding out the effectiveness of M-Zinduka strategies towards reduction of transmission of malaria. Data to answer this objective was collected by using interviews from some officials at Magomeni Hospital. Major findings were:

- i) Zinduka Heath Mediated Campaign on Malaria has helped to reduce the Rate of Malaria Spread;
- ii) Zinduka Health Mediated Campaign, which has reached almost everyone in the society, has helped to reduce the mortality rate of among children below five and
- iii) Zinduka Health Mediated Campaign has reached almost everyone in the society.

**Data from Questionnaire:** The study question 2 was: How would you rate the effectiveness of the strategies used during the implementation of M-Zinduka campaign towards reduction of transmission of malaria?

This study wanted to find out the effectiveness of the strategies used during the implementation of M-Zinduka malaria campaign. A total of 20 respondents were provided with the questionnaire. A total of 10 out of 20 respondents strongly agreed with the effectiveness of the strategies used during the implementation of the campaign in their community in all aspects indicated in the table, while 10 out of 20 respondents agreed on two 2 aspects. Table No. 4.6 describes the data more clearly.

Table 4.6: The Effectiveness of the Strategies Used during the Implementationof M-Zinduka in Reduction of Transmission of Malaria

Effectiveness	Strongly disagree	Disagree	Agree	Strongly agree
Zinduka health mediated campaign on malaria has helped to reduce the rate of malaria spread and the number of people suffering from the disease came down.				$\checkmark$
Zinduka health mediated campaign on malaria has helped to reduce the rate death among children below five (5) years and pregnant women in Tanzania.			V	V
Zinduka health mediated campaign on malaria has reached almost everyone in the society as it involved musicians, medias such televisions, radios etc. and political leaders.			$\checkmark$	V

Source: Field Data, 2019

Data from Interviews: A total of 40 respondents were interviewed. The following

are their answers:

#### 4.4.1 Zinduka Health Mediated Campaign on Malaria has helped to reduce the

#### **Rate of Malaria Spread**

About 19 out of 40 respondents from Magomeni Hospital who responded to the question revealed that M-Zinduka health mediated campaign has helped to reduce the rate of malaria spread.

For example, one of the health officials at the Magomeni Hospital said that:

"Through M-Zinduka health mediated campaign, in collaboration with Tanzanian Government through its Health Ministry, has managed to reduce the incidence of malaria transmission by encouraging people to go for tests and treatment. I congratulate M-Zinduka in collaboration with Health Ministry for its initiative because to large extent it managed and helped to reduce the rate of malaria through their testing and treating as part of their campaign."

Another health official at the hospital said:

"Following the commencement of the M-Zinduka health mediated campaign in Tanzania, there has been a reduction in the rate of malaria spread and this happened because people get tested and get treatment."

The researcher has arrived at the conclusion that health campaign is an integral aspect of interventions that seek to address individual, community and social factors and can have a significant impact on many levels of health intervention implementation. M-Zinduka campaign exposure plays a pivotal role in health communication and adoption of a healthy lifestyle.

To this researcher, M-Zinduka campaign is extremely important in the fight against malaria not only because it offers considerable instrumental value, but also because it facilitates access to interventions that aid the prevention, treatment and care for the ailment. It will also reduce vulnerability to the disease, improve advocacy, and subsequently enhance mobilisation and networking.

Researcher supports health officials at Magomeni Hospital who were interviewed and strongly agreed with the finding that M-Zinduka health mediated campaign on malaria has helped to reduce the rate of malaria spread and the number of people suffering from the disease came down.

To the researcher, this that M-Zinduka campaign is effective in reducing the rate of malaria spread and the number of people suffering from the disease came down. The researcher agrees with the study by Steinhardt et al., (2017) who found that mass ITN campaigns reduce clinical malaria.

#### 4.4.2 Zinduka Health Mediated Campaign on Malaria Has Helped to Reduce

#### the Rate of Death among Children below 5

Again, 13 out of 40 respondents at Magomeni Hospital indicated that the M-Zinduka campaign on helped to reduce the rate of death among children below 5.

For example, one of the respondents said that:

"To a large extent, M-Zinduka campaign in Tanzania has managed to lower the rate of deaths among children below 5 which was initially high. Through the media, I have witnessed and see reduction in the rate of incidence of malaria transmission as well as deaths of children below five (5) years in the country nowadays due to the effort and initiatives by M-Zinduka health mediated campaign."

#### Another respondent said:

"We now realise the benefits of M-Zinduka health mediated campaign in our area as it has managed to lower the rate of death of children below 5 years of age and pregnant mothers."

Yet another respondent said:

Apart from reducing the number of deaths among children below 5 years of age and pregnant women in the community; the campaign sensitises women to attend clinic during pregnancy period and during child care."

This researcher believes that reduction of deaths associated with malaria in children is the primary goal of malaria control programmes in Tanzania. Mass media campaigns have the potential to reach a large audience at a relatively low cost. As such, they have an important role to play in behavioural change with the aim to improve child survival in low-income and middle-income countries.

The researcher believes that to promote use and uptake of these malaria prevention strategies, mass media campaigns have been perceived as useful in sensitising people in the community on the effectiveness and long term benefits of correct and consistent use of the ITNs during pregnancy.

The researcher shares the view of the interviewed officials who strongly agreed with the suggestion that M-Zinduka health mediated campaign on malaria has helped to reduce the rate deaths among children below 5 years of age and pregnant women in Tanzania.

This implies to the researcher that M-Zinduka campaign is effective in reducing the rate of death among children under the age of 5 and pregnant women in the country.

The researcher further agrees with Ankomah et al., (2014) who submitted that the use of mass media in promoting the use of bed net is effective.

According to them, pregnant women who followed to communication campaigns were more likely to adopt strategies for prevention and control of malaria than those who didn't.

# 4.4.3 Zinduka Health Mediated Campaign Has Reached Almost Everyone in the Society

A total of 12 respondents out of 40 respondents who were interviewed at Magomeni Garage area responded to this interview question said they believed that the M-Zinduka health mediated campaign has reached almost everyone in the society during its campaigns to control, treat and prevention malaria in Tanzania.

For example, one of the respondents said that:

"The M-Zinduka health mediated campaign has managed to disseminate information regarding malaria prevention and control to people throughout the country by means of their M-Zinduka anthem. Due to its effectiveness, M-Zinduka health mediated campaign has managed to reach almost everyone in the society as it involved musicians, media such as televisions, radio newspapers as well as political leaders."

Another respondent said:

"I remember hearing of the campaign when I was in the village; we used to listen to the radio and hear about the M-Zinduka malaria campaign. We were very interested and enjoyed the message." The researcher believes that the influence of M-Zinduka health mediated campaign through mass media has an effect on many aspects of the human life. It is the actual force exerted by a media message, resulting in either a change or reinforcement in individual beliefs. Thus, a well-focused mass media campaign, educational programme has the potential to contribute successfully to community education and the prevention of malaria.

This researcher's findings show that M-Zinduka campaign is effective as it has managed to reach almost everyone in the society.

The study are that officials who were interviewed strongly agreed with the argument that Zinduka health mediated campaign on malaria has reached almost everyone in the society as it involved musicians, medias such as television, radio, newspapers as well as political leaders.

This makes the researcher arrive at the conclusion that M-Zinduka campaign is effective as it has managed to reach almost everyone in the society.

The researcher's findings are in concord with Gamble and Gamble (1999), who assert that mass communication is significantly different from other forms of communication. The authors noted that mass communication has the capacity to 'simultaneously' reach thousands of people who are not related to the sender.

### 4.5 Objective Three: The Challenges Facing the Implementation of M-Zinduka Campaign towards Reduction of Malaria Transmission

The third objective aimed at finding out the challenges facing the implementation of M-Zinduka campaign towards reduction of malaria transmission. Data to get answers for this was collected by using interviews with some officials at the Health Department in Kinondoni Municipal offices in Magomeni Ward. Major findings were:

- Limited Impact of the Health Education and Information Communication on Behavioural Changes to Community Members;
- ii) Non Replacement of Mosquito Nets Worn Out to Community Members and
- iii) Lack of Sufficient Fund for Reduction of Malaria Transmission and
- Resistance among Community Members to attend Diagnosis and Taking Medication.

**Data from the Questionnaire:** The Study Question 3 was: How would you rate the challenges facing the implementation of M-Zinduka campaign towards reduction of malaria transmission?

This study wanted to find out the extent to which challenges facing the implementation of M-Zinduka campaign towards reduction of malaria transmission. A total of 20 respondents were provided with the questionnaire. A total of 9 out of 20 respondents said they two (2) aspects as indicated in the table that, to a large extent, there were challenges which faced the implementation of M-Zinduka campaign towards reduction of malaria transmission in their community, while 5

respondents out of 20 agreed on 1 aspect that challenges are normal and 6 respondents out of 20 agreed on 3 aspects that challenges are sometimes happened as indicated in the table. Table No. 4.6 describes the data more clearly.

# Table 4.7: The Challenges Facing the Implementation of M-Zinduka Campaigntowards Reduction of Malaria Transmission

Challenges	To a large extent	Normally	Sometimes
Serious obstacles in most disease control strategies, include lack of effective health information, education, and communication programmes.	$\checkmark$		
Health education and information communication provided to the community has limited impact on behavioural changes to community members.			V
Sustainability of malaria control measures by households has been difficult due to the fact that Mosquito nets worn out are not replaced and re-treatments are not done in time to provide a continuous protection against mosquito bites.		V	
To a large extent implementation of M- Zinduka campaign towards reduction of malaria transmission has been hindered by lack of sufficient fund.	$\checkmark$		
Implementation of M-Zinduka campaign towards reduction of malaria transmission has been hindered by resistance among community members to attend diagnosis and taking medication.			1
Implementation of M-Zinduka campaign towards reduction of malaria transmission has been hindered by lack of interest and awareness among members of the community.			V

Source: Field Data, 2019

Data from Interviews: A total of 40 respondents were interviewed. The following

are answers:

## 4.5.1 Limited Impact of the Health Education and Information Communication on Behavioural Changes to Community Members:

Through M-Zinduka health mediated malaria campaign, 11 Kinondoni Municipal respondents out of 40 respondents who were interviewed responded to the question revealed that M-Zinduka campaign faced a challenge of limited impact of the health education and information communication on behavioural changes to the community members.

For example, one of the respondents said:

"In most cases people realise that despite the dissemination of health education and information communication by M-Zinduka campaign, the disseminated health education and information communication provided to the community has limited impact on behavioural changes to community members. Health education and information has a limited impact on behavioural changes to community members because most of them still have their traditional beliefs and use their traditional medicines. Some people believed on the health information provided by their traditional medicines and doctors."

Another respondent said:

"There are people who believe that using treated mosquito nets that have different colours and treatment added to then may have side effects to men's reproductive system. That's why one of the officials said most of the people refused to use the freely distributed mosquito nets."

The researcher is of view that health education communication is one of the key components in malaria control and prevention. Serious obstacles in most disease control strategies include lack of effective health information, education, and communication programmes.

Community and health providers need to understand the problem in all its relevant aspects, as well as be aware of the options available for improvement. For individuals and households, effective health communication can help raise awareness of health risks and solutions, it helps them find support from other people in similar situations, and affect or reinforce attitudes.

In Tanzania, available information indicates that health education and information communication provided to the community has had limited impact on behavioural changes and hence disease prevention and control. In part, this is due to the ineffective communication strategies used in health education communication programmes between systems and providers. This implies to the researcher that, health education and information communication provided to communities has limited impact on behavioural changes to community members.

The researcher agrees with Magesa et al., (2005) who argue that although various studies in the country have indicated that healthcare facilities are the most reliable source of health education, such facilities are often not accessed by many people particularly in rural areas because of healthcare charges, long distances, inadequate and unaffordable transport systems, poor quality of care, equity, poor governance, and inadequate human resource.

#### 4.5.2 Non Replacement of Mosquito Nets Worn Out to Community Members

Again, 14 out of 40 respondents at Kinondoni Municipal who were interviewed responded to the question and revealed that M-Zinduka malaria campaigns faced a challenge on non-replacement of mosquito nets worn out to community members.

For example, one of the respondents said:

"When the nets I have are worn out or may be, get burnt, I would need to get a new net. If I don't get the net from the shops it would be difficult for me to sleep well and prevent malaria because I don't want to get sick with malaria."

Another of the respondents said:

"In most cases sustainability of malaria control measures by M-Zinduka campaign has been difficult due to the fact that mosquito nets are not replaced in time to provide a continuous protection against mosquito bites."

Yet another respondent had this to say:

"M-Zinduka health mediated campaign has not effectively managed to control malaria in the society as there is usually no arrangement for replacement of worn out mosquito nets. And then we have people who declined to use the nets because they believed that the nets have side effects to their health!"

Although M-Zinduka health mediated campaign has managed to disseminate information regarding malaria prevention and control, too many people throughout the country, the researcher is of the conclusion that there is no working arrangement of mosquito nets replacement.

To achieve a suitable and significant gain in the reduction of morbidity and mortality by reduction of transmission, researcher is of the view that it is probably necessary to reduce parasite exposure to low levels. With the present interventions this has not been achieved in the high-transmission zones.

The researcher is of the view that sustainability of control measures by households has been difficult due to the fact that mosquito nets worn out are not replaced and retreatment is not carried out in time to provide a continuous protection against mosquito bites.

This implies to the researcher that there is no replacement of mosquito nets to protect malaria and mosquito bites. People should continue with controlling and preventing malaria by using mosquito nets as indicated by the findings.

Consistent with Alaii et al., (2003) and Atkinson et al., (2009), argue with them that, many participants reported only using the ITNs during hot seasons when perceived mosquito densities were highest, even though a number were aware that malaria could be transmitted in other seasons well.

Toe et al., (2009) said that the mosquito net was primarily used to combat mosquito nuisance when necessary, rather than as a form of malaria control.

## 4.5.3 Lack of Sufficient Fund for Reduction of Malaria Transmission

During the control, prevent and treatment of malaria campaign under review, 19 out of 40 respondents in Kinondoni Municipality responded to the interview question saying that M-Zinduka was bogged down by insufficient funding.

For example, one of the respondents said that:

"M-Zinduka health mediated campaign was mainly hindered by lack of sufficient funds in performing its functions because it was difficult to reach people in some areas because of bad infrastructures where M-Zinduka could have opt for another transport to reach them, but they lacked sufficient funds to achieve the envisaged objectives." Another respondent said:

"M-Zinduka campaign had lack of funds to make them fulfill their campaign in some parts which needed M-Zinduka staff to go and educate them on malaria prevention and treatment."

To the researchers, a vital component of a successful control programme is robust commitment from senior managers to the programme. This commitment is important for ensuring sufficient funds are made available.

The researcher believes that to eliminate malaria requires additional funding within affected areas. This should be coupled with developing sound strategies to preventing malaria, such as conducting integrated sensitisation and outreach campaigns along with strengthening health systems.

However, the researcher believes that little funds are available for malaria control and elimination such as diagnosis, treatment, monitoring and awareness on malaria prevention.

This implies to the researcher that, implementation of M-Zinduka campaign towards reduction of malaria transmission has been hindered by lack of insufficiency of funds.

The researcher supports Mathanga et al., (2011) efforts to reduce malaria morbidity and mortality in some African countries that are currently designed to treat cases, lessen incidence of severe disease in mothers and children, and reduce Plasmodium transmission through modern prevention methods. Their government's pursued a strategic plan that involved prompt access to artemisinin-based combination therapy (ACT) for all, widespread use of intermittent preventive treatment in pregnancy (IPTp), distribution of ITNs and LLINs, and localised use of indoor residual spraying (IRS). Through various donors, including PMI/USAID, the UK Department for International Development (DFID), and the Global Fund, funding for malaria treatment, prevention and control has increased considerably, particularly during the past half-decade.

# 4.5.4 Resistance among Community Members to attend Diagnosis and Taking Medication

A total of 13 out of 40 respondents from Kinondoni Municipality who responded to the interview question revealed that M-Zinduka malaria campaign faced a challenge of resistance among community members to attend diagnosis and taking medication during its campaign to fight against malaria.

For example, one of the respondents said:

"Some people have the tendency of using traditional medicine-men and treatment. These never bother to go for check-up in modern medical facilities, a situation that hindered the effectiveness of M-Zinduka campaigns. Diagnosis and drug resistance was among of the major barriers in the efforts in the control and prevention of malaria efforts under the M-Zinduka campaigns in some areas. Lack of awareness and cultural barrier among members of the community hindered the implementation of M-Zinduka campaigns in some parts of the country."

#### Another one said:

"In-spite of the use of mass media such as newspapers, radio and television, during the M-Zinduka campaign on how to prevent and control malaria in the country, there're resistance's community members to believe the campaign messaging because they said those medications

were not good for their reproductive system and they may result in failure to have children in future."

To the researcher, the implementation of M-Zinduka health mediated malaria campaign towards reduction of malaria transmission, has been hindered by resistance among community members to attend diagnosis and taking medication.

This study reveals that there are some people in certain communities who believe that being tested for malaria goes against their traditions and so they opt to seek the help of traditional healers whom they most trust. Some people do not go to hospital to undergo tests because of such beliefs.

But again, apart having no or little confidence in modern way of diagnosis, , the same people prefer traditional medicines from traditional healers to tablets or injection available in hospitals.

They may, at times, sick and decide to buy malaria drugs at some pharmacy without bothering to consult a qualified doctor or undergoing tests.

This implies to the researcher that, implementation of M-Zinduka campaign towards reduction of malaria transmission has been hindered by resistance among community members against medical examinations and modern medicines.

The researcher agrees with Baird (2005); Laxminarayan and others (2006); WHO (2002a) with regard to diagnosis and effective clinical treatment for malaria and that an accurate diagnosis is based on detection of the parasite and, if laboratory

diagnosis is not feasible, on clinical grounds. Health workers must monitor the therapeutic efficacy of drugs closely and change treatment policies when parasite resistance to medicine for example Chloroquine, SP, and other drugs emerges.

The researcher supports Arrow, Panosian, and Gellband (2004); Yeung and others (2004) concerns which include unreliable and inaccurate microscopy and the disadvantages of alternative tests plus the widespread distribution and use of substandard and counterfeit drugs. The recommended treatments for malaria in areas with resistance to single drugs are combination treatments, preferably Artemisinin Combination Therapy (ACT) (WHO 2001a, 2001b, 2003a, 2005). While ACT is a welcome, life-saving approach, more information on the cost-effectiveness of this new strategy is needed.

Baird (2005) reports that ACT costs range from US\$2.00 (artesunate-amodiaquine, three doses in 48 hours) to US\$9.12 (*artemether-lumefantrine*, six doses in 48 hours) per adult treatment; WHO has obtained the latter drug for US\$2.40 per adult treatment for qualified purchasers, meaning those from low-income malarious countries.

#### **CHAPTER FIVE**

# CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

This section provides conclusion and recommendations based on the research findings.

#### 5.2 Conclusion

This study reveals that the M-Zinduka malaria campaign was very successful and well implemented, not only in that people became aware of the disease prevention and treatment, but also, virtually all respondents strongly agreed that even the rate of deaths caused by malaria sharply decreased after the introduction of the campaign to the community.

Malaria Zinduka (M-Zinduka) campaign was most powerful and much more vocal. It was very well received and brought about a very big change in targeted communities, especially the use of mobile phones which, at the time of the campaign, people in the community were not very well aware of.

With mobile phones, there was a system of sending messages known as E-Zinduka which brought a very big influence and convince the community whom by that time, and to some point, had no idea.

Apart from that technology, there was a song which also added value to the implementation of the campaign in Tanzania especially in Mwanza Region all Lake

Zone regions, Morogoro, Tanga, Dar es Salaam, Mtwara, Lindi, and Songea regions.

Young people were also involved in the campaign and they used short messages about the campaign through what is referred to as Edu-tainment—education imparting through entertainment. Mass communication was very successful in the campaign.

## 5.3 Recommendations

#### 5.3.1 For Action

 Use of Mass Media: The findings indicate that M-Zinduka malaria campaign has created a sense of awareness to people in Tanzanian communities through the use of mass media such as newspapers, radio and television on how to prevent and control this scourge.

The campaign employed education and information dissemination the public on how to prevent and control malaria. The M-Zinduka campaigns made extensive use of mass media to encourage people to participate in the diagnosis and treatment of as means to prevent and control the disease.

The campaigns further distributed mosquito nets to people and providing counseling and guidance to community with regard to control and prevention of malaria. , Zinduka malaria campaigns had been educated people on environmental management to control and prevent malaria. From this, it is recommended communication programmes to be tailored to specific communities basing the information on community generated problems and solutions. Community participation and involvement is also encouraged to ensure that communities are part of the communication and intervention programmes at every level.

ii) Zinduka Health Mediated Campaign: The findings indicate that Zinduka health mediated campaign on malaria has helped to reduce the rate of malaria spread; and furthermore, the number of people suffering from the disease came down, helped to reduce the rate death among children below the age of five 5 and pregnant women in Tanzania. On top of that, Zinduka health mediated campaign on malaria has reached almost everyone in the society, the study notes.

The study recommends that malaria strategy should include; environmental management of mosquito breeding and resting sites, direct attacks on the mosquito larvae, clever design and operation of water resource development projects.

iii) Health Education and Information Communication Provided to the Community: The findings indicate that implementation of M-Zinduka campaign towards reduction of malaria transmission has been hindered by lack of sufficient funding, resistance among community members to go for diagnosis and taking medication. It also reveals that health education and information communication provided to the community has limited impact on behavioural changes to community members and that mosquito nets worn out are not replaced in time to provide a continuous protection against mosquito bites.

The study recommends the central Government in collaboration with agencies for malaria control should frequently distribute mosquito nets to communities along with allocating sufficient funding and qualified health workers to rural areas to sensitize communities on malaria control and prevention.

#### **5.3.2 For Further Studies**

The researcher suggests that the next researchers can look on Social Media Campaign to address the issues that the researcher have not touched because of various reasons example short time the researcher have had for this study.

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## **APPENDICES**

**APPENDIX I:** Questionnaire to Residents:

## Dear respondent,

The aim of this research is to assess *"the contribution of health mediated campaign slogans against malaria in Tanzania"*. You are kindly requested to assist the undersigned student who pursues Master's Degree programme. Your response will serve as source of information to this research paper for academic purposes.

Student Name: ----- Date: -----

**INSTRUCTIONS:** Please read the question carefully and answer by either filling in the blanks or put a tick ( $\sqrt{}$ )

**PART I:** Demographic Characteristics of Respondents:

- 1. Sex:
  - Male ( )

Female ( )

- 2. **Age:** 
  - 21-30 yrs ( ) 31-40 yrs ( ) 41-50 yrs ( ) 51-60 yrs ( ) 61 yrs and above ( )

# 3. Level of Education (Highest Qualification):

Ordinary Level ()

High schools ()

Certificates ()

Diploma ()

Undergraduate degree ( )

Master's Degree ()

# 4. Work Experience:

 1-5 years
 ( )

 6-10 years
 ( )

 11-15 years
 ( )

 16 up to 20
 ( )

 20 and above
 ( )

**PART II:** Study Questions:

Question 1: How would you rate the extent to which M-Zinduka campaign has

contributed towards reduction of malaria transmission?

Statement	Strongly disagree	Disagree	Agree	Strongly agree
alaria campaign has created a sense of ess to people in the community through the mass media such as newspapers, radio and ons on how to prevent and control malaria.			$\checkmark$	$\checkmark$
M-Zinduka malaria campaign employed education and information dissemination to the public on how to prevent and control malaria.			V	
ZINDUKA malaria campaigns made use of mass media to encourage many people to participate in the diagnosis and treatment of malaria as means of prevention and control.			$\checkmark$	$\checkmark$
ZINDUKA malaria campaigns distributed mosquito nets to the residents towards the prevention and control of malarias.				$\checkmark$
Counseling and guidance were being provided to members in the community against control and prevention of malaria.			$\checkmark$	
More people were educated on how to control and prevent malaria such as environmental management.			$\checkmark$	$\checkmark$

APPENDIX II: Interview guide to government officials and leaders from Non-

Governmental Organisations (NGOs):

Question 2: How would you rate the effectiveness of the strategies used during

the implementation of M-Zinduka campaign towards reduction of transmission of

malaria?

Effectiveness	Strongly disagree	Disagree	Agree	Strongly agree
Zinduka health mediated campaign on				
malaria has helped to reduce the rate of				
malaria spread and the number of people				$\checkmark$
suffering from the disease came down.				
Zinduka health mediated campaign on				
malaria has helped to reduce the rate				
death among children below five (5) years				
and pregnant women in Tanzania.				
Zinduka health mediated campaign on				
malaria has reached almost everyone in				
the society as it involved musicians,			$\checkmark$	$\checkmark$
medias such televisions, radios etc. and				
political leaders.				

Question 3: How would you rate the challenges facing the implementation of M-

Zinduka campaign towards reduction of malaria transmission?

Challenges	To a large extent	Normally	Sometimes
Serious obstacles in most disease control strategies, include lack of effective health information, education, and communication	$\checkmark$		
programmes. Health education and information			
communication provided to the community has			$\checkmark$
limited impact on behavioural changes to community members.			
Sustainability of malaria control measures by			
households has been difficult due to the fact that			
Mosquito nets worn out are not replaced and re-			
treatments are not done in time to provide a			
continuous protection against mosquito bites.			
To a large extent implementation of M-Zinduka			

campaign towards reduction of malaria transmission has been hindered by lack of sufficient fund.	N	
Implementation of M-Zinduka campaign towards reduction of malaria transmission has been hindered by resistance among community members to attend diagnosis and taking medication.		$\checkmark$
Implementation of M-Zinduka campaign towards reduction of malaria transmission has been hindered by lack of interest and awareness among members of the community.		$\checkmark$

# THANK YOU FOR GOOD COOPERATION