

**AN ASSESSMENT OF EFFECTIVENESS OF RADIO SUNSET CAMPAIGNS TO
MITIGATE MALARIA IN HOMABAY COUNTY**

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DECLARATION

The project is my original work and has not been presented for the award of a degree in any other institution

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Date: 28th October 2021

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This project has been submitted to the University of Nairobi for examination, with my approval as the supervisor

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ABSTRACT

“This study investigated the role of community radio in mass media campaigns to mitigate malaria in Homabay County. Therefore, the importance of community radio campaign messages on public health cannot be stressed enough. In this respect, community radio is key in complementing government efforts to create malaria awareness among the affected communities. This would enable the government to embark on processes that would eradicate malaria and other preventable diseases in the country. To assist in the research to find out whether community radio is adequately utilized for campaigns in public health, the researcher interviewed staff at the Radio Sunset - a community radio station based in the county. The staff interviewed decried lack of cooperation between health workers and the journalists when it comes to malaria awareness. A questionnaire was administered for quantitative data and structured questions for key informants. 113 respondents from a sample size of 394 was collected using Taro Yamane’s statistical formula. Interviews were also conducted with 10 identified key informants. Primary data gathered was from the population living in Central Ward in Homabay Town Constituency. Secondary data relied on documents from health facilities and the relevant government offices, including from similar academic works done earlier. Data was analysed using tables, pie charts and bar charts. The study concluded that whereas radio has a wider reach and is also an important tool to disseminate public health awareness messages, community radio stations are faced with challenges. The stations are not profit making media houses hence, rely solely on well-wishers and/or individuals for funding. Sunset Radio staff we interviewed acknowledged that there were no specific slots for malaria programmes in their programming schedules. The study observed that Dholuo is the preferred language spoken and understood by majority of residents in the county. Therefore, they criticized public health promoters for not involving public participation even in their local spoken language to create public awareness on their health. Public health promoters also charged county residents for not adhering to lay down public health guidelines. The study therefore, recommends; firstly, suitable use of community radio to reach a large number of area residents for malaria awareness. Secondly, that the Ministry of Health sponsors malaria programmes on community radio stations in Homabay County to mitigate malaria cases to avoid further loss of life”.

CHAPTER ONE

INTRODUCTION

1.0 Overview

Mass media and community radio in particular, are important tools that should be used to communicate public health matters to the affected communities. Many people suffer due to insufficient knowledge on how to improve their health status. This chapter highlights the severity of malaria - how it was and still rampant in some countries and how others have mitigated and/or eradicated it through media campaigns. Homabay County is one of the areas that bear the biggest burden of malaria in Kenya, yet the use of community radio stations in the county is not maximized for public health media campaigns. The County Government of Homabay is obligated to work with the national government and other organisations that work with governments of countries affected by the pandemic. This will alleviate the suffering of the affected population.

1.2 Background

Developing countries, especially in Africa, are faced with challenges of better health care for their citizens without which, their economies are threatened by under-development. It is in this regard that the mass media – radio, television and print - must be effective in disseminating campaign messages for the promotion of good health practices as strategies in curbing malaria.

In our case study, the researcher is focused on the role community radio plays in Homabay County, to effectively communicate malaria messages in a language (Dholuo) well understood by the population. The study hopes to impart knowledge about the disease to the community

residing there. This project seeks to put into context the relevance of community radio as a strategic communication tool that empowers Homabay residence with information on malaria awareness to mitigate effects of the disease.

The pandemic is one of the deadliest diseases in the world; it is responsible for the deaths of children under the age of five years, teenagers and pregnant mothers. The media does not highlight malaria fatalities as much as they do other cases of cancer and HIV/AIDS and now COVID-19, though its severity is as deadly. Almost half of the world's population is at risk of deaths caused by the epidemic. Malaria can be prevented and treated, if the community affected by the disease is adequately informed on the preventive measures.

The burden of malaria is mostly among the poorest members of the community who have no money to access proper treatment. Lack of access to health information among them have led to their death; something that can be prevented with knowledge and allow health practitioners in conjunction with community radio stations, to assist in good time. Easy access to health information is the pillar of growth and improved health. In Developing countries, many poor people, especially women in rural areas, have a myriad of health problems due to poor access of information. This undermines efforts by health workers to provide services closer to the affected population and sensitise them on the severity of the pandemic and preventive measures. Health information requires innovative strategies to achieve it through communication campaigns. The campaigns cannot be effective without the use of the mass media. Globally, mass media has been touted as the most effective tool for public health promotion and the key source of information. Mass media is important in spreading messages of public health information, acquisition of knowledge, behaviour change, attitude and public participation of the targeted audience on health matters. Therefore, the anti-malaria communication campaigns have two objectives. Firstly, to

work closely with health care givers and policy makers in packaging anti-malaria messages through the right channels to the right target audience. Secondly, communication campaigns, through the media will assist in highlighting new malaria cases therefore, creating awareness to trigger quick response from the implementing bodies of the government, its partners and health workers. Community radio is instrumental in advocating for the use of the right tools such as Insecticide Treated Nets (ITNs) to sensitise pregnant mothers on how to prevent the transmission of malaria to their unborn babies. Other forms of communication literacy in health facilities could boost awareness on the disease.

The contribution of the mass media especially community media (radio) is vital for spreading campaign messages. The Mass Media and Information Dissemination Approaches are essential in campaign efforts due to their easy accessibility even to the remotest regions. Procuring support from professional bodies in advocacy efforts, may endorse campaign messages by anti-malaria advocates. Mass media campaigns involving artists or celebrities such as athletes, musicians, actors, media personalities, et cetera, may demystify behavioural and social perceptions on campaign messages. This might increase the number of patients visiting health facilities once they experience malaria symptoms, as opposed to over the counter self-medication. Involving community/opinion leaders in social mobilization and religious leaders including faith-based mass media as anti-malaria campaign ambassadors, are strategies necessary to eradicate malaria. The media involvement is a sure way of involving community participation to achieve awareness for prevention, mitigation and eventual eradication of malaria. Various leaders in society can help in influencing behaviour and change of attitude among people by frequent interviews on community radio, because they are opinion shapers. However, most interventions by the mass media on public health are not initiated by media houses, but are

informed by external players, consequently denying the target audience participation in what affects them.

Globally, campaigns against malaria have received a major boost from the United States of America President's Malaria Initiative (PMI) to reduce malaria related mortality by 50% across 15 highly vulnerable countries in Africa, especially in the south of sub-Sahara and South-East Asia. The PMI strategy was for long-term vision for malaria control in which sustained high coverage with malaria prevention and treatment intervention would then lead to malaria-free zones in Africa, which is the ultimate goal of the World Malaria Eradication by 2040-2050. The PMI, initially, had fifteen countries prone to malaria in their Strategic Plan of 2011. The strategic plan included four new sub-Saharan countries and regional programme in the Greater Mekong sub-region of South-East Asia. (*USAID, PMI Report, 2018*). Paraguay is one of the first America countries certified as malaria-free, after Cuba in 1973. The WHO emphasizes the significance of Paraguay's achievement as a representative of a well-managed public health care. As much as community radio is a powerful tool to passing crucial public health information to the masses, achieving the zero cases of malaria is dependent on political good will and leadership, investment in malaria programmes at national level, as well as sustained communication campaign strategies. To mitigate malaria, there is need for sustained efforts from government agencies and communication and media advocates. Strengthening of partnership and ownership through campaigns, advocacy and coordination in malaria-prone countries can inform development goal agendas. The PMI, in an effort to control and eventually eradicate malaria in Africa and by extension, globally, selected Kenya in the fiscal year 2017, as a PMI focus country.

There are lessons to learn by stakeholders of successful communication campaign strategies implemented to eliminate malaria pandemic in countries like Paraguay and in India where the eradication of polio using mass communication strategies were a success. These strategies can be applied in Kenya to eradicate malaria. The 2019 census conducted in Kenya by the Kenya National Bureau of Statistics puts the population of Kenya at 47.5 Million. The populations residing in arid and semi-arid areas, around lakes or oceans are more endemic to malaria than the rest of the country. Of the population, children under the age of 5 years account for 16%. Children and pregnant mothers are at more risk of contracting the disease, with pregnant mothers at a position of double risk of contracting it because of anaemia, which is also a major cause of death in pregnant mothers.

The study aimed to investigate the role, effectiveness of community radio campaigns of malaria messages and to uncover the challenges towards mitigation of the epidemic in Homabay County. It reviewed works done by other authors on the case study to find out what gaps still exist between health advocates and mass communication channels, as well as boost knowledge where necessary. Guided by recent Malaria Indicator Surveys in Kenya, the study conducted a survey in Central Ward of Homabay Town Sub-county. Primary data was collected among adult men and women of the ages of between 15 and 49 years, especially pregnant mothers. The study used the Mixed Method Design (i.e. Qualitative and Quantitative) by randomly selecting respondents willing to participate in the survey. The secondary data was conducted through questionnaires and from official documents from both national and county government offices, including academic institutions. The researcher upheld highly, good ethical concerns, because of the sensitive nature of cases arising from malaria infections and the age of respondents who are minors.

Findings of the research will add on to the already existing scholarly works on the topic of community radio campaigns to aid in mitigation of malaria. It will also help change the behaviour and attitude of residents of Homabay County and government officials who will start exploiting community based radio programmes on malaria to help residents in the county. The mitigation of malaria, facilitated by strong government health policies and effective communication advocacy strategies, could also help the Kenyan Government to direct development funds to other areas.

1.3 Problem Statement

There is evidence that the mass media can influence the behaviour and attitudes of people on certain issues. Most studies have focused on the role of the media in dissemination of information. However, how effective is the medium in highlighting public health information on diseases such as malaria in endemic areas, is an area that is not adequately researched on. Despite years of massive efforts by the World Health Organisation (WHO) to marshal bio-medical research to eliminate malaria, to this day, millions of children still die from the disease every year. In spite of the efforts by WHO and other partners in continuous reviews of radio communication strategies in the fight against malaria in Kenya, Homabay County has continually experienced new cases of malaria. The Homabay, Measure Evaluation – PIMA (September 2017) and the Ministry of Health Indicator Survey Report (2015) indicate that the county records malaria cases throughout the year, making it bear the burden of malaria annually. Malaria prevalence in Homabay County stood at 46% in 2016 up from 26% in 2012 - one of the highest malaria zones in Kenya. This is compared to malaria infections in other malaria zones such as Siaya, Kakamega, Mombasa, Kilifi, et cetera, at 41%.

There are worrying trends when a lot of time is spent on estimating rather than measuring the burden of malarial infections, as the intensity of emerging malaria transmission puts the population at risk. Children of ages 5 and below, including teenagers, exhibit new complicated malaria infections that put the latter group at more risk of mortality and morbidity than the children.

Homabay County

According to the Kenya National Bureau of Statistics Census of 2019, the population of Homabay County stands at 1,131,950 in an area of approximately 3,154.7 Square Kilometres in the former Nyanza Province. The five most common killer diseases in the county account for almost 70% of all morbidity cases with malaria accounting for 30% cases. Homabay County Integrated Development Plan (2013-2017) indicates that save for malaria; there are other diseases accounting for mortalities such as HIV/AIDs and other related diseases like pneumonia, meningitis, skin diseases and tuberculosis, which are also prevalent in the county, although malaria cases are singularly high.

The World Malaria Report 2018 indicates that the gains made in fighting malaria globally have halted after an exceptional period of success in global malaria control. There were an estimated 219 million cases and 435,000 related deaths in 2017. The World Malaria Report 2018 draws on data from 91 countries and areas with ongoing malaria transmission (*WHO, 2018*). The high numbers of malaria cases affecting the most productive and young members of Homabay County inform this study. Therefore, the outcome of this study will try to establish existing gaps that have slowed the pace of fighting malaria by communication campaign advocates to achieve their goal(s) and whether effective advocacy strategies of community radio are accurately applied to counter past failures in the awareness campaigns.

The study hopes to work with health professionals in highlighting any new knowledge developed to assist the affected population and challenges, if at all, in using community radio. This might push the national and county governments to re-strategise mass media health campaigns in malaria endemic areas and to prioritise public health wellness of their constituents by supporting malaria messages on community radio.

1.4 General Research Objectives

The general objective of this study was to assess the effect of Radio Sunset in malaria health campaigns in Homabay County. However, the study aimed to achieve the following specific objectives:

1.4.1 Specific Research Objective

- i. To investigate the status of malaria programmes broadcast by Radio Sunset;
- ii. To establish the effect of Radio Sunset and malaria awareness to its listeners;
- iii. To identify communication strategies to increase awareness of mitigation of malaria among Radio Sunset listeners;
- iv. To reveal factors contributing to listing of malaria awareness campaigns among its listeners in Homabay County.

1.5 Overall Research Question

The general research question guiding this study was, is Radio Sunset being used effectively for malaria health campaigns in Homabay County?

1.5.1 Specific Research Questions

- i. What is the present status of Radio Sunset malaria programmes targeted to change people's behaviour on awareness in Homabay County?

- ii. What is the effect of Radio Sunset on malaria programmes in awareness building among its listeners?
- iii. What are the best communication campaign strategies that can be more effective in mitigation of malaria awareness among Radio Sunset listeners?
- iv. What factors are affecting the malaria awareness campaigns among the listeners in Homabay County?

1.6 Justification/Rationale

There are many health challenges faced by developing countries, Kenya included. It is the wish of any government to improve the health sector for its citizens. This can only be changed through public health campaigns using the Mass Media, whether electronic or print. It is the easiest and fastest mode of communication to reach out to an audience for the intended message, whether it is political, health, education, news, et cetera. Community radio is the most preferred channel of communication, especially to the population that lives in the rural areas. Low levels of education, awareness-raising and skill building are one of the major deterrents in health care use (Kalam, 2018). Public health mass media and social marketing campaigns is an effective tool, which is widely used to improve health, behaviour, attitudes and awareness of people (Milat et al., 2005; Randolph et al., 2012) as quoted by Dr. MD. Mamun-Ur-Rashid (2019). Community radio is also charged with social change among people.

Many community radio stations in Kenya play a big role to aid a communicator in the dissemination of information to reach the target audience in a language best understood by them. Since malaria is one of the deadliest diseases in Homabay County, this study encourages

public health advocates in the county and the country at large, to use mass media more, especially community radio, for public health campaigns. Community radio has a wider reach of audience who depend on it for information. The major beneficiaries of this study will be Homabay County residents; a lot of morbidity time during the period of sickness could be channeled to other economic activities to better their living standards.

This study settled on Radio Sunset as a case study for community radio because it is also available Online for wider reach of listeners. New technology has made the accessibility of radio stations even more affordable through mobile phones, digital/smart television sets, computers, et cetera.

1.7 Significance of the Study

Increase in knowledge can change people's behaviour and attitude overtime with constant communication awareness campaigns. The campaigns are used to demystify some retrogressive beliefs regarding public health issues. Community radio is an important tool to create knowledge among the targeted rural audience. One of the functions of the media is to spread information to its audience, because globally, it has been widely publicized as the great influencer of behaviour and attitude in people, especially the youth. Effectiveness of community radio regarding communication campaigns against malaria in Homabay County was the focus of this study. Community radio has proven to have a wider reach of the population at the grassroots. The researcher hopes that the study will impact the public of Homabay County, where national and county policy-makers and their political leaders, will embrace community radio as an important tool to create awareness for public health, hence development.

1.8 Scope and Limitation of the Study

Scope of Study

Homabay County is one of the counties in the former South Nyanza in the western part of Kenya in the former Nyanza Province. As enumerated by the Kenya National Bureau of Statistics (KNBS), it has a population of 1,131,950 in an area of 3,154.7 square kilometres. Majority of the community eke a living through fishing from Lake Victoria, which is a major source of livelihood. The County is headquartered at Homabay town, which is the largest town in the county. It has 8 electoral constituencies and 40 assembly wards, among them, the Central Ward with a population of 22,781. The scope of the study was in the Central Ward of Homabay Town Sub-county.

The researcher visited Homabay Town, County offices and the County District Referral Hospital for this study. Other places were Radio Sunset premises, some local health facilities and market places in Rodi Kopany and Marindi. The general purpose of this study was to assess the effectiveness of Radio Sunset as a community radio, in mitigating malaria through programmes. Secondly, the research was also concerned with the ability of the station to communicate campaign messages to the community. Thirdly, whether the public health communication advocates engaged the station in public participatory programmes. The researcher used Communication in Health Advocacy and Communication Persuasion Model (CPM) to aid in the study.

The sample size that the researcher worked with was 394 informed by Taro Yamane's statistical formula.

Limitation of Study

Humans are social beings with different patterns of behavior and varied levels of intellect and consequently, they are very unpredictable. Thus to expect them to follow instructions may sometimes not yield desired reactions as far as research is concerned. This limitation could jeopardise results of the study. The unwillingness of some targeted respondents – in this case, county officials - to participate in the study and the time constraint of gathering; collating and analysing data was part of the limitation that the study faced. Owing to the sensitive nature of health matters, the researcher also encountered lack of cooperation from some respondents for primary data and from some offices during collection of secondary data. The survey was being conducted at a time when CORONA Virus had just hit Kenya, therefore curtailing movement. The CORONA fears made a majority of residents decline to take part in the survey for primary data. By the time the research was concluded, some respondents had not returned the questionnaires.

1.9 Definition of Terms

Community Radio – A non-profit radio station that offers its information services to people in a specific locality in a language widely accepted by the community, which it serves

Mass Media - They are channels by which messages and information are passed to the mass audiences through print and electronic media e.g. newspaper, magazines, poster, radio, television and social media

Communication - Impartation or exchange of information by way of speech/writing by other media; sending or receiving a message by phone, computer, et cetera.

Dissemination - The action or fact of spreading something widely, especially information

Campaigns - working in an organized and active way towards achieving a certain goal, typically a political or a social one

Awareness - The state of being conscious, cognisant or have interest in a particular situation or development

Advocacy - Public support for or recommendation of a particular cause or policy

Strategies - Plans or actions designed to achieve long-term or over aim(s)

Effective - Successful in producing the desired results

Malaria - A disease spread by mosquito, in which a protozoan parasite attacks the red blood cells causing an alternating and remittent fever

Transmission – A mechanism by which something is passed from one object to another

Vector - An organism or a biting insect or tick that transmits a disease or a parasite from one animal or plant to another

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

The previous chapter has captured the concept of why the researcher is doing this study by outlining the objectives of conducting a survey and on community radio and its effective role in public health campaigns. The discussion in this chapter follows empirical discussions on other studies by other researchers and scholars on malaria prevalence vis-à-vis studies on the same in Homabay County and how effective community radio has been in helping communication campaigners to advocate public health messages to the target audience. The study tried to establish whether the cultural/religious beliefs have an influence on the behaviour of the population under this study. The researcher presented theories and conceptual framework used in this case study vis-à-vis other case studies on this topic of research. The study will assist in illustrating how the mass media and especially community radio, as a mitigation tool, can influence the eradication of malaria in the county. The discussion concluded by a brief discussion on the importance of revamping information systems in helping the affected population of the case study.

2.1.1 Empirical Review

Malaria has been a subject of research on many occasions for scholars, other government agencies, Non-Governmental Organizations and other relevant research institutions. The epidemic remains one of the deadliest diseases in the world with regard to the number of people who die annually out of its causes. It is a major health burden considering how governments and their partners, including philanthropists do their best to come up with new strategies on eradicating it. This is because the transition from effective control to elimination of the

pandemic is proving futile. The concern rose from empirical studies that Malaria is one of the causes of morbidity and mortality in the world. The negative health effects on those affected have also negatively affected economic and social impact growth of the populations affected. In this regard, malaria has become a focal point of international development agenda with ambitious strategic measures put in place to eradicate it completely, globally. There are malaria control strategies that are in place: country-by-country and region-by-region, to eventually rid the world off the malaria epidemic. This will be possible if WHO will includes the mass media, especially community radio, as their mouthpiece in dissemination of malaria messages.

In 1955, WHO launched the Global Malaria Eradication Programme (GMEP) that aided countries in Europe, America and Asia to eliminate malaria by spraying insecticide through indoor residual spraying. However, in the late 1960s, the programme was abandoned, after it emerged that the malaria parasites had developed resistance to the insecticides, chloroquine, among other drugs for malaria. There was no break-through in countries in the Sub-Saharan Africa and some Asian countries such as Sri Lanka. The World Health Assembly then decided to revert to malaria control with the eventual aim of eradicating the epidemic in the most affected regions. The failure of GMEP led to better understanding of malaria and the new intervention methods to control malaria by treating bed-nets with insecticide - *Sufia Rahman, Microbiology Society in England (2020)*.

To eradicate malaria, there is need for sustained efforts from government agencies, notwithstanding most developing countries still have not met the WHO criteria of elimination of malaria. Some of the endemic countries may have the pre-elimination strategy as a long-term goal in their strategic plans. Strengthening of partnership and ownership through communication and media campaigns, advocacy and coordination in malaria-prone countries

can inform the development goal agendas. Africa loses approximately \$12 Billion (Ksh.1.2 Trillion) annually in the treatment of malaria, which is equivalent to the continent's Gross Domestic Product (GDP) per year, because of loss of life and low productivity. In 2012 an estimated 207 Million people suffered from malaria, which is a treatable and preventable disease (*WHO, et al 2010*).

The *East Africa Medical Journal*, (2011) reported an estimated 27 million Kenyans (about 70%) are infected with malaria and 34,000 death cases among children reported annually, due to malaria-related cases. Despite substantial reduction of transmission of malaria in parts of Kenya, communities living around the Lake Victoria Basin in the western side of the country are the most affected by malaria. The infections usually coincide with the rainy season. Observations are that malaria constitutes the highest number of patients visiting health facilities in Kenya followed by upper respiratory tract infections, skin diseases and diarrhea. As much as the Government of Kenya is trying to use effective control measures on malaria, some argue that the devolution of health to counties has hindered proper health services to communities living in malaria endemic areas - a phenomenon yet to be established. County governments may find it expensive to run media campaigns for the sake of the affected communities. The observation presently is that very few health campaign messages are advertised on mass media compared to when health was a national responsibility. In addition, there are few studies done on communication campaigns against malaria in Homabay County. The available ones such as the one conducted by the Ministry of Health - *Health at a Glance* – have shown that the County leads in the perennial malarial infections in Kenya with the disease accounting for 30% of all infectious diseases reported at health facilities. Homabay County is one of the most humid parts of Kenya, making it a fertile ground for the *Anopheles* mosquito to breed. Growing cases of Malaria in Homabay

County is the concern of our study since the county bears the most burden of the pandemic compared to other endemic areas in the Kenya. In light of the above, we will conduct the study in Homabay County using data collected between 2017 and 2018 to investigate the effectiveness of the community radio campaigns, vis-à-vis new emerging malaria cases in order to eradicate the pandemic in the long-term.

Effective communication activities should be integrated at all levels of programme/project activities to keep the issues of malaria concerns in the frontline. Promoting interpersonal communication may improve good relationship between the health providers and patients especially during campaign rallies. In the advent of technology in New Media and the liberalisation of the media airwaves, the old ways of calling for '*public barazas*' for issue-based campaigns, may not be as effective now as it used to be. A majority of the rural elite and those in cities and towns rely on social media for health information, among other social issues. But the rural-rural community may not afford the luxury of owning a television set, or a smart phone, not to mention WiFi, to enable accessibility of social media and digital television viewership. Many Developing countries are still struggling to control malaria, while others like Paraguay and recently Algeria and Argentina, have successfully eradicated the burden of malaria on their citizens. Four countries of Brazil, Eritrea, India and Vietnam have successfully reduced the malaria burden. Kenya can borrow communication strategies from these countries on how they eliminated malaria in their countries and apply the same here, specifically in the County of Homabay. The County government can also learn from communication strategies used in programme campaigns on how tuberculosis was eradicated in Peru, Eritrea and Vietnam. The determination of these countries and their partners to achieve successful impact on malaria was as a result of constant reviews of selected programme reports to identify

common factors that contributed to the anti-malaria successes. Other factors used are effective campaign tools, data-driven decision-making, and active leadership at all levels of government, involvement of communities, decentralized implementation, control of finances, and so forth. (Vittor et al, 2006).

In the publication of Health Communication Summary, (September 2004), the author emphasises effective communication strategies such as the need for proper dissemination of messages, stressing on free medical services to low income people who seek medical care, as one of the strategies used to eliminate tuberculosis in the mentioned countries. Other strategies are consistent dissemination of messages through national television, radio; community radio stations community gatherings, theatre shows, et cetera. These same strategies used to eliminate tuberculosis can apply to anti-malaria cases. In measuring malaria infections the aspects of the disease to be measured for accurate monitoring in the changing epidemiology is not obvious, because making a diagnosis of malaria should be based on relatively simple clinical features such as identification of parasites in peripheral blood smears (Irene N. et al 2016). The authors aver that high quality data on the actual burden of malaria is key in guiding control of malaria on the path to its elimination. However, what good will collecting high quality data of malaria cases assist in eradicating malaria, if the health practitioners do not advocate for public participation for the target community, to embrace the clinical features they describe?

In the process of eliminating malaria, political commitment is very essential when it is combined with resources. This is because political commitment increases awareness of issues affecting citizens through providing resources, which WHO concludes that without basic and support policies, a country could never eliminate diseases such as malaria. Therefore, there is need for sustained efforts that need not be directed to clinical activities only, but also to

effective communication advocacy (Kindig & Panzer, 2004). 89% of Africa's malaria control activities are funded and done by global programmes, only 11% is done by individual governments (Nkumama et al 2016). Communication strategies can be more effective in campaign programmes through consistent messages that are conveyed through proper communication channels such as on community radio. This approach emphasises the reinforcement of messages that enables the programmes to reach different far-flung areas in the County where residents of a particular area might be receptive to one form of communication over another.

Kenya Malaria Indicator Survey, 2015 and the World Health Organisation (WHO) estimated that 3.2 billion people were at risk of Malaria worldwide. Children between the ages of 0-5 and pregnant mothers are at a higher risk of contracting malaria. These statistics underpin the grimness of the malaria burden situation presently witnessed globally, also as a point of reference to the progress made in the control of malaria on the path to its ultimate eradication. The subsequent declaration at a Malaria Forum in Geneva, Switzerland in October 2007 convened by Bill and Melinda Gates Foundation, got a boost from the World Health Organisation (WHO), the Roll Back Malaria Partnership in the radical strategic control and elimination of malaria, and from other organisations and institutions such as GlaxoSmithKline donation Programmes, Malaria Vaccine Institute, et cetera. To achieve set goals for elimination of malaria, all global agencies and national health authorities should come together and fast track effective strategies. Communication campaign strategies have intensified over the last decades since the late 1950s with the World Health Organisation's Global Malaria Eradication Programmes (GMEP), stressing on resources and control efforts to eradicate the malaria menace. Advocacy is an important tool for campaigns because it is the link to the success of any

programme for a particular target population. Many infectious diseases in the world have been eradicated with the aid of mass communication advocacy. This means that for any meaningful gain to be achieved to eradicate malaria, effective communication strategies through community radio, must be formulated.

Leo B. Slater (1963) portends that communications and advocacy efforts to eradicate malaria focus on a number of factors, such as (a) preparing leaders to utilize communication strategies effectively; (b) strengthening communication between health professionals and journalists to ensure the public understands the current state of various malaria intervention methods and strategies, (c) drawing attention of policy makers to important issues pertaining to malaria and framing those issues for public debate and resolutions; (d) keeping malaria as a priority on top of the list of policy makers, and (e) mobilising the power of mass communication to empower individuals to adopt behaviours that foster control and elimination of malaria. Slater argues that the World War II was a watershed for science and technology – the atomic bombs, jets, radar rockets and penicillin were just a few of war-time choices. Chloroquine was another product identified by the US in combating malaria in the programme designed to eliminate the disease. However, Slater observes that though the programme was good, it was only meant to protect the elite in malarial lands. He states that this was a direct result of the expansion of the malarial programme that attracted funds on a large scale organized funding that connected many institutions and international network such as pharmaceutical companies such as GlaxoSmithKline, Rockefeller Foundation, among others (Slater, 1963). Slater argues that those who were involved in the programme became rich by exploiting the research on elimination of malaria to their advantage. He avers that it does not make sense why big countries find it prudent to finance countries prone to malaria with malaria control programmes and tools. He

further opines that the big countries must insist on using the same methods used in their jurisdictions in the eradication of the epidemic. Leo Slater continues to argue that the malaria menace programme became a tool for the colonial expansion during the modern era because of its great impact on human population. This could be the case in the agenda of some Developing Countries.

In Kenya, for instance, there is no adequate political good will to fight the disease. Politicians often use matters health as their campaign tools. Malaria control has been found to be cheaper than malaria elimination programmes. The cost of elimination vis-à-vis effective control of malaria could be the reason behind the slow pace of intense campaigns to eradicate malaria in most countries, if economic sense were to be made. Aikins M, Johns B. suggest that in this regard, economic analyses should be made available to inform investment in malaria. Malaria Cost Elimination Tool – User Manual (WHO, 2004). The elimination of malaria in Homabay County is dependent on effective community radio campaign strategies. Therefore, the Government of Kenya and the County Government of Homabay must work together in conjunction with other global partners and evaluate campaign efforts in monitoring and financing communication advocacy. The Government of Kenya has since revised its strategic framework since its mid-term review in 2014 for the period 2009 – 2017 to 2009 -2018, in its goal towards the control of malaria, according to the Ministry of Health, Kenya Malaria Communication Strategy (2016 – 2021).

There is so much to be done through effective strategic communication campaigns in the elimination of malaria, yet communication advocacy often faces challenges especially from communities in areas that are not frequently involved in public participation on development matters. These strategies are essential if the 21st Century experts are serious in their mission to

have a better record than of those of the 20th century. Kenya, together with Malawi and Ghana, are the first African countries to have the malaria vaccine piloted in their malaria endemic zones in May 2019. According to WHO and government health professionals, they hope to kick malaria out of Kenya by 2040. It is the hope of every Kenyan that that the scourge is ultimately dealt with. However, this remains to be seen especially in Homabay County, which is one of the highest malaria cases among the endemic areas in Kenya.

The World Health Organisation's (WHO) latest report indicates that approximately 70% of the global malaria burden is on 11 countries, out of which, 10 are in Africa, among them, Kenya and India in Asia. Cases of malaria bear a great challenge on the health of the people living in endemic areas. The Democratic Republic of Congo (DRC) where health workers must also contend with Ebola outbreak has a bigger challenge because malaria and Ebola exhibit almost the same symptoms, thereby leading to the wrong diagnosis of both diseases. A decade ago in 2009, 3.28 billion people lived in areas risky with the transmission of malaria and about 1.2 billion people living with a high risk of malaria transmission (a fifth of the world's population then – *WHO, 2010*). According to the World Malaria Report released in November 2018, an estimated number of malaria cases stood at 219 million in 2017, up from 217 million cases in 2016 and 435,000 deaths that remained constant in the two years. Most countries around the world especially in the South of Sahara and South East Asia, are now seeking new ways from effective control to eradicating the epidemic, since there are always new malaria cases in endemic areas.

2.1.2 Behaviour Change

A strategy that most policy and decision makers overlook is people's behaviours that play an important role in communicating messages that are acceptable to them. Success of any communication campaign requires public participation. Therefore, the use of strategic Behaviour Change Communication (BCC), applies to targeted messages, tailored approaches for healthy behaviour and reduced malaria risks (*Hanner K., 2014*). Hanner portends that BCC includes social and community mobilization, evolved from Information, Education and Communication (IEC) strategies. She continues to state that it is through IEC strategies that components ranging from interpersonal communication between community health worker and her client, to multi-level mass media campaigns, evidence based and theory driven BBC interventions, are a core part of all types of health promotion and disease prevention. The Government of Kenya has shown little progress with all the financial, material and human resources that it invests for various surveys in the success of elimination of malaria.

Researchers and public health campaign advocates must now shift their focus on to human behaviour when formulating strategies of either controlling or eliminating malaria. Community radio campaigns are important because they create awareness to the community affected, but if the strategies do not create room for monitoring the human behaviour on the knowledge disseminated, then it will be impossible to achieve the purpose for which media campaign messages are designed. Mosquito sleeping nets are the reason there could be substantial reduction on malaria infections. However, there has been a lot of focus on the behaviour of mosquitoes than there has been on that of the humans. For instance, if sections of the targeted community learn how to use Insecticide Treated Mosquito Nets (ITNs) and they do not sleep

inside them at night when the mosquitoes are at their most active time, then it will be impossible to eliminate malaria, let alone control it.

There is substantial research into when, what type of malaria-causing mosquito species are likely to bite, with very little consideration on the other side of the equation – the people (*Hopkin J., 2019*). The two phenomena have to be studied concurrently because as much as ITNs are effective tools to fight malaria, their users must be willing to offer part of the solution by using them appropriately as directed by the experts. ITNs may not be effective when people are engaged in evening social or economic activities out-side bed-time therefore, making it impossible for one to protect him\herself from the mosquito bites. Most of Homabay County residents earn their livelihood by fishing, which is done at night hence, protecting oneself from mosquito bites at this time of the evening is not possible. This is where strategic communication campaign advocacy must find effective measures through community radio, to involve the community in behaviour change to help in eradicating malaria. People still get malaria in places where there is widespread use of mosquito nets and therefore, an understanding of interaction between humans and mosquitoes is very vital towards elimination of malaria.

However, there has been more focus on the behavior of mosquitoes than there has been on the behavior of human beings. If humans are not sensitized on what role their behaviour play in the prevention of the disease, then malaria eradication is a war that may not be won.

2.1.3 Beliefs/Cultural Values

There is not much evidence on the impact of the mass media in its role to help change cultural values attached to Behaviour Change Communication (BCC), for malaria control. However, communication advocates could borrow a leaf from Cameroon's mass media campaigns against

malaria (Hannah B., 2013). Hannah Bowen portends that through nightly reminders via Small Messages Service (SMS), radio and television, advertisements and hit songs about malaria by biggest star musicians helped to increase the nightly use of mosquito nets by 6.6% among adults, and a 12% point increase among their children under 5 years of age. Hannah states that the National Government of Cameroon sponsored the Night Watch Programme “Malaria No More” model of multi-media – a national scale on BCC for malaria supported by ExxonMobil and COTCO and embedded in a national campaign with a strong support from their Ministry of Health and the national Malaria Campaign Programme, USAID, et cetera.

Using mass media nowadays is interactive through call-ins, especially on community radio; this should make it easier for expert-audience interaction(s) that qualifies for public participation from the audience. Perception in every change introduced to a society is never accepted easily, especially in areas with very strong cultural, traditional and religious beliefs. These beliefs drive people to construct different opinions on a new idea. It is therefore important to introduce them to the idea through community radio health programmes to catch their attention. This may dispel any negative perception on messages of combating malaria and widespread ignorance on the use of ITNs. At the same time children ailing from malaria are seldom taken to hospital; attributing the illness to witchcraft. Such kinds of beliefs make it hard for health experts to wedge a successful campaign against malaria for fear of misconception from the target community. An example is the recently unveiled malaria vaccine in Africa, which Kenya is among countries selected for the pilot programme. If the government does not work closely with faith-based institutions, and community leaders/elders, campaign advocates and the community media, it may be hard to sensitise the communities affected to accept the malaria vaccine.

Another challenge is the experiences of fever, headache, among other malaria symptoms, which some residents believe to be malaria, hence self-medicate themselves. Sometimes the affected persons conclude that when s/he is rained on or walks under scorching sun, there is a likelihood of him catching malaria. However, the community radio has shown evidence on its impact on public health knowledge, attitudes, beliefs and behaviours. In Zambia, exposure to radio and television programmes about condom and HIV/AIDS was associated with higher use of condom (Robinson MN, et al., 2014). The effects of media on the maternal health behaviour is evidenced in Nepal, where exposure to mass media increased the use of ante-natal care services among rural women (Acharya D, et al, 2015)

2.1.4 Public Participation

Involving community/opinion leaders and religious leaders, as anti-malaria campaign ambassadors, are strategies necessary in the eradication of malaria. The inclusion of faith-based mass media and community radio is an effective strategy to reach out to the affected community in Homabay County, because community radio conveys messages in a local language that the locals understand best. Community radio is also a sure way of involving community participation to achieve awareness for the prevention and eradication of malaria in that community.

2.1.5 Health Facilities and Affordability of Treatment

Experts have continued to record a decrease in the number of malaria cases by emphasizing on the effective control of the disease in Africa, but there is a challenge in the eradication of the pandemic, where there is uncertainty surrounding the estimates established due to fluctuation in cases reported by health facilities.

The distance to health facilities for some residents may also be a challenge to those seeking treatment. Some of the residents within the proximity of the facilities have no funds to cater for treatment.

2.1.6 Strengths and weaknesses of Communication Campaigns

As much as community radio is the pivot of acquisition of public health knowledge and dissemination of information to improve health, there could be some inconsistencies in the outcomes of the campaigns. It is argued that most of these campaigns are short-lived and are abandoned as soon as it is not convenient for the media. For instance, the COVID 19 is all what the mass media is reporting about now, at the chagrin of those affected by pandemics such as the deadly Ebola in West Africa and the Dengue Fever (break bone fever) pandemic, which is also a mosquito-borne viral disease in tropical and sub-tropical areas.

In view of the above, global advocacy has been integral in campaigning for the reduction of the burden of malaria globally. To achieve this objective, it is important to advocate these messages through a channel that is easily accessible. Community radio is a powerful tool in disseminating public health awareness campaign messages, because of its affordability and easy accessibility.

We interrogate the effectiveness of community radio campaign efforts in Kenya and show how epidemiology, social/cultural and behavioural data inform effective communication campaign strategies for fighting malaria in Homabay County.

2.1.7 Community Radio in Public Health Campaigns

Community radio is a communication broadcast channel run by the people, for the people. The people own it; colleges and universities own it too. Community radio is a non-profit broadcast station that relies on programmes from volunteers, individual members of the community and organisations such as Non-Governmental Organisations (NGOs). Local programmes and messages transmitted on this radio touch on the day -to -day life of a particular community: health, education, and environment, social, religious and cultural issues. Community radio also brings people together at community level to tackle various social problems, such as poverty. It connects the rural and rural-urban population to the government(s) for clean water supply and sanitation - including disasters, especially natural disasters. Community radio stations are a reflection of who the communities are.

Journalists and volunteers who work in community radio provide vital information that is essential and saves lives on public health. It also initiates and facilitates communication among community members with health authorities and officials - *Ana Elisa Santana Afonso, Director of UNESCO, Addis Ababa Office (October, 2021)*. They guide the community on health matters through regular updates on what they should and should not do for better health care.

However, despite the huge responsibilities on community radio, often times they face challenges ranging from insufficient working areas, lack of proper and adequate equipment, lack of professionalism in programme production and poor salary or no pay at all, hence the high turnover of journalists and volunteers.

Sunset Radio 98.1 FM

Radio Sunset is one of the community-based radio stations in Homabay County. It is one of the very first community radio stations to be established in the county. It airs its content 24 hours a day. The station covers shows on various topics among them health, entertainment, arts, cultures, literature reviews among other genres of content. Its mandate is to bring the community together in developmental matters and other issues that affect their day-to-day lives. Due to the increase of demand of content online, Sunset Radio established an online station to reach a wider range of listeners.

2.2 Theoretical Framework

There is renewed investment in malaria control and substantial increase in funding malaria research. The WHO and the Roll Back Malaria - Global Malaria Action Plan (GMAP), recently revised strategies and steps for scaling up and sustaining malaria control. A team of all players from public health practitioners to funders, control programme managers to decision makers to scientists, compiled a guide for policy makers on areas to embark on in the elimination process of malaria. (Pedro & Graham, et al. 2011). They state that even though there is reduction in the spread of the infectious disease as documented by countries in the Sub-Sahara, there are challenges to the current control measures such as resistance to the Artemisinin malaria drug. The other challenge is the resistance and the consequent needs for improved strategies to control the distribution of resistant parasites with accelerated research on potential new malaria drugs for the first-line treatment.

In the fight against malaria communication advocates have been absent in promoting health messages that would help in changing people's behaviour towards intervention strategies.

Working towards eradication of malaria in developing countries is still a puzzle to be unraveled. This is because most of the developed countries had at some point; battled malaria and today they are free from the disease. Endemic countries should stop asking for financial help to control malaria, but instead ask for the strategies those countries used, especially mass media and ostensibly, community radio. Leo Slater (1963) avers that the reason American and European countries are ahead is because of the level of awareness their citizens possess when it comes to the knowledge of their basic rights.

2.2.1 Theories and Models

Theories help practitioners in predicting the outcome of interventions and relationships between external and internal variables. Theories do not identify specific interventions to follow; rather they generate a series of ideas for adoption of a theory-led intervention. Communication models are designed to simplify the understanding of the process of communication in delivering a message and the challenges thereof if a step is not followed. Models are derived from simplified versions of theory and can be used to guide the development of health programmes. Theories and models are useful in planning, implementing and evaluating interventions (Trifileti et al. 2005:299). Nova argues that theory is often used to form the groundwork for health promotions, but is given less attention during the implementation of programmes (Kobetz et al, 2005). If communication is based on a theoretical model, some of the pitfalls associated with poor communication can be eliminated. Tones and Tilford, (as cited by Nova), argue that practitioners need a framework to make a clear selection of outcome indicators and to justify choice.

Emphasis on communication health promotion should be based on understanding how and why behaviour change occurs and at what point should there be an intervention for effective communication of messages for the target audience. The problem of health messages is attributed to inconsistencies in dissemination of information. This is in spite of efforts made by health practitioners. The way the population lives their lives today; some messages may not be as effective as they ought to be. Therefore making health choices may not be a priority to some members of a community. (Kobetz, 2005:330) add that ‘construction and strategic dissemination of finely tuned, theory-based health messages’ alongside making theory practically relevant is one of the keys to effective communication. Understanding factors that influence behaviour, public health campaigners will be at a better position to formulate better methods and effective strategies to achieve their goals (Tonnes & Tillford, 1994:83). Many communication theories and models apply to the study of public health. We have chosen a model suitable for the purpose of this study.

2.2.2 Communication in Health Advocacy

Kreps (2003) defines communication in health as a transactional process. Communication is on different levels that include individuals, groups, organisations, community or the mass media. Kreps (2003), as quoted by Nova (2007), summarises health to the definition of communication as a ‘resource’ that allows health messages such as prevention, risk, awareness, to be used in education and avoidance of ill health. This means that health communication can take place at any level to give it a holistic approach to the promotion of health issues. There are different categories in communication as indicated in the table below:Table 2.1: Categories of Communication

Categories of Communication	Communication Medium
Interpersonal	Conversation between two or more people, groups, etc that gives room to talking and listening; it is a two-way dimensional interaction
Intrapersonal	It occurs when an individual converses with himself through thoughts, listening to an inner voice. The response could be loud or confined within self.
Organisational	It is synonymous within establishments of employment, seminars, workshops, debates, memos, etc
Community	It is communication done through community mass media, especially on radio and journals
Public Mass	This is communication that takes place through television, radio, social media, newspapers, mobile phones, etc

Source: adapted from Nova Corcoran (2007)

2.2.3 Communication Persuasion Model (CPM)

McGuire (1976) states factors that can influence a person's choice as: (i) External factors, (ii) Internal directive factors, for example individual attitudes or beliefs and (iii) Internal dynamic factors, for example demographic characteristics such as age or ethnicity. The IPM is more concerned with internal factors that influence or change the message through communication-persuasion model, and its progressive input-output steps. The model has an advantage of its clarity in planning stages that can be followed through to the outcome.

Bull (2001) used this communication model and came up with a number of features of printed materials that can lead to behaviour change among the over-weight adults. The features

included attractiveness, encouragement, levels of information and application to one's self. The features were associated with the early steps in the communication-persuasion matrix, which suggested that they could be the areas of focus when designing health promotion materials for progress through the matrix (Nova 2007) as illustrated in the table below:

Table 2.2: Information Persuasion Matrix

Input Communication Factors	
INPUT	Factors in this Input Section Include
Source	Demographics Credibility, Attractiveness, etc
Message	Appeal, Organisation, Style, etc
Channel	Type of Media used, i.e. television
Recorder	Demographics, Social/psychological factors
Destination	Immediacy/delay, Prevention/cessation
Out Persuasion Techniques	
OUTPUT	Description of What Happens at Each Step
Tuning in	Exposure to the message
Attending	Paying attention to the message
Liking	Liking and being interested in the message
Comprehending	Understanding the message
Generating	Related Cognitions
Acquiring	Gaining appropriate skills to work on the message
Agreeing	Agreeing the message is correct
Storing	Saving the message to memory
Retrieval	Retrieval of the message from memory when needed
Decision	Acting on the message
Acting	Performing the action
Post-action	Integration of the action
Converting	Advising others to behave likewise

Source: adapted from McGuire (2001)

Relevance of the theory/model to this study

For any communication campaigner to embark on any public health advocacy, they must first research on their audience to understand their way of living. It is only then that a message for change can be disseminated with the hope of good reception, hence the success of any campaign programme. Not understanding the targeted community in preparing malaria control programmes, could be the reason of delayed eradication of the disease among the Homabay County residents.

Criticism of the Communication-Persuasion Model

The model has been criticised for championing for too many steps towards behaviour change, which are too restrictive (Scholten, 1996). McGuire (2001) avers that the matrix assumes rational behaviour and the process of response to a message, which might not be linear. McGuire also considers the Communication Persuasion-Matrix Model as restrictive in concentration on a single variable at a time because they interact with one another.

Criticism on the Cognitive models is such that people do not act necessarily rationally or logically and do not process information rationally. Nova cites Huhman (2004) suggesting that there is a likelihood of a percentage of audience getting lost during the process of messaging. He avers that there is need for effective exposure and high awareness levels, which are necessary in each step of communication. This model therefore, is a higher level of communication than smaller communication efforts. (Nova: 2007).

Communication is an important tool for conveying messages to the intended target audience. However, very few professionals from other practices, especially health practitioners, will engage communication advocates in their campaign activities. Communication theories are

hardly practiced when sensitising the masses, hence the promotion of health campaigns are planned and implemented on short-lived basis. Nova (2007) argues that although theoretical models do not provide a full explanation of every factor in the behaviour change process, they identify important factors that may influence decisions that may help in the targeting and structuring of communication. Nova continues to aver that critics of theoretical models should think of better ways to apply the model instead of criticising them.

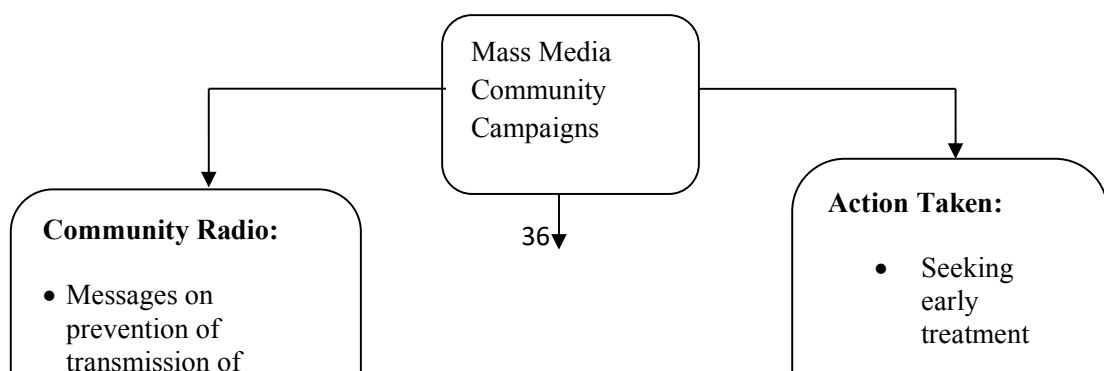
Nova has based his argument on the behavior of people from the West and the Americans, because most of these theories are not all globally inclusive; as they do not reflect on all cultures of the world.

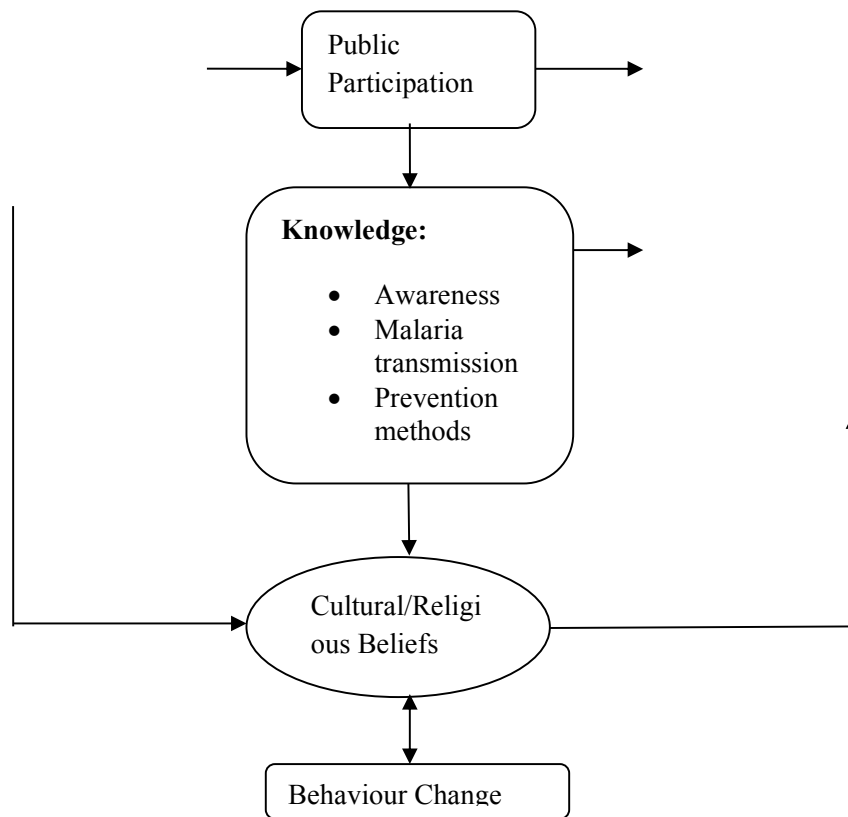
2.3 Conceptual Framework

Elimination of malaria requires collaboration between various players in the sectors of communication, health officials, non-profit organisations and the affected population. The policy makers should develop and evaluate effective strategies, ostensibly in mass communication advocacy, to assist in eradication of the malaria pandemic in Homabay County. Cultural/religious beliefs could be a hindrance to communication campaigners; hence the need for behaviour change that can be facilitated by well-packaged media messages through community radio. Therefore, willing partners such as philanthropists need to be convinced of sound and effective strategic measures to supplement government efforts. It is therefore incumbent upon the government of Kenya to work closely with communication campaigners to craft mass media messages that will create awareness among the community on malaria. Radio being a useful communication tool among all in society, it is best for campaign messages to be run through community radio stations. These stations speak the language of grass-root

population, hence making it easier for them to accept government policies on public health. The figure below illustrates the effect of community radio campaigns on malaria on the behaviour and beliefs of residents in the county.

Figure 2.1: Conceptual Framework





Author: Own Conceptualization (2019)

The aim of this study is to try to understand how mass media messages, especially on community radio, can influence behaviour change that cuts across the choice to learn and the choice to uphold cultural beliefs in communication campaigns, while laying emphasis on attitude. In order to mitigate malaria in Homabay County, health practitioners and public health communication campaigners need to understand people’s behaviour and the intensity of malaria transmission as well as the pattern of the disease infecting people. The role of mass media is very vital in transmitting messages on the pandemic. In the Framework above, we can deduce that the behaviour of targeted community is core, as every effort made to eradicate malaria through any form of media, depends on it.

It is evident from Figure 2.1 above that the burden of malaria depends on effective communication campaigns on community radio. In order to design any effective strategies to eliminate the malaria scourge, advocates must understand the cultural/religious practices of the community in Homabay County that inform the beliefs they hold. Communicators need also to understand the locality of the targeted area. The burden of the disease may hinder the effectiveness of intervention measures in the endemic localities. The number of cases presented to a health facility can determine the intensity, impact and feasibility of the disease to determine whether it can be tested and traced to its geographical origin for purposes of containing it within that locality. Therefore, it is essential to have excellent health facilities, strong community outreach, and a robust information system that extends to the community level.

Well-packaged health messages for onward transmission via community radio, aid the locals to understand the importance of embracing new treatment methods and discarding some of their retrogressive beliefs about malaria. The media, being an agenda-setting forum for the masses, transmit simplified messages for ease of awareness. Awareness of the danger malaria causes is vital if the advocates embrace effective communication of strategies on malaria and utilise community radio as a mitigation instrument for their messages. It is through awareness that public participation is embraced, hence behaviour change. Action taken for the prevention of malaria by the community depends on the knowledge gotten from constant campaigns on radio. Understanding behaviour could be the key to unlock beliefs as the reasons why malaria has not been eradicated up until now in endemic areas in Kenya.

There are many actionable ways that practical approach can be employed systematically to eliminate malaria in endemic areas, to address the burden of the epidemic, PATH suggests them in form of questions such as: (i) what is the best way to stratify geographic areas by

transmission intensity and ecologic or epidemiologic features? How best to assemble and deliver a strategic package of intervention tools to use in diverse strata to manage the malaria burden and further reduce its transmission? (ii) How important is the timely duration of deployment of strategic tools is, to accelerate the malaria elimination efforts? (iii). What timely and quality information is required to, (a) direct changing actions as transmission is reduced and (b) track and document progress at all levels of the health system. (c) What effective strategic sustainability plans will be in place after elimination of malaria?

To eliminate malaria, there is need for health practitioners to improve on the already existing strategies of malaria control, while at the same time working in collaboration with media houses on mass communication advocacy to help them package campaign messages through community radio, in an acceptable way to the affected community. For example, upgrading the existing ITNs, including targeted Indoor Residual Spraying (IRS). In areas with high prevalence cases like Homabay County, additional proven intervention strategies such as preventive and curative methods for pregnant mothers are necessary. According to PATH, spraying houses with insecticide is an important vector control and the spread of mosquito larvae. This intervention reduces the biting rate and the survival of mosquitoes.

2.4 Conclusion

Most countries in Sub-Saharan countries are working hard towards the elimination of malaria within the endemic communities on the continent. The recent pronouncement by the World Health Organisation (WHO), that Algeria and Argentina have been declared malaria free is an impetus to countries affected to resolve even more towards achieving their vision. In Kenya, declaring the country malaria free is one of her Vision 2030 resolves. The conceptual framework therefore, is to resolve to eliminate malaria in Homabay County and by extension, the whole country on an evidence-based approach. PATH states that attention should be paid particularly to: (i) building quality information systems that can inform action and track progress, (ii) destroying mosquito parasitic sites from community and individual's residences and (iii) strengthening all levels of health facilities so that all cases of malaria (including new cases), can be identified and treated on time. The livelihood and health of residence are affected by perennial infections that become a burden to economic activities. In return these affects the growth of any development programmes set for the community that leads to poverty and stunted growth of a population.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Overview

This chapter outlines the techniques that were used to collect data on malaria prevalence in Homabay County. It highlighted the impact of community radio communication advocacy on behavior change amongst the targeted population. The population in the county might not understand the magnitude of the burden of malaria on their health, due to poor packaging of messages from communication campaigners. Data collection included target population, sampling procedure, research design, data collection methods, data analysis techniques and ethical considerations.

3.1 Research Design

The researcher conducted a Mixed Method Research. Different methods of collecting data in this research involve the procedure of collecting and analysing data by mixing quantitative and qualitative research method to understand a study – triangulation. The significance of triangulation in mixed method research helped the researcher to understand inconsistencies between the results of quantitative and qualitative findings in reflecting the views of participants. Triangulation gave validity of the data results from the two methods through verification. The advantage of Mixed Method design is to ground the study through the experiences of participants. The study applied questionnaires to two identified public institutions, the Homabay County Referral Hospital and County Director of Health; Sunset Community radio manager/two presenters and one identified Non-Governmental Organisation staff – Me'dicins San Frontie'res (MSF). The objectives of the study guided our method of research in collecting data and sample

processing of data from findings. The main concern of the study is based on the effectiveness of community radio in creating awareness through communication campaigns to Homabay residents.

The Primary Data guided the researcher to understand the psychographic and demographic data of the population in the county - their attitude, beliefs, values, gender, religion, et cetera. This was achieved through structured and unstructured questions. The study interrogated whether the behaviour of the community played a role in frustrating or facilitating the progress on eradication of malaria and whether communication advocates package mass media messages on community radio stations in a language understood by the locals. Secondary Data was collected from official government documents, some public/private health and academic institutions. The study sought the opinion of health experts, communication officers and relevant government officials to provide explanations to the concerns raised by the respondents. Apart from health matters, respondents sited lack of good will from the county's authority in using community radio for malaria campaigns.

3.2 The Research Site

The research site was in Central Ward of Homabay Town Sub-county. The researcher settled on the sub-county, because (1) it is surrounded by Lake Victoria, making its beaches a breeding ground for mosquitoes, hence residents there are prone to malaria infection. (2) Sunset Radio FM, one of the community radio stations in the county, is also stationed in the sub-county, and (3) it is where malaria data of the county can be easily accessed.

3.3 Research Approach

The community radio has the power and the influence over many issues in life. Public health is one of the aspects that community radio can advocate for, because it has the capacity to promote health by empowering people with information that could change their behaviour, attitude and beliefs for their well being. Harnessing can do this through motivational information such as civic education and implementation of health policies. To provide such health education to a population as big as that of Homabay County, effective mass media campaigns are essential.

The research population here refers to the total absolute population of residents in an area of study. The respondents in this research were derived Homabay Town Sub-county. Firstly, the hyacinth in Lake Victoria is touted as providing fertile grounds for the malaria-causing mosquitoes. Secondly, the socio-economic situation in the town encourages our study in the identified area. According to the 2019 Population and Housing Census conducted by the Kenya National Bureau of Statistics (KNBS), the entire population of Homabay County stands at 1,131,950. The target population of the sub-county has an average total population of 117,439. This target has some observable characteristics that a researcher uses to generalize the results of the study (Mugenda and Mugenda, 2003)

3.5 Sample Size and Sampling Procedure

Sample Size

A sample Size is part of an entire population of a given phenomenon under a research study, which represents an entire population, especially if the population is too big. This is normally done statistically to save on time and funds. In any case, the respondents under study will generate the same results if a researcher were to engage each resident (which is impossible to do. Taro Yamane (2001) initiated the formula to determine the study of a sample size.

$$n = N/1+N(e)$$

Where, n = Sample Size

N = Population size

1 = Constant

e = Level of precision or Sampling of Error which is 5% (Margin of Error)

$$n = N/ (1+N(e)^2, \text{ here we have}$$

$$n = 22,781/ (1 +22,781(0.05)^2$$

$$n = 22,781/ (1 + 22,781(0.0025)$$

$$n = 22,781/ (57.9525)$$

$$n = 22,781/ 57.9525$$

$$n = 393.0977956085$$

Sample Size is 394

3.6 Sampling Procedures/Techniques

The techniques used are based on how sampling unit, sample frame, sample size and the sampling procedures are conducted. The sampling frame is the listing of all units of population that will be the target of sampling. In this study, statistics show that certain groups of the population are the most affected hence the Mixed Research Method. Therefore, the study conducted the Sampling Procedure through the Stratified Random Sampling based on the various affected groups. The respondents were stratified according to their demographic criterion. This is because statistics of the malaria pandemic indicate that the most vulnerable members of the endemic population are children, pregnant mothers and the youth.

3.7 Mixed Method Research

Instruments

The researcher used the mixed research method for the study. The information was acquired through informant interviews answered by some officials in charge of the records and randomly selected respondents for primary data. This study also used Questionnaires and structured interviews, because it was based on statistical data from government institutions and other authorised offices in whose custody the documented records are, that was vital for secondary data. The researcher relied on authorized government offices such as the Kenya National Bureau of Statistics, the Homabay County Government office in charge of health and institutions of academia – university and college journals and health facilities and public hospital records, including reports published by the World Health Organisation, UNICEF, et cetera.

3.8 Data Analysis and Presentation

The methods of gathering Data for the purposes of this study were both subjective and objective. Therefore, the data assisted the researcher in verifying data collected in the mixed method research. The raw information was processed and placed in a database for quick and easy access of data for structured and factual presentation of the same. The presentation has been done through tables, bar charts and pie charts. Secondary Data was derived from documents and previous articles of studies from higher institutions of learning, health facilities and government offices including journals from other campaign advocates. The Questionnaires were structurally itemised to accommodate both open and close-ended questions. The respondents were allowed privacy as they filled the questionnaires for purposes of confidentiality, unless they required assistance. A visit to hospitals, some homesteads and informant interviews with some residents, village opinion leaders, radio personalities and elders, provided us with Primary Data. These interviews were unstructured and included several questions concerning behavior and problem solving. We also used the semi-structured interviews. It guided us in our conversations with some respondents. This was to purposely get more details from them. Structured interviews were considered especially for secondary data from county and government offices including health facilities and other relevant offices.

3.9 Validity and Reliability

The validity of data and variables, or the construct of interest is established by a relationship. As guided by Mugenda (2008), the researcher pre-tested the Questionnaire and analysed the results to ensure accuracy of data collected. The validity of a study is tested by how accurate the sampled respondents answer questions therein.

3.9.1 Ethical Considerations

The researcher was aware that the case under study was sensitive. Samples on those who had lost relatives and friends to malaria and where minors were not to be involved, would have been treated with utmost caution and confidentiality. However, Even the researcher did not get to interview respondents in this category, except a few respondents with hearing impairment. The researcher, through an interpreter, respected their questions and answers during the period of the study.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Overview

Homabay County is one of the counties in Kenya most affected by malaria. Out of a population of 22,781 in Homabay Central Ward, 394 respondents were identified for sampling. In this chapter, the researcher presents analysis and the interpretation of data collected from a Mixed Method Research. Questionnaires were issued to the respondents, who preferred community radio for public health communication campaigns. Conversely, only 113 questionnaires representing 28.7% of respondents were returned. The researcher also managed to collect in-depth data from 10 key informants, making a total of 123 respondents – two of who are disabled – and 8 key informants: a medical doctor from Homabay Referral Hospital; a medical doctor from Medicin San Frontieres; an employee in the Communication Department (public health) in the County; two Sunset Radio journalists and a manager; two pharmacists from a local pharmaceutical shop. The researcher interpreted qualitative data through content analysis. Tables, pie chart and bar charts represented quantitative analysis.

4.2 Demographic Data

Respondents were asked to state their age in the age category to simplify the age distribution, as indicated in Table 4.1 and the Bar Chart on Figure 4.1 below:

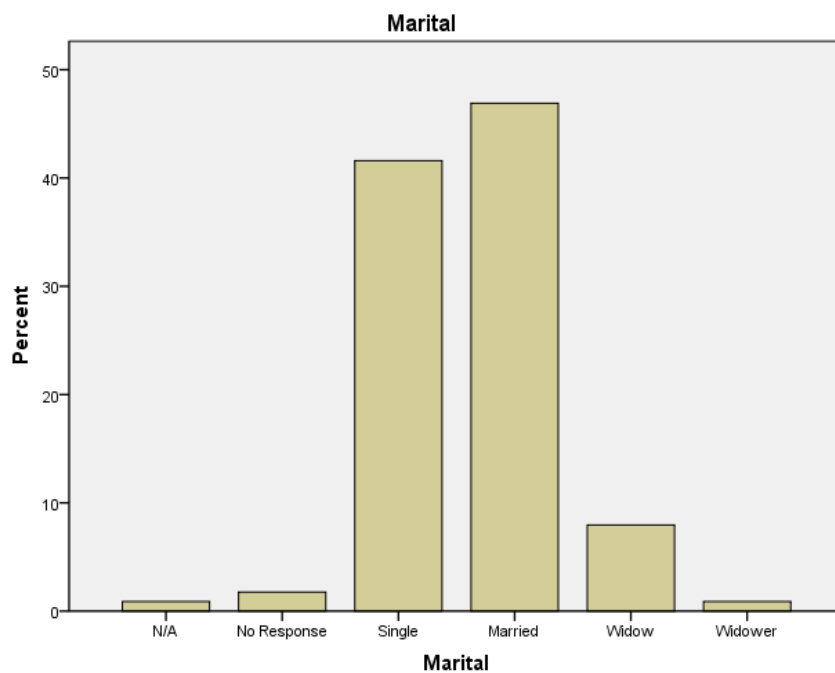
Table 4.1: Age Distribution

		Frequency	Percent
Valid	No Response	2	1.8
	15-25	39	34.5
	26-35	36	31.9
	36 and above	36	31.9
	Total	113	100.0

Source: Author 2021

The age distribution in Table 4.1 above indicate that majority of the respondents are between the ages of 15-25, representing 34.5% of the total questionnaires brought back. Out of these, two respondents did not answer any question.

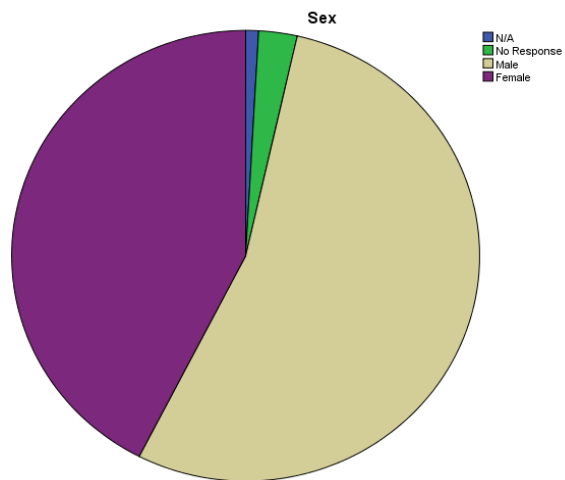
Figure 4.1: Marital Status



Source: Author 2021

Married respondents in this study form the majority of the population at a frequency of 53. This represents 46.9% and stands at 91.1%, cumulatively. Majority are women. Those who did not want to respond to their marital status form 1.8%. The ratio of widows to that of the widowers is 9:1. This represents a percentage ratio of 8.0%:0.9%. This study did not establish the cause of higher number of deaths in men vis-à-vis that of women, albeit studies have shown that more women than men die out malaria.

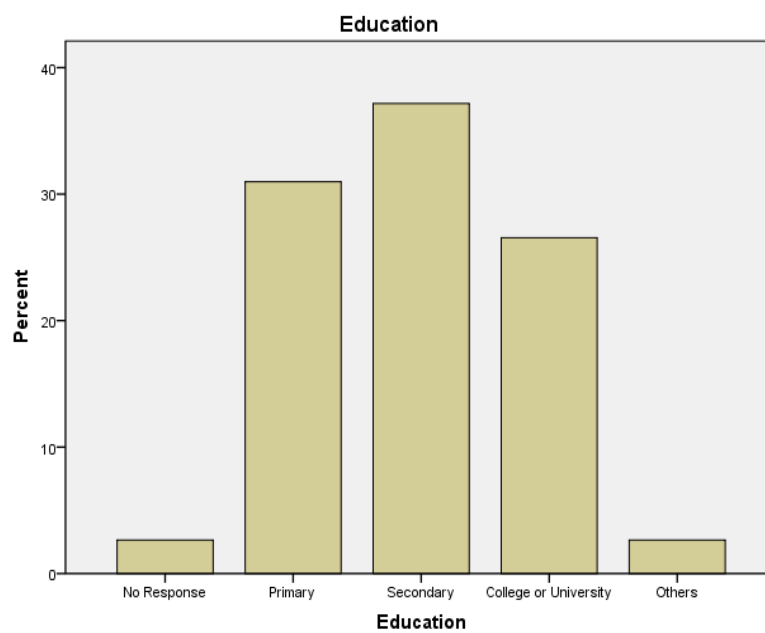
Figure 4.2: Gender/Sex



Source: Author 2021

Male respondents are more at a frequency of 63 representing 54% in this category compared to their female counterparts at 42.5% at a frequency of 48.

Figure 4.3: Education Level



Source: Author 2021

26.5% of the respondents have attended formal learning colleges and/or universities at a frequency of 30. The rest, at 73.5% have not attended post secondary school education. Secondary school education registered the highest number at a frequency of 42, representing 37.2% of the respondents. Primary school education and others, who did not go beyond primary school level or attempted any academic school, form 39.7%. This could translate into lack of interest in media campaigns for their health.

Figure 4.4: Livelihood of Community Members

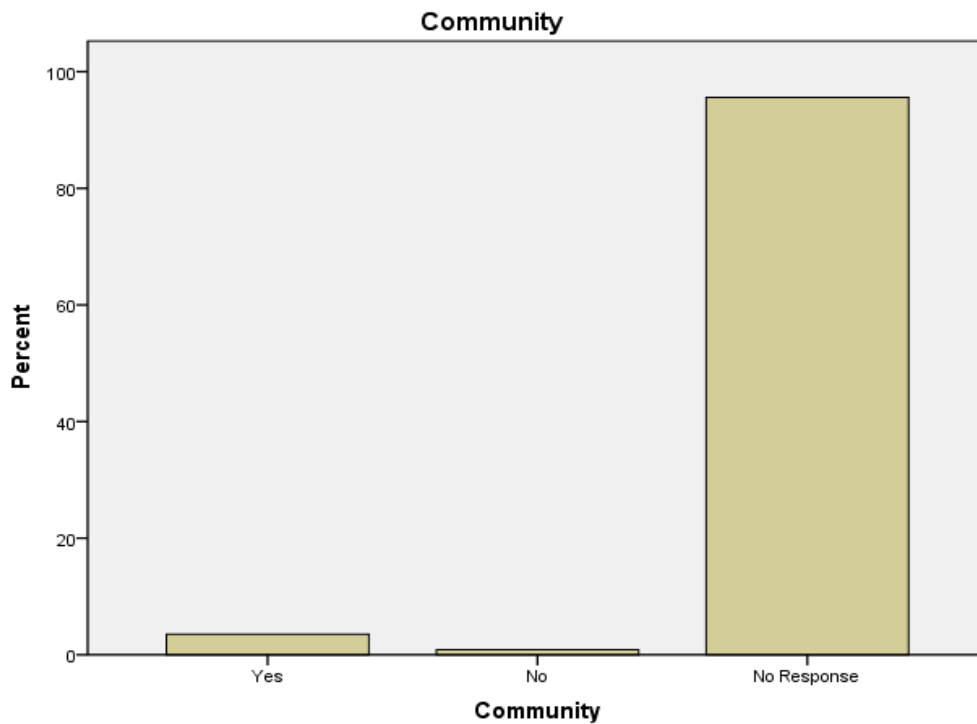


Source: Author 2021

Those who are self-employed form 39.8% of the respondents at a frequency of 45, followed by unemployed at 23%. This goes to show that most members of Homabay County do businesses compared to those in white color jobs. This could be as a result of lack of formal employment.

4.3 Mass Media as An Early Warning Tool To Mitigate Malaria

Figure 4.5: Community Radio Listeners



Source: Author 2021

3.5% of 113 respondents think that mass media can be used as an early warning tool to mitigate malaria, while 0.9% disagrees. The other 95.6% did not respond because they either did not know or are not aware of the existence of such services.

Table 4.2: Measures in place

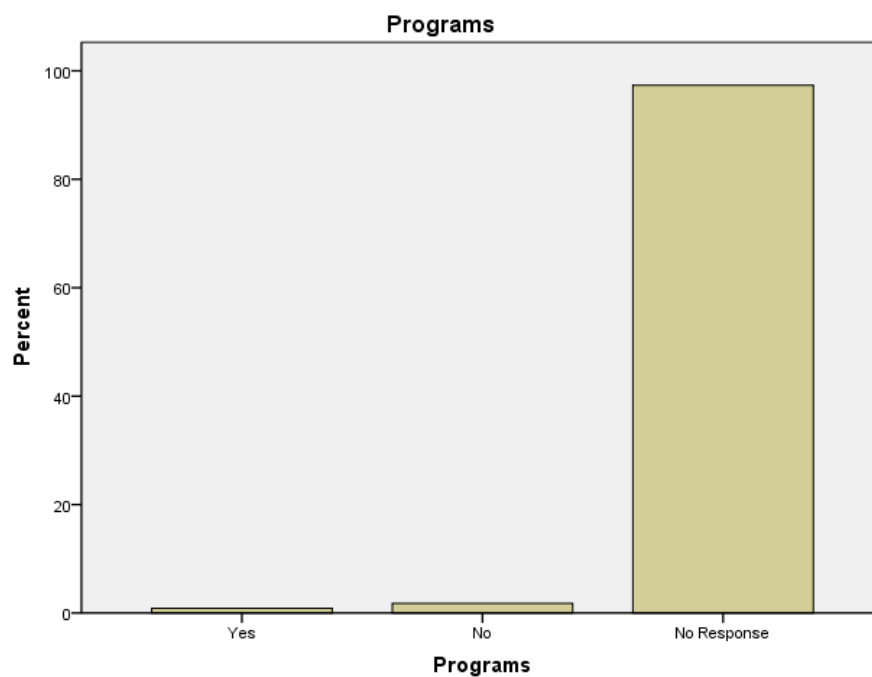
		Frequency	Percent
Valid	Use of television	1	.9
	No Response	110	97.3
	Airing on radio	1	.9
	Provision of talks by health officials on radio	1	.9
	Total	113	100.0

Source: Author 2021

Despite trying to put measures in place by community radio stations to create awareness on malaria pandemic in the county, those concerned with public health campaigns are not utilising the forum effectively, to sensitise the publics there. This therefore could be the cause of a 97.3% ‘no response’ from respondents in this category of listeners.

4.4 Specific Programmes Focusing On High Risk Group, Exclusively For Malaria Campaigns

Figure 4.6: Malaria Programmes on Community Radio



Source: Author 2021

0.9% acknowledges that malaria programmes are transmitted on radio to the high-risk group, 1.8% disagrees. The remaining 97.3% did not respond; again because they are not aware of such programmes. This goes to show that there is no communication campaigns for public health matters and more so, about malaria.

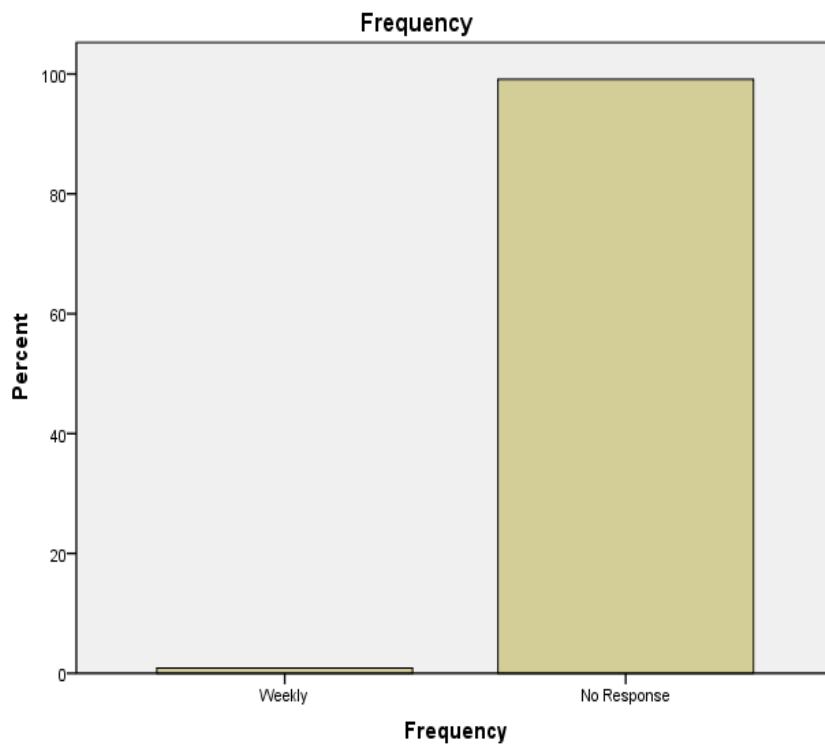
Table 4.3: Reasons for Inadequate Malaria Campaign Programmes

	Frequency	Percent
Valid N/A	1	.9
No Response	111	98.2
Doctors do not honor invites	1	.9
Total	113	100.0

Source: Author 2021

Journalists sampled at Sunset Community Radio decried lack of cooperation from medical doctors and/or officials from the Ministry of Health in the county to talk about malaria, specifically. The journalists said the experts are usually apprehensive to discuss the topic in the media. This is indicated as reasons in lack of commitment from medical experts and communication campaigners on public health awareness.

Figure 4.7: Frequency of Malaria Programmes on Radio

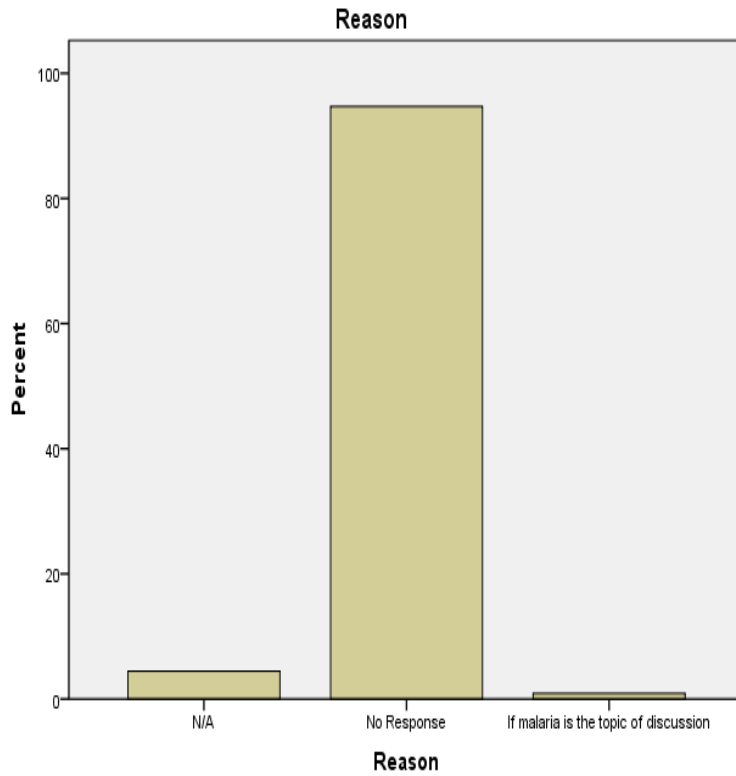


Source: Author 2021

There are no specific slots reserved for discussions on malaria topics. However public health programmes have a weekly slot.

4.5 Key Informer Interviews

Figure 4.8: Reasons for inadequate radio interviews



Source: Author 2021

Malaria is hardly discussed; rarely do experts honour invitations to talk about issues related to malaria.

Table 4.4: Specify Reasons For No Response

		Frequency	Percent
Valid	Respondents are deaf	2	1.8
	N/A	22	19.5
	No Response	89	78.8
	Total	113	100.0

Source: Author 2021

Most community radio stations rely on sponsorship from the government and well-wishers, such as Non-Governmental Organisations (NGOs). Sometimes there are no funds to keep certain programmes on air, one of them being malaria. It is also impossible to mind residents who have hearing challenges because radio is about audio and not visual that is catered for through sign language interpretation.

Table 4.5: Language For Communication

Source		Frequency	Percent
Valid	1	1	.9
	No Response	2	1.8
	Dholuo	65	57.5
	English	28	24.8
	Kiswahili	16	14.2
	Sign language	1	.9
	Total	113	100.0

Source: Author 2020

Dholuo is the most spoken language in the county, hence the preferred language for communication campaigns at a frequency of 65 and cumulative of 60.2%

Table 4.6: Channels of Communication

		Frequency	Percent
Valid	No Response	2	1.8
	Radio	93	82.3
	Public gatherings or barazas	4	3.5
	Health Facilities	5	4.4
	Posters	2	1.8
	Churches or Mosques	3	2.7
	Radio, posters or churches	1	.9

	Radio, health facilities and churches	2	1.8
	Radio, public gatherings, health facilities and churches	1	.9
	Total	113	100.0

Source: Author 2021

Radio still remains the most preferred channel of communication at a frequency of 93. Religious institutions are a preferred mode of communication campaigns at 96.5% cumulatively

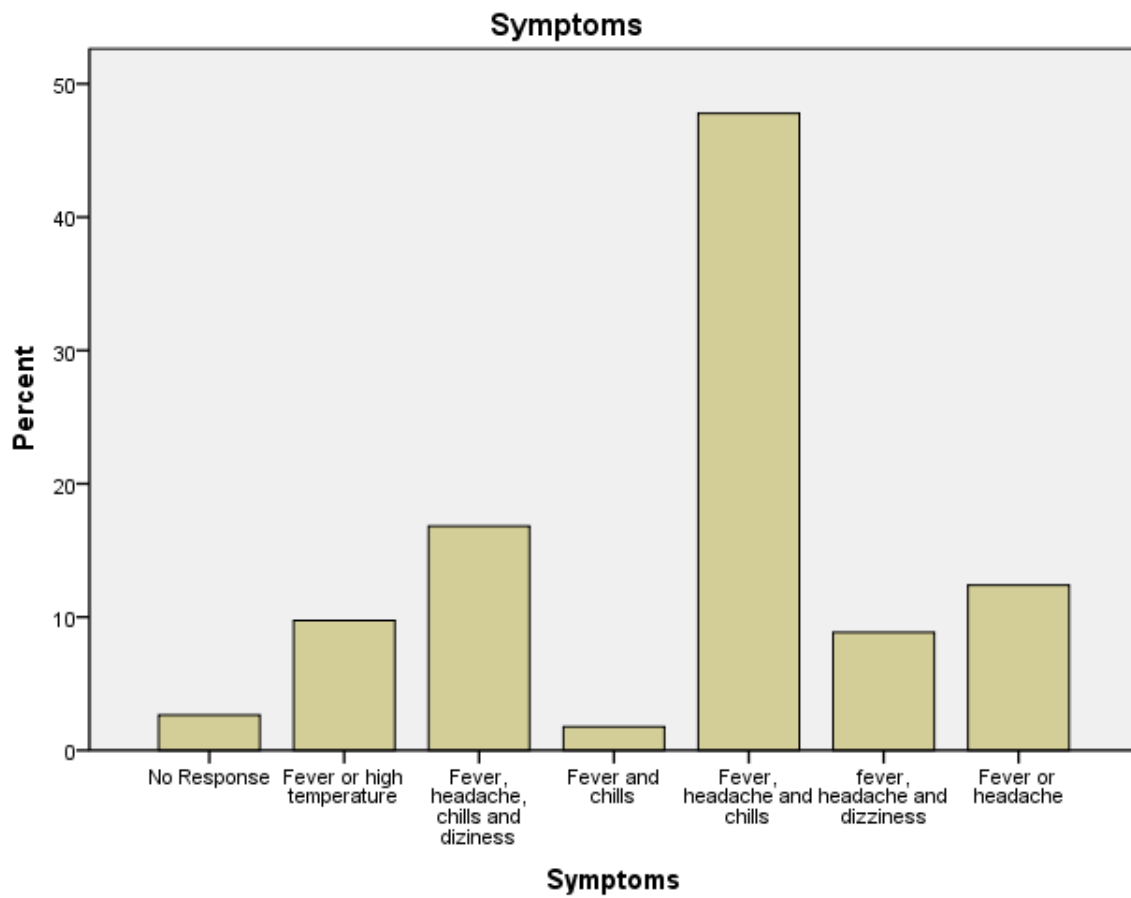
Table 4. 7: Malaria Vector

		Frequency	Percent
Valid	No Response	2	1.8
	Mosquito	101	89.4
	Rain	1	.9
	Mosquito and Rain	9	8.0
	Total	113	100.0

Source: Author 2021

89.4% of the respondents sampled are aware of what mosquitoes are and what their causality effects.

Figure 4.9: Malaria Symptoms



Source: Author 2021

47.8% respondents agreed that fever, headache and dizziness are symptoms of malaria; an indicator that they may know when they contract it.

Table 4.8: Use of Insecticide

		Frequency	Percent
Valid	Yes	82	72.6
	No	28	24.8
	No Response	3	2.7
	Total	113	100.0

Source: Author 2021

72.6% of those sampled use insecticide to control mosquitoes, hence malaria. 24.8% do not use them. They stated that the insecticides have side effects whenever they used them.

Table 4.9: Preventive Measures

		Frequency	Percent
Valid	No Response	2	1.8
	Sleeping under insecticide treated mosquito net (ITN)	9	8.0
	Sleeping under net, clearing bush and Clearing stagnant water	40	35.4
	Sleeping under net, clear bushes, clear stagnant water and use of coil	50	44.2
	Sleep under net and clear bushes	9	8.0
	Clear bushy areas and draining stagnant water	2	1.8
	Sleep under net, clear bush and burn coil	1	.9

		Frequency	Percent
Valid	No Response	2	1.8
	Sleeping under insecticide treated mosquito net (ITN)	9	8.0
	Sleeping under net, clearing bush and Clearing stagnant water	40	35.4
	Sleeping under net, clear bushes, clear stagnant water and use of coil	50	44.2
	Sleep under net and clear bushes	9	8.0
	Clear bushy areas and draining stagnant water	2	1.8
	Sleep under net, clear bush and burn coil	1	.9
	Total	113	100.0

Source: Author 2021

The respondents seem to be aware of the prevention measures against the malaria-causing mosquitoes. 44.2% enforce the basic measures laid down by WHO and the Ministry of Health – they sleep under the ITNs clear bushes and stagnant waters that are fertile breeding grounds for mosquitoes. They also use mosquito coils to keep the mosquitoes away.

Table 4.1.1: Use of ITNs

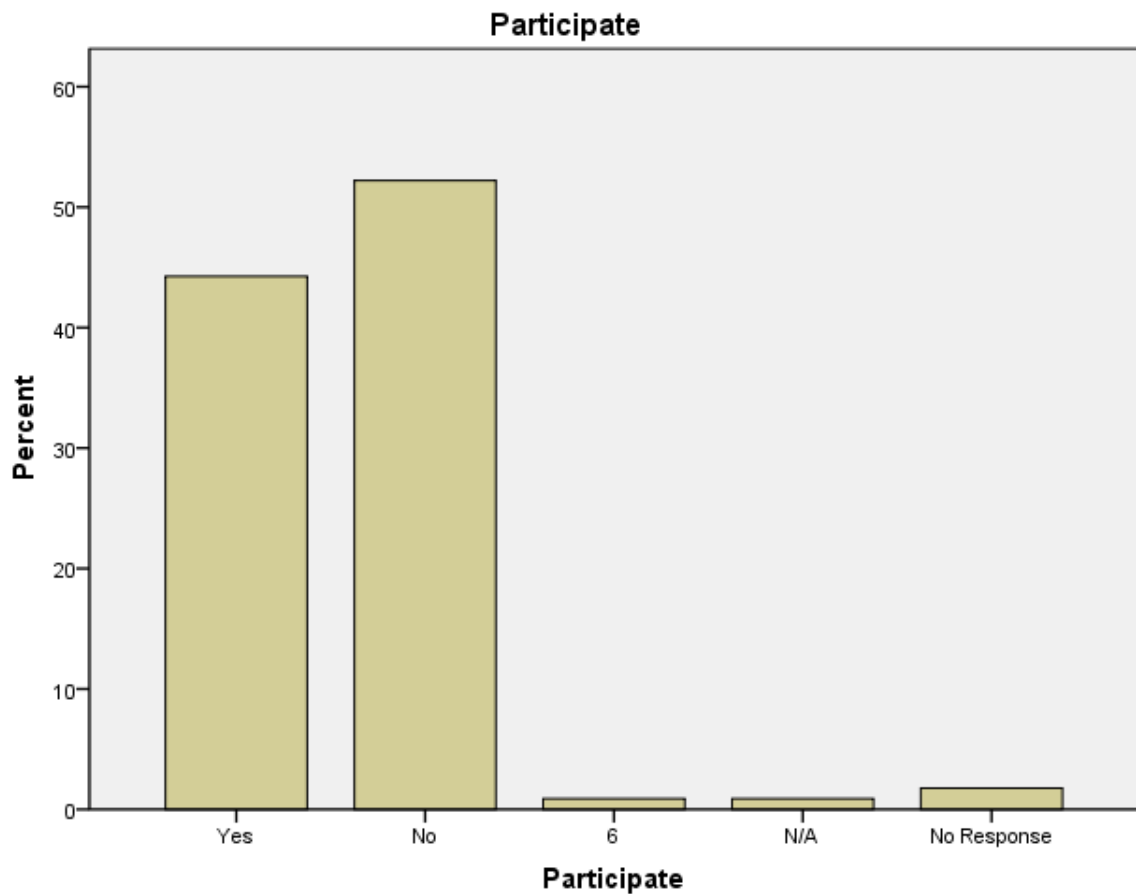
		Frequency	Percent
Valid	Yes	48	42.5
	No	62	54.9
	No Response	3	2.7
	Total	113	100.0

Source: Author 2021

54.9% of the respondents sampled in this study do not sleep under treated mosquito nets. 42.2% use the ITNs and 2.7% did not respond. Those who do not use the ITNs responded that the INTs are expensive. They claimed that they no longer receive the INTs from the government, except for pregnant mothers who get them when they visit health facilities.

4.6 Awareness Communication Campaigns Through Public Participation

Figure 4.1.1: Public Participation



Source, Author 2021

53% of the respondents refuted any awareness campaigns and 44% acknowledged the campaigns by the communication experts on malaria sensitization.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Overview

This chapter depicts how Community Radio stations can be used by the health sector, both national and counties to create awareness on public health, especially malaria. This in turn helps in mitigation measures that should prevent high mortality rates in the affected people.

Findings and recommendations in this chapter are structured in a way that leaves room for further research on the subject under this study.

5.2 Findings of The study

A majority of those sampled for this study are between the ages of 15 and 25, who are still young; most of who are already parents. Male respondents were willing to give information more than the females. The researcher also recorded most respondents went to school albeit some not post primary school. So they understood, somehow, what was being asked? Most residents in Homabay County have acquired secondary school education followed by those who are either in colleges/universities or have gone through the learning institutions. This enabled the researcher to conclude that most respondents were aware of what malaria is and its effects on the vulnerable and the role of media in helping mitigate the disease. Those who are abled differently, especially the deaf, criticized the media for not taking their plight into account when disseminating or when running communication campaigns on malaria.

Findings of the study show that there is lack of communication regarding campaigns against malaria. There is no structured schedule on the calendar of malaria campaign awareness on

Radio Sunset. This therefore, negates the role of community radio as a tool for information that empowers community members. Respondents sampled decried lack of participation in public health campaigns by the national and county government officials who are in-charge of public health in Homabay County. Sunset Radio, one of the community radio stations in the county, censured the county government for under-using community media to educate its citizens about malaria, its prevention and treatment. Radio Sunset FM held liable the Homabay County government, together with the national government, for underusing the station in sensitising the public on malaria matters.

However, the health officials in the county have asserted that the county distributes ITNs annually to residents, especially to pregnant mothers and parents/guardians with children between 5 years old and below. The officials said the residents neither use ITNs properly nor adhere to directions given by public health officers. The public health officials said castigated the residents' behaviour saying it was hampering control of the vectors from spreading malaria among people – claims residents refuted. Those sampled argued that they are no longer called to participate in public fora, neither do they know when Insecticide Treated Nets (ITNs) are distributed. Some said buying the ITNs was too expensive and have to choose between buying them and feeding their children.

5.3 Conclusion

The significance of this study is out of concern for rising malaria cases in Homabay County. Despite many studies done on the pandemic over the years, the county has continued to report new malaria cases, annually. This research used Radio Sunset as a study of effectiveness of community radio in its role to mitigate malaria in Homabay County. Most respondents preferred

listening to community radio programmes on health information, but criticized lack of all inclusivity in public participation exercise from campaigners. Public participation should be premised on the needs and interests of the community to tailor make programme content regarding their health. Persistent and consistent radio transmission of malaria messages would avert the threat to life posed by the disease on residents of the county. Community radio stations would aid in saving lives by dedicating slots in their programming schedule to specifically transmit programmes on malaria.

The study was able to deduce that there is lack of coordination in communicating sufficient knowledge to Homabay County residents regarding malaria on community radio. It is up to the National Government, through the Ministry of Health to follow up on malaria programmes, projects and campaigns, if the pandemic is to be mitigated and eventually eradicated in that county and other affected areas in Kenya at large.

5.6 Recommendations

In light of the information gathered and analysed in this study, the most important lesson was public participation. There is need for government officials charged with public health, to be more proactive in churning out media campaigns against malaria in the Dholuo (most preferred language in the county), to avoid senseless deaths.

Many global success programmes on public health have been carried out in some countries such as Peru among other countries, which used community radio to empower their communities with the requisite knowledge. Official stakeholders should study such cases together with other similar studies done before on the role of community radio in public health, to improve people's livelihood in the area.

Public participation in media campaigns is vital because it bestows knowledge on people who through word of mouth would spread the message to their neighbours. Public participation also encourages community members to give their opinion on malaria mitigation. Regrettably, there is very minimal participation by campaigners involving Radio Sunset as a community radio station and the community in Homabay County.

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APPENDICES

APPENDIX I: RESEARCH QUESTIONNAIRE

I am a student at the University of Nairobi, pursuing a Masters Degree in Communication Studies. I am undertaking a research study on “The Role of Community Radio in Communication Campaigns to Eradicate Malaria in Homabay County”. This is in partial fulfillment of accomplishing my degree course. Your assistance in responding to the questionnaire formulated below is appreciated. Your response will be confidential, unless you want to reveal them. Thank you.

SECTION A: DEMOGRAPHIC DATA

Kindly tick your answer on the questions below:

1. (a) 15 – 25 (b) 26 – 35 (c) 36 and above
2. Gender/Sex: (a) Male (b) Female (c) Prefer Not To Say
3. Marital status: (a) Single (b) Married (c) Widow (d) Widower
4. Level of Education: (a) Primary (b) Secondary (c) College/University (d) Others
5. Occupation.....

SECTION B: MASS MEDIA AS AN EARLY WARNING TOOL ON MALARIA

1. Do you think, community radio is a tool that can be used to mitigate malaria among the population on the pandemic’s peak season?

YES

NO

2. What measures are in place to ensure the information on warning signs are transmitted regularly?

.....

SECTION C: SPECIFIC PROGRAMMES FOCUSING ON HIGH-RISK GROUP, EXCLUSIVELY FOR MALARIA CAMPAIGNS

1. Do you have programmes specifically on malaria running on your station?

YES

NO

2. How many times do you run them?

Weekly

Monthly

Quarterly

3. If/NO, state why

.....

SECTION D: CHALLENGES BY COMMUNITY RADIO STATIONS IN DISSEMINATION OF PUBLIC HEALTH MESSAGES

1. Do you invite health officials or health experts for their advice to the community on malaria?

YES

NO

If NO, state why?

.....
.....

2. Do you have challenges in the acquisition and transmission of public health messages?

YES

NO

If YES, specify

.....
.....

SECTION E: PUBLIC PARTICIPATION AND PUBLIC HEALTH AWARENESS

1. Have you ever heard of or received any information on malaria? **TICK ONE**

YES NO

If YES, do you think the information is adequate?

YES NO

If NO, what information would you like to hear?

.....
.....

2. In what language would you like the information to be communicated to you?

- (a) Dholuo { } (b) English { } (c) Kiswahili { } (d) Others { }

Specify:

.....
.....

3. What communication channels would you like the information to be communicated to you?

- (a) Radio (b) public gatherings/barazas (c) health facilities (d) posters

- (e) Churches/Mosques (f) others

4. What vector transmits malaria?

- (a) Mosquito { } (b) Rain { } (c) Hot Weather { }

5. Do you think malaria can cause death?

YES NO

What is the most common malaria symptoms exhibited by an infected person?

- (a) fever/high body temperature (b) headache (c) chills (d) dizziness (e) I do not know

6. Do you spray insecticide in your rooms for malaria prevention?

YES

NO

7. What preventive measures have you put in place against malaria infection?

- a) Sleeping under Insecticide Treated Mosquito Net (ITN)
- b) Clearing bushy areas surrounding your homestead
- c) Clearing stagnant water
- d) (d) No physical contact with an malaria-infected person
- e) Burning mosquito coil

8. Do you have enough ITNs for your household?

YES NO

If NO, Why?

State your reason(s)

.....
.....

9. How soon do you seek medical help if any member of your family has malaria-like symptoms?

.....

10. Do you listen to radio on malaria programmes? If YES, how many times a week? If NO, state why.

YES

.....
.....

NO.....

.....
.....

11. Do you participate in public health communication campaigns?

YES NO

If NO, state your reason(s)

.....
.....

APPENDIX 2: INTERVIEW QUESTIONS FOR KEY INFORMANTS

I am a student at the University of Nairobi, pursuing a Masters Degree in Communication Studies. I am undertaking a research study on “The Role of Community Radio in Communication Campaigns to Eradicate Malaria in Homabay County”. This is in partial fulfillment of accomplishing my degree course. Your assistance in responding to the questionnaire formulated below is appreciated. Your response will be confidential, unless you want to reveal them. Thank you.

SECTION A: SUNSET RADIO STAFF

1. Does your programming have specific transmission slot for malaria campaigns? If Yes, how many times in a week do you air them?
2. What are the challenges you face regarding such campaigns?
3. How do you work with the Homabay County government through the Ministry of Health, to disseminate this important media campaign messages?
4. Do you get financial assistance from any organisation or groups of individuals to gather and transmit malaria content on your station?

SECTION B: MEDICAL WORKERS

1. How prevalent are malaria cases in Homabay County?
2. Do you conduct campaigns against malaria in in the county? If Yes, through which medium?
3. How often do you use community radio stations for campaigns?

4. Would you say the number of residents who self medicate malaria is higher than for those who attend health facilities?

SECTION C: COUNTY HEALTH OFFICIALS

1. How many cases of malaria have you received in the county so far?
2. Do you have an annual structured calendar of malaria campaigns, especially on Community Radio stations?
3. How often do you conduct public participation through community radio for malaria awareness campaign messages?
4. Is the funding you get from the national government adequate for public health campaigns? If No, what are the steps the Homabay County government taken?

SECTION D: PEOPLE LIVING WITH DISABILITY

1. Have you participated in community radio campaigns on malaria?
2. What are the challenges hindering your participation?
3. What changes would you propose to improve dissemination of public health information on community radio?