

**UNIVERSITY OF NAIROBI**

**SCHOOL OF JOURNALISM AND MASS COMMUNICATION**

**EFFECTIVENESS OF INTERPERSONAL COMMUNICATION IN PUBLIC  
EDUCATION CAMPAIGNS: A CASE STUDY OF THE ANTI-JIGGER CAMPAIGN  
BY ROLE MODELS IN GATANGA DISTRICT, MURANG'A COUNTY, KENYA.**

**WANJIKU MONICAH WANJIRU**

**REG NO: K50/64272/2010**

**RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF JOURNALISM AND  
MASS COMMUNICATION, UNIVERSITY OF NAIROBI, FOR THE PARTIAL  
FULFILLMENT OF A MASTER OF ARTS DEGREE IN COMMUNICATION  
STUDIES.**

**NOVEMBER 2013**

**DECLARATION**

This is my original work and has not been submitted for degree in any other university.

**MONICAH W WANJIKU**

SIGNATURE.....DATE.....

**APPROVAL**

This project has been submitted with my approval of the University Supervisor

**DR. WAMBUI KIAI**

**DIRECTOR, SCHOOL OF JOURNALISM AND MASS COMMUNICATION**

SIGNATURE.....DATE.....

## **DEDICATION**

I dedicate this project to my daughter Maria Goretti Wanjiku.

## **ACKNOWLEDGEMENTS**

First, my sincere gratitude goes to my Maker for seeing me through the entire study period. With God, everything is possible.

From the depth of my heart, I appreciate my supervisor Dr.Wambui Kiai for her insightful guidance throughout the process of writing the project. The Inspiration and direction needed for this task was provided by her through close scrutiny of my work. She also sourced reference materials for my study. Where else could this support come from when I needed it most? Thank you, Daktari.

To my family, for your support and encouragement.

To Dr. Wanjohi, Ministry of Health, Mr. Njue, District Public Health Officer Gatanga for the invaluable support in arranging for meetings with their officials and members on the ground. Your dedication and sacrifice made my fieldwork a success.

To Tervil Akoko, who provided very crucial insights with regard to inter-personal communication. Nicholus Waitathu, thanks for your encouragement and support during my fieldwork. Monicah Karanja, your emotional support cannot fail to be recognized. Lydiah Kimundu and Felista Nyambura, thanks a lot for always keeping me posted. Sincere thanks to my lecturers, Silas Oriaso, James Oranga, Muiru Ngugi among others. I am particularly indebted to my group members, James Wodera, Waweru Mburu, Antony Wafula, Alfred Onono, Jinaro Mburu, Koinange Thuku and Claudia Onsare and the entire class for their support.

All those who assisted me to accomplish this task, directly or indirectly, feel appreciated too.

## **ABSTRACT**

Jigger infestation has been a long term and serious problem in Kenya. Each year, human beings in their prime working age are unable to perform their duties due to regular attacks by the pest. The infestation has severely retarded economic development in the region. The pest threatens to reverse Kenya's anticipated gigantic development gains. If the country has to achieve goal number one of the Millennium Developmental Goals (MGDs), of halving poverty by 2015, then this challenge must be immediately tackled.

This study investigates the role of interpersonal communication in changing attitudes of individuals and families and in persuading them to adopt the recommended methods of preventing the spread and effects of jiggers. Jigger infestation has become a major health problem, especially in Gatanga District of Murang'a County in Central Kenya where the menace has reached pandemic levels and where various intervention methods are currently on trial. One of the intervention initiatives has employed the use of celebrities as role models in the campaign against the pandemic.

The objectives of the study were to identify the role models used in the anti jigger campaigns and various interpersonal techniques that they apply, establish the levels at which role model messages are effective in changing the perceptions and attitudes of individuals affected by jiggers in the study area and also identifying key messages used in the campaign and their effectiveness in the campaign.

The study was conducted through mixed methods. Questionnaires, key informant interviews and focus groups discussions were employed in collecting data from respondents on their awareness, attitudes, behaviour and opinions in regard to messages used to fight the jigger menace. Secondary data was also used. The mixed method design was used to systematically collect and analyze data to address the specific objectives and answer the research questions of the study. Purposive sampling was used to arrive at the study population.

Based on the findings, this research recommends that elaborate awareness campaigns be carried out to sensitize people on how health knowledge may be transposed to safe practices and also help identify the conditions that could promote preventive behaviour change and hence mitigating against jigger infestation.

## TABLE OF CONTENTS

DECLARATION .....	ii
DEDICATION .....	iii
ACKNOWLEDGEMENTS .....	iv
TABLE OF CONTENTS.....	vi
LIST OF TABLES .....	x
LIST OF ABBREVIATIONS.....	xi
<b>CHAPTER ONE: INTRODUCTION.....</b>	<b>1</b>
1.0 Background .....	1
1.0.1 About Ahadi Kenya Trust.....	3
1.2 Problem Statement .....	6
1.3 General objective.....	7
1.3.1 The study objectives .....	7
1.3.2 Research questions .....	8
1.4 Justification of the study .....	8
1.5 Significance of the study.....	8
1.6 Scope of the Study.....	10
1.7 Limitations .....	10
<b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>11</b>
2.0 Introduction.....	11
2.1 Jigger threat in Kenya .....	11
2.1.1 Causes of jigger infestation (vicious cycle of poverty).....	12
2.1.2 How jiggers perpetuate the vicious cycle of poverty .....	13
2.1.3 Intervention to break the vicious cycle involves:.....	13
2.1.4 Symptoms.....	14
2.1.5 Treatment .....	14
2.1.6 Effects of jigger infestation .....	15
2.1.6.1 HIV/AIDS.....	15

2.1.6.2 Low education standards .....	15
2.1.6.3 Poverty .....	15
2.1.6.4 Civic rights .....	16
2.1.6.5 Low self esteem .....	16
2.1.7 Preventive measures .....	16
2.1.8 Achievements .....	17
2.1.8.1 Activities undertaken by Ahadi Kenya .....	17
2.1.8.2 Expected Impact .....	19
2.2 The Health Campaign .....	19
2.2.1 Communication for health .....	21
2.2.2 Interpersonal communication and communication for change .....	23
2.2.3 Use of role models to influence perceptions in campaigns .....	25
2.2.4 Effectiveness of role model messages in changing the perceptions and attitudes of individuals. ....	27
2.2.5 Interpersonal Communication and Health Behavior Change .....	30
2.2.6 Functions of Interpersonal Communication .....	33
2.2.7 Why Interpersonal communication .....	34
2.3 Theoretical Framework .....	34
2.3.1 Health Belief Model .....	34
2.3.2 Challenges of HBM .....	35
2.3.3 Social learning Theory .....	36
2.3.4 Application to the anti jigger campaign .....	38
<b>CHAPTER THREE: METHODOLOGY .....</b>	<b>39</b>
3.0 Introduction .....	39
3.1 Research design .....	40
3.1.1 Geographical description .....	41
3.2 Target population .....	41
3.3 Sample size .....	42
3.4 Sampling Procedures .....	43
3.5 Research Instruments .....	43

3.5.1 Semi-structured Questionnaire .....	45
3.5.2 Focus Group Discussions .....	45
3.5.3 Key informant Interviews.....	47
3.5.4 Secondary data.....	47
3.6 Data analysis .....	48
3.7 Limitations of the Study.....	49
3.8 Ethical issues.....	49
<b>CHAPTER FOUR: DATA PRESENTATION AND INTERPRETATION .....</b>	<b>50</b>
4.0 Introduction.....	50
4.1 Demographic characteristics of the respondents.....	50
4.1.1 Age of the respondents .....	50
4.1.2 Gender of the respondents .....	51
4.1.3 Level of education .....	52
4.1.4 Marital status of the respondents .....	52
4.1.5 Number of children of the respondents .....	53
4.1.6 Number of adults per home .....	53
4.1.7 Number of people in each household .....	54
4.1.8 Occupation of the respondent .....	55
4.1.9 Income Mode.....	56
4.1.10 Type of accommodation of the respondents.....	57
4.2 Role models and the various interpersonal communication techniques used by the celebrities in the campaign.....	57
4.2.1 Awareness of Anti Jigger Campaign .....	58
4.2.2 Information related to jigger infestation.....	59
4.2.3 How often they receive the information concerning the anti jigger campaigns.....	60
4.2.4 Awareness of personnel involved in the anti jigger campaigns .....	64
4.2.5 Interpersonal techniques applied in the jigger eradication campaigns.....	64
4.2.6 Interpersonal techniques applied in the jigger eradication campaigns.....	66
4.3 Role model messages in changing the attitudes and perceptions of individuals affected by jiggers.....	67



4.3.1 Key messages used by the role models during the anti-jigger campaigns .....	67
4.4 Effectiveness of the information on Jigger prevention towards the Community .....	68
4.4.1 Effectiveness of role model messages in changing the attitude and perception of the jigger infested individuals .....	69
4.4.2 Attitude and perception of people towards the role models .....	72

<b>CHAPTER FIVE: DISCUSSION OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>74</b>
5.1 Summary .....	77
5.2 Conclusion .....	78
5.3 Recommendations.....	79
 REFERENCES .....	 80
APPENDICES .....	88
Appendix 1: Questionnaire .....	88
Appendix 11: Focus Group Discussion Questions .....	93
APPENDIX III: Key Informants Interview Guide .....	95

## LIST OF TABLES

Table 1: Age of the Respondents .....	50
Table 2: Gender of the Respondents.....	51
Table 3: Level of Education.....	52
Table 4: Current Marital Status.....	52
Table 5: Number of Children .....	53
Table 6: Number of Adults .....	54
Table 7: Total number of people living in each home .....	55
Table 8: Occupation of the respondents.....	56
Table 9: Income Mode .....	57
Table 10: Type of Accommodation .....	57
Table 11: Awareness of Anti Jigger Campaign .....	58
Table 12: Information related to Jigger infestation.....	59
Table 13: Frequency on how respondents receive anti jigger information.....	60
Table 14: Source of Health Information .....	61
Table 15: Adequacy of the Information received .....	63
Table 16: Personnel involved in the Anti Jigger Campaign .....	64
Table 17: Credibility of the messages.....	66
Table 18: Reliability of the anti jigger campaign messages .....	67
Table 19: Effectiveness of jigger prevention information .....	68
Table 20: Effectiveness of role model messages in changing the attitude and perception of the infested people.....	70

## **LIST OF ABBREVIATIONS**

IEC	Information Education Campaigns
CDC	Centers for Disease Control
CHWs	Community Health workers
DPHO	District Public Health Officer
MDGS	Millennium Developmental Goals
MoH	Ministry of Health
NGO	Non Governmental Organisation
TV	Television
KAPB	Knowledge, Attitude, Practice and Behaviour
GoK	Government of Kenya
FGDs	Focus Group Discussions
SPSS	Statistical Package for Social Sciences
HBM	Health Belief Model

## CHAPTER ONE: INTRODUCTION

### 1.0 Background

Jigger flea, also known as sand flea, *Chigoe* or *Tunga penetrans* is an ecto-parasite which causes Tungiasis parasitic condition of humans and animals. The flea affects many impoverished populations living in sub-Saharan Africa, the Caribbean and South America. Hundreds of millions of people are at risk of infection in more than 70 nations, mostly in developing countries (Pampiglione *et al*, 2009). In some communities, the prevalence may be as high as 50% in the general population (Georganne *et al*, 2009). Tungiasis is usually considered an entomologic nuisance and does not receive much attention and therefore remains an important public health problem for the poor. It is a problem neglected by those affected, the medical profession and the scientific community (Heukelbach, 2001) and the government.

According to Sarah Curtis (2004), research has demonstrated that health inequalities are associated both with socio-economic characteristics of individuals and with levels of poverty and wealth in a given residential area. The cause of jigger infestation according to research is poor hygiene conditions which is a manifestation of poverty. People living in poverty throughout the world are heavily burdened from a series of communicable diseases and conditions particularly parasitic infestation (Ehrenberg, 2005).

The infestation has severely retarded economic development in the Gatanga District ( Ahadi, 2008). Poverty and powerlessness or inability to do anything about it is the greatest cause of ill health among communities. Lives in some rural areas in Kenya revolve around jiggers as they are busy grappling with a problem Kenyans seem to ignore (Ahadi Kenya Trust, 2008).

Jigger infestation which is caused by poverty and subsequently lack of proper hygiene has so far claimed the lives of over 400 people in the last five years in Kenya (Ahadi Kenya Trust, 2012). Murang'a County has the highest rate of these cases (Ahadi Kenya Trust, 2008). Jigger transmission from one person to another is not possible but it occurs through the insanitary environment. The jigger flea causes debility in resource-poor communities in developing countries (Kimani *et al*, 2012). Poverty and powerlessness or inability to do anything about it is the greatest cause of ill health among communities. It doesn't just destroy the social fabric, the pest also denies the infested and the affected the basic human rights of living like the rest of human beings. Jigger menace has also led to school dropout and it is estimated that over 2 million people in Kenya need assistance in relation to jigger menace. The risk of secondary infection is high. Tetanus is a common secondary infection that has reported associations with death (Kimani *et al*, 2012).

The infestation has had many socio-economic and health related consequences which translate into most problems in the affected community. The related events are often burdensome to those involved and they affect the general society. The tiny pest renders the victims defenseless such that it slowly eats away at their self esteem or rather what is left of it, shredding the little dignity left and ultimately alienating them from the society. According to Ahadi Kenya Trust, adults and children become helpless and often require attention by the rest of the family members and the entire society, including food and medical support because most of them are never productive. They are unable to walk or even work and this results in trauma and isolation. The affected population remains disenfranchised by virtue of immobility, stigmatization, low self esteem and by systems and structures that literally make it

impossible to even participate in the democratic processes like voting (Ahadi Kenya Trust, 2010).

Efforts of Ahadi Kenya in this most challenging but important task of mobilizing those individuals isolated from participating in societal affairs including the very basic right to determine how they ought to be governed, has been endorsed by various corporate bodies and societal organizations. By reaching out to this category of people, Ahadi Kenya has demonstrated that with a little effort, energy, education and attention, all people can and should be enabled to live full and meaningful lives (Ahadi Kenya Trust, 2010).

### **1.0.1 About Ahadi Kenya Trust**

Ahadi Kenya Trust, founded by Dr. Stanley Kamau to address the issue of jiggers, has been carrying out anti-jigger campaigns in and outside the Kenyan borders so as to curb the menace. Ahadi is a Kiswahili word for promise. Ahadi Kenya is a Non Governmental Organization registered as such with the National NGO Board of Kenya, under the NGO coordination Act. Its major activity is to eradicate jiggers in Kenya.

It is a non-profit, non-political organization that has gotten into partnership with the Ministry of Provincial Administration, the Ministry of Health, corporate bodies, NGOs, the media and the community in the fight against jiggers. Its vision is a promise for a better, healthier life and the mission is to create a better life for people, a promise to bridge the poverty gap by empowering poor communities (Ahadi Kenya Trust, 2008). Ahadi Kenya Trust was founded with the objective of eliminating, halting and reversing the spread of jiggers. In this regard, the Trust seeks to advance the fight against the spread of jiggers with a view to realizing better

healthier lives for all as well as bridging the poverty gap. This component focuses on the treatment of jigger infested persons, the fumigation of their homes and schools, home visits of the affected people and the registration of the jigger infested persons for statistical records and tracking of progress (Ahadi Kenya Trust, 2008).

Ahadi Kenya Trust started off by opening a pilot jigger help and counselling center in Murang'a after launching the anti-jigger campaign on March 30<sup>th</sup> 2007. Since then, it has opened 42 jigger help centers in Kenya, Uganda and Tanzania where they have managed to create jigger infestation awareness. There are also plans to open several others in all affected areas countrywide (Ahadi Kenya Trust, 2010). Today, Ahadi Kenya has managed to register more than 2.8 million individuals afflicted by jiggers countrywide (Ahadi Kenya Trust, 2010). According to Ahadi Kenya, 10 million people risk being infected by the bug. On a one on one interaction with Dr. Kamau of Ahadi Kenya Trust during the fieldwork interviews, this is what he said, 'With over 2.8 million jigger infested Kenyans registered by Ahadi Kenya Trust, I can say jigger infestation raises a lot of concern. Many people have been suffering from jigger infestation in silence. No comprehensive survey has been carried out, making it difficult to give the actual number of those affected.' (August, 2013)

Since its inception in 2007, Ahadi Kenya Trust has made tremendous progress (Ahadi Kenya Trust, 2010). The organization has raised awareness about the jigger menace not only in Kenya but also in East Africa, Kenya, Uganda and Tanzania, besides the setting up of jigger help centers; which provide treatment, medication, rehabilitation and fumigating services. The help centres, according to Amani Kenya Trust, have been able to reach over 300,000 people with treatment and fumigating over 15,000 homes. In addition through its partnerships, Ahadi

has been able to distribute 23,000 pairs of shoes and clothing to schools and communities in an effort to help with the rehabilitation of children who had previously dropped out of school as a result of jigger infestation.

Ahadi says it has been able to train over 2,000 social workers and create a database of the jigger infested Kenyans with a view to tracking their progress once the treatment and rehabilitation is implemented. The organisation has facilitated the initiation of sustainable income-generating projects among the adult jigger infested population such as bee keeping and planting through providing skills, seedlings and even fertilizers. Since hygiene is an integral part of health, Ahadi Kenya has initiated hygiene clubs in schools.

Lack of political goodwill has been one of Ahadi Kenya's biggest challenges in the fight against this menace, as political leaders feel embarrassed to come out and talk about jiggers. But its partnership with the Government ministries, especially the Ministry of Public Health and Sanitation, has boosted the anti-jigger campaign. The support from the media, corporate bodies, religious organizations, opinion leaders, as well as support from individual well wishers has been overwhelming. As result, Ahadi Kenya Trust has had the joy of seeing children who could not walk, get back to school and adults who depended on handouts get involved in income generating activities (Ahadi Kenya Trust, 2010).

In its strategic direction plan for 2012 - 2014, Ahadi Kenya Trust says it will enhance the realization of rights and effective exercise of civic duty among its constituents through training. This component will focus on awareness creation on different topical issues, for example, the new Constitution and the new legislation that is relevant to its target audience, with a view to enhancing the effective participation of this marginalized group in democratic



processes. This activity, the organization says, will focus on awareness creation on the Constitution, the new legislation, peace building and reconciliation. This component will also advocate for the development of an official policy on jigger management in Kenya.

As Ahadi tackle the menace, it behooves the society, government, civil society, individuals, infested and the affected to come together in a concerted effort to address the issue underlying the phenomenon- poverty (Ahadi Kenya Trust, 2003). In Particular, Ahadi Kenya argues that it is urgent that the government initiates a national survey that will give a concrete figure of the infested and develop a master plan on how to remedy the situation. The international community, including government and private development partners, cannot afford to look the other way if Ahadi's efforts have to be realized (Ahadi Kenya Trust, 2003).

## **1.2 Problem Statement**

Jigger infestation has become a major health problem in Central Kenya, especially in Gatanga District, Murang'a County, where the menace has reached pandemic levels and where various intervention methods are currently on trial. To be successful, disease prevention and control activities require strong communication programmes and more so when new treatment and prevention methods are introduced. Communication remains a critical pillar of any public campaign for change (CDC, 2002). One of the intervention initiatives has employed the use of role models in the campaign against the pandemic. It has been proven that interpersonal communication strategies are more effective in changing people's attitudes and behavior than mere exclusive use of the mass media channels (Hornik, 1988). While mass mediated messages are more effective in raising people awareness about public issues, interpersonal communication is more effective in persuasion and behaviour change. Rather than use of the

mass media, forms of interpersonal interaction are seen as the most effective means of creating preventive consciousness or in helping infected persons to reorganize their lives (Lie, 2008, p.281; Roy and McCain, 2001, p.25; Buhler and Kohler, 2002).

There has been minimal use of mass mediated communication in the anti-jigger campaign. However, there has been a significant use of interpersonal communication through celebrities. Therefore, there is need to investigate the effectiveness of the use of role models as mediators of communication for change in this campaign. Little is known on how effective this strategy has been in creating general awareness about the jigger menace and in persuading individuals and families to adopt the recommended behavior to mitigate against the spread and effects of the jigger infestation. This study aims to fill this gap.

### **1.3 General objective**

The main objective of this study was to assess the effectiveness of the use of celebrities/role models as a medium of communication for change in the anti-jigger campaign in Gatanga District of Murang'a County.

#### **1.3.1 The study objectives**

The study objectives were as follows;

1. Identify the kind of role models used in the anti jiggers campaigns.
2. Identify key messages and the various interpersonal communication techniques used by the role models during the anti-jigger campaigns
3. To establish the level/s at which role model messages are effective in changing the attitudes and perceptions of individuals affected by jiggers in the study area.

### **1.3.2 Research questions**

1. What kinds of role models have been involved in the campaign?
2. What are the key messages and interpersonal communication techniques used by the role models during the campaigns?
3. To what extent have the campaign messages been effective as a strategy for changing peoples' attitude and perceptions towards jiggers?

### **1.4 Justification of the study**

Health promotion requires carefully planned communication activities that can provide information to fill knowledge gaps, and which explain all the benefits accruing from the adoption of preventative new behaviour, as well as the risks of not taking it up,(Muriuki,2011) Jigger infestation is a big problem in Murang'a County. A search of the literature reveals that little has published about jigger infestation prevention and control. However, a number of intervention strategies have been employed in the area to deal with the problem, including using celebrities as role models to influence positive behaviour change. Therefore, it was critical to establish the value of the contribution of these personalities as agents of change in the anti-jigger campaign. The study examined the types of role models used, their messages and effectiveness of those messages.

### **1.5 Significance of the study**

This study brought into focus the role played by role models in the anti-jigger public awareness campaign in Gatanga, Murang'a County and also in Kenya as a whole. It was meant to determine whether the use of role models, especially with regard to behavior change communication, has a place in Kenya, particularly among the rural population. The findings of this study will guide campaign designers in developing communication strategies. Given

that access to media information in the rural set up is minimal, it is intended that the study will provide valuable insights for planners of IEC campaigns especially in the rural set up.

It is hoped that the findings of the study will influence decisions of various stakeholders for instance Ahadi Kenya Trust, the media, Ministry of Public Health and Sanitation, NGOs, in the initiatives aimed at eradicating the jigger menace and any other health communication interventions.

Policy makers and project officers now have a guide on some of the effective strategies to apply in designing and implementing more effective control programmes and also to replicate the campaigns in other parts of the nation to mitigate against jigger infestation.

Those in academia will greatly benefit in getting literature and data useful to contribute to the field of research for both seasoned and upcoming researchers in health communication field. The study forms a basis for new studies and further research being carried out on the same area in assessing impact of eradication of jiggers in this County. It brings to light issues on health, education, gender inequalities, poverty and marginalization of women and children and its impact on development. This study suggests practical solutions towards efforts whose benefit will have a ripple effect on the community.

The anti-jigger campaign is a well initiated programme. However, little research has been done to establish whether these efforts have yielded fruits or what can be done to achieve higher percentage of success. This study therefore evaluated interpersonal communication as source of anti-jigger campaign information. The findings and recommendations are useful for the growth of Ahadi Kenya Trust as well as the health sector as a whole in the country.

## **1.6 Scope of the Study**

The study sought to establish the effectiveness of interpersonal communication in the anti-jigger campaign. The geographical scope of the study was Gatanga District in Murang'a County given that it is one of the areas most affected by jigger infestation (District Annual Medical Report, 2013). The study was limited to messages used by role models in the anti-jigger campaign and how effective these messages were in influencing behaviour change among targeted populations within Gatanga District of Murang'a county.

## **1.7 Limitations**

Jigger infestation is a long term problem but very little has been done about the condition. It was challenging to look for new knowledge. Little research has been done about the jigger infestation issue. The findings presented in this report are based on a small sample size that is too small to allow for serious generalization of the findings. To partly overcome this short-coming, this study reviewed findings from other research studies to corroborate some of the findings in this report.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0 Introduction**

This chapter has documented information related to jiggers and effective communication strategies in the field of health. It also deals with theories and models aimed at positive behaviour change especially those that have proven to be effective in health communication campaigns. The aim of this literature review was to identify what is known about using communication to promote health and to find gaps in the current knowledge base about public health communication, specifically on jigger infestation which the proposed study can help fill. The section starts by reviewing the jigger threat in Kenya, what has been established about health communication in general, and then proceeds to review what is known about the use of role models in the anti-jigger campaigns. The literature reviewed here were obtained from Ahadi Trust office, library, and through internet search.

### **2.1 Jigger threat in Kenya**

Jiggers, or Tunga Penetrans, Chigger, Chigoe, bicho do pe' or sand flea is a small pin head sized flea found in sandy terrain of warm dry climates. The head is angular and it has no comb of spines. The thoracic segments are narrow at the top. It prefers deserts, beaches, stables, stack farms, soils and dusts in and around farms. It hides in the crevices and hairy cracks found on the floors, walls of dwellings and items like furniture. It feeds on the warm blooded hosts including man, cats, dogs, rats, pigs, cattle and sheep. Jiggers attack hands, feet, knees, private parts and even bottoms.

While both male and female sand fleas intermittently feed on their warm-blooded hosts, it is the pregnant female flea that burrows into the skin of the host and causes the cutaneous lesion.

She does not have any specialized burrowing organs; rather, she simply attaches to the skin by her anchoring mouth and claws violently into the epidermis. Since this process is painless, it is thought that the flea may release some keratolytic enzymes. A small, inflammatory papule with a central black dot forms early. Within the next few weeks, the papule slowly enlarges into a white, pea-sized nodule with well-defined borders between 4-10mm in diameter (or up to 1cm in diameter).

This lesion can range from asymptomatic to pruritic to extremely painful. After penetrating the stratum corneum, the flea burrows to the stratum granulosum, leaving her posterior end exposed. The “black dot” of the nodule is this posterior end of the flea that sticks out. The opening provides the flea with air and an exit route for feces and eggs. The first evidence of infestation by this sand flea is this tiny black dot on the skin at the point of penetration. Over a 100 eggs are released through the exposed opening and fall to the ground. The flea then dies and is slowly sloughed by the host’s skin .Because the flea is a poor jumper, most lesions occur on the feet, often on the soles, the toe webs, and around or under the toenails. Multiple or severe infestations may result in a cluster of nodules with a honeycomb appearance. It causes infection, inflammation, ulceration, fibrosis, sepsis, lymphangitis, gangrenes, loss of toenail, and auto-amputation of the digits. Extraction with dirty pin /needle leaves a tiny pit in the skin which may develop into a sore. Nonetheless, risk of secondary infection is high. Tetanus is a common secondary infection that has reported association with death.

### **2.1.1 Causes of jigger infestation (vicious cycle of poverty)**

Poor people living in unhygienic and unsanitary dwellings are predisposed to jigger infestation resulting from low levels of hygiene and poor sanitation in their dwellings. Also,

economic activity is reduced by poor health due to jigger infestation, making people poorer or unable to rise out of the poverty cycle.

### **2.1.2 How jiggers perpetuate the vicious cycle of poverty**

Poor people living in unhygienic dwellings get jiggers because of the unsanitary nature of those dwellings. Effects of the infestation affect economic activities among such people. This renders the poor unable to rise out of poverty or makes them even poorer. They are trapped inside the vicious cycle of poverty. The vicious cycle that jigger infestation triggers on may trap people in poverty for a long time unless timely and appropriate intervention breaks the cycle at one or at several points.

### **2.1.3 Intervention to break the vicious cycle involves:**

- Improving hygiene and sanitation in the existing dwellings to eradicate the fleas
- Creating better housing with smooth, clean walls and floors where the fleas cannot hide
- Educating people on the simple, affordable measures they can take to control the fleas
- Raising economic standards of the poor
- Killing the fleas using insecticides in the dwellings and disinfectants on the victims' bodies.
- Education and awareness raising on the simple ways to prevent jiggers
- Empowering the youth to take action against jigger through organizing active groups of informed youth



#### **2.1.4 Symptoms**

An infestation begins to irritate and itch when is almost fully developed and it at times causes severe inflammation & ulceration. If the female jigger dies in the skin, it may cause a secondary infection which if ignored could lead to tetanus, gangrene and even loss of a toe. Natural extraction of the eggs sac or removal of the jigger with a dirty pin /needle leaves a tiny pit in the skin which may develop into a sore. The sore may extend and develop into a septic ulcer. An infection under a toenail may cause pus to form.

#### **2.1.5 Treatment**

The treatment consists of the extraction of the entire intact insect. The breaking of the jigger may cause inflammation and possible infection. The best recommended treatment for this kind of attack would be to soak the feet in potassium permanganate or a solution of alcohol, for instance hydrogen peroxide or the other commercial disinfectants like dettol, savlon etc. A victim should soak their feet for about 15 minutes every day for about two weeks and this will completely kill the bugs .This should come after washing the affected areas with clean water and soap and drying the cleaned areas.

For a complete eradication of the bug, their homes should be thoroughly fumigated and any animals that also have the fleas treated. To ensure that the home is bug free, the victim and the rest of the family have to be educated on the need to observe hygiene and ensure that the bugs do not find a home in their homes again. Petroleum jelly or oil should be applied to soften the skin. This procedure should be repeated three times a day for two weeks. That said, there is no known medication to treat jiggers. Even that, Ahadi Kenya is still researching on medication that can completely eradicate jiggers (Ahadi Kenya Trust, 2010).

## **2.1.6 Effects of jigger infestation**

Cumulative effects of jiggers are enormous. The jigger is a parasite that lowers the quality of life of its victim in many ways and knowing the way it is distributed in Kenya is a first important step towards its eradication. Jiggers harm their victims in the following ways:

### **2.1.6.1 HIV/AIDS**

Removal of jiggers with shared pins and other unsterilized removing objects may lead to communicable diseases. Jigger infestation creates wounds that act as entry points for microbial infection, and can therefore increase the chances of HIV/Aids infection in the infected population.

### **2.1.6.2 Low education standards**

It affects the education of children because they may be unable to walk to school, write properly, or participate in normal learning activities on the same level with other non-afflicted children. It lowers the dignity of the victim, with children, for instance, facing ridicule both in and outside school. High school dropout and poor performance are common in jigger infested areas.

### **2.1.6.3 Poverty**

People afflicted with jiggers are less economically active, which raises poverty levels. Since jiggers are usually a result of already existing poverty, their infestation perpetuates the vicious cycle of poverty where the poor are unable to rise out of poverty or actually often sink deeper into it. This frustrates Kenya's attempts to achieve the Millennium Development Goal, which aims at reducing levels of poverty in the country by a half by year 2015. Jigger removal is a

laborious process that consumes time needed for economic activity and the education of children.

#### **2.1.6.4 Civic rights**

People afflicted with jiggers may be unable to participate fully in the democratic process to influence politics in their favor, which may marginalize them even further.

#### **2.1.6.5 Low self esteem**

The parasite causes pain in affected parts and injury that can seriously impede movement and performance of many of life's chores, making a person dependent on others who may themselves be unable to help due to their own affliction within the family. Jigger infestation and the process of their physical removal, as practiced in the villages, is a painful and traumatic experience, especially for children, lowering their quality of life.

Other effects of jiggers include; Inability to carry out normal day to day activities like working or playing, Unable to exercise democratic rights e.g voting, Stigmatization, Inability to walk easily due to pain in the affected areas of the legs, Low self esteem resulting from the stigmatization, Disability as people with severe infestation are unable to walk or use their hands and death.

#### **2.1.7 Preventive measures**

In terms of preventative measures, jiggers victim's homes should be thoroughly fumigated, and animals that may be carrying flees should be treated and where possible separated from

living units (human beings) (Ahadi Kenya Trust, 2010). Victims and their families should also be educated on hygiene. Also wearing shoes among those jiggers victims is very important. Vulnerable people should check their feet daily for freshly burrowing jiggers which are visible as small black spots which cause an itchy sensation. Also insect repellent should be applied to the skin although walking barefoot in dirt quickly removes the repellent. Finally, locating the jiggers hiding place and burning or spraying the said area with an insecticide would also help kill jiggers

### **2.1.8 Achievements**

Community-based rehabilitation programmes is one strategy that Ahadi Kenya has adopted to empower those who have recovered from the menace and also those in the process of recovering. These are programmes aimed at provision of health care, rehabilitation, economic empowerment and awareness creation on how to counter the menace. Working hand -in- hand with community members, this partnership works to develop empowerment strategies and public education campaigns to increase the visibility of the jigger issues in the community. Ahadi Kenya rescues and refers severe jigger infestation cases to different hospitals. Other achievements include initiation of hygiene clubs in primary schools, initiating bee keeping and banana planting projects to generate income and break poverty cycle.

#### **2.1.8.1 Activities undertaken by Ahadi Kenya**

Rescue and referral of jigger infested persons to health centers: This involves community mobilization, identification of jigger infested people and referring them to health centres for treatment.

Facilitating youth groups to come up with ways of educating the community on prevention and treatment of jiggers: That is mobilization of youth groups, training on causes, prevention and treatment of jiggers, facilitation of meetings and development of plays around certain issues related to jigger infestations affecting the society.

Facilitate theatrical performances at community meetings: This involves facilitation of theatrical performances at different places in the community including schools, market places, churches etc.

Facilitate health training in schools: This involves mobilization in schools, formation of health clubs and facilitation of training of club patrons and leaders. Using different forums to train the community on hygiene: This entails development and distribution of flyers about jiggers and going to different community meetings to give talks on jiggers. Facilitate community jigger eradication campaigns, clean up campaigns and training of health workers to change attitude towards jigger infestation (Ahadi Trust Kenya, 2008).

Jigger infestation is commonly seen as an embarrassment in society and many people will be shy to come out and visit health centres as the same attitude is held by health workers. It is therefore important to organise workshops for health workers in order to change their attitudes towards jigger infestations and encourage the community to seek for medical care in case of heavy infestation.

Support health centres with simple surgical equipment and material for treatment of jigger infested people. Also, facilitate workshops to train targeted groups on causes, treatment and prevention of jigger infestation. They also, hold discussions in the media to come up with best

practices in the prevention and treatment of jiggers, run and manage a jigger centre within areas affected, monitoring and evaluation of the project. Finally they undertake documentation of the project and dissemination of information to stakeholders and Community (Ahadi Kenya Trust, 2008).

#### **2.1.8.2 Expected Impact**

These activities are expected to enable Ahadi Kenya Trust and any other concerned organization reach areas where jiggers remain a problem. This will direct such organization to areas that are need of intervention. Such intervention is expected to lead to the affected populations being freed from the burden of infestation (Ahadi Kenya Trust, 2008).

Eradication of jiggers through the various interventions is expected to lead to a higher quality of life for the affected populations through reduction in the spread of HIV/AIDS and related diseases. There will be increased economic activity resulting from better health, more time available, as time is no longer wasted removing jiggers and greater confidence resulting from uplifted self-image.

There will be better performance of children in school as well as greater involvement in the social life of their community resulting from greater acceptance by other members of the community. Greater participation in the democratic process will be recognized.

## **2.2 The Health Campaign**

When a significant health concern is identified by public health officials, advocacy groups or political forces, health communicators are frequently called upon to develop communication

programs that raise awareness and contribute to the reduction or elimination of the health concern. A communication campaign can be an effective way to achieve this goal. Rodgers and Storey (1987) identified four features that characterize a communication campaign. They observed that a campaign is purposive, is aimed at a large audience, has a more /less specifically defined time frame and involves an organized set of communication activities. It is during the jigger infestation campaigns that messages on how people should guard themselves against jigger infestation are conveyed by the campaign ambassadors (Ahadi Kenya Trust, 2010). The success of a health communication campaign depends to a large extent on how well the “organized set of communication activities” are developed, distributed and evaluated (National Cancer Institute, 2012).

A health issue significant enough to warrant a communication campaign frequently has several stakeholders with a keen interest in the process. (Freeman, 1984) defines stakeholder as any group or individual who can affect or is affected by the achievement of the organization’s objectives. Patient groups, professional associations and voluntary associations are some of the typical stakeholders in health communication campaigns. Health communicators should identify the key stakeholders and involve them at key stages in the campaign process (Government of Australia, 2008).

In any health campaign, different types of expertise is required at different stages of development yet at all times the overall direction of the campaign should remain with the health communicator, the one individual (or team) who provides the continuity through each stage of the project (Maibach, Parrot, 1995). Campaigns usually have several potential levels of effect on their audience (Backer, et al., 1992). These include exposure to the message,

awareness of the message, persuasion by the message, expression of the intent to change and finally behaviour change.

For health education campaigns to be effective, it should be designed with an understanding of recipients'—target audiences'—health and social characteristics, beliefs, attitudes, values, skills, and past behaviors. These audiences consist of people who may be reached as individuals, in groups, through organizations, as communities or sociopolitical entities, or through some combination of these. They may be health professionals, clients, people at risk for disease, or patients. A variety of socio demographic characteristics, such as gender, age, race, marital status, place of residence, and employment characterize health education audiences. Socioeconomic status has been linked with both health status and health behavior, with less affluent persons consistently experiencing higher morbidity and mortality (Berkman and Kawachi, 2000).

### **2.2.1 Communication for health**

There are several definitions of Health Communication. The National Cancer Institute and the Centre for Disease Control (CDC) and prevention define it as the study and use of communication strategies to inform and influence individual and community decisions to enhance health (National Cancer Institute, 1995).

Health communication is geared towards improving health outcomes by encouraging behaviour modification and social change and has come to be recognized as a critical component of most public health interventions. It is seen as a key strategy to inform the public about health concerns and put key health issues on the public agenda, while incorporating



target audiences as active participants in the process of analyzing the health issue and finding culturally appropriate and cost effective (Bernhardt, 2004).

Rogers and Storey (1987) argue that a campaign must have four essential ingredients: A campaign is purposive and seeks to influence individuals; a campaign is aimed at a large audience, it has a more or less specially defined time limit and it also involves an organized set of communication activities. Although most campaigns today depend upon print and broadcast media, the anti jigger campaign has fully depended on interpersonal form of communication other than use of mainstream media.

Campaigns usually have several potential levels of effect on their audience (Backer *et al.*, 1992). These include exposure to the message, awareness of the message, persuasion by the message, expression of the intent to change and finally behaviour change. In the anti-jigger campaign, the audience were exposed to the messages through appropriate channels and in this case, the campaign ambassadors, comprehended and yielded to the messages by adopting the behaviour suggested by the messages such as maintaining hygiene so as to mitigate jigger infestation.

The knowledge of what health communication can do is very important in health communication campaigns (National Cancer Institute, 1995). This knowledge is a necessary tool for promoting and improving health. Communication can also increase the intended audience's knowledge and awareness of a health issue; influence perception beliefs and attitudes that may change social norms; prompt action; demonstrate or illustrate health skills; reinforce knowledge, attitude or behavior; show the benefits of behaviour change; advance a

position on a health issue or policy; increase demand or support for health services and refine myths such as jiggers were brought to Kenya by the white man and that it affects those who live in abject poverty alone. All these underscore the fact that communication is indispensable in all health campaigns.

Essentially, health communication helps in disease prevention through development and diffusion of messages to specific audiences, in order to influence their knowledge, attitudes and beliefs, and increase knowledge and understanding of health-related issues and to improve the health status of the Intended audience (Schiavo 2007, Muturi 2005).

### **2.2.2 Interpersonal communication and communication for change**

The most persuasive communication is the personal witness of those taking communicative initiatives in a way that leaves the receiver free and contemplative (Joram, 2010). Although there is strong empirical evidence that campaigns based on interpersonal communication can reduce the prevalence of an un-desired behavior by curbing initiation and encouraging cessation, it is also clear that campaign potential is not always fully realized. In an effort to explain why some anti-smoking campaigns are more effective than others, Brennan (2011) developed a model of the pathway of effects through which anti-smoking television advertisements lead to changes in smoking behaviours.

The contribution of interpersonal communication to this pathway was also investigated, by examining the impact of conversation participation, the influence of conversation content, and predictors of both conversation participation and content. Brennan (2011) further avers that conversations were more likely to have positive effects if they contained positive talk about

the campaign, and that interpersonal communication also potentially extended the reach of the campaign message within the population, as a substantial amount of campaign-stimulated talk occurred in the days subsequent to exposure of such messages.

Most studies on the effects of health campaign exposure ignore that people also discuss the health topic and the campaign. While looking at the role of interpersonal communication during an anti-cannabis campaign among Dutch adolescents, van den Putte *et al* (2010) concluded that cannabis use and its determinants are influenced both by campaign exposure and interpersonal communication. Generally, interpersonal communication has more effect than campaign exposure.

In the context of health campaigns, van den Putte *et al* (2011) in another study contends that interpersonal communication can serve at least two functions: (a) to stimulate change through social interaction and (b) in a secondary diffusion process, to further disseminate message content. In a three-wave prospective study of 1,079 smokers, van den Putte *et al* demonstrate that mass media messages (anti-smoking campaigns and news coverage relevant to smoking cessation) have an indirect effect on smoking cessation intention and behavior via interpersonal communication. Exposure to campaigns and news coverage prompts discussion about the campaigns, and, in turn, about smoking cessation. Interpersonal communication regarding smoking cessation then influences intention to quit smoking and attempts to quit smoking. The study finds evidence not only for the social interaction function of interpersonal communication, but also for the secondary diffusion function.

The strength of inter-personal communication lies on the ability to provide close range and intimate information about the consequences of certain behaviour and fall back groups that support behavioural performance. Inter-personal communication also provides avenues to overcome barriers to behavioural performance (Cappella et al. 2001).

### **2.2.3 Use of role models to influence perceptions in campaigns**

Latest statistics show that 81% of people thought the Paralympics had a positive impact on the way disabled people are perceived. Research also shows role models are one of the main ways of influencing perceptions towards disabled people (UK Government, 2013)

Relational Model Theory (Fiske, 1991, 1992) proposes that interpersonal relationships are based on only four fundamental relational models that reside in human cognition: communal sharing, authority ranking, equality matching, and market pricing.

Role models have persuasive authority over communities in which they live. Results showed that the relational models receivers used in their relationships with mentally ill persons influenced their attitudes, their judgments about the message, and that an appeal that matches receivers' relational models is more persuasive, at least for communal sharing and authority ranking (Koerner, 2002). Social memory is organized around relational models in both storage and retrieval (Fiske, 1991). This means that role models can sway public opinion since communities would want to identify with what they stand for.

It is a common strategy to use celebrity endorsers in marketing campaigns (Bekk and Sporrle, 2010). However, scientific literature on the effective use of celebrity endorsers has mainly

focused on the credibility and the attractiveness of the celebrity. Source credibility is the extent to which the source is perceived by the audience to know the “correct” stand on the issue (Birnbaum and Stegner, 1979). Expertise depends on training, experience, ability, intelligence, professional attainment and social status.

Anti-jigger campaign role models expertise is anchored on training they go through, experience through the various interventions, ability, intelligence, professionalism and their social status (Mahoney, 2010). Learning theory predicts that expert sources will be effective in persuasion because receivers have been awarded in the past for taking “correct “stands on the issues and because they have learned that knowledgeable sources are likely to advocate correct stands. For instance, people believe in these models because following their recommendations has led to better health (Tan, 1985).

Bekk and Sporrle further state that the personality dimension of excitement emerges as an incrementally valid predictor of positive attitude towards the celebrity as well as perceived suitability as endorser in addition to trustworthiness and likeability. According to Tan (1985), trustworthiness is the extent to which a source is perceived as being motivated to communicate his or her stand without bias. A trustworthy source therefore is an objective source. The source is perceived by the audience to have no intention to manipulate and to have nothing to gain if the audience accepts the recommendations of the message. Tan’s (Tan, 1985) further predicts that trustworthy sources are more likely than untrustworthy sources to change attitudes and behaviours because of our previous experiences with them. Therefore, Bekk and Sporrle posit, the perceived personality of an endorser should be regarded as an important determinant of the central concepts of credibility and attractiveness with the

personality dimension of excitement providing incremental value when predicting positive attitudes towards the celebrity and suitability as endorser.

According to Tan (1985), the message recipients have focused on similarity, familiarity and liking as determinants of source attractiveness. The general hypothesis is that attractive sources will be more effective than neutral or unattractive sources in persuasion. Tan further argues that similarity, familiarity, liking, physical attractiveness and power are source characteristics that determine attractiveness. These are character traits depicted by the campaign models to the target audience.

Communication sources can affect their audiences. Characteristics of a communication source will make him or her more effective in persuasion (Tan, 1985). Aristotle suggested that an effective communicator must have good sense, good will and good moral character (Tan, 1985). To Machiavelli, an effective communicator is an authority in his or her field, disguises the intent to persuade and is prestigious (Machiavelli, 1950). That is, when he/she is perceived to be competent and is admired by the public (Goebbels, 1954 in Tan, 1985).

#### **2.2.4 Effectiveness of role model messages in changing the perceptions and attitudes of individuals.**

Compliance can be said to occur when an individual accepts influence from another person or from a group because he hopes to receive a favourable reaction from the other. He may be interested in attaining specific rewards or in avoiding specific punishments that the influencing agent controls (Kelman, 1961). Kelman (1961) further contends that when an

individual complies, he does what the agent wants him to do or what he thinks the agent wants him to do.

Public opinion formation relies heavily on the interplays among three factors: individual attributes, environmental influences and information flow (Suo and Yen, 2008). The individual attributes would refer to both attributes of the role model and the recipient of the information. Also, the role of role models as authoritative individuals in information control in society has been looked at by Suo and Yen (2008). The two scholars point out that while enhancing average connectivity facilitates the diffusion of the authoritative opinion, it makes individuals subject to disturbance from non-authorities as well. In other words, the role model's effectiveness could also be disturbed by other subtle social factors in the society.

Sociologists regard the formation of public opinion as the result of social interactions and communication (Powel, 1951). Suo and Yen (2008) further argues that even people from the same locality may not necessarily form the same opinion, and that people form opinions differently depending on three factors, namely; individual attributes, environmental influences, and, lastly, information flow. At the individual level, individual human beings have preferences for a particular distribution of outcomes for oneself and others, and this is an important behavior-determining factor in social systems (Messick and McClintock, 1968; McClintock, 1978). For instance, idiosyncratic preferences inculcated in each person by the culture, lead a person to be personally inclined to opt, for example, for a positive rather than a negative attitude.

Still at the individual level, people make decisions to meet their various needs: subsistence, protection, affection, understanding, participation, leisure, creation, identity and freedom (Max-Neef, 1992).

The combination of needs and the opportunity of fulfilling these needs results in a level of need satisfaction, which motivates individuals to form opinions or pursue certain opportunities. People make choices not only by evaluating the consequences and their probability of occurring, but also and even sometimes primarily at a gut or emotional level (Bechara, 2004). At high emotional intensity, there are discontinuous "jumps" in the behavior (Bosman et al, 2006). Extraversion and agreeableness are personality factors affecting the behaviors of individual decision making (Koole *et al*, 2001). Other factors, like risk preference, are also important. A risk-taking individual may be adventurous in the process of making choices, while a risk-averse one is cautious when taking actions.

Suo and Yen (2008) further contends that human existence cannot be separated from the environment where human beings live. In this study, we divide environmental influences into two levels. A leader, a societal majority or other non-tangible factors, may influence the direction of everybody's attitude. For example, individuals may decide to buy Coca Cola rather than Pepsi Cola simply because they are big fans of one movie star who likes to drink Coca Cola (Suo and Yen, 2008).

In public opinion formation (Suo and Yen 2008), decisions do not have to be made sequentially, and people do not ignore choices of those behind them. Also, people in public opinion formation can change their opinions every moment during the process.



### **2.2.5 Interpersonal Communication and Health Behavior Change**

As early as the beginning of the 20<sup>th</sup> century, interpersonal communication had started to be an area of interest to scholars such as George Simmel whose instructive observations about the meaning of interpersonal communication such as it being “reciprocal knowledge characteristics of dyad” (Knapp and Daly, 2002). It was however not until the 1940s that systematic research was carried out on the role of inter-personal communication, or personal influence on people, especially after the industrial revolution that uprooted people from the traditional setting and herded them to cities and urban areas (Baran and Davies: 2006).

In the 21<sup>st</sup> century, communication has been recognized as a significant factor in health care and the promotion of desirable disease prevention and management practices. Indeed, health communication has become a vital part of public health efforts as evidenced by the creation of health communication offices in organizations such as the US-based Centre for Disease Control and prevention (CDC), and the National Cancer Institute.

According to Schiavo (2007), health communication is instrumental in improving health outcomes by encouraging behavior modification and social change, by informing the public about health concerns and in maintaining important issues on the public agenda. It has also become important in disease prevention efforts through behavior modification. This is achieved through development and diffusion of messages to specific audiences with the intention of influencing people’s knowledge, attitudes and beliefs. Just like health education, health communication is an approach which attempts to change a set of behaviours in a large-scale target audience regarding a specific problem, within a set period of time.

Beebe et al., (1996) describe interpersonal communication as a written or oral communication that occurs in a one-on-one or group setting .It is a means of relating to different people in different situations, and making them feel at ease. Interpersonal communication occurs when one or more people interact more simultaneously and mutually influence each other. Oladimeji (2005) regards interpersonal communication as the lifeblood of any transaction. Borchers (1999), on the other hand, observes that interpersonal communication differs from other forms of communication in that there are fewer participants involved, those interacting are in close physical proximity, many sensory channels are used and feedback is immediate. Borchers (1999) also asserts that interpersonal communication means communication that occurs between people who have known each other for some time, viewing each other as unique individuals.

Interpersonal communication according to Ankanbi (2005), is a crucial and fundamental phenomenon in life and no human endeavour can substitute or thrive without it. For any activity or venture to succeed the exchange of ideas or information must be given due attention .Interpersonal communication describes conversation participants who are dependent upon one another. It can involve one-on-one conversation or individuals interacting with many people within a society. It helps to understand how and why people behave and communicate in different ways to construct and negotiate a social reality.

Interpersonal communication is the process that we use to communicate over ideas, thoughts and feelings to another person. It includes message-sending and message-reception between two or more individuals. This can include all aspects of communication such as listening,

persuading, asserting and nonverbal communication. A primary concept in interpersonal communication looks at communicative acts when there are few individuals involved. Successful interpersonal communication assumes that both the message senders and the message receivers will interpret and understand the message being sent on a level of understood meanings and implications (Ndeti, 2013).

In order to be effective, inter-personal communication responds to an audience's needs such as one-on-one teaching, counseling, personal selling, and provider-patient communications. Research in communication explains people's behaviour in the inter-personal communication context in terms of the desire to satisfy specific needs. Rubin et al (1988) says that, these needs include:

- Being part of a social group or including others in one's group
- Appreciating others
- Controlling other people's actions and increasing behavior compliance
- Being amused and entertained
- Escaping and being distracted from routine activities
- Relaxing and relieving stress

Rubin et al (1988) further say that in the interpersonal context, people tend to be less anxious when their motivation to communicate is to include others or to feel included. With regard to the anti-jigger communication, interpersonal communication is regarded as a very effective means in influencing an individuals' behavior or a small group of people because the message is communicated by a person who is known to the receiver or audience and who belongs to a specific group.

## **2.2.6 Functions of Interpersonal Communication**

Whenever we engage in communication with another person, we seek to gain information about them. We also inform them through a variety of verbal and non verbal cues, (Ndeti, 2013). Interpersonal communication therefore is important because of the functions it achieves. The functions of interpersonal communication include gaining information. We engage in interpersonal communication so that we can gain knowledge about an individual. We attempt to gain information about others so that we can interact with them more effectively. We can better predict how they will think, feel and act if we know who they are. We gain this information passively by observing them; actively, by having others engage them; or interactively, by engaging them ourselves. Self –disclosure is often used to get information from another person.

We also engage in interpersonal communication so as to better understand what someone says in a given context i.e. building a context of understanding .The words we say can mean very different things depending on how they are said or the context in which they are said. That way, they are interpreted differently. Interpersonal communication helps us to understand each other better.

Interpersonal communication helps us to establish identity. Our face; the public self-image we present to others helps establish identity. Both roles and face are constructed based on how we interact with others.

We engage in interpersonal because we need to express and receive interpersonal needs. These are the needs of inclusion, control and affection.

## **2.2.7 Why Interpersonal communication**

Interpersonal communication is the most effective means of influencing the behaviour of an individual or a small group of people (Ndeti, 2013). This is because the message is delivered by a person who belongs to that particular group to whom the message is constructed hence the content of the message is harmonized with local culture, traditions, norms and values. In the anti jigger campaign, interpersonal communication is considered a successful way of addressing this sensitive issue. It ensures a sustained promotion of behaviour change in jigger prevention campaigns among individuals and groups.

## **2.3 Theoretical Framework**

### **2.3.1 Health Belief Model**

The Health Belief Model (HBM) is one of the early theories of health behaviour, developed in the 1950's to predict individual response to, and utilization of, screening and other preventive health services (Airhihenbuwa, Obregon 2000). HBM also sought to explain the process of change in relation to health behaviour. It is based on value expectancy theory, which assumes that individuals will take preventive actions (risk reduction behaviours) when they are susceptible to a disease.

HBM has the following key constructs:

*Perceived susceptibility:* The individual's perception on whether he or she is at risk for contracting a specific illness or health problem.

*Perceived severity:* The subjective feeling on whether the specific illness or health problem can be severe or life threatening and therefore worthy of one's attention.

*Perceived benefits:* The individual's perceptions of the advantages of adopting recommended actions that would eventually reduce the risk for disease severity, morbidity and mortality.

*Perceived barriers:* the individual's perceptions of the costs of and obstacles to adopting recommended actions (including economic costs as well as other kinds of lifestyle sacrifices).

*Cues to action:* Public or social events that can signal the importance of taking action (for the example, a neighbour who is diagnosed with the same disease or a mass media campaign)

*Self-efficacy:* The individual's confidence in his or her ability to perform and sustain the recommended behaviour with little or no help from others.

It is therefore evident that HBM is a “risk learning model because the goal is to teach new information about health risks and the behaviours that minimize those risks” (Pechmann, 2001 in Schiavo, 2007:38). The overall premise of the HBM is that knowledge will bring change. The knowledge is brought to target audiences through an educational approach that primarily focuses on messages, channels, and spokespeople (Glanz and Rimer, 2005, Andreassen, 1995).

### **2.3.2 Challenges of HBM**

The HBM has been used for over half a century to predict health-related behaviors and to frame interventions to change behaviors. Its simplicity has enabled researchers to identify constructs that may be important, thus increasing the probability that a theoretical base will be used to frame research interventions. Its simplicity, however, also creates some of its major limitations. Several challenges remain when considering the HBM as a theory to predict health related behaviors.

First, perceived threat is a construct that has great relevance in health-related behaviors. The HBM couples severity with perceived susceptibility—a strength, compared with models that conceptualize threat as perceived risk alone. However, the relationship between risk and

severity in forming threat is not always clear. A heightened state of severity is required before perceived susceptibility becomes a powerful predictor. It may be that perceived susceptibility is a stronger predictor of engagement if severity in health-related behaviors is perceived as higher versus lower. If this is true, a multiplicative variable should be computed that combines perceived susceptibility and severity, rather than considering each alone.

The HBM is limited, in that it is a cognitively based model and does not consider the emotional component of behavior. The HBM is a cognitively based model that does not consider the emotional component of behavior—this component, should be added to or better incorporated in HBM research. Future challenges to HBM research include more thorough testing of the relationships among constructs beyond perceived threat.

### **2.3.3 Social learning Theory**

The social learning theory (also known as social cognitive theory) explains behaviour change, or lack of it, as a result of three reciprocal factors: behaviour, personal factors, and outside events in relation to individuals' experience and perceptions of their environments in combination with their personal characteristics. Any change in any of these three factors is expected to determine changes in the remaining ones (National Cancer Institute and National Institutes of Health, 2002).

The theory is based on the assumption that individual behaviour is a result of interaction among cognition, behaviour, environment and psychology. In order to achieve self-directed change, people need to be given not only reason to alter risky behaviour, but also the resources and social support to do so (Hanan 2009).

One of the key premises of social learning theory is its emphasis on the outside environment, which becomes a source of observational learning (Schiavo 2007). The theory addresses health behaviour at the inter-personal level with the goal of developing better understanding responding and responding to factors related to individuals' experience and perceptions of their environments in combination with their personal characteristics (Muturi 2007). In addition, it explains the role of interpersonal communication in imparting knowledge, attitudes and existing beliefs and attempts to explain how people process the information they receive and how they contrast messages from their cognitive structure.

The social learning theory has five key components (Bandura 1986, 1997, National Cancer Institute and National Institutes of Health, 2002):

- ✓ Attention - people's awareness of the action being modelled and observed.
- ✓ Retention – people's ability to remember the action being modelled and observed.
- ✓ Reproduction (Trial)- people's ability to reproduce the action being modelled and observed.
- ✓ Motivation – people's internal impulse and intention to perform the action. Motivation depends on a number of social, affective, and physiological influences such as support of peers and family members to perform the action, the knowledge that the action will improve physical performances well as the perception of self-efficacy.
- ✓ Performance – the individual's ability to perform the action on a regular basis.
- ✓ Self – efficacy – the individual's confidence in his or her ability to perform and sustain the action with little or no help from others.

The thrust of the theory is that people learn not only through their own experiences, but also by observing the actions of others and the results of those actions (Bandura 1986). Although the theory focuses more on the role of learning in the context of the mass media, other social



and community networks are equally important in transmitting values, beliefs and the social system norms (Muturi 2007:).

#### **2.3.4 Application to the anti jigger campaign**

Social learning theory is applicable in the anti jigger campaign which is geared towards accomplishing behavioural change. Information communicated to the audience in the campaign involves interactive interpersonal communication channels so as to enhance close contact. This avails ready clarification and ready answers to questions whenever they arise. The anti jigger campaign incorporates and make use of persons regarded with respectability and admiration so as to motivate the target group to want to imitate them. Information contained in the campaign must be designed and packaged in a way that arouses human interest so as to guarantee attention and to ensure that the information remains embedded in the public psyche. The information conveyed through the campaign should be easily understandable so as not to challenge the thinking of target group in a way that may lead to misunderstanding.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter outlines the methods, tools and sources of data, targeted groups and sample from which data will be collected in order to obtain the objectives of the study. The research was conducted through mixed method to monitor the jigger situation in Gatanga District, Murang'a County. Data was collected using quantitative and qualitative methods to determine the extent to which inter-personal communication has been used in the anti jigger campaign. Quantitative method makes it easier to aggregate and summarize data and study variables more objectively (Baxter and Babbie 2003). It enables the researcher to study variables more objectively.

Qualitative research on the other hand enables one to understand the deeper structure of a phenomenon and to increase understanding of the phenomenon within cultural and contextual situations by immersing oneself in the world in which they occur, with a desire to uncover the story behind the statistics (Trauth 2001). Furthermore, qualitative/descriptive method allow the researcher to record the actual messages presented and understand how the participants felt as they were involved in the anti-jigger campaigns. Qualitative research is able to elicit more detailed information about a phenomenon. In order to compensate for weaknesses in either of the methods, both methods as the most appropriate approach to gather detailed information on the effectiveness of inter-personal communication in the anti-jigger campaign.

### **3.1 Research design**

Design is ‘the general arrangement of the different parts of something that is made, such as a building, book, machine, etc.’ *Oxford Dictionary 7th Edition*. Research design according to Kumar (2005) is a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems. Coopers and Schindler (2007) say that, research design specifies the methods and procedures for the collection, measurement and analysis of data.

This research adopted mixed –methods design which utilizes both qualitative and quantitative approaches (Creswell, 1997; 2009). According to Campbell et al. (1999), mixed methods are a powerful way of enhancing the validity of the results. By using the mixed method design, the researcher hoped to better understand the concept being explored and to overcome weaknesses/biases that come from single method studies. Data produced by combined methods enhances the validity of research findings, (Nachmias & Nachmias 1992). As a result of using this method, the study benefitted from the advantages of the survey and statistical method as well as qualitative and participatory approaches which enabled the researcher to capture the diversity of opinions and perception.

Descriptive survey was chosen because it spreads the research widely and enables variations among elements (Mugenda and Mugenda, 2003), events or people who are investigated, thus offering the prospect of allowing the researcher to make generalizations. It also generates detailed information regarding the key aspects of the study in order to develop a profile of those aspects. Door-to- door survey was employed in the initial identification process.

### **3.1.1 Geographical description**

Murang'a County has seven sub counties or districts. They include, Kandara, Gatanga, Maragua, Kigumo, Kiharu, Kangema, Mathioya. The study was carried out in Gatanga District, Murang'a County. The researcher choose Gatanga village because there are many cases of jigger infestation as compared to other parts of Murang'a County (Ahadi Kenya Trust, 2010). Purposive sampling was used to select Gatanga District as the study site. Gatanga District covers an area of 587.20 Square Kilometres, and it is to the North of capital Nairobi. One of the key landmarks is the Ndakaini dam that provides 80 per cent of the water being used in the city of Nairobi. It is inhabited by a rural population of people who depend on agriculture focusing on coffee, tea farming and horticulture. Gatanga District has 17 locations and 45 sub locations. It has around 120 villages but the heavily infested villages by jiggers are Kiunyu, Kihumbuini, Gatunyu, Kigio, Mukarara, and Gatanga (Ahadi Kenya Trust, 2010).

### **3.2 Target population**

The study was carried out in Gatanga District. It is estimated that 2.8 million Individuals are afflicted by jiggers countrywide, Ahadi Kenya Trust, (2010). The flea affects many impoverished populations living in Sub-saharan Africa, the Caribbean and South America. Hundreds of millions of people are at risk of infection in more than 70 nations, mostly in developing countries (Pampiglione et al, 2009). According to Ahadi Kenya Trust (2010), 10 million people risk being infected in Kenya. There are many low cost residential units and most people who live in Gatanga are either unemployed or are engaged in low skilled labour. The youth form majority of the people who live in Gatanga.

The study targeted household members residing within the study area aged between 18 to 60. This comprised an active group that is knowledgeable enough to prevent jigger infestation amongst themselves and members of their households. They included those infested and their caretakers, those not infested, teachers, community leaders, church leaders and the community at large. A total number of 100 respondents were interviewed. The researcher found this number to be sufficient in collecting diversity views that she needed for investigation.

### **3.3 Sample size**

Gatanga District has a population of 113,094 people (55,796 males and 57,298 females), according to the Kenya 2009 Census Data Rural Population. In Gatanga District, 215 people are infested with jiggers, and 89 of these are school going children, and 126 others, according to District Annual Medical Report, 2013 of the Ministry of Health.

Based on the target population, a sample size of 100 respondents that is large enough and representative of the study population was determined. According to (Moser and Kalton 1979; Mulusa as well as Mugenda and Mugenda 2003) if the sample size is less than 10,000, the required sample size will be smaller. In each of the six villages heavily infested by jigger (Ahadi Kenya Trust, 2010) - Kiunyu, Kihumbuini, Gatunyu, Kigio, Mukarara, and Gatanga, 10 respondents were picked to form Focus Group discussions. These were the permanent resident members of the area. Non permanent residents and those below 18 and above 60 years were excluded from the study. Experts and authorities were also identified for the interview as key respondents.

### **3.4 Sampling Procedures**

A sample was selected from the accessible population who were the permanent residents of Gatanga District of Murang'a County. Purposive sampling technique which is a non-probability sampling technique was used. The technique enables selection of samples that appear to be representative of the population and subjects are picked because they possess the required characteristics (Mugenda & Mugenda 1999). The process of selecting the ten in each village involved selecting cases of observation as they became available to the researcher. Sample populations were purposively selected to represent the whole area.

### **3.5 Research Instruments**

According to (Mugenda and Mugenda 2003), the quality of research study depends to a large extent on the accuracy of the data collection procedures. That is, the instrument or tools used to collect the data must yield the type of data the researcher can use to accurately answer his or her questions.

Data was collected using mixed-methods approach with the aid of structured and semi structured questionnaires. Key Informant Interviews and focus group discussions were employed in collecting data from respondents on their awareness, attitudes/behaviour and opinions in regard to jiggers and the anti jigger campaigns. Both qualitative and quantitative data was collected concurrently (Creswell, 2009) to offset the weakness inherent within one method with the strengths of the other.

The quantitative data was necessary to guarantee a generalization of the results and to statistically test the hypothesis. Qualitative data was collected to provide detailed explanations

for quantitative data (Creswell, 2009). The structured interview schedule collected qualitative data on four thematic areas namely respondent's demographic characteristic, their perceptions and attitude towards the role models and the messages delivered by such role models in the campaign. This was through face-to-face interviews by the researcher and the research assistants.

The knowledge of anti- jigger prevention campaign messages was then measured by analyzing questions about; awareness of any messages about anti-jigger campaign; are there changes in people's attitude towards the anti-jigger campaign; how did the community receive the role models involved in the campaign; how were the messages in the anti-jigger campaign packaged and delivered to the respondents.

Attitude and perception, which are subjective parameters, were measured by seeking direct discussion responses with individuals and community leaders. In this case, the role models used as campaign ambassadors provided insights into the nature and content of the messages used. Practices on jigger prevention and control as well as jigger infestation were measured using questions on; preferred methods of jigger removal, awareness of individual and communal jigger prevention activities and, awareness of the community about jigger infestation prevention methods.

Jigger infested persons seen at the time of the study were interviewed on how well versed they were with the jigger infestation prevention methods. The advantage of using the mixed method approach is that it resulted into valid and substantial findings. This is in reference to (Lincoln &Guba 2000) that double measure of the same construct enables the researcher to get

more accurate data and thus reduce measurement errors. The approach actually increased the trustworthiness of the findings of this study.

### **3.5.1 Semi-structured Questionnaire**

The survey method was used to assess incidence of behaviours among the target group. Semi-structured questionnaires were administered to obtain data from the respondents on the kind of celebrities used in anti jigger campaigns, effectiveness of role model messages in changing people's behaviour and also interpersonal techniques used by them. Close-ended questions limit a respondent's answers to the survey and avoid too much extraneous information and straying.

The participants choose from a set of responses such as yes or no, or multiple choices. Open-ended questions are phrased so that respondents can explain their answers and reactions to the question with more information, which the research captures on the questionnaire. One of the advantages of using questionnaire is that it helps avoid potential embarrassment of face-to-face dialogue as well as to guarantee anonymity. This was achieved. (Campbell et al, 1999) say that the use of self-administered questionnaires is particularly useful in the collection of data on sensitive topics, such as health issues. With no probes the questionnaires were short, simple and easy to follow. The respondents filled the questionnaires from their homes. The researcher supervised this exercise assisted by the research assistants.

### **3.5.2 Focus Group Discussions**

FGDs research method is used to study several realms of communication by probing people's attitude, values and behaviours (Rubin et al 2005:222). FGDs were used primarily to



investigate the normative aspects of behaviour. They were used in the study to explore the ways in which society member interacted with the role models during the anti- jigger campaigns .These groups were advantageous because of the breadth of ideas, opinions and experiences that were expressed by the participants.

Four Focus Group Discussions were held across the six most affected villages. Each FGD consisted of ten society members both male and female. In total, forty people participated in the FGDs. There was unequal representation of gender; women were the majority since men were not at the homestead for the better part of the day. However, this did not deter the discussions from going as planned. Since the researcher was familiar with the area of research, the discussions went on smoothly without any tensions, fear or embarrassment.

Each discussion lasted between 40 and 50 minutes and was tape recorded. Two of the discussions were held in one of the participant's homestead while two others were held at an open field under a tree. Each Focus Group began with introduction then the researcher outlined the objective of the session and the reason for recording. The free atmosphere between the researcher and the participants allowed for self expression and hence the quality of data collected using FGDs.

Issues that that were covered included, the type of celebrities used in anti jigger campaigns and peoples attitude and perception towards them, kind of messages they delivered and message reception and also how interpersonal communication influenced their behavioural responses towards the jigger menace. The researcher observed and noted non-verbal dynamics like facial expressions and side talks. Open-ended nature of the questions encouraged the

participants to feel free .This led to comprehensive discussions. FGDs are regarded as ideal in communication studies because they interrogate people's attitudes, values and motivations.

### **3.5.3 Key informant Interviews**

Key informant interviews were conducted using open ended interview guide. The interviews were conversational in style and not literally question answer format (Campbell et al, 1999). Key informants were all anti-jigger campaign stakeholders, all who had knowledge on communication strategies employed in fighting jiggers. A total of nine key informants were interviewed. Through the interviews, the researcher received detailed information and also had an opportunity to share and understand the viewpoints of informants. The in-depth interviews were used to provide insights in understanding the context in which behaviour occurred. The researcher started by establishing a rapport with each one of them. The researcher guided the conversation.

### **3.5.4 Secondary data**

Secondary data was sourced from health communication literature such as journals, magazines, Ahadi Kenya's reports, and websites dealing with health communication, newspapers, study reports, publications, and documents from research projects and books. The secondary sources helped the researcher increase the scope of the study which was important in enlarging the scope of generalizations and providing additional insights. Methodologically, secondary data that is accurate and reliable provides opportunities for replication. (Nachmias 1996: 307).Existing data and information was used to compliment the primary information.

### **3.6 Data analysis**

Data analysis entails examining and evaluating the data collected so as to develop detailed explanations. The researcher applied quantitative and qualitative data analysis process. Before processing the responses, the completed interviews were edited for completeness and consistency. The data were then coded to enable the responses to be grouped into categories. The first step entailed preparing the data which include checking the data for accuracy, keying in the data and then developing and documenting a database structure that integrated the various measures.

Statistical Package for Social Sciences (SPSS) which enables data to be stored and analyzed efficiently and quickly was used for data manipulation and analysis (Madalla 2001). It was used to run analysis on the frequency distribution of the responses and to create tables. Inferential statistics were used to investigate research questions and allow the researcher to make generalisations about the population from the samples. Thus, the researcher used inferential statistics to make relevant inferences from the data to more general conditions.

With descriptive statistics, the researcher used interpretative techniques to describe what the data showed about the study on the ground. This provided simple and straightforward summaries about the sample and the measures. Qualitative and quantitative analysis presents detail, context, emotion and the webs on social relationships that join persons to one another and goes beyond descriptive data (Denzin 1989:83).

It also involves attaching significance to what was found, offered explanations ,drawing conclusions, extrapolating lessons, attaching meaning, imposing order, dealing with rival

explanations, and confirming cases and data irregularities as part of testing the viability of an interpretation (Patton 1990).

### **3.7 Limitations of the Study**

The study dealt with jigger infested people which is a health problem and this posed unique challenges. Participants had been stigmatised before because of the infestation and were therefore hesitating to share their experiences with the researcher. They also complained that in the past they had been used to provide information to people who later used it for personal gain. The researcher with the intervention of community health workers convinced them on the good intentions of the research and assured them confidentiality.

Assembling the members together at one central point was also a problem because they had to travel over long distances as they hailed from different villages. It was a challenge to test objectively attitude and perception of the participants objectively as they are parameters that are not measurable. Field research was conducted for a short time and with a limited sample. As a result, the sample may not be a representative of the entire population.

### **3.8 Ethical issues**

Respondents and participants were informed of the purpose of the research and assured that the research was to be used only for academic purposes. Since issues on jigger infestation are sensitive, the respondents were assured of confidentiality in the responses they gave. They were also informed that their participation was voluntary and it was going to be out of one's own free will. Participants in key informant interviews and FGDs were asked to consent to audio recording of their discussions. They were allowed to seek for further clarification where it was needed.

## CHAPTER FOUR

### DATA PRESENTATION AND INTERPRETATION

#### 4.0 Introduction

The objective of this chapter is to present, analyse and interpret the major findings of the study. The presentation was based on the research questions. Data were gathered through the use of questionnaires, focus group discussions and key informant interviews as the research instruments. Questionnaires and key informant interview guide were designed in line with the objectives of the study.

#### 4.1 Demographic characteristics of the respondents

In the study, 100 questionnaires were distributed to the respondents. Out of these, 96 were returned and were completed. This corresponds to a 96 per cent return rate. From the literature review, a variety of socio demographic characteristics, such as gender, age, race, marital status, place of residence, and employment characterize health education audiences.

##### 4.1.1 Age of the respondents

**Table 1: Age of the Respondents**

Age group	Frequency	Percent
18-25 Years	12	12.5
26-33 Years	21	21.9
34-41 Years	26	27.1
42-49 Years	19	19.8
Above 50 Years	18	18.8
Total	96	100.0

In the table above, the distribution of age brackets were as follows; 12.5 per cent of the respondents were between 18-25 years, 18.8 per cent were above years. This was followed by 19.8 per cent of the respondents who were aged between 42-49 years, 21.9 per cent were aged between 26-33 years and the remaining 27.1 per cent were between 34-41 Years. The findings in this study showed that there was need for greater focus on addressing jigger problem in the middle-aged adults. This implies that the most resourceful members of households are also the victims of jigger infestation which has the potential to affect their income generating activities.

#### 4.1.2 Gender of the respondents

**Table 2: Gender of the Respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Female	44	45.8
Male	52	54.2
Total	96	100.0

Table 2 above presents the distribution of participants by gender. 45.8 per cent of the respondents were Female while the remaining 54.2 per cent were Male. The survey considered gender balance in the selection of the respondents. However, there were more male respondents. During the FGDs, it was noted that both men and women were equally affected by jiggers. Those not infested were also considered during the study as they responded to the general questions of the study especially on behalf of the infested who could not answer the questions asked by the researcher in a coherent manner.

#### 4.1.3 Level of education

**Table 3: Level of Education**

<b>Level of Education</b>	<b>Frequency</b>	<b>Percent</b>
Never been to School	43	44.8
Primary	42	43.8
Secondary	11	11.5
Total	96	100.0

Respondents were asked the highest level education they had attained. In the table above, 44.8 per cent of the respondents reported that they never attended school, 43.8 per cent of them achieved a primary level of education while the remaining 11.5 per cent obtained secondary education. This shows that those with a higher level of education were least infested with jiggers while those who have never been to school were the most affected.

#### 4.1.4 Marital status of the respondents

**Table 4: Current Marital Status**

<b>Marital Status</b>	<b>Frequency</b>	<b>Percent</b>
Married	47	49.0
Separated	7	7.3
Unmarried	23	24.0
Widowed	19	19.8
Total	96	100.0

In the table above 49.0 per cent of the respondents reported that they were married, followed by 24.0 per cent who indicated that were unmarried by the time the study was conducted. Very few were separated or widowed. Those who were widowed accounted for 19.8 per cent of those interviewed in the study. 7.3 per cent of the respondents indicated that they were separated. This indicates jigger infestation affects all people irrespective of their marital status.

#### 4.1.5 Number of children of the respondents

**Table 5: Number of Children**

<b>Number of Children</b>	<b>Frequency</b>	<b>Percent</b>
1-3 Children	31	32.3
More than 4 Children	53	55.2
No Children	12	12.5
Total	96	100.0

The researcher attempted to know approximately how many children those interviewed in the study had. It was observed that 32.3 per cent of the respondents had between 1-3 children, those who had more than 4 children accounted for 55.2 per cent while the remaining 12.5 per cent had no child at all. This indicates that where the number of children was high, there were more cases of jigger infestation.

#### 4.1.6 Number of adults per home

In table below, the researcher approximated the number of adults per household in the area of the study. It was observed that 4.2 per cent of the respondents had 1, 5 and 8 adult persons respectively, per family, while 24.0 per cent had two adults as well as those having 3 adults in the households. The respondents who reported that 4 adults were living in their homes accounted for 19.8 per cent, while 3.1 per cent had 7 adult members in a family. This shows that most of the adults resided at home. This has resulted in congestion in some households especially those with many children. In such congested households, it may become difficult to maintain proper hygiene and hence the jigger infestation.



**Table 6: Number of Adults**

<b>Number of Adults</b>	<b>Frequency</b>	<b>Percent</b>
1	4	4.2
2	23	24.0
3	23	24.0
4	19	19.8
5	4	4.2
6	16	16.7
7	3	3.1
8	4	4.2
Total	96	100.0

**4.1.7 Number of people in each household**

In the table below, the researcher wanted to know how many people live in a homestead where the study was conducted. Those families with 12 and 10 people each comprised 12.5 per cent of the respondents. Those families with 17 and 11 people each made 3.1 per cent of the respondents. 4.2 per cent of the respondents had 4 and 6 members of the family respectively, and 6.3 per cent of the respondents had 8 members. 11.5 per cent of the respondents had 9 members, while 15.6 per cent of the respondents had 5 members. 18.8 per cent of the respondents had 7 members per homestead. This shows that the more the number of people of living in the households, the more the chances of jigger infestation. Where there were few people in households, cases of jigger infestation were not common.

**Table 7: Total number of people living in each home**

<b>Number of people in each home</b>	<b>Frequency</b>	<b>Percent</b>
10	12	12.5
11	3	3.1
12	12	12.5
17	3	3.1
3	8	8.3
4	4	4.2
5	15	15.6
6	4	4.2
7	18	18.8
8	6	6.3
9	11	11.5
Total	96	100.0

#### **4.1.8 Occupation of the respondent**

The table below shows the occupation of the respondents; the majority, 33.3 percent reported that they were casual workers, 26 per cent were farmers, and 9.4 per cent were house wives. 3.1 per cent of the respondents worked in offices while the remaining 28.1 per cent were unemployed. Responses that were in the list of options on the questionnaire ‘other’ were traders in the nearby markets, house servants, and even watchmen. One of the participants who happened to be a professional worked in a nursery school. Socioeconomic status has been linked with both health status and health behavior, with less affluent persons consistently experiencing higher morbidity and mortality (Berkman and Kawachi, 2000).

**Table 8: Occupation of the respondents**

<b>Occupation of the respondents</b>	<b>Frequency</b>	<b>Percent</b>
Casual Worker	32	33.3
Farmer	25	26.0
Housewife	9	9.4
Professional/works in an Office	3	3.1
Unemployed	27	28.1
Total	96	100.0

#### **4.1.9 Income Mode**

When asked about the income mode, 67.7 per cent of the respondents reported that they are paid their salary on a daily basis. 28.1 per cent get their pay on monthly basis while 4.2 per cent get their pay on a weekly basis. From the study, it was observed that the daily meager earnings could not support the family fully. Whatever they earn is utilized to purchase food. During the FGDs, participants posed a question;

*“Kutokana na lile pato ndogo, shilingi 150 kwa siku , mtu ni chakula atanunulia watoto ama ni masabuni ya omo atanunua na manukato ati ndio asiliwe na funza: This translates to; From the daily meager earnings, an average of 150 shillings per day, they are only able to buy foodstuff but not powder soaps or cosmetics”*

From the literature review, one of the Ahadi Trust Achievements is that it has initiated income generating projects such as keeping bees and banana planting. It has trained people on being self reliant other than seeking employment that cannot support their livelihood. The table below, (Table 9) shows the income mode of the participants.

**Table 9: Income Mode**

<b>Income mode</b>	<b>Frequency</b>	<b>Percent</b>
Daily	65	67.7
Monthly	27	28.1
Weekly	4	4.2
Total	96	100.0

#### **4.1.10 Type of accommodation of the respondents**

When asked the kind of accommodation they owned, 8.3 per cent owned a brick/stone house, 3.1 per cent owned an iron sheet house while the remaining 88.5 per cent owned mud houses. This implies that jiggers thrive in houses whose floors are not polished with concrete. One of the respondents had this to say;

*“Watu wa jiggers walitwambia tuwe tunafagia na hata kumwaga maji kwa sakafu ambazo hazija-cementiwa. Hivyo, funza hawatapata kwa kujificha and by the way, hiyo njia imesaidia sana”*

**Table 10: Type of Accommodation**

<b>Type of Accommodation</b>	<b>Frequency</b>	<b>Percent</b>
Brick/Stone House	8	8.3
Iron Sheet House	3	3.1
Mud House	85	88.5
Total	96	100.0

#### **4.2 Role models and the various interpersonal communication techniques used by the celebrities in the campaign**

The first objective was to establish the type of role models and the various interpersonal communication techniques they applied in the anti jigger campaigns. Respondents were asked

to respond to semi-structured questions on the type of role models and the nature of the key messages they disseminated during the campaigns. The questions were also posed to participants during the Focus Group discussions.

#### 4.2.1 Awareness of Anti Jigger Campaign

The researcher wanted to know if the respondents were aware of the Anti Jigger Campaign and all the respondents reported that they were aware of such campaigns as stipulated in the table below.

**Table 11: Awareness of Anti Jigger Campaign**

Awareness of Anti jigger campaign	Frequency	Percent
Yes	96	100.0

From the table above, all the respondents indicated that they had heard about the anti jigger campaign before. This indicated that all the respondents were aware of the anti jigger campaign. The general awareness of anti jigger campaign was high. Information from the focus group discussion indicated that participants knew about the existence of jiggers and the anti jigger campaigns. However, most participants argued that these campaigns would be influential if they were also run through media such as television, radio, and newspapers:

*“We receive information about jiggers from Ahadi Trust. After the campaigns, we see the activities being aired on television during news. We also hear from the radio about the jigger campaigns, where the campaign took place and how shoes were distributed. For me, I don’t think that this is enough. If Ahadi Trust took these campaigns to media, and teach audiences*

*when they visit specific areas. Actually what we see are reports of activities of the day and minimal or no learning takes place.”*

#### **4.2 2 Information related to jigger infestation**

When asked if they know any information related to Jigger Infestation, all the respondents reported that “Yes” they did. This is indicated in the table below

**Table 12: Information related to Jigger infestation**

<b>Information related to jigger infestation</b>	<b>Frequency</b>
<b>Yes</b>	<b>96</b>

From the focus group discussion, the participants said that from the anti jigger campaigns they had learnt about the causes of jigger infestation and how they were supposed to guard themselves against the infestation. However, one participant in the FGDs had this to say;

*“Nyinyi watu wa jiggers mnafaa kujua kwamba kuna boma ambazo jiggers haziwezi kumalizwa maanake ni kama ni curse, hata mtumie nini, haziwezi. Si hata ziliua mama mwingine ( Anti-jigger campaigners should know that however much they may want to eradicate jiggers, this may be difficult in some homes because the infestation there could be a curse .In fact, jiggers had claimed the life of a woman at the village.”*

Key informants said that such fatalistic attitudes could counter the fight against jiggers .They had to look for a way of convincing the participants that jigger infestation had nothing to do with curses, myths and misconceptions. It was all about observing proper hygiene and cleanliness.

During the focus group discussions, participants affirmed that cases of infestation had gone down due to the anti jigger campaign. Those who could not walk before because of the infestation were now able to do so since they were taught how to guard themselves against the infestation. The use of various interpersonal communication techniques was demonstrated during the various campaign interventions. These techniques included actual removal of jiggers from the victims, washing of infected areas and fumigation of their houses.

#### **4.2.3 How often they receive the information concerning the anti jigger campaigns**

When asked how often the respondents receive information on anti jigger campaigns, the response was as indicated in the table 4.13 below.

**Table 13: Frequency on how respondents receive anti jigger information**

	<b>Frequency</b>	<b>Percent</b>
Monthly	26	27.1
Quarterly	8	8.3
Weekly	59	61.5
Yearly	3	3.1
Total	96	100.0

The researcher wanted to find out how often the respondents get information related to protection from jiggers. 27.1 per cent obtain information on a monthly basis, 8.3 per cent receive it on quarterly basis, and 3.1 per cent get it on yearly basis while the remaining 61.5 per cent reported that they get it on weekly basis. This shows that anti jigger campaign is done often with the support from community health workers who work hand in hand with anti jigger campaigners on the ground.

### 4.2.3 Source of health information

The researcher sought to know how the respondents sourced the information on health in general and how they got to know about the anti-jigger prevention campaigns. More than one response was allowed, to capture the range of information sources the participants rely on.

The table below shows the responses as they were given by the participants.

**Table 14: Source of Health Information**

<b>Source of Health Information</b>	<b>Frequency</b>	<b>Percent</b>
Local Health Centre and anti-Jigger campaigners	44	45.8
CHWs	4	4.2
CHWs, Media	7	7.3
CHWs, Chiefs	13	13.5
CHWs, Church and PHOs	4	4.2
CHWs, Media	4	4.2
CHWs, NGOs (Yard)	3	3.1
CHWs, NGOs, Churches	4	4.2
CHWs, PHOs	13	13.5
Total	96	100.0

From the Table 14 above, it is evident that Community Health Workers and Anti jigger campaigners are the most popular source of health information in the study area. For the sake of this study, anti jigger campaigners are the role models. Role models convey health messages that are meant to help people to mitigate against jigger infestation. This was further supported during the FGDs when the researcher posed the following question;



Q: Where do you get information about jiggers?

P1: In general, we get health information from the local health centre and also in our churches where guest speakers are usually invited to speak about specific health issues. We get jigger information primarily from the anti-jigger campaigners.

The researcher identified that the participants sourced health information in general from Community health workers. These are the people who work on behalf of the campaigners on the ground. Ministry of Health and Ahadi Kenya relies on CHWs who are entrusted with the role of providing health information to participants. As if that is not enough, it was noted that CHWs prepare for anti jigger campaigns logistically and on the material day, they work hand in hand with the campaigners. Teachers and religious were not left out.

The participants also mentioned chiefs whose role is usually to communicate to people about upcoming health campaigns. There are health camps usually organized by the health center team in conjunction with health information providers from various organizations. Minimal use of media is evident since most members neither own radios nor television sets. Churches in the area also organize for health seminars and invite members to attend. When asked whether the information they received was adequate, the rating was as shown in Table 4.15 below.

**Table 15: Adequacy of the Information received**

<b>Adequacy of the Information received</b>	<b>Frequency</b>	<b>Percent</b>
Yes	96	100.0

All the respondents considered the information they received concerning Anti Jigger Campaign as adequate. This then showed that they got enough information from the campaigners. While asked whether the messages were credible, the participants said that not only were they adequate but also credible as shown in Table 4.16 below.

#### 4.2.4 Awareness of personnel involved in the anti jigger campaigns

**Table 16: Personnel involved in the Anti Jigger Campaign**

<b>Personnel involved in the Anti Jigger Campaign</b>	<b>Frequency</b>	<b>Percent</b>
CHWs	4	4.2
CHWs, Area MP, Chiefs	4	4.2
CHWs, Area MP	3	3.1
Chiefs, CHWs	4	4.2
Role models	23	24.0
Ahadi Trust and Area MP	8	8.3
CHWs	8	8.3
CHWs and Ahadi Trust	11	11.5
CHWs, Church	4	4.2
Ahadi Trust	7	7.3
Area MP	4	4.2
CHWs, NGO Yard	4	4.2
CHWs, Ahadi Trust	4	4.2
CHWs, Ahadi Trust, PHOs	4	4.2
PHOs	4	4.2
Total	96	100.0

Ahadi Kenya Trust is the major advocacy organization of anti-jigger campaigns in Kenya. It uses communication personnel, commonly referred to as the Celebrities. From the FGDs, it was said that these people include the beauty models, musician, athletes, and actors. One of the participants said:

*“I know Cecilia Mwangi because I always see her in all the jigger eradication campaigns. She is most conspicuous because she talks a lot on how people should guard themselves against jiggers ”. Other personnel’s includes members from the corporate world, health organizations, community health workers and volunteers.*

### **4.3 Role model messages in changing the attitudes and perceptions of individuals affected by jiggers.**

#### **4.3.1 Key messages used by the role models during the anti-jigger campaigns**

Participants in the focus group discussions gave diversified information when they were asked the about the messages communicated by the role models.

P1: The anti jigger campaign people taught us the causes of jiggers. They said that it's simply because of poor hygienic conditions.

P2: Poverty

Q: What's the relationship between jigger infestation and poverty?

P2: I am not sure but it's evident that at homes where people are poor, jigger infestation is high

P3: They also showed us how to spray our houses, both inside and outside with the spraying powder which they gave us.

That jigger eradication was achievable was a comment added by a 28 years old woman who said that in her opinion, those still infested with jiggers in this era are a big joke.

*“ With all the new brands of washing powders, oil for applying on our skins, lotions and what have you, people cannot afford to be infested with jiggers because they are all packed even in small quantities at achievable prices even as low as 5.00 shillings. Anyone with jiggers can be deemed to be ignorant”.*

Key informants also added that they conveyed information on what causes jiggers as some participants had no idea about that. Key informants also added that they explained participants on how jiggers perpetuate the vicious cycle of poverty and how to break it.. also taught them on effects of jigger infestation and emphasized to them to take precaut jigger infestation can eventually lead to death. They were also taught on the preventive me they should undertake as detailed in the Literature review.

**Table 17: Credibility of the messages**

Credibility of the messages	Frequency	Percent
	96	100.0

All the respondents consider the information they receive as credible. This therefore implies that the messages that were conveyed to participants contributed to behaviour change. Some of the participants in FGDs had improved and a 72 years old man had this to say;

*“Haya ni maajabu ya Mungu hati mimi hulala usiku kucha na nisifikune kutokana na thuya.Zilikuwa zinanivamia kila siku kama zimetumwa na mtu.Hata ukiuliza Kamau wa Ndutu anaweza kwambia juu aliingia hadi mahali mimi hulala.Watu hata walikuwa wamennibandika jina (Wa-ngage)kwa sababu hata kutembea ilikuwa ni shida. Tangu Kamau aniachie ile powder na kunionyesha kuoga ,thuya zimeisha.Shida yangu tu ni moja,dawa ikiisha sijui nitafanya aje kwa sababu Kamau naye anakaa sana bila kurudi(I am surprised that today I can sleep and hardly scratch myself at night because of fleas. Kamau(Ahadi Kenya CEO, commonly referred to as Kamau wa Ndutu) can even confirm this as he even entered into my bedroom and witnessed the fleas .People had even nick named me as Wa-Ngage(One who is heavily infested with jiggers).I was given a powder that I use and one can hardly find a flea in my house. I am worried that once the powder is finished, I don't know where I will get another pack because Kamau could stay long without coming back”*

Another participant, a 36 years old woman and a mother of six confirmed that after she was shown how to guard herself with her children against jiggers, she was happy the walking style of two of her children was improving.

#### **4.2.5 Interpersonal techniques applied in the jigger eradication campaigns**

*“Tulivamiwa na jiggers mpaka nilikuwa nimeona kama ni laana. Watoto wanawezaje vamiwa na jiggers mpaka miguu hadi hawawezi kutembea,hata walikuwa wamekataa shule kwa sababu ya kuchekelewa na wale wengine.(I and my children were infested with jiggers at one point and I thought this was a curse. The walking style had even changed and at school, the other children used to laugh at them. They even had stopped going to school)*

From the above, one can see the magnitude of the jigger infestation menace as expressed by the woman. The knowledge that participants got from the role model messages assisted them in making the right decisions about their health.

Upon further probing, it came out that the messages delivered to the participants were reliable as shown in Table 4.18 below.

**Table 18: Reliability of the anti jigger campaign messages**

<b>Reliability of the anti jigger campaign messages</b>	<b>Frequency</b>	<b>Percent</b>
Yes	96	100.0

Those who took heed to anti- jigger campaign messages achieved positive results. Children who could not go to school because of jigger infestation went back to school after they were treated. They no longer had difficulties walking as they used to before the medication. The participants unanimously said that they believed the messages were equally reliable because they were delivered to them by reliable sources.

#### 4.4 Effectiveness of the information on Jigger prevention towards the Community

**Table 19: Effectiveness of jigger prevention information**

<b>Effectiveness of jigger prevention information</b>	<b>Frequency</b>	<b>Percent</b>
Effective	27	28.1
Merely Effective	3	3.1
Very Effective	66	68.8
Total	96	100.0

It was important to find out whether or not the information conveyed to the participants was effective as shown in Table 4.19

When asked how effective the information they received on Jigger prevention during the campaigns, 28.1 per cent reported that it was effective, 3.1 per cent felt that it was merely effective while the remaining 68.8 per cent were of the opinion that the information was very effective. This implies that the messages were fully understood and therefore the participants had succeeded in reducing the levels of jigger infection.

Respondents said the information was of more utility value mainly because it comes from people who have personal experience in jigger prevention. From the key informant interviews, the one-on-one and face-face value of interpersonal communication is seen as effective because of interactive nature and instant feedback. Further, key informants argued that open discussions where members participate in the dissemination of information, question and answer sessions, brainstorming, role playing and modeling are important inter-personal

communication influences in health communication as supported by the literature review, which are employed frequently.

#### **4.4.1 Effectiveness of role model messages in changing the attitude and perception of the jigger infested individuals**

This part of the study sought the respondents' opinion on the effectiveness of role model messages in changing the attitude and perception of the jiggers infested individuals. The respondent were supposed to indicate on the level of agreement on the seven statements based on a simple opinion rating of 1-5 where, 1 represented strongly disagree, 2- disagree, 3- neutral, 4-agree and 5-strongly agree.

There were various composite indicators that were used to measure the level of opinion on effectiveness of interpersonal communication in public education campaigns. These composite indicators includes; Anti Jigger campaign initiative, campaign messages, campaign ambassadors, competence of campaign models, language used by campaign messagers and conformity of role models with the society cultural values.



**Table 20: Effectiveness of role model messages in changing the attitude and perception of the infested people**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Total percent</b>
Anti Jigger campaign initiative helps to fight jiggers by creating awareness	58(60.4%)	38(39.6%)	0(0%)	0(0%)	0(0%)	<b>96</b>
Campaign messages have helped people to adapt to recommended behavior change	35(36.5%)	61(63.5%)	0(0%)	0(0%)	0(0%)	<b>96</b>
Campaign ambassadors are a good source of anti jigger education	0(0%)	35(36.5%)	61(63.5%)	0(0%)	0(0%)	<b>96</b>
Campaign models are competent in conveying anti-jigger messages	23(24.0%)	73(76.0%)	0(0%)	0(0%)	0(0%)	<b>96</b>
Language used by campaign messagers was understood by the participants	0(0%)	23(24.0)	73(76.0%)	0(0%)	0(0%)	<b>96</b>
General appearance of role models was in conformity with the society cultural values	0(0%)	0(0%)	0(0%)	42(43.8%)	54(56.3%)	<b>96</b>
One on one interaction with the campaign models was appropriate with the village folk	38(39.6)	58(60.4%)	0(0%)	0(0%)	0(0%)	<b>96</b>
<b>Total cell representative</b>	<b>154</b>	<b>288</b>	<b>134</b>	<b>42</b>	<b>54</b>	<b>672</b>
<b>Cell representative</b>	<b>22.9%</b>	<b>42.9%</b>	<b>19.9%</b>	<b>6.3%</b>	<b>8.0%</b>	<b>100%</b>

From the table above, the rating of respondents on the level of the effectiveness of role model messages in changing the attitude and perception of the jiggers infested individuals was done. The rating of those who strongly agreed measured up to 22.9 percent, agree measured up to 42.9 percent, neutral was up to 19.9 percent, disagree was 6.3 percent while strongly disagree was up to 8.0 percent.

This finding revealed that campaign models (76.0 per cent) and campaign messages (63.5 per cent) were very effective in changing the attitude and perception of jigger infested persons as they were rated highest. In addition, the anti Jigger campaign initiative at ( 60.4 per cent) and one on one interaction with the campaign models (60.4 percent) were also effective in changing the attitude and perception of jigger infested persons. This concurs with National Cancer Institute (2012) that the success of a health communication campaign depends to a large extent on how well the organized set of communication activities is developed distributed and evaluated.

From the literature, campaigns usually have several potential levels of effect on their audiences (Backer *et al.*, 1992). These include exposure to the message, awareness of the message, persuasion by the message, expression of the intent to change and finally behaviour change. In the anti-jigger campaign, the audience must be exposed to the messages through appropriate channels and in this case, the campaign ambassadors, comprehend the messages and yield to the messages by adopting the behaviour suggested by the messages such as maintaining hygiene so as to guard against jigger infestation.

The knowledge of what health communication can do is very important in health communication campaigns (National Cancer Institute, 1995). This knowledge is a necessary tool for promoting and improving health. Communication can also increase the intended audience's knowledge and awareness of a health issue; influence perception beliefs and attitudes that may change social norms; prompt action; demonstrate or illustrate health skills; reinforce knowledge, attitude or behavior; show the benefits of behaviour change; advance a position on a health issue or policy; increase demand or support for health services and refine myths such as jiggers were brought to Kenya by the white man and that it affects those who live in abject poverty alone. All these underscore the fact that communication is indispensable in all health campaigns.

In the study, the researcher wanted to know the where the respondents get information that have led to their decision to seek medical attention for jiggers. It was observed that the main sources of the information were through Church announcements, Community Health workers. Public Health Officers, the role of media in creating and educating the Community. Further It was reported that Ahadi Trust; a local NGO has done a great job in educating and encouraging the locals to maintain hygiene in living environs. It was also observed that the Area Member of Parliament and Local administrators have done a commendable job in persuading the victims to seek medication whenever they are infested with Jiggers and not to feel embarrassed.

#### **4.4.2 Attitude and perception of people towards the role models**

The researcher wanted to find out the attitude and perception of resident towards the change agents. Literature states that compliance can be said to occur when an individual accepts

influence from another person or from a group because he hopes to receive a favourable reaction from the other .He may be interested in attaining specific rewards or in avoiding specific punishments that the influencing agent controls (Kelman, 1961). Kelman (1961) further contends that when an individual complies, he does what the agent wants him to do or what he thinks the agent wants him to do. Sociologists regard the formation of public opinion as the result of social interactions and communication (Powel, 1951). Suo and Yen (2008) further argues that even people from the same locality may not necessarily form the same opinion, and that people form opinions differently depending on three factors, namely; individual attributes, environmental influences, and, lastly, information flow.

It was observed that the personnel were welcomed in the region, people trusted them because they used the language the locals understood better, they were always available for the victims when need be, they were caring and this made locals like them, the personnel never condemned the victims and they did not stigmatize the infested people. The trust was further catalyzed by the fact that they provided free blankets, basins, soaps, shoes, medicine among other incentives; the service providers were also friendly to the community. Use of celebrities was an ideal way of reaching the audiences in the rural set up and to convince them to adopt to the recommended behaviour change.

## **CHAPTER FIVE**

### **DISCUSSION OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

The purpose of this chapter is to provide a summary of the study findings, conclusions and recommendations. This chapter concludes the study by revisiting the research questions and then evaluates whether or not the research has been able to answer these questions.

This study sought to explore the effectiveness of interpersonal communication in public education campaigns, a case study of anti-jigger campaign by celebrities in Gatanga sub-county, Murang'a County, in Kenya. It looked specifically on identification of the kind of role models used in the anti jigger campaign.

The key findings of the data analysis are that the role models used in the anti – jigger campaigns are Celebrities, Community health workers, local administration, and Public Health officers (PHOs). Celebrities (24 per cent) were the majority. From the FGDs, the celebrities' were identified as beauty models, musicians, athletes and actors. This was one category of the role models.

The rest were said to be the volunteers, teachers, and members of the surrounding churches. Others included Ahadi Kenya Stakeholders from the corporate world, representatives of various hospitals and also students from selected schools. According to (Maibach, Parrot, 1995) Patient groups, professional associations and voluntary associations are some of the typical stakeholders in health communication campaigns.

According to (Korner, 2002) role models have persuasive authority over communities in which they live. They can sway public opinion since communities would want to identify with what they stand for (Fiske, 1991). Majority of the participants rated information received from the role models as 'Trustworthy'. In any health campaign, different types of expertise are required at different stages of development yet at all times the overall direction of the campaign should remain with the health communicator, the one individual (or team) who provides the continuity through each stage of the project. The most persuasive communication is the personal witness of those taking communicative initiatives in a way that leaves the receiver free and contemplative (Joram, 2010). Role models are therefore a useful tool which can be used to disseminate public health information, and motivate people to adapt to recommended behaviour.

The study also sought to identify the key messages and inter-personal techniques used by the role models during the anti-jigger campaigns. During the FGDs, the respondents reported that they received various messages on jigger infestation. The messages included causes of jigger infestation, how jiggers perpetuate vicious cycle of poverty and how to break it, effects of jigger infestation but the core information presented was on jigger prevention. They affirmed that the messages were adequate (100 per cent) and credible. Effectiveness of jigger prevention messages was rated as 100 per cent.

The messages were disseminated by the anti jigger campaign role models i.e. the celebrities with the support of community health workers and volunteers. Interpersonal messages included the washing of the feet, provision of farm tools and other incentives like shoes, key informants reported to have initiated projects like banana planting in the area and were actually looking forward to introducing rabbit and poultry keeping. It can be concluded that

interpersonal communication is more effective in persuasion and behaviour change as opposed to mass mediated messages which are more effective in raising people awareness about public issues (Hornik, 1988).

The information conveyed to the participants by the role models was of more utility value mainly because it came from people who have personal experience in jigger prevention. From the Key informant interviews, the one-on-one and face to face value of interpersonal communication is seen as effective because of interactive nature and instant feedback. Further, key informants argued that open discussions where members participate in the dissemination of information, question and answer sessions, brainstorming, role playing and modeling are important inter-personal communication influences in health communication.

The last objective of the study aimed at establishing the level/s at which role model messages are effective in changing the attitudes and perceptions of individuals affected by jiggers in the study area. In reference to this objective, the rating of those who strongly agreed measured up to 22.9 percent, agree measured up to 42.9 percent, neutral was up to 19.9 percent, disagree was 6.3 percent while strongly disagree was up to 8.0 percent.

This finding revealed that campaign models 76.0 percent and campaign messages 63.5 were effective in changing the attitude and perception of jigger infested persons as they were rated highest. In addition, the anti Jigger campaign initiative 60.4 percent and one on one interaction with the campaign models 60.4 percent were also effective in changing the attitude and perception of jigger infested persons. This concurs with National Cancer Institute (2012)

that the success of a health communication campaign depends to a large extent on how well the organized set of communication activities is developed distributed and evaluated.

From the literature, campaigns usually have several potential levels of effect on their audiences (Backer *et al.*, 1992). These include exposure to the message, awareness of the message, persuasion by the message, expression of the intent to change and finally behaviour change. In the anti-jigger campaign, the audience must be exposed to the messages through appropriate channels and in this case, the campaign ambassadors, comprehend the messages and yield to the messages by adopting the behaviour suggested by the messages such as maintaining hygiene so as to mitigate jigger infestation.

The knowledge of what health communication can do is very important in health communication campaigns (National Cancer Institute, 1995). This knowledge is a necessary tool for promoting and improving health. Communication can also increase the intended audience's knowledge and awareness of a health issue; influence perception beliefs and attitudes that may change social norms; prompt action; demonstrate or illustrate health skills; reinforce knowledge, attitude or behavior; show the benefits of behaviour change; advance a position on a health issue or policy; increase demand or support for health services .All these underscore the fact that communication is indispensable in all health campaigns.

## **5.1 Summary**

The study compliments Albert Bandura's Social learning theory on learning through modeling. The study findings reveal that role models play an important role in changing and making people to adopt to recommended behaviour. This is achieved through learning from



them by imitation. The role model messages as well as the various interpersonal techniques applied were effective in changing the behaviour of individuals and hence jigger eradication. In addition to direct effects, the media can also influence audiences indirectly, through a socially mediated pathway which interpersonal communication can promote knowledge, change attitudes and guide behaviour. However, despite the high awareness of how people can mitigate against jigger infestation, it becomes hard to completely eradicate jiggers because of economic status as well as cultural factors of these people.

In chapter two, it was argued that inter-personal communication has a great potential to influence behaviour change because messages are constructed for a specific audience and are culturally sensitive to such health issues. According to the findings of this study, society members actually went out to look for specific messages to satisfy their jigger prevention information need. The study therefore suggests the need to preserve knowledge and experiences of role models as a motivating factor to the people.

## **5.2 Conclusion**

From the findings of this study, it is evident that interpersonal communication plays a central role in fighting jiggers. Members of the society actively seek messages that provide them with information on jigger prevention methods such as maintenance of proper hygiene, smearing of houses and fumigation.

Secondly, inter-personal communication deploys effective strategies to deliver messages to audiences. The use of modelling and face -to -face exchanges are important channels that

enhance and enrich communication. Inter-personal communication therefore occupies a very central position in communicating jigger prevention and management messages.

Interpersonal communication holds great potential in mitigating against jigger infestation because it has a remarkable impact and influence in the communication process. This is due to the fact that messages disseminated during the activities of anti jigger campaigns are relayed by people who are close to the target audience. These messages are aligned with the belief systems, traditions and cultural norms of that specific audience.

### **5.3 Recommendations**

Communication plays a key role in motivating people to take action to safeguard their health and to adopt strategies that promote health. The findings produced in this study provide a good understanding of the communication needs and preferences of the residents of Gatanga regarding jigger prevention and treatment. From the study findings, there are significant gaps in knowledge that deserve further investigation.

Despite the fact that interpersonal communication was between the agents of change, individuals and groups of people, there is dire need of an elaborate interpersonal communication network. With regard to further research, the study recommends that elaborate awareness campaigns be carried out to sensitize people on how health knowledge may be transposed to safe practices and also help identify the conditions that could promote preventive behaviour change and hence mitigating against jigger infestation.

## REFERENCES

- Ahadi Trust. (2008). About the Jiggers. Ahadi Kenya, Nairobi. 2008. Available at: <http://www.jigger-ahadi/jiggers.html>.
- Ahadi Trust. (2010). About the Jiggers. Ahadi Kenya, Nairobi.
- Airhihenbuwa. C. O., Makinwa. B., and Obregon. R. (2000). A Critical Assessment of theories/models used in health communication for HIV/AIDS. *Journal of Health Communication*, 5 (Supplement), 101-111.
- Akanbi. S. O. (2005). 'The role of effective communication in human and national development'. *Journal of studies in Religious, Education and Languages*.
- Atkin C. (2001). 'Theory and Principles of Media Health Campaigns'. In: R.E Rice and C.K. Atkin (eds). *Public Communication Campaigns* (third edition), Thousand Oakss, CA:Sage.
- Alasuutari. P. (1995). *Researching culture: Qualitative Method and Cultural Studies*, London: Sage.
- Bandura. A. (1977a). *Social Learning Theory*: Englewood Cliffs, NJ: Prentice-Hall.
- Bandura. A.(1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura. A., Grusec. J. & Menlove. F.L. (1966). Observational Learning as a function of symbolization and incentive set, *child development*, 37,499.
- Baran. S., and Davis. D. K. (2006). *Mass Communication Theory: Foundations, Ferment, and Future*. 5<sup>th</sup> edition. Amazon. USA.
- Bechara. A. (2004). 'The role of emotion in decision-making: Evidence from neurological patients with orbitofrontal damage'. *Brain and Cognition*, 55: 30-40.

Beebe. S. A., Beebe. S. J., and Redmon. M.V. (1996). *Interpersonal Communication. Relating to others.* Allyn and Bacon, USA.

Bekk. M, and Sporrle. M. (2010). 'The Influence of Perceived Personality Characteristics on Positive Attitude Towards and Suitability of a Celebrity as a Marketing Campaign Endorser'. *The Open Psychology Journal*, January 2010, 3, 54-66.

Berkman. L. F., Kawachi. I. (Eds) (2000). 'Social Epidemiology - Health Education Research'. *Oxford Journals*'. Oxford University Press, New York, 2000.

Birnbaum. Michael., and Stegner. S. E. (1979). Source credibility in social judgment: Bias, expertise, and the judge's point of view. *Journal of Personality and Social Psychology*, Vol 37(1).

Bosman. R., Hennig-Schmidt. H, & Frans van Winden. (2006). 'Exploring Group Decision Making in a Power-to-Take Experiment'. *Experimental Economics*, 9: 35-51.

Brennan. E. M. (2011). Changing smoking behaviour: the contribution of interpersonal communication to mass media campaign effects. PhD thesis, Medicine, Dentistry & Health Sciences, Psychological Science, The University of Melbourne.

Borchers. J., Griffiths., and Pemberton. L. (1999). 'Usability Pattern Language: Creating a community'. In: Stephen Brewster, Allison Cawsey and Gilbert Cockton (eds.): *Proceedings of the INTERACT'99 7th International Conference on Human-Computer Interaction* (Edinburgh, UK, August 30–September 3, 1999), vol. 2, British Computer Society, Wiltshire, UK, 1999, p. 135.

Campbell O, Cleland J., Collumbien M., Southwick K. (1999). *Social Science Methods for Research on reproductive health.* World Health Organisation.

Creswell J.W. (2009). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. 3<sup>rd</sup> edition. London: Sage Publications

Cappella. J. N., Fishbein. M., Hornik. R., Ahern. R. K., and Sayeed. S. (2000). Using theory to select messages in anti-drug media campaigns: Reasoned action and media priming. In: R. Rice & C. K. Atkins (Eds.), *Public communication campaigns* (pp. 214–230). Thousand Oaks, CA: Sage.

Centre for Disease Control . (September 2002). *Crisis and Emergency Risk Communication*.

Champion. V., Skinner. C. S., & Menon. U. (2005) ‘Development of a Self-Efficacy Scale for Mammography.’ *Research in Nursing and Health*, 2005, 28(4), 329–336.

Coopers. D., and Schindler. P. (2007). *Business Research Methods*. Amazon Books, USA.

Ehrenberg JP, Ault SK. Neglected diseases of neglected populations: thinking to reshape the determinants of health in Latin America and the Caribbean. *BMC Public Health*. 2005 Nov 11;5:119.

Feed the Children 2007. *The Jigger Project*. Feed the Children, UK.  
Available at: <https://www.ftcmain.co.uk/live/pages/JiggersProject.shtml#TheProblem>.

Feldmeier. H, Eisele. M, Sabóia-Moura. R.C, Heukelbach. J. (2003). Severe tungiasis in underprivileged communities: Case series from Brazil. *Emerg Infect Dis*. 2003, Aug;9(8):949-55.

Fiske. A. P. (1991). *Structures of social life*. New York: Free Press.

Fiske. A. P. (1992). ‘The four elementary forms of sociality: Framework for a unified theory of social relations’. *Psychological Review*, 99, 689-723.

Freeman. R. E. (1984). *Strategic Management: A Stakeholder Approach*. Pitman, London.

Glanz. K., and Rimer. V. (2005). *Health Behaviour and Health education: Theory, Research and Practice*. Jossey-Bass, USA.

- Government of Australia, Department of Immigration. (2008). Stakeholder engagement: Practitioner Handbook. National Communications Branch, Immigration and Citizenship, Australia.
- Hanan. A. (2009). 'HIV/AIDS Prevention Campaign: A Critical Analysis.' *Canadian Journal of Media Studies*. Vol 5 (1).
- Heukelbach. J. (2001). Seasonal variation of Tungiasis in an endemic community. Fortaleza, University of Caere. Available at: <http://www.orphan.net/data/patho/GB/uk-Tungiasis.pdf>. Accessed on 6 August 2013.
- Hornik. R. (1988). Development communication. New York. Longman.
- Hovland. C., Janis. I., & Kelly. H.(1953).Communication and Persuasion. New Haven, CT: Yale University press.
- Joram. N. (2010). 'The effectiveness of interpersonal communication for HIV/Aids'. *African Communication Research*, Vol 3, No. 2 (2010) 305-340.
- Kelly. M. (1998). 'Writing a research proposal', in C. Seale (ed), *Researching Society and Culture*, London: Sage,111-22.
- Kelman. H. (1961). 'Processes of Opinion Change'. *Public Opinion Quarterly*, Vol. 25, Spring. Princeton University.
- Kimani. B., Nyagero. J., Ikamari. L. (2012): 'Knowledge, attitude and practices on jigger infestation among household members aged 18 to 60 years: Case study of a rural location in Kenya'. *Population Studies and Research Institute*. University of Nairobi.
- Knapp. M., and Daly. J. (Eds) (2002). *Handbook of Interpersonal Communication*. 3<sup>rd</sup> edition, Sage Publications.
- Koerner. K. A. (2002). 'Appealing to the Heart of a Social-Relationship: The Role of Relational Models in Pro-Social Message Processing and Persuasion'. In: *Relational Models*

and Persuasion: Paper presented at the Annual Meeting of the International Communication Association, Seoul, South Korea, July 13-19, 2002.

Kombo. D. K, and Tromp. D. L. A. (2010). Proposal and Thesis Writing. Paulines Publications Africa, Nairobi.

Koole. S.L., Jager. W., Van den Berg. A. E., Vlek. C. A. J., and Hofstee. W. K. B. (2001).

‘On the Social Nature of Personality: The Influence of Self- and Peer-rated Extraversion and Agreeableness in a Social Dilemma’. *Personality and Social Psychology Bulletin*.

Kumar. R. (2005). Research Methodology: A step-by-step guide for beginners. Sage Publications.

Machiavelli. N. (1950). *Discourses*, Vol 1., Routledge and Kegan Paul, London.

Madalla, G.S (2001). Introduction to Econometrics (3<sup>rd</sup> edition). Macmillan: New York. Pp 1-664

Mahoney. J. (2010) “Strategic communication and anti-smoking campaigns”. *Public Communication Review*. Vol. 1. , University of Canberra, Australia.

Maibach. E., and Parrot. R .L. (1995). Designing Health Messages: Approaches from Communication Theory and Public Health Practice. Sage Publications Inc. California, USA.

Max-neef. M. (1992). Development and human needs. In: P. Ekins and M. Max-Neef (Eds.): *Real-life economics: Understanding wealth creation*. London, New York: Routledge.

Messick. D. M., and McClintock. C. G. (1968). Motivational basis of choice in experimental games. *Journal of Experimental Social Psychology*, 4: 1-25.

McClintock. C. G (1978). Social values: Their definition, measurement and development. *Journal of Research and Development in Education*, 12: 121-137.

McGuire. W. J. (1985). Attitudes and attitude change. In: G. Linzey & E. Aronson (Eds.), *Handbook of social psychology* (3<sup>rd</sup> ed.). New York: Random House.

Moore. G. E., Burnett. M. F. & Moore. B.A. (1986, Fall). Approved practices in reporting quantitative research. *Journal of vocational Education Research,1-24*.

Mugenda, O. M., Mugenda, A.B (1999). Research Methods: Quantitative and Qualitative Approaches. African Centre for Technology Studies ( ACTS). Nairobi, Kenya

Mugenda. O. M., & Mugenda. A. G. (2003). Research Methods: Quantitative and Qualitative Approaches. African Centre for Technology Studies (ACTS). Nairobi.

Muriuki M. W, 2011.An assessment of knowledge and attitudes of Nairobi residents towards malaria prevention and treatment and their communication needs. (Unpublished Master of communication studies Thesis). University of Nairobi.

Muturi. N. (2007). The Interpersonal communication approach to HIV/AIDS prevention: Strategies and challenges for Faith-Based organizations. *Journal of Creative Communications*. 2(3): 305-327.

Nachmias, F & Nachmias (1996) *Research Methods in the Social Sciences 5<sup>th</sup> edition*. London: St Martin's Press Inc.

National Cancer Institute. (2012). Making Health Communication Programs Work. National Institutes of Health, USA.

Ndeti. N. (2013). Interpersonal Communication and HIV/Aids: Influencing Behavioural Responses to HIV amongst students in Nairobi. Nairobi Academic Press. Nairobi.

Nachmias F C & Nachmias, D. (2004). Research Methods in the Social Sciences. 5<sup>th</sup> edition. London : St. Martin's Press

Oladimeji. M. (2005). 'Effect of surgery on monocyte function'. *British Journal of Surgery*. Vol 69 Issue 3.

Pampiglione. J., Fioravanti. D., Onore. G., Luchetti. M., and Trentini. C. (2009). *Medical and Veterinary Entomology*, Volume 23 Blackwell Publisher, Bologna, Italy.



- Powel. N. T. (1951). *Anatomy of Public Opinion*. Prentice-Hall, New York.
- Rice. R.E., & Atkin. C. K. (1989). *Public Communication Campaigns*, Sage Publications, London.
- Rimer. B. K., and Glanz. K. (2005) *Theory at a Glance: A Guide for Health Services*, 2<sup>nd</sup> edition. Bethesda National Cancer Institute.
- Rogers. E., and Storey. J.D. (1987). Communication campaigns .In: Berger. C & S. Chaffee (Eds). *Handbook of communication science* (pp 814-846) Newbury park, CA: Sage.
- Rogers. R. W., and Prentice-Dunn. S. (1997). Protection motivation theory. In: D. S. Gochman (Ed.), *Handbook of health behavior research: Vol. I. Personal and social determinants* (pp. 113–132). New York: Plenum Press.
- Rubin. R. B., Perse. E. M., and Barbato. C. A. (1988) ‘Conceptualization and Measurement of Inter-personal communication Motives.’ *Human Communication Research*, 14, 620-638.
- Schiavo. S. (2007). *Health Communication. From theory to practice*. John Wiley & Sons Inc. USA.
- Skinner. C. S., Champion. V. L., Menon. U., and Seshadri. R. (2002). “Racial and Educational Differences in Mammography-Related Perceptions Among 1,336 Nonadherent Women.” *Journal of Psychosocial Oncology*, 2002, 20, 1–18.
- Silverman, D. (2005) .*Doing Qualitative Research, A practical Handbook*(2<sup>nd</sup> Ed). Sage Publications, London.
- Suo. S., and Chen. Y. (2008). ‘The Dynamics of Public Opinion in Complex Networks’. *Journal of Artificial Societies and Social Simulation* vol. 11, no. 42.
- Tan. A. S. (1985). *Mass Communication Theories and Research*. 2<sup>nd</sup> Ed. Texas, U.S.A.
- UK Government (2013). ‘*Celebrities join forces with disability charity on role models campaign*’, [Department for Work and Pensions](#), 23 May 2013. Available at:

<http://www.gov.uk/government/news/celebrities-join-forces-with-disability-charity-on-role-models-campaign>

Van den Putte. B., Monshouwer. K., Bruijn. G. D., and Swart. B. (2010) "Effect of Health Campaigns and Interpersonal Communication on Cannabis Use: The Role of Evaluative Tone". *International Communication Association, Suntec Singapore International Convention & Exhibition Centre, Suntec City, Singapore.*

Van den Putte. B., Yzer. M., Southwell. B. G., de Bruijn G., and Willemsen. M. C. (2011). "Interpersonal communication as an indirect pathway for the effect of antismoking media content on smoking cessation". *Amsterdam School of Communication Research, University of Amsterdam, The Netherlands.*

Wamalwa. D. (2006). *Handbook on Hygiene and Sanitation Promotion Through Schools.* AMREF, Nairobi.

Witte. K. (1992). "Putting the Fear Back Into Fear Appeals: The Extended Parallel Process Model." *Communication Monographs*, 1992, 59(4), 329–349.

## APPENDICES

### Appendix 1: Questionnaire

**Respondent Number** \_\_\_\_\_

#### INTRODUCTION

I am a student at the University of Nairobi, currently pursuing a Masters of Art Degree in Communication Studies at the School of Journalism, University of Nairobi.

I am carrying out a research on the *Effectiveness of Interpersonal Communication in Public Education Campaign: A Case study of Anti-jigger Campaign by celebrities in Gatanga District, Murang'a County, Kenya*. I have identified you as one of my respondents and I hope that you feel free to discuss with me .Your contribution to this study will be highly appreciated.

I promise that your response and views will be held strictly confidential and used for academic purposes only.

#### **Structured Interview Questionnaire for General Population**

Please complete the questions below by indicating with a tick where necessary in the correct brackets from the choices, when required to explain or state, please answer as briefly as possible.

## SECTION A – RESPONDENT PROFILE

1. What is your age?

18 – 25 years [ ]

26-33 years [ ]

34 – 41 years [ ]

42 - 49 years [ ]

Above 50 years [ ]

2. Indicate gender of the respondent.

Male [ ]

Female [ ]

3. What is the highest level of education that you have attained?

Never been to school [ ]

No formal Education but can read and write [ ]

Primary education [ ]

Secondary [ ]

Diploma level [ ]

University Level [ ]

Other

4. What is your current marital status?

Unmarried..... [ ]

Married..... [ ]

Divorced..... [ ]

Separated ..... [ ]

Widowed..... [ ]

5. How many children do you have?

No children..... [ ]

1-3 children..... [ ]

More than 4 children..... [ ]

6. How many people live in your home?  
**(Enter the number in the box provided)**

Adults	[ ]
Children	[ ]
Total	[ ]

7. What do you do for a living?

Casual worker	[ ]
Unemployed	[ ]
Housewife	[ ]
Businessman	[ ]
Professional/works in an office	[ ]
Farmer	[ ]
Other	[ ]

8. What is your income mode?

Daily	[ ]
Weekly	[ ]
Monthly	[ ]

9. What type of accommodation do you have?

Mud house	[ ]
Iron sheets house	[ ]
Brick house	[ ]
Storeyed	[ ]
Other	[ ]

**SECTION B**

**(Please explain your answer where necessary)**

10. Are you aware of the Anti jigger campaign strategy in fighting the jigger menace in Kenya?

11. Do you get any information related to jigger infestation?

Yes [ ]

No [ ]

12. If yes, how often?

i) Once a day ii) Weekly

ii) Monthly iv) Yearly

13. Where do residents of this area get health information from in general?

14. Are you aware of personnel involved in the anti jigger campaign in this area?

15. What kind of interpersonal techniques do they apply?

**SECTION B**

16. Do you recall the messages they conveyed to you? Please explain your answer

17. Do you consider the information you received in the messages you mentioned adequate?

Yes [ ]

No [ ]

Don't know [ ]

18. Do you consider the information you received in the messages you mentioned credible?

Yes [ ]

No [ ]

Don't know [ ]

19. In your view, is the message delivery by these personnels reliable in the anti jigger campaign?

20. Is the information you receive on jigger prevention in the community effective?

- Very effective [ ]
- Effective [ ]
- Merely effective [ ]
- Not effective [ ]

21. How effective is the information? Please indicate whether you strongly agree, agree to some extent, disagree to some extent or strongly disagree with the following statements:

	<b>Strongly Agree</b>	<b>Agree</b>	<b>neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
Anti Jigger campaign initiative helps to fight jiggers by creating awareness					
Campaign messages have helped people to adapt to recommended behavior change					
Campaign ambassadors are a good source of anti jigger education					
Campaign models are competent in conveying anti-jigger messages					
Language used by campaign messengers was understood by the members of the society					
General appearance of role models was in conformity with the society cultural values					
One on one interaction with the campaign models was appropriate with the village folk					

22. What's the attitude and perception of people towards the celebrities?

**-END-**

*Thank you very much for your time and information!*

## **Appendix 11: Focus Group Discussion Questions**

### **EFFECTIVENESS OF INTERPERSONAL COMMUNICATION IN PUBLIC EDUCATION CAMPAIGNS: A CASE STUDY OF ANTI-JIGGER CAMPAIGN BY CELEBRITIES IN GATANGA DISTRICT, MURANG'A COUNTY, KENYA.**

#### **APPENDIX A: Focus Group Discussion Questions**

Dear respondent, these questions aim to collect information related to the use of celebrities in the anti-jigger campaign and the effectiveness of the messages delivered by the celebrities in the campaign. The information given is purely for academic purposes only and will be treated as very confidential. Please respond to the questions according to the instructions given.

#### **Biographical data**

(To note their gender as they get in to the room)

#### **PART A: KIND OF CELEBRITIES USED IN THE CAMPAIGN**

1. Do you know of any celebrity used in the campaign?
2. Do you remember what kind of message that celebrity conveyed?
3. Did you understand the language used by the celebrity in the campaign?
4. Describe how the celebrity passed on the message
5. What was your reaction to the celebrity?
6. Describe how the celebrity passed on the message
7. Do you think the message delivery by celebrity strategy is reliable in the jigger campaign?
8. How would you describe your perception towards the celebrities used in the campaign?

#### **PART B: CAMPAIGN MESSAGES**

1. Where did you get information on jiggers?
2. Please explain what you heard
3. Did you find the message relevant?
4. Do you think the messages were effective in fighting the jigger menace?



5. What did you do after learning from the campaign about how to control the jigger menace?
6. Were there any other social or economic factors that affected the absorption/understanding of the anti-jigger campaign messages?
7. After receiving the anti-jigger campaign messages, how have you been able to guard yourself (and your family, if applicable) against more jigger infestation?
8. How has the information helped you guard against jigger infestation?

**PART C: USE OF MESSAGES:**

1. How did you learn about the anti-jigger campaigns? (Radio, TV, chief, church etc)
2. What were you told is the best way to avoid jigger infestation?
3. From which source of information have you recently heard any messages on anti-jigger campaign?
4. Did you feel satisfied with the manner in which that message was delivered to you?
5. Did you understand the message?
6. Would you recommend that the campaign uses some other means of delivering messages in the campaign?

### **APPENDIX III: Key Informants Interview Guide**

1. What kind of role models are involved in the campaign?
2. What was the motivation behind using celebrities in the campaign?
3. How would you describe their suitability in the campaign?
4. In your view, are there any benefits that can be derived from using celebrities in a campaign of such nature?
5. Which platform do you use to announce to the people whenever there is an up-coming anti-jigger campaign event?
6. How were campaign messages packaged for delivery?
7. Are there any cultural barriers (including religious) that could have affected the delivery of campaign messages?
8. In your view, what's the role of interpersonal communication in anti jigger campaigns?
9. Has the campaign helped in the reduction of jigger infestation? How successful has it been?
10. Any other comment on the place inter-personal communication in the anti-jigger campaigns?