EFFECTIVENESS OF COMMUNITY BASED INTERVENTIONS TO MITIGATE HARMFUL ALCOHOL USE IN MURANG'A EAST DISTRICT

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EXECUTIVE SUMMARY

Alcohol consumption is the world's fifth largest risk factor for disease and disability. Almost 4% of all deaths worldwide are attributed to alcohol, greater than deaths caused by HIV/AIDS, violence or tuberculosis. Among the numerous efforts by government of Kenya to solve the alcohol problem has been the enactment and enforcement of laws that control alcohol abuse. However, the enforcement agencies are often overstretched by the limited resources available and therefore, legislation and policy measures alone cannot fully address the reduction of harm related to alcohol use. Thus, family and community empowerment programmes become important strategies to reduce harm from alcohol use in the community. Family and community members have a significant role in the prevention of alcohol-related problems, especially the role of parents and key community leaders in encouraging abstinence, promoting alcohol free activities, conveying appropriate messages with regard to consumption and alcohol related problems as well as monitoring any negative situation. A notable aspect in the community response has been the involvement of women groups in demonstrating against the sale and consumption of alcohol in localized areas. The impact of these and similar moves have not been adequately evaluated either in terms of the broader parameters related to alcohol consumption or the long-term sustainability. It is worthwhile noting that these attempts are due to the intense immediate pressure generated against the high perceived prevalence of alcohol consumption and subsequent adverse consequences. Therefore, there is need to assess the effectiveness of such efforts as national alcohol prevalence statistics of 2012 (NACADA, 2012) have shown that there has been decline in prevalence especially in former central province where those demonstrations took place. The current study aimed to determine the effectiveness of the prevention efforts by Maendelo ya Wanawake; a women organization that mobilized fellow women to support the implementation of the Alcoholic Drinks Control Act through peaceful demonstrations, raids to bars and entertainment venues that contravened the act among other community prevention initiatives. Muranga was purposively selected because it has been worst hit by harmful alcohol abuse and there existed Maendelo ya Wanawake initiative that attempted to mitigate this harmful use of alcohol by supporting enforcement of alcoholic drink control act.

Cross-sectional survey design was used. Systematic, simple random and purposive sampling were used to select participating household members (n=600), *Maendeleo ya Wanawake* members (n=8) and local leaders (n=16) and focused group participants (n=24). Household questionnaire, in-depth key informant and community readiness interviews for both local leaders and *Maendeleo ya Wanawake*; and focused group discussion schedule were used to collect data. Descriptive statistics were used to describe, organize and summarize the collected data.

Household participants who had ever used alcohol were 46.7 % (male: 72.1%; people aged 25 to 35:61.6%) while those currently using were 21% (male: 81.5%; people aged 25 to 35:64.5%).

Beer was most used alcohol beverage (15.7% followed by wine (4.6) and packed spirit (4.2%). Mukuyu which is an urban sublocation had the highest alcohol usage (ever used: 51.9%; current use: 50.8%). There was consensus in more than half of the participants that prevalence of binge drinking was high and consumption of illicit alcohol was common.

Community prevention efforts used by Maendeleo ya Wanawake and other organizations include demonstration against excessive use, strict enforcement of alcohol related laws, organizing information dissemination barazas, encouraging prosecution of offenders of alcohol related laws, and supporting treatment of alcoholics. Other prevention methods not used but recommended by the participants included alternative alcohol free entertainment, economic empowerment of youth and illicit alcohol brewers and sellers.

These community prevention efforts have reduced the production, sale and consumption of illicit alcohol, reduced school drop outs, reduced alcohol related illnesses, increased performance in national examinations among other effects. The community was on the preparation stage (stage five) of readiness which indicated that community members had general information about the alcohol abuse, pro and cons of prevention activities, policies and actions but it was not based on formally collected information. It was also noted that the community leadership offers modest support of the prevention efforts. The major challenge was that the efforts were sporadic and there was need for long term sustainability strategies (evidence based intervention, community involvement, fidelity in implementation, funding and monitoring) such that this community could move to the next advanced stages of readiness to implement feasible and effective prevention measures.

ABBREVIATION AND ACRONYMS

CPE:	Community Prevention Efforts
FGD	Focus Group Discussion
KNBS	Kenya Bureau of Statistics
NACADA	National Authority for the Campaign Against Alcohol and Drug Abuse
NACADAA	National Campaign Against Drug Abuse Authority
NIDA	National Institute of Drug Abuse
SPSS	Statistical Package for Social Sciences
WHO	World Health Organization

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Alcohol consumption is the world's fifth largest risk factor for disease and disability. Almost 4% of all deaths worldwide are attributed to alcohol, greater than deaths caused by HIV/AIDS, violence or tuberculosis (WHO, 2004). In Kenya only 15% of alcohol consumption is recorded and based on this measure, Kenyans aged 15 years and above on average consume 1.74 litrers of pure alcohol annually (WHO, 2004). In some other African countries comsumption of alcohol is 5.08, 5.29 and 5.38 litres for Zimbabwe, Tanzania and Botswana respectivetly. Based on unrecorded alcohol, the per capita consumption (15+) from 1995 Kenya had consumption of 5.0 litres, which compares with levels found in the high range African countries such as Swaziland (4.1 litres), Rwanda (4.3 litres), Burundi (4.7 litres), Seychelles (5.2 litres), Zimbabwe (9.0 litres) and Uganda (10.7 litres) (WHO, 2004).

The NACADA (2007) countrywide survey indicated a current usage of alcohol among persons aged 15-65 years was 14.2% with male consumption being 25.9% and female consumption being 6.1%. Other rates of consumption were: rural - 13.0%, urban - 17.7%; legal/packaged alcohol – 9.1%, traditional 4%. The rate of use of any type of alcohol among male is highest in Coast province (34.6%), followed by Central province (33.2%), Nyanza province at (31.8%), Eastern province at 28.9%, Nairobi (26.9), Rift Valley (23.4) and Western (12.8) (NACADA, 2007). Muranga was the leading county in terms current prevalence of 25.5% with current male comsumption of alcohol being 49.4% and consumption of second generation of alcohol was 52.8% (NACADA, 2010). The findings of National Survey on alcohol and drug abuse (NACADA, 2012), shows that the prevalence of current alcohol consumption in the country stands at 13.3% but the worring trend is that onset age has decreased to less than 10 years. It is notable however that Central region has recorded a steady decline in alcohol consumption from 17.7% in 2007 to 9.2% in 2012 (NACADA, 2012). However, according to the same study, there was an increase in those reporting the use of chang'aa from 3.8% in 2007 to 4.2% in 2012. Also, the survey found out that there is a reduction in those reporting use of packaged /legal alcohol and traditional liquor. Further, the NACADA (2012) study also indicates that dependency on alcohol stands at 5.5%.

Alcohol abuse is responsible for a wide variety of harmful effects ranging from failing health, to diminished productivity, social disharmony, exposure to HIV/AIDS, even death among others (NACADA, 2010). Other effects included: episodes of loss of consciousness; inability to meet financial obligations; having multiple sex partners; threatened and attempted suicides; motor vehicle accidents and domestic violence. Others include community level effects such as: low school enrollment; high school drop-out rates; poor results in national examinations; decreased employability; marital breakdown; and infertility (NACADA, 2010). Between April and August

2010, more than 45 People lost their lives while others went blind following the consumption of adulterated alcohol in Shauri Moyo, Kibera, Kiambu and Laikapia.

One notable incident happened in November 2010 when consumption of *kumi kumi* resulted in 140 deaths and lose of sight among some users in Mukuru kwa Njenga and Mukuru Kaiyaba. Similar incidents have also been reported in Muranga (Muthithi and Kabati areas), Naivasha and Machakos. These incidents created an urgent need to prevent and control alcohol abuse in Kenya.

In an effort to control alcohol abuse in the country, the Government has enacted various laws focusing on production, manufacture, sale and consumption of alcoholic drinks. They include: Liquor Licensing Act Cap 121; Chang'aa Prohibition Act Cap 70; Industrial (Possession) Act Cap 119; Compounding of Portable Spirits Act Cap 123; Methylated Spirits Act Cap 129 and Alcoholic Drink Act (2010).The Alcoholic Drinks Control Act came into force on the 22nd of November, 2010. The Act controls and regulates the production, manufacture, sale, labelling, promotion, sponsorship and consumption of alcoholic drinks. The Act seeks to; protect the health of individuals; protect the consumers of alcoholic drinks from misleading and deceptive inducements; protect the health of persons under the age of 18 years; inform and educate the public on health effects of alcohol abuse; adopt and implement measures to eliminate illicit trade in alcohol like smuggling; promote and provide for treatment and rehabilitation programmes; and promote research and dissemination of relevant information. More importantly, the legislation seeks, among other things, to mitigate the negative health, social and economic impact resulting from the excessive consumption and adulteration of alcoholic drinks. The Act also seeks to legalize the production and consumption of *chang'aa* by repealing the Chang'aa Prohibition Act. It provides for the legalising of *chang'aa* and its manufacture to conform to prescribed standards (Republic of Kenya, 2010). Some of the key provisions include prohibition of the sale of alcoholic drinks to persons under the age of 18 years; prohibition of sale of alcoholic drinks in sachets or in a container less than 250 ml; and provision of mandatory warning labels on information and potential health hazard as well as statement on the constituents of the alcoholic drink. Such health warnings and messages include: excessive alcohol consumption is harmful to your health, excessive alcohol consumption can cause liver cirrhosis (liver disease) and not for sale to persons under the age of 18 years (Republic of Kenya, 2010).

One of the challenges facing the mitigation of alcohol abuse in Kenya is the full implementation of alcohol related laws including Alcoholic Drinks Act, 2010. However in Muranga East district, a woman organization called *Maendeleo ya Wanawake* mobilized fellow women to support the implementation of the Alcoholic Drinks Control Act, 2010. The women ensured that this law which governed sale and consumption of alcoholic drinks was implemented to the letter. These women had held peaceful demonstrations in support of the Alcoholic Drinks Control Act 2010, they raided bars and entertainment venues contravening the Act, specifically those flouting the laws on opening and closing hours or those selling alcoholic drinks that do not meet the

stipulated standards. These women partnered with the Provincial Administration to ensure strict enforcement of the Alcoholic Drinks Control Act, 2010.
Against this background, the study aimed at determining the effectiveness of the efforts of *Maendelo ya wanawake* and other community initiatives in mitigating alcohol abuse in Muranga East district, Kenya.

1.2 Statement of the Problem

Alcohol abuse has been an area of major concern in Kenya especially former Central Province due to its far reaching impacts on the individuals, families and communities. Among the many efforts by the government to solve the alcohol problem has been enactment and enforcement of laws that control alcohol abuse. However, the enforcement agencies are often overstretched by the limited resources available and therefore, legislation and policy measures alone cannot fully address the reduction of harm related to alcohol use. Thus, family and community empowerment programmes become important strategies to reduce harm from alcohol use in the community. Family and community members have a significant role in the prevention of alcohol-related problems, especially the role of parents and key community leaders in encouraging abstinence, promoting alcohol free activities, conveying appropriate messages with regard to consumption and problems and monitoring any negative situation.

A notable aspect in the community response has been the involvement of women's groups in demonstrating against the sale and consumption of alcohol in localized areas. The impact of these and similar movements have not been adequately evaluated either in terms of the broader parameters related to alcohol consumption or the long-term sustainability. It is worth noting that these attempts are due to the intense immediate pressure generated against the high perceived prevalence of alcohol consumption and subsequent adverse consequences. There is therefore need to assess the effectiveness of such efforts as national alcohol prevalence statistics of 2012 (NACADA, 2012) have shown that there has been decline in prevalence especially in former central province where those demonstrations took place. The current study aimed to determine the effectiveness of the prevention efforts by Maendelo ya Wanawake; a group that mobilized fellow women to demonstrate in support of full implementation of alcoholic drink control act, 2010. Muranga was purposively selected because it has been worst hit by harmful alcohol abuse and there existed Maendelo ya Wanawake initiative that attempted to mitigate this harmful use of alcohol by supporting enforcement of Alcoholic Drink Control Act.

1.3 Rationale

Alcohol use and its related harm depend on the socio-cultural milieu in which it is used. Policies, legislation, enforcement, cultural norms, alcohol industry activities, the services available, level of empowerment of communities and individual perceptions are some of the factors that contribute to the initiation of use, maintenance and behaviours that lead to harm from alcohol use.

Therefore, social cultural milieu is important in understanding etiology and prevention of alcohol abuse. Research has shown that efforts by community people were likely to have the greatest and most sustainable impact in solving local problems.

When community resources are tapped, efforts are more likely to be based on concepts and ideas that are ethnically and culturally appropriate for that unique community (The Center on Child Abuse and Neglect (CCAN), 2000). Therefore, successful prevention programs are supposed to be "owned" by the targeted community herself.

1.4 General Objective

To establish the effectiveness of community based interventions to mitigate harmful alcohol use in Murang'a East district.

1.4.1 Specific Objectives

i) To assess nature, extent and trend of alcohol abuse in the community
ii) To establish community based interventions used to mitigate harmful alcohol use
iii) To document the effectiveness of community based interventions to mitigate harmful alcohol use as demonstrated by Maendeleo ya Wanawake.
iv) To assess critical programmatic issues that hinder the success of current community based interventions
v) To establish the sustainability of community based interventions to mitigate harmful alcohol use

1.5 Research Questions

i) What is the nature, extent and trend of alcohol abuse in the community?
ii) What is the current community based interventions used to mitigate harmful alcohol use?
iii) What is the effectiveness of community based interventions to mitigate harmful alcohol use as demonstrated by Maendeleo ya Wanawake?
iv) What are the critical programmatic issues that hinder the success of current community based interventions?
v) How sustainable are community based interventions in mitigating harmful alcohol use?

1.6 Theoretical Framework

The study was essentially eclectic in its theoretical framework. It borrowed heavily from community readiness model, social learning and communication theories. The community readiness theoretical model is based on several underlying premises: 1) that communities are at different stages of readiness for dealing with a specific problem, 2) that the stage of readiness can be accurately assessed, 3) that communities can be moved through a series of stages to develop, implement, maintain, and improve effective programs and, 4) that it is critical to identify the stage of readiness because interventions to move communities to the next stage differ for each stage of readiness (Edwards, Jumper-Thurman., Plested, Oetting, & Swanson (2000).

In community readiness model, it is hypothesized that community is a powerful instrument to plan for prevention strategies (Rothman, 1979). The community leadership and local residents were mobilized for data collection and implementation of drug prevention programs. The study also borrowed from Bandura social learning theory. The model suggests that new behaviors can be induced from exposure to powerful models and are maintained through social reinforcement (Bandura, 1977). The persuasive tools/influences were considered to be the community norms, village leaders, parents and grandparents, significant others and peers. The communication theory supplemented the other above mentioned theories. The theory states that communication is effective if it flows freely in a communication loop between the sender(s) and receiver(s). Free flow means uninterrupted transmission of the information or the message through an appropriate medium, correct comprehension of the message by the receiver and a relevant and appropriate feedback from him or her. There is need for correct, appropriate and consistent communication between the community preventionists and community members.

CHAPTER TWO: LITERATURE REVIEW

2.1 Nature, Extent and Trend of Alcohol Abuse

Nature was used to refer individual usage of alcohol in lifetime, past year and current usage. Extent was used to mean the community perception on alcohol consumption in the area in terms of underage, binge, legal, illicit and traditional alcohol. The trend of alcohol usage was examined by asking respondents their views on whether the alcohol usage was increasing, decreasing or constant in their own area

2.1.2 Lifetime and Current Usage of Alcohol

NACADA survey of 2012 indicates decline in lifetime (2007:39.2%; 2012: 29.9%) and current usage (2007:14.2%; 2012:13.6%) of alcohol. The same decline is noted in both lifetime (2007:42.4%; 2012:24.9%) and current alcohol (2007:17.7%; 2012:10%) usage in the former Central Province where Muranga East district is situated. A study done by NACADA (2010) indicated lifetime provincial prevalence was 29.7% with Nyeri district leading with 38.8% and the least being Maragua (18%) whereas Muranga was 31.2%. According to same study current alcohol usage for central province was 18.1% with Muranga district leading (25.5%).

2.1.2 Alcohol Usage by Type

In terms of lifetime and current alcohol usage by type nationally, packaged alcohol was leading type in 2007 (lifetime: 24.1%; current: 9.1%) and 2012 (lifetime:19.3%; current:8.6%), followed by traditional liquor (2007: lifetime:22.1%, current:5.5%; 2012:lifetime: 12.5%, current:4.0%) and Changaa (2007:lifetime:15.1%, current:3.8%; 2012:lifetime:10.3%, current:4.2%). It worth noting the current usage for Changaa has gone up from 3.8% in 2007 to 4.2% in 2012. In NACADA study of 2010 of Central Province, first generation packaged alcohol was leading type (48.4%), followed by second generation (40.3%), traditional liquor (9.9%) and changaa (1.4%). Across the districts, the usage of the first generation alcohol ranged from a low of 34.8% for Kirinyaga to a high of 60.6% for Maragua. The use of second generation alcohol ranged from a low of 19.7% for Maragua to a high of 51.3% for Kirinyaga and 52.8% for Murang'a.The traditional liquor usage was highest in Maragua (19.7%) and lowest in Thika (3.5%) and Murang'a (3.5%).

2.1.3 Gender Differences in Alcohol usage

Both national and central province surveys indicate men more than women were likely to be users of alcohol in lifetime and current measures. In 2007, there 53.2 and 25.8% of men and women who said that they ever used alcohol but this decline in 2012 survey (male: 41.9%; female: 17.4%). Current usage for men in 2007 and 2012 was 22.9 and 21.9% respectively. Current usage for women was constant both 2007 and 2012 at 5.9%.

The study conducted in Central Province by NACADA (2010), 34.4 and 32% of men and female had used alcohol 30 days preceding the study. Muranga (49.4%) and Maragua (14.3%) were districts with highest and lowest male prevalence respectivetly.

Kirinyaga was the district with highest (8.1%) female prevalence whereas Thika (0.5%) and Maragua (0.5%) had the lowest. Disaggregating by gender and districts, the survey revealed that men from Muranga and Kirinyaga had the highest usage of second generation alcohol (22.4% and 20.4% respectively) with those in Kirinyaga having the highest usage of chang'aa (50%). Women from Kirinyaga had the highest usage of any type of alcohol including all the users of chang'aa, two-thirds of second generation users and nearly 60% of the traditional liquor users.

2.1.4 Age Differences in Alcohol Usage

Whereas prevalence both national and central province indicate that alcohol usage is declining, the worrying trend is age of first usage. Fact Finding Mission Report on the Extent of Alcohol and Drug Abuse in Central Province (NACADA, 2009) found out that alcohol use begins as early as 10 years of age with the highest use being among those aged between 15-35 years (NACADA, 2009). The people aged 25 to 35 who reported they had ever used alcohol were 41.8 and 33.6% as compared to those aged 10-14 who reported 7.8 and 3.0 % in 2007 and 2012 respectively (NACADA, 2007; NACADA, 2012). It is worth noting that current use of alcohol in 2012 (17.6%) was more than that of 2007 (16.4%). NACADA survey (2010) indicated that the number of community participants who reported high existence of alcohol consumption under aged 18 years were 25.6 and 5.8% for male and female respectively. The "very high" usage was reported for ages 25-34 years (males, 78.7%, females, 14.5%) and 19 – 24 years (male, 76.6%, female, 13.5%). Equally significant usage was reported for ages 35-54 years (male, 76.1%, female, 10.4%) and 55 years and above (male, 27.1%, female, 4.8%).

2.1.5 Rural and Urban Differences in Alcohol Usage

Past surveys have shown rural urban differences in terms of usage both in lifetime, current and alcohol usage by type. The urban residents indicated about 40.2 and 17.7% used, ever used and were currently using in 2007 and this declined to 31.6 and 17% in 2012 respectively. For the rural dwellers, 38.8 and 29.2% had ever used alcohol whereas 13 and 11.8% were currently using the drug in 2007 and 2012 respectively. The 2012 survey reveals that rural dwellers were more likely to have used traditional liquor (15%) than the urban dwellers (8.5%). Furthermore, men and women in urban centers (25.1%) were more likely to have consumed packaged or legal alcohol than those in rural areas (15.9%). Rural men and women are more likely to have consumed chang'aa (11.6%), compared to urban men and women (8.2%).

2.1.6 Extent of Alcohol Usage

The results of the survey of NACADA (2010) indicated about two thirds of community members perceived alcohol usage to have been high (65.4%) in former central province. Kiringaya was district with highest perceived usage of alcohol (75.4%), followed by Muranga (74.2%), Nyeri

(74.2%), Kiambu (66.5%), Maragua (60.5%), Nyandarau (60%) and Thika (53.8%) in that order. This perceived high level of usage of alcohol and its far reaching consequences motivated community members in province and district under study to hold demonstrations against the usage and in support of alcoholic drink control act which was to regulate this usage.

2.1.7 Trend of Alcohol Abuse

A majority of 81.4% felt that the second generation was increasing compared to 11.4% and 5.3% who felt it was decreasing or constant (NACADA, 2010) . Over half (58.6%) of the respondents felt that the first generation alcohol was decreasing. More people felt that traditional liquor and *chang'aa* usage was more of constant than increasing or decreasing. In all the districts the population agreed that second generation alcohol was increasing in their areas, ranging from a low of 55.4% for Thika to a high of 92.8% for Murang'a (NACADA, 2010).

2.2 Effects of Alcohol Usage

Alcohol abuse is responsible for a wide variety of harmful effects ranging form failing health, to diminished productivity, social disharmony, exposure to HIV/AIDS, even death among others. NACADA survey (2010) found out that alcohol abuse has several adverse effects to the individual, the household and the community. Such effects included: episodes of loss of consciousness (37.4%) ; inability to meet financial obligations(36.1%) ; having multiple sex partners (19.2%), reduced sexual activity (18.3%), threatened 4.8% and attempted (4.0%) suicides; motor vehicle accidents(9.3%) and domestic violence (batter spouse:13.0%, bartered own children:5.3%, fought with parents:3.5%; fought with other family members:19.8%) . Others include community level effects such as: low school enrollment; high school drop-out; poor results in national examinations; decreased employability (15.3%); marital breakdown (divorce and separation: 11.4%); rape (raped: 0.3%; raped someone: 0.7% and infertility (2.5%).

2.3 Global and National Efforts to Control Alcohol Abuse

The global strategy to reduce the harmful use of alcohol was endorsed by the Sixty-third World Health Assembly in May 2010 and the strategy builds on several WHO global and regional strategic initiatives and represents the commitment by WHO Member States to sustained action at all levels. The strategy contains a set of principles that should guide the development and implementation of policies at all levels; it sets priority areas for global action, recommends target areas for national action and gives strong mandate to WHO to strengthen action at all levels.

The strategy has five objectives:

a) Raised global awareness of the magnitude and nature of the health, social and economic problems caused by the harmful use of alcohol, and increased government commitment to act to address the harmful use of alcohol;

b) Strengthened knowledge base on the magnitude and determinants of alcohol-related harm and on effective interventions to reduce and prevent such harm;

c) Increased technical support to, and enhanced capacity of, Member States to prevent the harmful use of alcohol and manage disorders caused by the use of alcohol and associated health conditions;

d) Strengthened partnerships and better coordination among stakeholders, and increased mobilization of resources required for appropriate and concerted action to prevent the harmful use of alcohol;

e) Improved systems for monitoring and surveillance at different levels, and more effective dissemination and application of information for advocacy, policy development and evaluation purposes.

2.3.2 Regulating the Availability of Alcohol

Various legislative measures have been/could be used for reducing alcohol consumption, and thereby the harm from its use, by limiting the physical availability of alcohol. There is evidence that limiting the easy availability of alcohol influences the rates of alcohol-related injuries and other problems (Klingemann, 1993).

2.3.3 Minimum Legal Purchasing or Drinking Age

Setting a minimum legal age limit for purchase or drinking alcohol is a measure targeted at the youth by restricting their access to alcohol. Evidence suggests that consumption of alcohol is usually influenced by the age at which alcohol is legally available (on or off licence) and a higher age for purchasing/drinking is effective in reducing alcohol-related problems and the consumption of alcohol by minors (Grube, 2001).

2.3.4 Restrictions on Sales

There are a number of policy options to limit the sales of alcohol to consumers, such as; restricting the number, density and locations of sales outlets; limiting hours and days of sale; and imposing other restrictions on sale. Studies have shown that measures such as the closing of sales outlets or restriction of sale at certain time of the day/specific days like religious days or pay-days, restrictions on the sale of high alcohol content beverages or rationing the amount of alcohol sold to an individual, could reduce social and health related problems linked to alcohol use in the short and long-term (Klingemann, 1993; Chikritzhs, 2002; Babor, 2003).

2.3.5 Total Prohibition or Ban on Alcohol

Worldwide experiences show that total prohibition on the production, sales, and consumption of alcohol usually does not succeed, unless firmly rooted in the local culture or strong religious convictions of the majority of the population (Ritson, 1994). On the other hand, Alcohol consumption is influenced by the age of legal availability.

Restricting the number, density and location of sales outlets, as well as the hours and days of sales can effectively limit the sale of alcohol - related problems, it could also promote organized crime and corruption through cross-border smuggling and brewing of illicit liquor (Levine, 2004).

2.3.6 Measures against Drunk-Driving

Research indicates that the risk and severity of road traffic injuries increases with drunk-driving (Cheriptel, 2003). This suggests that driving under the influence of alcohol, even when the Blood Alcohol Concentration (BAC) is within the legal limit, has a higher risk, particularly for new and young drivers. Effective counter-measures include: setting the legal BAC at an appropriate level, and if possible, lowering the legal BAC level; having an active surveillance system for drunk-driving; swift punishment(s) including license suspension; and measures for high-risk groups, such as setting a specific lower level of legal limit of BAC among new and young drivers and commercial drivers ("zero tolerance").

2.3.7 Regulating Alcohol Production and Distribution

Legislative control of the production, marketing and sale of alcohol could take two positions from total control of production and/or sales (state monopoly) on one side to absolutely no control (total liberalization) on the other extreme. Studies of the effects of privatizing alcohol retail sale monopolies have shown that there was some increase in the levels of alcohol consumption and alcohol-related problems, due in part to the increase in number of outlets and hours of sales that increased with privatization measures, based on profit motives (Her, 1999).

2.3.8 Advertising Restrictions

Alcohol advertising has the potential of promoting changes in attitudes and social values, including publicizing the desirability of social drinking to its viewers, which all encourage a higher consumption of alcohol and weakens the social climate towards effective alcohol control policies. In countries where advertising in the media is not totally banned, there is frequent portrayal of alcohol in the media, particularly in magazines, newspapers and television, especially of internationally branded beverages. The mainstream of these portrayals suggests alcohol use as a harmless pursuit, showing solidarity, friendship and masculinity, while neglecting any negative consequences. It is known that advertising can influence consumer choices, have a positive short-term impact on knowledge and awareness about alcohol, but it has proved difficult to measure the exact effects of advertising on the demand for alcoholic beverages, in part because the effects are likely to be cumulative and long-term. Recent literature suggests that advertising and other marketing activities increase the overall demand, and influence teenagers and young adults towards higher consumption and harmful drinking (Saffer, 2006).

2.3.9 National Efforts to Control Alcohol Usage

At the national level, the Government of Kenya (GoK) has recognized the threat posed by alcohol and drug abuse and ratified many International Conventions and Regional Protocols deal with control of alcohol and drug abuse.The United Nations General Assembly Special Session (UNGASS, 1988) as cited in NACADA (2011) requested that member states (Kenya is member) address drug abuse in a holistic manner and that they set up effective drug prevention, treatment and rehabilitation programmes which are culturally valid and based on knowledge acquired from research as well as lessons derived from past programmes.

As an effort to control alcohol abuse within the country, the Government has enacted various laws focusing on production, manufacture, sale and consumption of alcoholic drinks. These include: Liquor Licensing Act Cap 121; Chang'aa Prohibition Act Cap 70; Industrial (Possession) Act Cap 119; Compounding of Portable Spirits Act Cap 123; Methylated Spirits Act Cap 129 and alcoholic drink act (2010). The Alcoholic Drinks Control Act came into force on the 22nd of November, 2010. The Act controls and regulates the production, manufacture, sale, labelling, promotion, sponsorship and consumption of alcoholic drinks. The Act seeks to; protect the health of individuals; protect the consumers of alcoholic drinks from misleading and deceptive inducements; protect the health of persons under the age of 18 years; inform and educate the public on health effects of alcohol abuse; adopt and implement measures to eliminate illicit trade in alcohol like smuggling; promote and provide for treatment and rehabilitation programmes; and promote research and dissemination of relevant information.

More importantly, the legislation seeks, among other things, to mitigate the negative health, social and economic impact resulting from the excessive consumption and adulteration of alcoholic drinks. The Act also seeks to legalize the production and consumption of *chang'aa* by repealing the Chang'aa Prohibition Act. It provides for the legalising of *chang'aa* and its manufacture to conform to prescribed standards (Republic of Kenya, 2010). Some of the key provisions include prohibition of the sale of alcoholic drinks to persons under the age of 18 years; prohibition of sale of alcoholic drinks in sachets or in a container less than 250 ml; and provision of mandatory warning labels on information and potential health hazard as well as statement as to the constituents of the alcoholic drink. Such health warnings and messages include: excessive alcohol consumption is harmful to your health, excessive alcohol consumption can cause liver cirrhosis (liver disease) and not for sale to persons under the age of 18 years (Republic of Kenya, 2010).

2.4 Community Prevention Efforts on Alcohol Abuse

Primary prevention programs are designed to discourage experimentation and especially regular use of drug. The program usually target late childhood or adolescence; first risk period for drug use onset.

According to studies by the National Institute on Drug Abuse (NIDA) and the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the younger a person first uses drugs or alcohol, the greater the likelihood that they will become dependent and/or addicted to drugs and alcohol as an adult (Grant & Dawson, 1997). Youth who first smoke marijuana under the age of 14 are more than five times as likely to abuse drugs in adulthood. Forty-five percent of youth who began drinking before age 15 were classified as dependent later in life whereas of youth who began drinking between the ages of 17 and 21, 24.5 percent were classified as dependent, and of youth who began drinking at age 21 or 22, 10 percent were classified as dependent (Grant & Dawson, 1997). It is therefore critical to delay the age of first initiation. Moreover, addiction being a chronic disease that is not completely curable but preventable and treatable, substance abuse prevention is critical in arresting this problem.

2.5.1 Channels of Prevention

Effective prevention hinges on the extent to which schools, parents, law enforcement, healthcare providers, the faith community, and other community groups work comprehensively and collaboratively through community-wide efforts to implement a full array of education, prevention and enforcement strategies (Treno, Gruenewald & Lee, 2007). Several primary prevention programs have been implemented using the following channels of delivery: schools, community, family and mass media. The most common kind of prevention program is school based in which prevention is delivered by teachers or teacher counselors. School based program draw on theories of social influence and teach peer pressure resistance and social competence skills. Many school based drug prevention programs have borne little success because they focused on increasing knowledge or changing attitudes rather than changing behavior (Flay, 1985).

Programs that intervene at family rely on secondary or tertiary prevention approaches with parents and are often aimed at changing behavior of adolescents who have history of drug abuse. These programs often use trained therapists to identify family dynamics that may encourage adolescents to experiment with drugs (Quinns, 1988).

In addition to school and family programs is mass media. Mass media is important in increasing awareness and knowledge of prevention skills but less extent motivate behavior change. However, any mass media prevention programs work well when complemented with other prevention programs. Next channel is grass root community programs that involve community agencies, businessmen and community leaders (Johnson *et al*. 1990).

The question that remains unanswered is: whether a single channel program is sufficient to effect significant and lasting changes in adolescents' drug use behaviors. The adolescents face pressure to use ATOD from multiple sources: family, peers, school. Mass media and environmental models represented by community policies regarding drug use. Theory and research argue strongly for a comprehensive approach to drug prevention with adolescents that address these multiple influences use drugs.

It is logical that a comprehensive community intervention would include multiple channels to increase intervention exposures, that the program channel would represent means to resist the influences on adolescent drug use and the use would be designed to promote community support of drug prevention practices and social norms for non-drug use (Johnson *et al*. 1990).

2.5 Community Readiness and Prevention of Alcohol Abuse

Community readiness is the extent to which a community is adequately prepared to implement programs, policies and other changes designed to prevent or reduce likelihood of ATOD (Birkby, 2004). Identifying a serious level of risk in a community does not always translate into community readiness to take action. In order to stand a chance of success, prevention and intervention strategies introduced in the community must be consistent with their readiness of problem and readiness for change (Plested, Thurman, Edwards & Oettings, 1998). A community's readiness to undertake such an effort significantly impacts the effectiveness and overall continuity (sustainability) of the effort. Assessing a community's readiness is critical in the early planning and decision-making processes of a comprehensive change effort and is considered a pre-requisite for sustainability. There are several models of community readiness assessment; each model has advantages and drawback. The current survey will borrow a lot from Community Readiness Survey of Tri-Ethnic Center because it emphasizes that planning, funding, implementation and sustainability of prevention programs lies in the hands of community.

The community readiness was originally developed at tri-ethnic center for prevention research at Colorado State University USA to address community alcohol and drug abuse prevention efforts. Based on studies of many small communities, researchers have identified nine stages of readiness that can guide prevention planning (Plested *et al.* 1998). Applying measures to assess readiness, prevention planners can then identify the critical steps needed to implement programs. The model identifies six dimensions of community readiness: community efforts, community knowledge of the efforts, leadership, community climate, community knowledge about the issue, and resources related to the issue. After assessing the six dimensions the community could be placed any of nine stages of readiness.

Table 2.1: Community Readiness and Community Action

Readiness stage	Description of stage	Community action
1. No awareness	Issue is not generally recognized by community as a problem. There is relative tolerance of alcohol abuse	Create motivation. Meet with community leaders involved with drug abuse prevention; use the media to identify and talk about the problem; encourage the community to see how it relates to community issues; begin preplanning.
2. Denial	Not happening here, can't do anything about it. There little recognition that it happening locally	
3. Vague awareness	People there are concerned of the problem but there is no immediate	

Readiness stage	Description of stage	Community action
	motivation to do anything about it.	
4. Pre-planning	There is clear recognition that there is a problem and something needs to be done and could be a group addressing it but efforts are not focused and detailed. Leaders are aware and there some motivation	
5. Pre-paration	Active energetic leadership begin planning and community offers modest support to the efforts.	Work together. Develop plans for prevention programming through coalitions and other community groups.
6. Initiation	Enough information is available to justify the efforts. Activities are underway. Data used to support prevention actions	Identify and implement research-based programs.
7. Stabilization	Activities are supported by administrators and community decision makers. Community generally supports existing program. Staff are trained and experienced	Evaluate and improve ongoing programs.
8. Confirmation	Community members feel comfortable using the services and decision makers support improving or expanding programs	Institutionalize and expand programs to reach more populations.
9. Professionalization	Detailed and sophisticated Knowledgeable exists about prevalence, causes, and consequences of alcohol problem. There are effective evaluation guides and new directions.	Put multi-component programs in place for all audiences.

Source: Plested *et al.* 1998

2.5.1 Promoting Community Action

The methods needed to motivate a community to act depend on the particular community's stage of readiness (Plested *et al.* 1998; NIDA, 2003). At lower stages of readiness, individual and small group meetings may be needed to attract support from those with great influence in the community. At higher levels of readiness, it may be possible to establish a community board or coalition of key leaders from public and private-sector organizations. This can provide the impetus for action. Community coalitions can and do hold community-wide meetings, develop public education campaigns, present data that support the need for research-based prevention programming, and attract sponsors for comprehensive drug abuse prevention strategies.

Research has shown that prevention programs can use the media to raise public awareness of the seriousness of a community's drug problem and prevent drug abuse among specific populations. Using local data and speakers from the community demonstrates that the drug problem is real and that action is needed. Mass media has been used both by the alcohol industry to promote its products and by governments to control the harm from alcohol use. While mass media is a popular means for attempting to control the harm from alcohol use, evidence suggests that complementary and reciprocal community actions pursued in conjunction are more effective than media campaigns alone (Jernigan, 1996).

2.6 Effectiveness of Community Preventation Efforts

NIDA (2003) indicates that community could assess prevention efforts by determining the programs that are currently in place in the community, whether strict scientific guidelines were used to test the programs during their development, do program match community efforts, are programs being carried out as designed and what percentage of those at risk are being reached by the program. Another evaluation approach is to track existing data over time on drug abuse among students in school, rates of truancy, school suspensions, drug-abuse arrests, and drug-related emergency room admissions. The use of the information obtained in the initial community drug abuse assessment can serve as a baseline for measuring change in long-term trends (NIDA, 2003).

CHAPTER THREE: METHODOLOGY

3.1 Study Area

The study was conducted in Murang'a East District which is located in Murang'a county, central region of Kenya about 100 Km North of Nairobi city. Murang'a County has 7 districts namely: Murang'a East, Kahuro, Murang'a West, Mathioya, Murang'a South, Kandara and Kigumo. Muranga East is made of four and eleven divisions and locations respectivetly as indicated in Table 3.1

Table 3.1: Administrative Units of Muranga East District

Division	Location
Kiharu	Township
	Mbiri
	Njoguini
Gikundi	Kambirwa
	Mirira
Kimathi	Rurii
	Githuri
Gaturi	Gathukeini
	Mugeka
	Nyakihai
	Gaturi

The study focusssed on two and three locations and sublocations respectivetly of Kiharu division which were purposivetly selected because that is where the demonstration of Maendeleo ya Wanawake took place and many members were coming from the two locations.

Table 3.2: Administrative Units of Kiharu Division

Locations	Sublocations
Township	Karuri

Locations	Sublocations
	Mukuyu
Njoguini	Kiangage
	Gikandu
	Njoguini
Mbiri	Maragi
	Muchungucha

3.2 Research Design

A cross sectional study design was used in the current survey to document community mitigation measures put in place to control alcohol abuse through the implementation of the Alcoholic Drinks Control Act, 2010. Both qualitative and quantitative data collection methods were used.

3.3 Variables of the Study

The main variables of the study included the following: nature, extent and trend of alcohol abuse; community interventions to mitigate alcohol abuse; effectiveness of community interventions; programmatic issues that hinder success of community interventions and sustainability measures of these community interventions.

3.4 Study Population

The study population constituted the residents of the Township division in Murang'a East District where community interventions by Maendeleo ya Wanawake have been documented.

3.5 Inclusion Criteria

a) Respondents who had resided in Murang'a Township for a period of at least 5 years
b) Respondents between the ages of 24 – 65 years
c) Respondents who consent to participate in the study

3.6 Exclusion Criteria

a) The respondents who gave inconsistent responses were dropped and replaced with others in same household
b) Members of household who were under the influence of any drug during the interview time were not allowed to participate in the study
c) Households or members of household who do not meet the above mentioned inclusion criteria were dropped from participation and were replaced

3.6 Sampling Procedure

The sample size was determined using a formula as shown below. Purposive, systematic and simple random sampling methods were used to select the area and participants.

3.6.1 Sample Size Determination

The prevalence of emerging drug use in the country is not known and 50% was assumed to estimate the sample size. Given that the sampling frame of the households in Murang'a Township was known (N=9063), the following formula by Kothari (2003) was used to determine sample size of households.

$$n = \frac{z^2.p.q.N}{e^2 (N-1) + z^2.p.q}$$

Where:

z = standard variate at a given confidence level
p = sample proportion of the population with the desired characteristics
q = 1-p
e = acceptable error (precision)
n = sample size
N = sampling frame or population

Therefore:

z = 1.96 (95% significance level)
p = 0.5
q = 0.5
e = 0.04

N= 9063 (population of households) (KNBS, 2009)

Based on the accuracy of data, the margins of error associated with sampling and other random effects at 95% confidence level were kept at a maximum of +/-4% for a sample size of 563 households. Hence a sampled size of 600 households was covered in the district. The sample size was distributed proportionately across the three sublocations as follows:

Table 3.3: Sample Size Distribution per Location

Location	No. of Households	Sampled Households
Njogu-ini	1915	127
Mukuyu	4458	295
Karuri	2690	178
Total	9063	600

Three focus group discussions (FGDs) with 8 participants each from the three sublocations were conducted. The membership of focused groups were as shown in Table 3.4

Table 3.4: Distribution of Participants in Focused Groups Discussion

Sublocation	Membership			Total
	Men	**Youth**	**Women/maendeleo ya wanawake**	
Njoguini	3	2	3	8
Mukuyu	3	2	3	8
Karuri	3	2	3	8
Total	**9**	**6**	**9**	**24**

The key informants were Maendeleo ya Wanawake leaders (n=9) and local leadership (n=18).

Table 3.4: Local Leaders Participants

Leader	Sublocation			Total
	Njoguini	**Mukuyu**	**Karuri**	
District Commissioner/DO			1	1
Chiefs	1		1	2
Assistant chiefs	1	1	1	3
Village elders	1	1	1	3
Faith based organization	1	1	1	3
Community based organization	1	1	1	3
Youth based organization	1	1	1	3
Total	**6**	**5**	**7**	**18**

3.7 Sampling Technique

Murang'a East district was selected purposively based on ongoing community based interventions to mitigate alcohol abuse by promoting implementation of the Alcoholic Drinks Control Act, 2010. Within each sublocation, a landmark (e.g. a church, school or tall building) was identified and selected to determine the random starting point. The direction of movement was determined by spinning a pen in the air and letting it drop on the ground. The date score was then used to determine the first household to be sampled. All the respondents between 24 – 65 years of age in the household were listed and one of them was randomly picked to fill the questionnaire. Subsequent households were selected using the random walk method, turning left at every junction. After administering the first questionnaire, systematic random sampling method was used where every 3rd household was selected to participate in the survey.

3.8 Research Instruments

Researcher administered questionnaire, key informant interview schedules for local leaders and Maendeleo ya Wanawake leadership were used to collect data. The instrument captured socio-demographic factors, community initiatives to mitigate alcohol abuse and the success in the implementation of the Alcoholic Drinks Control Act, 2010. A focused interview was used in the focus group discussions to explore experiences and possible divergent views of the respondents in the subject of study. From the focus groups, key informants (youth, female adult, member of maendeleo ya wanawake, local leader (village elder), Imam, pastor and male adult) were identified to fill the community readiness model tool to assess the community readiness for prevention.

3.9 Pre-testing

Pre- testing of the research instruments was done before the actual data collection to enhance validity and reliability of the responses. Pre-testing was done using a sample of 30 respondents from Kivumbini sublocation of Nakuru Municipality. Vague questions were rephrased to convey the same meaning to all participants while some comments made by respondents were also incorporated into the final questionnaires.

3.10 Methods of Data Collection

The instruments were researcher administered to minimize the rate of non-response. The questions were translated to Kiswahili prior to the data collection in cases of language barrier. This measure aimed at minimizing translation bias by standardizing the given set of questions.

The individual responses for focussed group discussions were captured both electronically and in writing. The interviews and focussed discussions were conducted according to the language acceptable to all, either English or Kiswahili.

3.11 Data Analysis

Data was organized, coded, and entered into the computer and analyzed using SPSS software version 17.0. Descriptive statistics namely frequencies, means and percentages were used to describe, and summarize findings. The findings are presented in form of tables.

Responses from open-ended questions, key informant interviews and FGDS were analyzed using content analysis, summarizing data to emerging themes. The generated information was used to supplement, explain and interpret quantitative data.

3.12 Ethical Consideration

Permission to carry out the study was given by the relevant authorization bodies: Kenyatta University Ethics Review Committee and the National Council of Science and Technology. Informed consents were sought from all the study participants by signing consent form. Anonymity, confidentiality and privacy of the study participants were safeguarded.

CHAPTER FOUR: RESULTS ANALYSIS AND PRESENTATION

4.0 Introduction

The results of the data analysis on effectiveness of community based interventions to mitigate harmful alcohol use in murang'a east district are presented. Also, the chapter gives a summary of demographic characteristics of the respondents. The data has been analyzed using frequencies and percentages. The text, cross tabulations, and bar graphs were used to present the data. SPSS, a Windows computer program version 17.0 aided in data analysis. All researcher administered questionnaires (n=600) were received but only 591 were included in data analysis as some were dropped due to inconsistent responses and non-responses. Overall response rate was 98.5%.

The research findings are guided by research questions as shown below:

i) What is the nature, extent and trend of alcohol abuse in the community?
ii) What is the current community based interventions used to mitigate harmful alcohol use?
iii) What is the effectiveness of community based interventions to mitigate harmful alcohol use?
iv) What are the critical programmatic issues that hinder the success of current community based interventions?
v) How sustainable are community based interventions in mitigating harmful alcohol use?

4.1 Demographic Characteristics of Respondents

The following is presentation of demographic characteristics of respondents: household participants, local leaders and Maendeleo ya Wanawake members.

4.1.1 Demographic Characteristics of Household Participants

The data was collected on following demographic characteristics of household participants: area of residence, sex, age marital status and religion. Data was also captured on indicators of social economic status that included the following: level of education, occupation, type of house and residence status.

Majority of the household participants were from Mukuyu (48.6%), were female (54.3%) and aged 25-36 (63.1%) as shown in Table 4.1.

Table 4.1: Distribution of Household Participants by Area of Residence, Sex and Age

Characteristic	Frequency	Percentage
Area of Residence		
Njoguini	125	21.2
Mukuyu	287	48.6
Karuri	179	30.3
Sex		
Male	270	45.7
Female	321	54.3
Age		

Characteristic	Frequency	Percentage
No response	5	.8
25-35	373	63.1
36-50	126	21.3
51-60	44	7.4
61-65	43	7.3

More than half of the household participants were married or living with a parner (50.9%) and those that were single or never married were 40.4%. In terms of religion, 54.7% were Protestants while as 7.8% were Muslims as indicated in Table 4.2

Table 4.2: Distribution of Participants by Marital Status and Religion

Characteristic	Frequency	Percentage
Marital Status		
No response	2	.3
Single/never married	239	40.4
Married/living with parner	301	50.9
Divorced	13	2.2
Separated	19	3.2
Widowed	15	2.5
Others	2	.3
Religion		
No response	2	.3
Catholics	203	34.3
Protestants	323	54.7
Muslims	46	7.8
Others	17	2.9

Many of the participants had completed secondary school education (37.4%), followed by primary (32.7%), diploma (15.6%) and university (7.1%). Almost thirty percent of participants were self employed, followed by formally employed (17.8%), casual laborers (17.4%) and unemployed (12.4%) in that order as shown in Table 4.3.

Table 4.3: Distribution of Household Participants by Level of Education and Occupation Status

Characteristics	Frequency	Percentage
Level of Education		
None	13	2.2
Primary	193	32.7
Secondary	221	37.4
Certificate	30	5.1
Diploma	92	15.6
University	42	7.1
Occupational Status		
No reponse	1	.2
Student	52	8.8
Unemployed	73	12.4

Characteristics	Frequency	Percentage
Self employed	173	29.3
Casual laborer	103	17.4
Farmer	56	9.5
Pensioner	13	2.2
Formally employed	105	17.8
Others	15	2.5

Majority of the participants were staying in rented houses (61.8%) and those staying in permanent houses were 74.3%. Those who were living in self owned houses were 30.6% as inidciated in Table 4.4.

Table 4.4: Distribution of Household Participants by Residential Status and Type of House

Characteristic	Frequency	Percentage
Residential status		
No response	2	.3
Self owned	181	30.6
Rented	365	61.8
Housed	42	7.1
Others	1	.2
Type of house		
No response	1	.2
Permanent	439	74.3
Temporary	151	25.5

Half of participants (50%) were from Njoguini sublocation because it had highest number of villages hence more elders were selected as participants. Furthermore, faith treatment and rehabilitation Konguini center is situated in the same location where managed and recovering alcoholics were purposively selected to participate in the study. More than half were male (62.5%), married/living with a partner (93.8%) and protestants (56.8%).

Table 4.5: Demographic Characteristics of Local Leaders

Characteristics	Frequency	Percentage
Area of Residence		
Njoguini	8	50.0
Mukuyu	5	31.3
Karuri	3	18.8
Sex		
Male	10	62.5
Female	6	37.5
Age		
25-35	4	25.0
36-50	8	50.0
51-65	4	25.0
Marital status		

Single/never married	1	6.3
Married/ living with partner	15	93.8
Religion		
Catholics	3	18.8
Protestants	9	56.3
Muslim	3	18.8
Others	1	6.3

The local leaders who had completed secondary education were 37.5%. Only one participant had completed university education (District Officer) as indicated in Table 4.6.

Table 4.6: Distribution of Local Leaders by Level of Education and Leadership Position

Characteristic	Frequency	Percentage
Level of Education		
Primary	3	18.8
Secondary	6	37.5
Certificate	3	18.8
Diploma	3	18.8
University	1	6.3
Leadership Position		
District Officer	1	6.3
Assistant Chief	2	12.5
Village Elder	5	31.3
Women Leader	1	6.3
Youth Leader	2	12.5
Pastor	1	6.3
Imam	1	6.3
Community Leader	2	12.5

4.1.3 Demographic Characteristics of Maendeleo ya Wanawake Members

Majority of Maendeleo ya Wanawake were from Mukuyu (37.7%) and Karuri (37.5%) because members were residents and demonstrations supporting Alcoholic drink control act of 2010 took place in these sublocations. Majority were married (75%), Catholics (50%) and had completed primary education (75%).

Table 4.7: Demographic Characteristics of Local Leaders

Characteristics	Frequency	Percentage
Area of Residence		
Njoguini	2	25.0
Mukuyu	3	37.5
Karuri	3	37.5
Age		
25-35	1	12.5
36-50	3	37.5
51-60	1	12.5

Characteristics	Frequency	Percentage
61-65	3	37.5
Marital Status		
Single/never married	2	25.0
Married/ living with partner	6	75.0
Religion		
Catholics	4	50.0
Protestants	3	37.5
Muslim	1	12.5
Level of Education		
None	1	12.5
Primary	6	75.0
Secondary	1	12.5
Position in Maendeleo ya Wanawake		
Leader	2	25.0
Member	6	75.0

4.2 Nature, Extent and Trend of Alcohol Abuse in the Community

The research question aimed to establish alcohol usage behaviors which included the following: Ever used (use of alcohol in lifetime but not in last 30 days preceeding the study), Early (use of alcohol before age 13) and late (use of alcohol at or after age 13) onset of alcohol use, current alcohol use (used alcohol last 30 days preceeding the study). Also perception of participants on prevalence and trend were assessed on following alcohol behaviors: underage use (use of alcohol before age 18) and binge drinking among adults (drinking of 5-five drinks of alcohol in a row), use of illicit, legal and traditional alcohol.

4.2.1 Individual Alcohol Usage Behavior

Household participants who had ever used alcohol were 46.7 % while those currently using were 21%. Those who used alcohol in past year were 19.1%. Beer was most used alcohol beverage (15.7%, followed by wine (4.6) and packed spirit (4.2%) as indicated in Table 4.8.

Table 4.8: Alcohol Behaviors among Household Participants

Behavior	Frequency	Percentage
Abstainers	315	53.3
Early on-set users	9	1.5
Late on-set users	267	45.2
Ever used	276	46.7
Alcohol Use in past 30 Days Preceeding the Study		
1 to 5 days	64	10.8
6 to 10 days	18	3.0
11 to 15 days	9	1.5
16 to 20 days	4	.7

Behavior	Frequency	Percentage
26 to 30 days	29	4.9
Current users	124	21
Past Year Alcohol use by Type		
Never used in past year	113	19.1
Beer	93	15.7
Wine	27	4.6
Packed spirit	25	4.2
Changaa	12	2.0
Busaa/Muratina	8	1.4
Second generation	2	.3
More above mentioned	27	4.6
Others	8	1.4

4.2.2 Alcohol Usage Behavior by Area of Residence, Sex and Age

Mukuyu was the sublocation with highest alcohol usage (ever used: 51.9%; current use: 50.8%) followed by Karuri for ever used (27.2%) and Njoguini for current usage (28.2%). Male (Ever used: 72.1%; current use: 81.5%) and people aged 25 to 35 years were more alcohol users (ever used: 61.6%; current use: 64.5%) than female and people of other age brackets.

Table 4.9: Alcohol Usage Behavior by Area of Residence, Sex and Age

Characteristic	Ever used				Current users			
	Abstainers		Users		Abstainers		Users	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Area of Residence								
Njoguini	73	23.2	52	18.8	90	19.2	35	28.2
Mukuyu	138	43.8	149	51.9	224	48	63	50.8
Karuri	104	33	75	27.2	153	32.8	26	21
Sex								
Male	71	22.5	199	72.1	169	36.2	101	81.5
Female	244	77.5	77	27.9	298	63.8	23	18.5
Age								
No response	2	.6	3	1.1	4	.9	1	.8
25-35 years	203	64.4	170	61.6	293	62.7	80	64.5
36-50 years	72	22.9	54	19.6	99	21.2	27	21.8
51-60 years	25	7.9	19	6.9	38	8.1	6	4.8
61-65 years	13	4.1	30	10.9	33	7.1	10	8.1

4.2.3 Alcohol Usage by Type and Area of Residence

Beer (49.5%) and spirit (56.6%) were the most used alcohol type at Mukuyu whereas wine (51.9%) was mostly used in Karuri. Chang'aa (58.3%) was commonly consumed in Njoguini and second generation was only used in Mukuyu.

Table 4.10: Alcohol Usage by Type and Area of Residence

Area	Njoguini		Mukuyu		Karuri	
	Freq.	%	Freq.	%	Freq.	%
Beer	15	16	46	49.5	32	34.4
Wine	4	14.8	9	33.3	14	51.9
Spirit	10	43.5	13	56.5	2	8.6
Changa'a	7	58.3	5	41.7	-	-
Busaa	2	25	2	25	4	50
Second generation	-	-	2	100	-	-
More than one type	6	22.2	14	51.9	7	25.9

4.2.4 Perceived Prevalence of Alcohol Behaviors

More than half of household participants (69%) and Maendeleo ya Wanawake (75%) respondents perceived that prevalence of binge drinking was high (fairly high plus very high) whereas for underage use only more than half of Maendeleo ya Wanawake perceived it as high (62.5%).

Table 4.11: Perception of Prevalence of Underage and Binge Drinking

Alcohol Behavior	Household Participants		Local Leaders		Maendelo ya Wanawake	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Underage Use						
No response	8	1.4	-	-	-	-
No prevalence	80	13.5	3	18.8	-	-
Very low prevalence	176	29.8	4	25.0	1	12.5
Low prevalence	74	12.5	5	31.3	2	25.0
Moderate prevalence	80	13.5	1	6.3	-	-
Fairly high prevalence	75	12.7	1	6.3	3	37.5
Very high prevalence	98	16.6	2	12.5	2	25.0
Binge Drinking						

Alcohol Behavior	Household Participants		Local Leaders		Maendelo ya Wanawake	
No response	10	1.7	-	-	-	-
No prevalence	14	2.4	1	6.3	-	-
Very low prevalence	41	6.9	3	18.8	1	12.5
Low prevalence	42	7.1	1	6.3	-	-
Moderate prevalence	76	12.9	5	31.3	1	12.5
Fairly high prevalence	155	26.2	1	6.3	3	37.5
Very high prevalence	253	42.8	5	31.3	3	37.5

The use of legal/packacked alcohol was perceived to have high prevalence by household participants (60.6%0, local leaders (43.8%) and Maendeleo ya Wanawake (50%). There was consensus that the prevalence of traditional alcohol was low (household participants: 34.3%; local leaders: 31.4% and Maendeleo ya Wanawake respondents: 25%) in Table 4.12.

Table 4.12: Perception of Prevalence of Traditional and Packacked/Legal Alcohol

Alcohol Behavior	Household Participants		Local Leaders		Maendelo ya Wanawake	
	Freq.	**Percent**	**Freq.**	**Percent**	**Freq.**	**Percent**
Traditional Alcohol						
No response	10	1.7	1	6.3	-	-
No prevalence	245	41.5	7	43.8	4	50.0
Very low prevalence	151	25.5	5	31.3	2	25.0
Low prevalence	52	8.8	2	12.5	-	-
Moderate prevalence	29	4.9	-	-	-	-
Fairly high prevalence	33	5.6	1	6.3	1	12.5
Very high prevalence	71	12.0	-	-	1	12.5
Legal Alcohol						
No response	15	2.5	-	-	-	-
No prevalence	26	4.4	1	6.3	-	-
Very low prevalence	55	9.3	3	18.8	2	25.0
Low prevalence	38	6.4	3	18.8	1	12.5
Moderate prevalence	99	16.8	2	12.5	1	12.5
Fairly high prevalence	146	24.7	2	12.5	3	37.5
Very high prevalence	212	35.9	5	31.3	1	12.5

The household participants, local leaders and Maendeleo ya Wanawake respondents who perceived that use of illict alcohol had either very high prevalence or fairly high prevalence were 20.1, 18.8 and 37.5% respectivetly Table 4.13

Table 4.13: Perception of Prevalence of Production, Distribution, Sale and Consumption of Illicit Alcohol

Alcohol Behavior	Household Participants		Local Leaders		Maendelo ya Wanawake	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Prevalence of Illicit Alcohol						
No prevalence	154	26.1	5	31.3	2	25.0
Very low prevalence	145	24.5	3	18.8	1	12.5
Low prevalence	45	7.6	3	18.8	-	-
Moderate prevalence	37	6.3	1	6.3	-	-
Fairly high prevalence	76	12.9	1	6.3	3	37.5
Very high prevalence	119	20.1	3	18.8	2	25.0
Production, Distribution and Sale of Illicit was Rampant						
Yes	304	51.4	9	56.3	5	62.5
No	238	40.3	7	43.8	3	37.5
Not sure	49	8.3	-	-	-	-
Consumption of Illicit Alcohol was Common						
Yes	321	54.3	11	68.8	5	62.5
No	230	38.9	5	31.3	3	37.5
Not sure	39	6.6	-	-	-	-
Consumers of Illicit Alcohol						
Children	1	.2	-	-	-	-
Youth (18-35)	358	60.6	11	68.8	1	12.5
Male Adults (Above 35)	139	23.5	3	18.8	6	75
Female Adults (Above 35)	2	.3	-	-	-	-

More than half of the participants perceived that production, distribution and sale of illicit alcohol was rampant (household participants: 51.4%; local leaders: 56.3%; Maendeleo ya Wanawake respondents: 62.5%) and its consumption was common (household participants: 54.3%; local leaders: 68.8%; Maendeleo ya Wanawake respondents: 62.5%) as shown in Table 4.13

4.2.2 Trend of Alcohol Behaviors in Past Five Years

Trend tried to answer the question, "is the alcohol abuse problem increasing (getting worse), decreasing (getting better) or remaining stable. According to most household participants and Maendeleo ya Wanawake respondents, the underage use (household: 44.7%; Maendeleo ya wanawake: 75%) and binge drinking (household: 60.7%; Maendeleo ya Wanawake: 75%) were increasing while local leader had a contrary opinion that the behaviors were decreasing (underage: 68.8%; binge drinking: 68.8%) as indicated in Table 4.14.

Table 4.14: Perception of Trend of Underage, Binge Drinking and Use of Legal Alcohol

Alcohol Behavior	Household Participants		Local Leaders		Maendelo ya Wanawake	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Underage Use						
Increasing	264	44.7	3	18.8	6	75.0
Decreasing	228	38.6	11	68.8	2	25.0
Same	37	6.3	2	12.5	-	-
Binge Drinking						
Increasing	359	60.7	3	18.8	6	75.0
Decreasing	168	28.4	11	68.8	2	25.0
Same	34	5.8	2	12.5	-	-
Use of Legal Alcohol						
Increasing	352	59.6	6	37.5	3	37.5
Decreasing	172	29.1	7	43.8	4	50.0
Same	36	6.1	2	12.5	1	12.5

Most household participants perceived that use of legal alcohol was increasing (59.6%) while most local leaders (75%) and Mandeleo ya Wanawake (50%) viewed that use was decreasing as indicated in Table 4.14.

Most household participants (55.3%), local leaders (68.8%) and Maendeleo ya Wanawake (50%) agreed that use of traditional alcohol was decreasing. Whereas most household participants (51.3%) and local leaders (75%) perceived that use of illicit alcohol was decreasing, half of Maendeleo ya Wanawake respondents (50%) indicated that it was increasing.

Table 4.15: Perception of Trend of Illicit and Traditional Alcohol Use

Alcohol Behavior	Household Participants		Local Leaders		Maendelo ya Wanawake	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Illicit Alcohol						
No response	4	.7	1	6.3	-	-
Increasing	215	36.4	3	18.8	4	50.0
Decreasing	303	51.3	12	75.0	3	37.5
Same	30	5.1	-	-	1	12.5
Not sure	39	6.6	-	-	-	-
Traditional Alcohol						
No response	3	.5	-	-	-	-
Increasing	152	25.7	2	12.5	3	37.5
Decreasing	327	55.3	11	68.8	4	50.0
Same	42	7.1	1	6.3	1	12.5
Not sure	67	11.3	2	12.5	-	-

4.3: Current Community based Interventions used to Mitigate Harmful Alcohol Use

The research question aimed at establishing Community Prevention Efforts (CPE) that have been used by Maendelo ya Wanawake and other governmental and non-governmental organizations.

Table 4.16: CPE used by Maendeleo ya Wanawake

Efforts	Household Participants		Local Leaders		Maendeleo ya Wanawake	
	Freq.	%	Freq.	%	Freq.	%
Enforcement of laws on alcohol abuse	186	31.5	10	62.5	6	75
Discouraging alcohol sponsorship community events	132	22.8	10	62.5	3	37.5
Initiating and encouraging alcohol free community events	126	21.8	9	56.3	2	25
Alcohol Retail compliance checks (time)	101	17.1	4	25	1	12.5
Reporting of outlets of illicit alcohol to law enforcement agency	141	23.9	7	43.8	4	50
Non-sale of alcohol to minors	163	27.9	6	37.6	5	62.5
Demonstration on excessive use of alcohol	250	42.3	8	50	8	100
Demonstrations on underage use of alcohol	238	40.3	7	43.8	8	100
Participation in school programs on alcohol abuse prevention	94	26.7	5	31.3	3	37.5
Participation in religious programs on alcohol abuse prevention	98	16.6	2	12.5	3	37.5
Support recovering addicts to maintain sobriety	75	12.7	4	25	-	-
Raiding the alcohol outlets that do not obey Mututho law	134	22.7	8	50	4	50
Demolishing of illicit alcohol dens	125	21.3	5	31.3	3	37.5
Community punishment	92	15.6	3	18.8	2	25
Organizing barazas for a talk on the effects of illicit alcohol	109	18.4	2	12.5	1	12.5
Co-opting FBO to fight alcohol abuse	124	21.0	2	12.5	2	25
Co-opting CBO to fight alcohol and drug abuse	127	21.5	5	31.5	1	12.5
Supporting police arrest of producers, sellers and consumers	151	25.5	5	31.5	4	50
Encouraging the prosecution of offenders Alcoholic Drink Control Act	124	21.0	4	25	4	50

According to household participants, local leaders and Maendeleo ya Wanawake respondents, the prevention efforts that were most commonly used by Maendeleo ya Wanawake were demonstrations against excessive alcohol use (household:42.3%; local leaders:50; Maendeleo ya Wanawake:100%), demonstrations on underage use of alcohol (household:40.3%; local

leaders:43.8; Maendeleo ya Wanawake:100%), enforcement of alcohol abuse laws ((household:31.5%; local leaders:62.5%; Maendeleo ya Wanawake:75%) and encouraging non-sale to minors (household:27.5%; local leaders:37.6 ; Maendeleo ya Wanawake:62.5%).

Other organizations or institutions were used in the study to refere to the police, provincial administration, faith based organizations, community based organizations and individuals who are not members of Maendeleo ya Wanawake and they were involved in community prevention efforts. More than a quarter of household participants, local leaders and Maendeleo ya Wanawake respondents agreed that organizing barazas (household: 28.6%; local leaders: 43.8%; Maendeleo ya Wanawake: 62.5%) and encouraging prosecution of offenders who violate Alcoholic Drinks Control Act (household: 31.3%; local leaders: 50%; Maendeleo ya Wanawake: 25%) were used by other organizations.

Table 4.17: CPE used by other Organizations or Institutions

Efforts	Household Participant		Local Leaders		Maendeleo ya Wanawake	
	Freq.	%	Freq.	%	Freq.	%
Enforcement of laws on alcohol abuse	165	27.9	2	12.5	1	12.5
Discouraging alcohol sponsorship community events	148	25	2	12.5	1	12.5
Initiating and encouraging alcohol free community events	126	21.3	3	18.8	1	12.5
Alcohol retail compliance checks (time)	156	26.4	4	25	1	12.5
Reporting of outlets of illicit alcohol to law enforcement agency	137	23.4	3	18.8	1	12.5
Non-sale of alcohol to minors	165	27.9	2	12.5	1	12.5
Demonstration on excessive use of alcohol	58	9.8	2	12.5	-	-
Demonstrations on underage use of alcohol	58	9.8	4	25	-	-
Participation in school programs on alcohol abuse prevention	158	26.7	3	18.8	2	25
Participation in religious programs on alcohol abuse prevention	173	29.3	6	37.6	1	12.5
Support recovering addicts to maintain sobriety	108	18.3	4	25	5	62.5
Raiding the alcohol outlets that do not obey Mututho law	108	18.3	2	12.5	3	37.5
Demolishing of illicit alcohol dens	115	19.5	4	25	3	37.5
Community punishment	109	19.5	4	25	1	12.5
Organizing barazas for a talk on the effects of illicit alcohol	167	28.3	7	43.8	5	62.5
Co-opting FBO to fight alcohol abuse	126	21.3	6	37.8	1	12.5
Co-opting CBO to fight alcohol and drug abuse	85	14.4	4	25	1	12.5
Supporting police arrest of producers, sellers and	169	28.6	5	31.3	1	12.5

Efforts	Household Participant		Local Leaders		Maendeleo ya Wanawake	
consumers						
Encouraging the prosecution of offenders under Alcoholic Drinks Control Act	185	31.3	8	50	2	25

Other prevention efforts not used by both the Maendeleo ya Wanawake and other organizations but the participants thought were appropriate included the following: alternative alcohol free entertainment joints, economic empowerment of youth and illicit alcohol brewers and sellers. In support of alternative alcohol free entertainment joints, Vincent Muiruri, a member of FGD Njoguini noted that;

> *Our community has made entertainment be recognized in terms of alcoholism. In the old days it was for older men only, but now parents take their children to bars. The football matches from Europe are loved by youth but the only place they can watch is in bars due to lack of DSTvs in our homes.We should have social halls that people who do not take alcohol can go and watch football. The playing ground were grabbed or those still existing are bushy…something needs to be done.*

The director of Faith rehabilitation and treatment center Konguini and Alzadini, FGD particapant supported economic empowerment of illicit brewers-sellers and youths respectivetly.

> *Unemployment has led to alcoholism due to idleness. So try to link … with jobs even if casual ones to keep them busy…..*Said Alzadini FGD participant of Mukuyu sublocation

> *Mama (baba) pima need to be identified and empowered economically instead of demonizing them. They need to be trained on alternative business for their source of income…*Said Peter Kamau, Director of Faith Rehabilitation and Treatment Center Konguini.

4.4 Effectiveness of Community based Interventions that Mitigate Harmful Alcohol Use

Effectiveness is the degree to which formally stated objectives have been achieved. At proposal level, the following were the indicators that were formulated to measure the effectiveness of Maendeleo ya Wanawake: needs assessment, appropriateness, fidelity, utilization, impact and monitoring. However, the fact that maendelo ya wanawake did not have organizational structure and functioning of a program and most of their activities were sporadic, there is need to accept from the onset it was difficult to assess its effectiveness. Against this background, the researchers decided to use only impact indicator to measure the difference (whether positive or negative effects) that the efforts of Maendeleo ya Wanawake have made in community. For example Faith Wanjiku, FGD participant of Njoguini said this about effects of Maendeleo ya Wanawake:

'Yes leadership of Maendeleo ya Wanawake mobilized other women after Mututho law came in force, we got changes-bars were closed during the day. It was fight between women and people from the village. We do not know what happened because now bars open whenever they like'....

Table 4.18: Effects of Prevention Efforts of Maendeleo ya Wanawake

Effects	Household Participants		Local Leaders		Maendeleo ya Wanawake	
	Freq.	%	Freq.	%	Freq.	%
Prevention of onset of alcohol use behavior	250	42.3	12	75	7	87.5
Delayed onset of alcohol use behavior	225	38.1	8	50	6	75
Reduced consumption of illicit alcohol use	265	44.8	11	68.8	8	100
Reduced school drop outs	247	41.8	11	68.8	6	75
Reduced production and sale of illicit alcohol	266	45	12	75	6	75
Strict enforcement of alcoholic drink control act 2010	219	37.1	7	43.8	7	87.5
Reduced alcohol related arrests	220	37.1	8	50	7	87.5
Reduced alcohol related illnesses	226	38.2	8	50	7	87.5
Decreased insecurity	204	34.4	6	37.5	6	75
Decreased rape cases	199	33.7	7	43.8	7	87.5
Decreased divorce and separation	210	35.5	8	50	6	75
Decreased domestic violence	215	36.4	10	62.5	7	87.5
Decreased financial neglect	201	34.6	9	56.3	6	75
Decreased alcohol related deaths	221	37.4	10	62.5	7	87.5
Decreased unemployment	162	27.4	5	31.3	6	75
Increase in performance in national examination	183	31.0	6	37.5	3	37.5

Most participants across board agreed that the prevention efforts of Maendeleo ya Wanawake contributed to reduced production and sale of illicit alcohol (household: 45%; Local leaders: 75%; Maendeleo ya Wanawake: 75%), reduced consumption of illicit alcohol (household: 44.8%; Local leaders: 68.8%; Maendeleo ya Wanawake: 100%), prevention of onset of alcohol behavior (household: 42.2%; Local leaders: 75%; Maendeleo ya Wanawake: 87%) and reduced school drop out (household: 41.8%; Local leaders: 68.8%; Maendeleo ya Wanawake: 75%) as indicated in Table 4.18. Virginia, FGD participant of Mukuyu sublocation summarized the effects of Maendeleo ya Wanawake prevention efforts as follows:

'Men used to sleep outside their homes, now they sleep at home. Women never used to get pregnant and had no young babies but now you see pregnant women and babies since alcohol abuse went down'

4.4 Critical programmatic issues that hinder the success of current community based interventions

The research question aimed at establishing challenges that hindered the optimal success of community prevention efforts by Maendeleo ya Wanawake and other organizations. In order to identify these challenges, the researchers used the community readiness model to identify the level of preparedness of community to take action on alcohol abuse problem.

The model uses six dimemsions to place a community in any of nine stages of readiness (Edwards, Jumper-Thurman, Plested, Oetting, & Swanson, 2000). Seven informant representative of key segments of community (youth, male adult, member of Maendeleo ya Wanawake, female adult, Imam and a pastor) were identified from focus groups and responded to a set of questions in six dimensions of community readiness model tool. The responses of the seven informants were scored and an average calculated for each dimemsion and for overall score. The dimension average identified the level of readiness of community in that particular dimension and overall average indicated the level of community preparedness to take prevention and intervention actions on alcohol abuse.

From community readiness model analysis, it was found that the community is on stage six and five in the dimensions of knowledge about alcohol abuse and available resources to support resources as indicated in Table 4.19. The community is on stage four on other dimensions (community efforts, knowledge of community efforts, community leadership support and availability of resources). In terms of overall readiness level, the community was on the preparation stage (stage five) which indicated that community members had general information about the alcohol abuse, pro and cons of prevention activities, policies and actions but it was not based on formally collected information. The community leadership offers modest support to prevention efforts; these efforts are not based on research based evidence.

Table 4.19: Level of Community Readiness on Alcohol Abuse Prevention Efforts

Dimension	Average score	Stage	Description and interpretation of community action
Community knowledge about alcohol abuse: To what extent do community members know about the causes and consequences of alcohol abuse?	6.1	6	A majority of community members know the signs and symptoms of the alcohol abuse and that it occurs locally
Community efforts: To what extent are there efforts, programs, and policies in your community that address alcohol abuse?	3.5	4	Some community members have met and have begun a discussion on developing community efforts.
Knowledge of community efforts: To what extent do community members know about local efforts?	3.8	4	Some members of the community know about local efforts
Community leadership support: To what			Leader(s) is/are trying to get

Dimension	Average score	Stage	Description and interpretation of community action
extent are appointed leaders and influential community members supportive of the efforts to deal with alcohol abuse in your community?	3.7	4	something started.
Community climate: What is the prevailing attitude of the community toward the alcohol abuse and prevention? Is it one of helplessness or one of responsibility and empowerment?	4.6	5	The attitude in the community is "we are concerned about this," and community members are beginning to reflect modest support for efforts.
Availability of resources to support alcohol prevention efforts: To what extent are local resources – people, time, money, space, etc. – available to support alcohol abuse prevention efforts?	3.7	4	The community has individuals, organizations, and/or space available that could be used as resources.
Overall Average	25.5	5	Preparation stage: Active leaders begin planning in earnest. Community offers modest support of efforts.

Analysis of awareness of community prevention efforts indicate that most local leaders were somewhat (50%) and very much aware (37.5%) than other participants. The explanation could be most of these local leaders are activetly involvement in enforcement of alcoholic drink control act that regulate production, sale and consumption of alcohol hence they are aware of these efforts. Surprisingly, Maendeleo ya Wanawake indicated moderate awareness levels of 50% of existing community prevention efforts which suggests that after they initiated the prevention efforts there was no follow up and lacked sustainability strategies. For the household participants, somewhat (24.9%) and very much (26.1%) levels of awareness were below average. The implication was that the household members were not actively involved in prevention yet are affected by production, sale and consumption of illicit alcohol.

Table 4.20: People's Awareness of Community Prevention Efforts

Level of Awareness	Household Participant		Local Leaders		Maendeleo ya Wanawake	
	Freq.	%	Freq.	%	Freq.	%
No response	23	3.9	-	-	-	-
Not aware	47	8.0	-	-	-	-
Very little aware	84	14.2	-	-	-	-
Little aware	136	23.0	2	12.5	3	37.5
Somewhat aware	147	24.9	8	50.0	4	50.0
Very much aware	154	26.1	6	37.5	1	12.5

Almost half of the household participants were not sure of the support of prevention efforts by the law enforcers (43.7%), provincial adminstration (43.3%) and civil society (48.1%). Most local leaders (43.8%) indicated that support of prevention efforts by law enforcers was unsatisfactory. This finding collobarates with qualititative data generated from key informant interview and focused group discussions:

> *'There is also laxity, leniency and compromise of law enforcers in ensuring full implementation of alcoholic drink control act'....* Said Peter Kamau, Director/addictive counselor; Faith Treatment And Rehabilitation Center, Konguini.

On the other hand, most local leaders (62.5%) recognized the support of prevention efforts by provincial administration as excellent. The findings support the earlier claim that the provincial administration was activetly involved in the prevention efforts and has formal structure that call for accountability.

Table 4.21: Support of Prevention Efforts by Law Enforcers, Local Leaders and Civil Society

Leaders	Household Participants		Local leaders		Maendeleo ya Wanawake	
	Freq.	%	Freq.	%	Freq.	%
Law enforcers/police						
No response	8	1.4	-	-	-	-
Excellent	83	14.0	3	18.8	1	12.5
Satisfactory	145	24.5	2	12.5	2	25.0
Unsatisfactory	97	16.4	7	43.8	5	62.5
Not sure	258	43.7	4	25.0	-	-
Provincial Administration						
No response	8	1.4	-	-	-	-
Excellent	128	21.7	10	62.5	1	12.5
Satisfactory	136	23.0	2	12.5	3	37.5
Unsatisfactory	63	10.7	2	12.5	4	50.0
Not sure	256	43.3	2	12.5	-	-
Civil Society						
No response	14	2.4	-	-	-	-
Excellent	67	11.3	2	12.5	-	-
Satisfactory	151	25.5	8	50.0	4	50.0
Unsatisfactory	75	12.7	3	18.8	4	50.0
Not sure	284	48.1	3	18.8	-	-

Household participants perceived that there was moderate support of prevention efforts by FBO (Excellent: 24.9%; satisfactory: 20.6%), while most local leaders viwed FBO's support as excellent (43.8%) and satisfactory (37.5%). Half of Maendeleo ya Wanawake recognized the FBO'support as satisfactory (50%) and excellent (12%). House perception of CBO support was as follows: excellent (16.8%) and satisfactory (37.5%) as shown in Table 4.22.

Table 4.22: Support of Prevention Efforts by FBO, CBO and Community Members

	Household Participants		Local Leaders		Maendeleo ya Wanawake	
	Freq.	%	Freq.	%	Freq.	%
Faith Based Organization (FBO)						
No response	8	1.4	-	-	-	-
Excellent	147	24.9	7	43.8	1	12.5
Satisfactory	122	20.6	6	37.5	4	50.0
Unsatisfactory	50	8.5	2	12.5	3	37.5
Not sure	264	44.7	1	6.3	-	-
Community Based Organization (CBO)						
No response	7	1.2	6	37.5	-	-
Excellent	99	16.8	6	37.5	-	-
Satisfactory	148	25.0	2	12.5	7	87.5
Unsatisfactory	73	12.4	2	12.5	1	12.5
Not sure	264	44.7	6	37.5	-	-
Community Members						
No response	10	1.7	-	-	-	-
Excellent	96	16.2	1	6.3	1	12.5
Satisfactory	157	26.6	11	68.8	5	62.5
Unsatisfactory	65	11.0	2	12.5	2	25.0
Not sure	263	44.5	2	12.5	-	-

4.5: Sustainability of Community Based Interventions in Mitigating Harmful Alcohol Use

Sustainability is a process of ensuring the continuance of effective community prevention efforts that achieve long term results for target community (Akerlund, 2000). The research question aimed at establishing whether the prevention efforts of Maendeleo ya Wanawake were still going on and whether they had any funding and how they consider sustaining prevention efforts if funding was discontinued. Also, respondents were to identify any prevention efforts in community apart from ones by Maendeleo ya Wanawake. However, Maendeleo ya Wanawake was not funded, so second criterion of sustainability was not applicable.

The prevention efforts of Maendeleo ya Wanawake is little felt on the ground as illustrated by household participants (34.9%) who affirmed that efforts are still going on. Phyllis Winny Wanjiku, FGD participant of Karuri sublocation said:

> *'There was a campaign by Maendeleo ya wanawake, there was positive change for four months and that was it'*

Moreover, only 43.8% of local leaders perceived that prevention efforts of Maendeleo ya Wanawake are still existing. Although 75% of Maendeleo ya Wanawake respondents indicated that prevention efforts are still in place as indicated in Table 4.23.

Table 4.23: Whether the Prevention Efforts of Maendeleo ya Wanawake are still going on

Response	Household Participant		Local Leaders		Maendeleo ya Wanawake	
	Freq.	%	Freq.	%	Freq.	%
No response	10	1.7	-	-	1	12.5
Yes	206	34.9	7	43.8	6	75.0
No	146	24.7	5	31.3	1	12.5
Not sure	229	38.7	4	25.0	-	-

There were 25.9, 56.3 and 100% household participants, local leaders and Maendeleo ya Wanawake who affirmed that they knew the existence of other prevention efforts in the community as indicated in Table 4.24. Some of the organizations mentioned included Faith Treatment and Rehabilitation Konguini Center. Faith Treatment and Rehabilitation Konguini Center is non government organization that offer 30 bed residential treatment and rehabilitation; outreach and after care services. Other organizations involved in alcohol abuse prevention include the following: Drug Youth Rehabilitation Center Muranga Town; Muranga Muslim Community; Town Empowered Group; Wajane Women Group; Young Adult Catholic Association; Mumbi Catholic Alcoholic Anonymous (AA).

Table 4.24: Existence of other Organization that deal with Alcohol Abuse Prevention Efforts

Response	Household Participant		Local leaders		Maendeleo ya Wanawake	
	Freq.	%	Freq.	%	Freq.	%
No response	3	.5	-	-	-	-
Yes	153	25.9	9	56.3	8	100
No	435	73.6	7	48.8	-	-

CHAPTER FIVE: DISCUSSION

5.0 Introduction

This chapter deals with discussion of major findings, the conclusions reached, policy implications, dissemination of the findings and areas that require further research

5.1 Discussion of Major Findings

The findings of ever used and current use of study were comparable to national and central provincial surveys (NACADA, 2007; NACADA, 2010; NACADA, 2012). The results that 46.7% of the participants ever used were higher than national (2007: 39.2%; 2012: 29.9%) and central province statistics (29.7%). However, current use of Murang'a in 2010 was slightly higher (25.5%) than the findings of current study (21%).

The findings that beer, wine and package spirits were leading alcohol type used in Murang'a concurs with both national and provincial surveys that indicate that packaged alcohol was most used alcohol type (NACADA, 2007;NACADA, 2010, NACADA, 2012). However the current findings indicate changaa was ahead of traditional liquor which contrasts with national surveys of 2007 and 2012. This could be explained by effect of enactment of Alcoholic Drink Control Act (2010) that legalized changa'a and therefore people could reveal use of drink without fear of reprimand. The reported use of second generation was very low than what was reported in national and provincial surveys. Possible explanations could be either the perceived illegality of drinking or people have avoided the usage because of level of lethality of the drink.

The fact that men and youths were most consumers of alcohol concurred with past surveys and studies (NACADA, 2010; NACADA, 2007; NACADA, 2012; Hoeksema, 2004). This gender differential could be explained by the fact women perceive greater social sanctions for drinking than men (Hoeksema, 2004).

Mukuyu which was an urban sublocation reported higher alcohol usage than Njoguini which was sublocation in rural setting. These results supported the past studies that found rural-urban differences in alcohol usage (NACADA, 2012). The Njoguini residents reported higher usage of chang'aa than Mukuyu residents which supported the findings that rural men and women were more likely to consume changa'a than urban counterparts.

One of most used method used by Maendeleo ya wanawake was demonstrations against excessive and under age use which supported the past studies that perceived high usage of alcohol and its far reaching consequences triggered the demonstrations (NACADA, 2010). Also, findings indicate that the prevention efforts of Maendeleo ya Wanawake have reduced some of effects of high alcohol usage in the district that were indicated in past study (NACADA, 2010).

Using community readiness model proposed by Plested, Thurman, Edwards & Oettings (1998), the Muranga East community was placed in preparation stage of readiness.

Through both quantitative and qualitative data collected from key community informants, community members were aware of the consequences of alcohol usage, advantages of prevention efforts and the leadership offered modest support which concurred with what was predicted to be community response on preparation stage (Plested, Thurman, Edwards & Oettings (1998). Therefore these empirical evidence need to be used to propel the community to the next advanced stage of readiness to ensure feasible, sustainable and effective prevention and intervention program to deal with alcohol abuse.

5.2 Key Findings and Policy Implications

Far reaching consequences of alcohol abuse on the individuals, families and communities impact negatively on the progress made in the process of attaining the Vision 2030 and Millennium Development Goals. Among the many efforts by government to solve the alcohol problem has been enactment and enforcement of laws that control alcohol abuse. However, the enforcement agencies are often overstretched by the limited resources available and therefore, legislation and policy measures alone cannot fully address the reduction of harm related to alcohol use. Thus, family and community empowerment programmes become important strategies to reduce harm from alcohol use in the community.

A notable aspect in the community response has been the involvement of women's groups in demonstrating against the sale and consumption of alcohol in localized areas. These community prevention efforts have led to: Reduction in the production, sale and consumption of illicit alcohol, reduced school drop outs, reduced alcohol related illnesses, increase in performance in national examinations, among other effects. At policy level, there is need to strengthen the existing CPE by ensuring full implementation of laws regulating alcohol usage. Community groups involved in prevention need to be empowered through capacity building and financial assistance to able the use empirical evidence based interventions to deal with alcohol problem. There should be full involvement of community members to own and support prevention efforts in their communities**.** There is need for coalitions or partnerships of diverse community organizations to minimize duplication of efforts, coordinate multi faceted and comprehensive activities in order to get wider public support for their efforts instead individual involvement. The study was an attempt to use and translate empirical evidence to prevention and intervention program which may be available, accessible, affordable, appropriate and acceptable (5A) by community members.

5.3 Dissemination of Research Findings

The findings were disseminated through the 2nd NACADA National Conference held at Kasarani between10th-13th June 2013. With availability of funds, further workshops for members of community and other stakeholders concerned in alcohol abuse campaign will be organized as a form of feedback to the participants. Researchers will use oral and poster presentations and printed handouts. The researchers will also prepare manuscripts for papers and articles for conferences and publications in peer refereed journals.

5.4 Suggestions for Future Studies

The current study had several limitations. The study evaluated the effectiveness of a community group that did not have formal structures of an organization and efforts were not informed by evidence based practices. Therefore it was not possible to use other indicators of effectiveness like fidelity, appropriateness, efficiency, achievement of goals. Therefore future studies that will focus on community organizations that are formally structured and guided by empirical evidence may give clear insight on effectiveness of community based prevention efforts.

The findings of current study could be translated to a program and be implemented. Then a study could be conducted to monitor and evaluate effectiveness for purpose of improvement if it will not be effective and if it will be effective could be replicated in other parts of the country.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

Conclusion and Recommendations

The results of this study have identified prevention priority areas, existing community prevention efforts, level of community preparedness/readiness and challenges that hinder the success of CPEs. From these findings the following prevention priorities areas have been identified in intervention program and should focus on:

i) Reduce binge drinking
ii) Reduce the use of illicit and legal/ packaged alcohol
iii) Target population should be youth and male adults because they were greatest consumers of alcohol.

The prevention efforts of Maendeleo ya Wanawake were not based on formally collected data, goals, policies and procedures. The lack of organizational structure and functioning affected its ability to plan and leverage resources to maintain sustainable positive outcomes resulting from a prevention program. The group demonstrated twice during the enactment of alcoholic drink control act 2010. As much as their demonstration was clarion call for law enforcers and provincial administration to deal with alcohol abuse, their prevention efforts could have contributed to long term positive outcome if it had organizational structure and feasible sustainability strategies. This therefore calls for the need for such community groups to be empowered financially and engage in capacity building to take formal structure to deal with prevention efforts of alcohol abuse.

From the findings, it was noted the community members were less aware of prevention efforts dealing with alcohol abuse. The researchers are recommending that community members need to actively be involved in solving their problem as community prevention past research have shown that people support what they help to create.

The study findings have identified the existing CPEs that are used by Maendeleo ya Wanawake and other organizations that promote and support public awareness, mobilization and strict enforcement of alcohol abuse laws. However, as suggested by participants, there is need to focus also on prevention efforts that target those at risk (like the youth) and illicit brewers and sellers of alcohol. Some of these prevention efforts include economic empowerment of youth, alternative alcohols free entertainment joints or activities and training illicit brewers-sellers on alternative source of living.

The results have identified the community to be fifth stage of readiness, therefore this empirical evidence is first step that could be used to plan and implement strategies that could move this community to greater levels of readiness and hence increasing their chance of achieving success in alcohol abuse prevention.

From the aforegoing, this study makes the following recommendations;

- There is need to establish preventional structures that will have the backing and support of both empirical datas and policy. This is one area where NACADA, researchers and policy makers would endeavour to particularly engage the communities.

- Sustainability strategies would go along way in achieving the anticipated preventional objectives. The local leaders and the community with the support of NACADA need to identify strategies that would make community preventional efforts feasible and sustainable. The argument is that once the community takes ownership of the initiative, they will ensure it works.

- Public awareness and mobilization should progressively be used to ensure that all players are involved in the community preventional model. Strong anti alcohol policies should be repackaged and disseminated to the communities through the local leaders. Media and community leaders would constitute useful to get the anti alcohol messages to the communities.

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Appendix 1: Informed Consent Form

I do confirm that I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction. I am satisfied that the said study has no foreseen risks. Therefore, I consent voluntarily to participate as a participant in this research.

Name of Participant_____ Signature of Participant _____ Date _____

If illiterate

A literate witness selected must sign by selected by the participant and who have no connection to the research team). Participants who are illiterate should include their thumb-print as well.

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Name of witness_____ and Thumb print of participant
Signature of witness _____
Date _____

Statement by the Researcher/person reading the consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands:

i. Nature and purpose of the survey
ii. Participations is voluntary
iii. Anonymity and confidentiality is guaranteed
iv. There no foreseen risks involved in the study

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Name of Researcher/person taking the consent_____

Signature of Researcher /person taking the consent_____

Date _____ **Contact Information**

1. Prof. Mary Kariuki (Principal Researcher) Mobile: 0712838488
2. Mr. John Oteyo(Co-Researcher) 0725237845
3. Kenyatta University Ethics Review Committee

Email: kuerc.secretary@ku.ac.ke/ercku2008@gmail.com/kuerc.chairman@ku.ac.ke

Appendix 1b: Fomu ya Idhini ya Kuhojiwa

Nakubali kwamba nimesoma au nimesomewa maelezo yaliyomo. Nipewa nafasi ya kuuliza maswali yoyote kuhusu na kwamba nimeridhishwa na majibu niliyopewa. Nimeridhika kwamba utafiti uliotajwa hauwezi kuniadhiri. Ndiposa najitolea kwa hiari kushiriki katika utafiti huu.

Jina la Mshiriki_____ Sahihi ya Mshiriki_____ Tarehe _____

Ikiwa si msomi

Shahidi msomi aliyechaguliwa na mshiriki lazima aweke sahihi yake. Vile vile washiriki ambao sio wasomi lazima waweke alama ya kidole chao cha gumba.

Nimeshuhudia usomaji halisi wa fomu ya idhini kwa mshiriki mtarajiwa, na mshiriki amepewa nafasi ya kuuliza maswali. Nakubali kwamba mshiriki amejitolea kushiriki kwa hiari yake mwenyewe.

Jina la shahidi_____ na Alama ya kidole cha gumba
Sahihi ya shahidi_____
Tarehe _____

Maelezo ya mtafiti au msomaji wa idhini ya kuhojiwa

Nimesoma na kufafanua kwa umakini maelezo yote kwa mshiriki mtarajiwa na kuhakikisha kwamba mshiriki ameelewa yaliyomo kwamba:

i. Hali na umuhimu wa utafiti huu
ii. Kushiriki ni kwa hiari
iii. Kutotambuliwa kwao kumezingatiwa
iv. Utafiti huu hauna madhara yoyote sasa hivyo au hapo usoni

Nakubali kwamba mshiriki alipewa nafasi kuuliza maswali kuhusu utafiti, na maswali yote kujibiwa.Pia mshiriki hakulazimishwa kutoa idhini yake ya kushiriki ila alijitolea kwa hiari yake mwenyewe.

Jina la mtafiti_____

Sahihi ya mtafiti_____

Tarehe _____

Habari ya Mawasiliano.

1. Prof. Maria Kariuki (Mtafiti Mkuu) 2. Bwana Yohana Oteyo (Naibu mtafiti)
   Rununu : 0712838488 0725237845
2. Kamati ya Marekebisho na Maadili ya Chuo Kikuu cha Kenyatta.

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