NATIONAL AUTHORITY FOR THE CAMPAIGN AGAINST ALCOHOL AND DRUG ABUSE

RAPID SITUATION ASSESSMENT OF THE STATUS OF DRUG AND SUBSTANCE ABUSE IN KENYA, 2012

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ABBREVIATIONS AND ACRONYMS

ADA	Alcohol and Drug Abuse
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders - IV
EA	Enumeration Area
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
KNBS	Kenya National Bureau of Statistics
NACADA	National Authority for the Campaign against Alcohol and Drug Abuse
UNICEF	United Nations Children's Fund

FOREWORD

Consumption of intoxicating substances negatively affects mankind in the health, social, economic and political spheres. Intoxicants alter the state of a person's mental, social and physical well-being thereby influencing his/her thoughts, realities, decisions and actions. This has informed the global consensus by all nations to seek control and/or prevent drug abuse.

In Kenya, the alcohol and drug abuse problem presents a significant public health problem with far reaching ramifications ranging from poor health outcomes to diminished production in all sectors of the economy, insecurity and non-attainment of national development goals. Having recognized the need for structured interventions against alcohol and drug abuse in the country, the Government of Kenya has put in place requisite legislation and established various institutions to provide policy, legislative, strategic and programmatic remedies.

The National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) was established in July 2012 to coordinate a multi-sectoral effort aimed at preventing, controlling and mitigating the effects of alcohol and drug abuse in Kenya. One of NACADA's key functions is to facilitate, conduct, promote and coordinate research and dissemination of information on alcohol and drug abuse and to serve as the repository of research data. This is done in collaboration with other public and private agencies. In March-June 2012, NACADA commissioned the *Rapid Situation Assessment on the Status of Drug and Substance Abuse in Kenya*. This survey is a follow-up to the *Rapid Situation Assessment* carried out in the year 2007. The aim of the survey was to determine the current trends in alcohol and drug abuse to inform evidence-based interventions.

NACADA recognizes the importance of up to date data as a foundation to the anti-drug abuse campaign programs. It is my conviction that the issues emerging from this study will provide invaluable insight for drafting requisite policy and strategies, as well as designing intervention programs that will ultimately contribute towards attainment of Kenya's Vision 2030 and a drug-free nation.

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ACKNOWLEDGEMENT

This survey was conducted by the National Authority for the Campaign Against Alcohol and Drug Abuse Authority (NACADA). The survey could not have been possible without the contribution of the Authority's technical team comprising of Mr. John Muturi, Mr. Mugambi Mwirichia, Mr. Morris Kamenderi, Mr. Alex Njeru, Mr. George Murimi, Ms. Grace Otieno, Ms. Angela Mambo, Ms. Medina Ibrahim, Ms. Felistas Kanana, Ms. Caroline Kahiu, Mr. Andrew Githui, Ms. Susan Okioma, Mr. Fred Rauta, Mr. Omar Abdirahim, Ms. Halima Hussein and Ms. Hanifa Saad. Their support is sincerely appreciated. The Authority acknowledges with thanks the technical support of the principal investigator Prof. Isaac Nyamongo and assistant investigator Dr. George Michuki.

Appreciation is also extended to the Ad-hoc technical team comprising of Dr. Joyce Nato of WHO, Dr. Wangari Kuria of Nairobi University, Dr. Sammy Tumuti of Kenyatta University, Dr. Beatrice Kilonzo of KEMRI, Dr. Robert Ndugwa of UNICEF, Dr. Richard Gakunju of MASAA, Ms. Violet Kinuthia of UNICEF, Ms. Teresia Nyawira of National Council of Science and Technology, Mr. Jackson Mureithi of the Ministry of Public Health and Mr. A. Awes of KNBS.

Special thanks go to the Ag. Permanent Secretary, Ministry of State for Provincial Administration and Internal Security, Mr. Mutea Iringo, all Provincial Commissioners, District Commissioners, Local Administration and the community for their contribution.

It may not be possible for the Authority to individually thank all partners for the support accorded during the survey period. To you all kindly accept the Authority's sincere appreciation. Last but not least, the Authority recognizes the commitment and dedication of all study participants who made the survey a great success.

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EXECUTIVE SUMMARY

The Government of Kenya recognizes the threat posed by alcohol and drug abuse and has therefore enacted a legal and institutional framework to control both licit and illicit drugs. It has also set up institutions to combat both the supply of and demand for drugs. The National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) is mandated to facilitate, conduct, promote and coordinate research on alcohol and drug abuse. Research results are used to guide policy formulation and to inform the design and implementation of intervention programs.

The current survey is a follow-up of the 2007 Rapid Situation Assessment Survey, conducted by NACADA. The survey covered persons aged 10-65 years, living in urban and rural areas and of different economic and social characteristics. They were identified through stratified multi-stage random sampling. The 3,362 sampled households were distributed proportionately across the eight regions of Kenya (Nairobi, Central, Eastern, Rift Valley, Western, Nyanza, Coast and North Eastern).

Results show a decline in the proportion of respondents aged 15-65 years who reported to have ever used a substance of abuse at least once in their lifetime. This was from 48.3% in 2007, to 37.1% in 2012. About 30% of these respondents had used an alcoholic drink. Among the 10-14 years age group, there is also a decline from 7.8% in 2007, to 3.0% in 2012. Comparing the 2007 baseline data with 2012, there is a general decline in the ever use cases of tobacco products. For respondents aged 10-14 years, ever use of cigarettes has dropped from 4.2% in 2007 to 1.2% in 2012 and sniffed/ chewed/ piped tobacco has dropped from 0.9% in 2007 to 0.6% in 2012. For respondents aged 15-65 years, ever use of cigarettes has dropped from 21.7% in 2007 to 14.9% in 2012 and sniffed/ chewed/ piped tobacco has dropped from 4.9% in 2007 to 2.4% in 2012. Overall, 16.7% of the respondents, aged 15-65 years, have ever used a tobacco product in their lifetime.

Data shows that the prevalence of *khat*, for those aged 15-65 years, has shifted from 11.3% in 2007 to 8.9% in 2012. The disaggregated data for *miraa* and *muguka* shows the ever use category to be 8.1% and 2.3% respectively. Similarly, for those aged 10-14 years, the ever use of *miraa* has dropped from 2.4% in 2007 to 0.5% in 2012. Findings on bhang show that there is a slight reduction among those aged 15-65 years, who reported ever using it (from 6.5% in 2007 to 5.4% in 2012). On the other hand, the data for those aged 10-14 years show an increase from 0.3% in 2007, to 1.1% in 2012 for the ever use of bhang. The ever use of hashish, among those aged 15-65 years, has increased from 0.3% in 2007 to 0.6% in 2012. For the 10-14 year olds, the ever use of hashish has declined from 0.3% in 2007 to insignificant levels in 2012.

The ever use of heroin, among those aged 15-65 years, has increased from 0.4% in 2007 to 0.7% in 2012. For the 10-14 year olds, the ever use of heroin stands at 0.2% in 2012. The ever use of cocaine, among those aged 15-65 years, has increased from 0.4% in 2007 to 0.6% in 2012. For the 10-14 year olds, the ever use of cocaine has remained unchanged at 0.3% both in 2007 and 2012.

Those aged 15-65 years, who reported to have ever used at least one substance of abuse in the last thirty days prior to the survey (current use), there is a reduction from 22.2% in 2007, to 19.8% in 2012. In general there is a reduction in the use of alcohol, from 14.2% in 2007, to 13.6% in 2012. Although there is a reduction in those reporting current use of packaged/legal alcohol and traditional liquor, there is an increase in those reporting use of *chang'aa* from 3.8% in 2007, to 4.2% in 2012. The current use of tobacco products, for respondents aged 15-65 years, reveals a reduction in the proportion of those reporting use of cigarettes (from 10% in 2007 to 8.6% in 2012), as well as in the use of sniffed/chewed/piped tobacco (from 1.5% in 2007 to 0.7% in 2012). Reported current use of *miraa* has reduced from 5.5% in 2007 to 4.2% in 2012. Current use of narcotics, compared to other substances of abuse is low. Bhang has a higher reported use compared to heroin and cocaine. Furthermore, the differences between 2007 and 2012, for current use of narcotics, are insignificant. Data also shows that 5.5% of Kenyans are dependent on alcohol; 4.5% are dependent on tobacco; 1.5% are dependent on *miraa* while 0.4% are dependent on bhang use.

Overall, the findings indicate a gradual shift towards lower rates for most substances of abuse. The study recommends effective compliance of legislation and policies for control of substances of abuse particularly the Alcoholic Drinks Control Act 2010; enhanced involvement of community based organizations, civil society and other bodies in providing health promotion and responsible behaviour change messages to communities; empowering organized groups of women and youth to provide support to those in need, before they can find their place in rehabilitation centers; involving recovered addicts as exemplars of those who have reformed in order to provide the link between alcohol and substance abuse and the negative effects resulting thereof; using of school-going children as agents of change against ADA; and using a Social Norms Approach to address the popularly held beliefs to gradually shift those beliefs in a positive direction so as to achieve the set programme goals towards a drug free society.

CHAPTER 1: INTRODUCTION

1.1 Background

The Government of Kenya recognizes the threat posed by alcohol and drug abuse and has therefore enacted a legal and institutional framework to control both licit and illicit drugs. It has therefore set up institutions to combat both the supply and demand of drugs. The National Authority for the Campaign against Alcohol and Drug Abuse (NACADA) is a State Corporation established under The National Authority for the Campaign against Alcohol and Drug Abuse Act, 2012 of the Laws of Kenya. NACADA is mandated to facilitate, conduct, promote and coordinate research on alcohol and drug abuse. The research guides policy formulation and the structuring of programmes.

In the recent times, the media has published information that pointed to the disastrous outcome of alcohol and substance abuse. The negative impact of alcohol and substance abuse is reflected in the immediate and long-term effects to the individuals and families concerned as well as the entire society. In order to determine current trends in alcohol and drug abuse, the Authority has conducted a follow-up survey and will consequently use these results to formulate and apply interventions against the practice.

This survey is a follow-up to the Authority's 2007 Rapid Situation Assessment of the Status of Drug and Substance Abuse. The rapid assessment, among other findings, established that 22% of all respondents aged between 15 – 65 years were current users of at least one substance of abuse albeit with huge variations based on gender and rural/urban populations (NACADA, 2007). The follow-up survey aims to establish whether there are any shifts in alcohol and drug abuse in Kenya since the 2007 rapid assessment survey. The survey also assesses the drivers of observed change, including demand and supply factors of alcohol and drug abuse.

Use of alcohol and other intoxicating substances is a social behaviour which is embedded in communities and cultures, and is sustained by the supply side. Demand for the use of intoxicating substances is partly fuelled by peer pressure (that force from peers which drives individuals to do things so as to conform with the group norm). The survey focuses on six issues of concern to NACADA, namely:

(i) The public awareness, accessibility, availability and use of various drugs
(ii) The health and socioeconomic consequences of drug abuse
(iii) The perceptions, attitudes and behaviours related to drug abuse, counselling, treatment and rehabilitation
(iv) The extent of chemical dependence

(v) Current trends in drug abuse and traditional practices that regulated alcohol and drugs consumption
(vi) The interventions that will effectively deal with causes and consequences of drug abuse

1.2 Drug and substance abuse situation in Kenya

In 2007, NACADA conducted a rapid assessment to establish the level of alcohol and drug use. The findings from the report are extensively summarised in this section as a background to the prevailing situation. Findings from a rapid assessment survey conducted in 2007 (NACADA, 2007) revealed that drugs and substance abuse was a major social problem in Kenya. The study confirmed that drug and substance abuse in Kenya has a complex cause and effect relationship. The major direct cause of drug and substance abuse identified by the rapid survey was easy availability of cheap drugs and other substances.

The study revealed a high level of awareness of cigarettes and bhang among respondents. Since accessibility also determines cost, hard drugs such as cocaine and heroin, which are more costly, were less accessible. Cocaine was most easily accessible in Nairobi, Coast and North Eastern regions. The entry of North Eastern region was surprising since it had low awareness levels of drugs in general. The region also had low prevalence of drug use.

The study also established that the young adults had the highest drug and substance abuse prevalence. The findings indicated that the immediate social environment had an important role in influencing drug and substance abuse. According to the study, nearly half of the children interviewed had never received any information about drugs at home. Schools and religious institutions were shown to be the main channels for passing information to children.

Among respondents aged 10-14 years old, only 13% claimed to have ever used any drug or substance. Overall, 8% of 10-14 year-olds had used some alcohol at least once in their life and another 4% had used cigarettes at least once. Apart from *miraa*, which recorded a rate of 1.2%, current use of other substances was below 0.5%. About half (48%) of all respondents, aged 15-65 years, had ever taken at least one of the drugs. In addition, 39% of respondents aged 15-65 years had ever used at least one type of alcohol with packaged/legal alcohol and traditional liquor reporting the largest proportions (24% and 22% respectively). Results on specific drugs and substances indicated that 22% of the respondents had ever smoked tobacco (cigarettes or pipe) and another 11% had ever chewed *miraa* in their lifetime. About 7% had used bhang while 5% had chewed or sniffed tobacco. On the other hand, less than 1% of the respondents reported that they had ever taken hard drugs.

Twenty-two percent of all the sampled respondents (15 – 65 years) were current users of at least one substance of abuse. The current users of cigarettes and *miraa* were 11% and 6% respectively. For sniffed/chewed tobacco products and bhang, the proportions for current use were 2% and 1% respectively. Sixty-four percent of men were leading drug-free lives compared to 91% of women respondents (NACADA, 2007).

1.3 The policy environment

The government has made a concerted effort in the recent past to ensure a coordinated response to alcohol and drug abuse. Prior to 2007, this effort was applied, in a piecemeal approach, using isolated legislations such as "The Dangerous Drugs Act Cap. 245''. The predecessor of NACADA, the Narcotics Bureau, under the direction of the Ministry of Health, coordinated activities relating to trafficking of drugs in the country. As well, there were laws against the production, distribution and consumption of local brews including *busaa* and *chang'aa*. In 1994, the government of Kenya developed "The Kenya National Drug Policy" (MOH, 1994) which, among other things, proposed the amendment of "The Dangerous Drugs Act Cap. 245'' in order to create two Acts. One was to be for the medicinal use of dangerous drugs and other for the illicit trafficking of dangerous drugs. In order to ensure wide distribution of information on drugs, it was proposed in the policy that information be disseminated to the public in a language 'understandable by all'. This was to be done using District Development Committees, among other bodies and by targeting all groups, particularly the youth and students. The policy also identified the need to use different modes of communication to disseminate information, including the use of print and electronic media, traditional media such as songs, dances, poems and drama.

For many years, though, the government seems to have been using a two pronged approach in the control of alcohol and other substances of abuse. Those substances for which the law allows their selling in the country, the unwritten approach seemed to focus on making access to these substances – alcohol and cigarettes – more expensive, through imposition of higher taxes and changes such as new packaging requirements. All of them were aimed at making the substances more expensive and passing messages on health related consequences of their use or misuse. These are however, products which are allowed by the country's legal regime. For those products which are not legally allowed, such as bhang, cocaine and heroin, the focus has been on legal mechanisms such as stiffer penalties for those found in possession of these banned substances.

However, the policy and legal environment in the country has changed drastically over the past couple of years since the first National Survey on Alcohol and Drug Abuse was conducted in 2007. Specifically, these changes have focused on tobacco control through the "The Tobacco Control Act of 2007" and "The Alcoholic Drinks

Control Act of 2010". Both of these new legislations have had a direct impact on the use of alcohol and substances of abuse in the country.

The Tobacco Control Act, 2007: The Tobacco Control Act 2007 came into force on 8th July, 2008 to control the production, manufacture, sale, labelling, advertising, promotion and sponsorship of tobacco products. Specifically, the Act seeks to protect individuals from disease and death caused by tobacco; protect consumers of tobacco products from misleading inducements to use tobacco; protect children by restricting their access to tobacco products; educate the public on the dangers of tobacco use; protect non-smokers from second hand smoke; protect tobacco growers, workers and sellers by providing alternative economic activities; protect the Government by dealing with illicit trade; protect smokers by providing for cessation and promote research and dissemination of information. The Act therefore prohibits sale to persons under the age of 18 years, requires health warnings on cigarette packages, bans promotions through media, bans smoking in public places but provides for designated smoking areas and bans sponsorship of educational, cultural, entertainment or trade fairs.

The Alcoholic Drinks Control Act, 2010: The Alcoholic Drinks Control Act, 2010, was assented to on 13th August, 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 the 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. Therefore, 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 legalizing of *chang'aa* and its manufacture to conform to prescribed standards as a way of protecting consumers.

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 a 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.

1.4 Study rationale and objectives

The Authority is mandated to coordinate public education and awareness campaigns against alcohol and drug abuse. As people become more aware of the dangers posed by substances of abuse, it is expected that they will adopt health enhancing and risk reducing behaviours. Furthermore, concerted engagement by the Authority will initiate perceptional and attitudinal change resulting in behaviour change. People's perception, attitudes and behaviour related to alcohol and drug abuse rely heavily on their ability to rationally decide, as well as their perception on the consequences of alcohol and or drug use on their wellbeing. The complex cause and effect relationship of alcohol and drug abuse is shown in Figure 1.

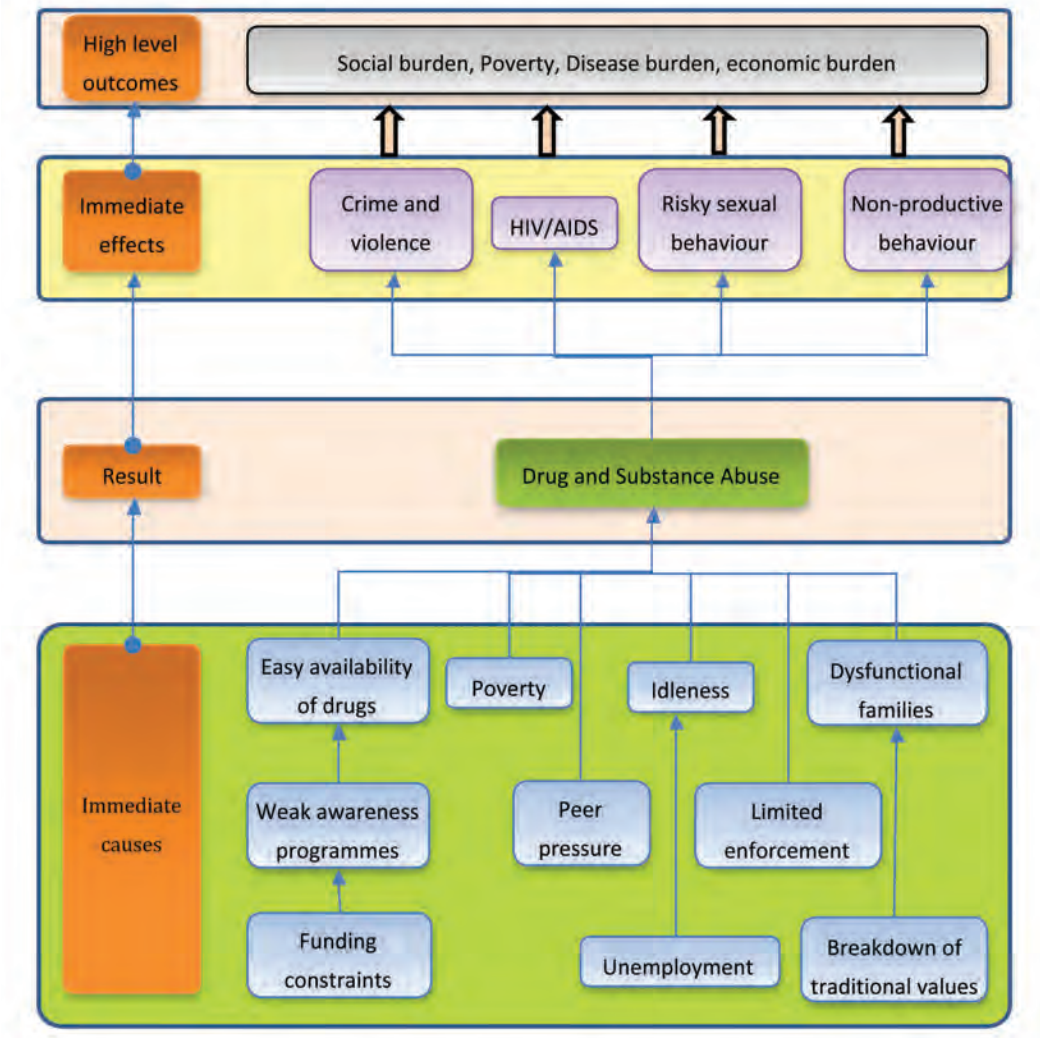


Figure 1: **Modified cause and effect relationship of alcohol and drug abuse**

The immediate causes of drug and substance abuse may include poverty, peer pressure, limited enforcement of laws, including the Alcoholic Drinks Control Act, 2010 popularly known as The Mututho Law, and the breakdown of traditional values leading to dysfunctional families. The high unemployment levels also contribute to alcohol and substance abuse as many youth remain idle and have time to engage in the same. Structural variables include inadequate funding, which leads to weak programmes and high access to illicit drugs and substances.

This analytical framework guided the study and contributed to the attainment of the following survey objectives:

i. To determine awareness, accessibility, availability and use of alcohol and drugs in Kenya.
ii. To establish the health, social and economic consequences of alcohol and drug abuse in Kenya.
iii. To identify perceptions, attitudes and behaviour related to alcohol and drug abuse in Kenya.
iv. To establish trends in alcohol and drug abuse and traditional practices which regulate production and consumption of various drugs in different communities in Kenya.
v. To determine the extent of chemical dependence and perceptions related to counselling, treatment, rehabilitation and re-integration of persons with substance use disorders.
vi. To identify interventions that can be put in place to deal with causes and consequences of alcohol and drug abuse in Kenya.

1.5 Study coverage

The study covers the whole country and it includes both the urban and rural areas. This was done so as to ensure that people with different economic and socio-demographic characteristics are captured as well as other aspects of interest such as the nature of alcohol and drug abuse prevalent in the different parts of the country.

1.5.1 Study population

The target population was divided into two groups. The first group composed of those individuals aged between 15 – 65 years. This generated data that was used to compare trends since the rapid assessment carried out in 2007. The Authority was equally interested in determining the level of alcohol and drug use among those aged between 10 – 14 years. This group formed the second target group of interest for the Authority. Care was taken to ensure that those aged below 18 years were protected by ensuring that adequate information regarding the study was provided in the presence of a responsible adult who, in addition to the individual of interest, also consented to the interview.

All other ethical considerations such as informant confidentiality, power to terminate the interview at any time without fear or intimidation, and freedom to decline to answer some or all of the questions, governed data collection at all times.

1.5.2 Sample size determination

The sample size was informed by the desired level of accuracy and the cost of the survey. The sample size was determined using the following formula (Kothari, 2003):

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

Where:

z = 1.96 (95% significance level) [standard variate at a given confidence level]

p = 0.22 (Based on the NACADA, 2007 rapid assessment) [sample proportion of the population with the desired characteristics]

q = 0.78 [1-p]

e = 0.014 [acceptable error (precision)]

n = simple population

N = 8,767,954 (KNBS, 2009) [sampling frame[11] (total households in Kenya)]

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 +/-1.4% for a sample size of 3362 households. One person was interviewed per household, giving a total of 3362 respondents.

1.5.3 Sampling method

A stratified multi-stage random sampling technique was used to identify the Enumeration Areas (EA) from which data was gathered. This method was aimed at establishing reliable and representative national estimates and indicative regional estimates based on the 2007 indicators. At the national level, all the eight regions (Nairobi, Central, Eastern, Rift Valley, Western, Nyanza, Coast and North Eastern) were selected and the 3,362 sampled households distributed proportionately across each of the eight regions.

The first stratification was applied at the county level. The 47 counties were stratified based on their unique cultural, socio-economic and geographic characteristics.

1 At the time of the survey, KNBS was working on a new national sampling frame.

However, due to logistical and resources limitations, it was not possible to collect data from all the 47 Counties. Therefore, a purposive sample of 30 counties was randomly selected from each stratum. As shown in Table 1, the 30 counties were distributed proportionately across the eight regions based on the total number of counties per region. Within each selected county, the sample was distributed proportionately based on the total number of households apportioned.

Table 1: **Sample size distribution per region**

Region	No. of HH	Sampled HH	No. of Counties	Sampled Counties
Nairobi	985,016	378	1	1
North Eastern	312,661	120	3	1
Coast	731,199	280	6	4
Central	1,224,742	470	5	3
Eastern	1,284,838	492	8	5
Rift Valley	2,137,136	819	14	9
Nyanza	1,188,287	456	6	4
Western	904,075	347	4	3
Total	**8,767,954**	**3362**	**47**	**30**

For Counties apportioned more than one hundred (100) households, two or more districts were randomly selected to provide wider sample coverage. The households were then apportioned, proportionately, across the selected districts. From each district, two divisions were randomly selected, of which one location was again randomly selected per division. The enumeration areas (sub-locations) were then randomly drawn from each selected location and the sample was proportionately distributed based on the total number of households. At the sub-location level, a landmark (e.g. a school) was identified and selected to determine the starting point. The direction 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.

The second stratification was done at the household level. Potential respondents were stratified by their age (10 -14 years, 15-35 years and 36-65 years) and gender categories. The Kish Grid was used to identify a potential respondent, based on age and gender categories in a given household. Subsequent households were then selected using the random walk method, turning left at every junction. After administering the first interview, systematic random sampling was used where every 5th household was selected to participate in the survey.

1.6 Data types

Two types of data – quantitative and qualitative data – were generated. The quantitative data was obtained from individual respondents because the survey was interested in individual rather than group behaviour. Those interviewed were asked to respond to a survey questionnaire. Qualitative data was captured using focus group discussion guides and the open ended questions. This elicited rich qualitative data that aided the deeper understanding of the trends of substance abuse.

1.6.1 Data collection tools

The survey relied on both primary and secondary data sources. Tools used to get primary data included a structured questionnaire and a focus group discussion guide. The structured questionnaire was developed to capture basic demographic information on respondents, perceptions, attitudes and behaviour related to drug abuse. It was also to capture information on availability and use of different drugs, health and socioeconomic consequences of drug abuse and current trends in drug abuse. It also aimed at establishing effective interventions against drug abuse. For the questionnaires, two tools were developed. The first was used to collect data from those aged between 10-14 years while the second was used to collect data from those aged 15-65 years old.

Focus Group Discussions (FGDs) were designed to elicit normative data relating to: (i) Attitudes and perceptions to alcohol and drug abuse; (ii) Treatment, rehabilitation and re-integration of persons with substance use disorders; and (iii) Interventions perceived to be effective in mitigating consequences of drug abuse.

Groups were categorized on the basis of age and gender in order to determine how these basic characteristics (gender and age) influence values and attitudes. Focus group discussions were recommended because they are inexpensive and quick to gather very rich information. The information elicited was used to identify and analyse subgroups defined by demographic and other problem-relevant characteristics (DeJong and Winsten 1990). A total of 27 FGDs were conducted, bearing in mind the variations and differences such as age, gender, educational background, and religious affiliation. The 27 FGDs were distributed as follows: two FGDs, one focusing on men and women and the other FGD focusing on the youth in school as well as the ones out of school. Each FGD consisted of 6 and 12 participants so as to allow maximum interaction and engagement in the discussions.

1.7 Training

Supervisors, FGD moderators, rapporteurs and research assistants underwent a three-day training in Nairobi. This involved a detailed discussion of each question in the three instruments and mock interviews among participants. Training also involved extensive discussions of street names of all drugs in the country and compilation of a list of such names for easy referencing during data collection. A pre-test of the questionnaires was carried out in Embakasi, Nairobi, in three sub-locations that were not part of the sample. The questionnaires were revised to cater for the observations made during the pre-test.

1.8 Fieldwork

Data collection took approximately five weeks (from 22nd March to 30th April, 2012). Data collection was divided into six regions, namely: Nairobi/North Eastern, Nairobi/Coast, Central/Eastern, Nairobi/North Rift Valley, Nairobi/South Rift Valley and Western/Nyanza. Each region had a team of 6 enumerators (3 female, 3 male), 1 FGD moderator and a rapporteur, and a regional supervisor. One of the major limitations of the survey was underreporting of the use of narcotic drugs (specifically heroin, cocaine and bhang) because of the criminal nature of such drugs.

1.9 Data processing

Data was collected in two phases, taking into account logistical issues. The first teams to undertake data collection included those covering Nairobi/North Rift, Central/Eastern and Western/Nyanza. The second teams included those covering Nairobi/Coast, Nairobi/South Rift and Nairobi/North Eastern. Data entry was done at a central place, in Nairobi. An interviewer screen was developed for data entry in order to minimize errors. Data cleaning and consistency checks involved, among others, checking skip routines as was specified on the questionnaire, to ensure that respondents answered only the questions they were supposed to, and vice versa.

1.9.1 Construction of economic status index

The survey tool included several proximate indicators of household wealth. When several of these indicators are pooled together, they provide a pointer on the economic status of the household in question. Some of these indicators include: type of dwelling structure that the household occupies; main type of floor, roof and wall material for the household's main dwelling structure; main source of cooking fuel as well as main source of lighting. The study also tracked household possession of selected items such as radio, television, bicycle, car, refrigerator and motorcycle among others. Other indicators for which information was sought included: main source of water and the toilet facility that the household uses.

In constructing the household economic index, the following indicators were used: ownership of radio; ownership of television; main dwelling unit has a finished floor (polished wood/vinyl/tiles/cement); main dwelling unit has a roof made of materials other than grass; main dwelling unit is permanent; household's access to own water source (piped into residence, compound, well in the compound) and household has own toilet facility. In total, seven indicators were used. The respondents' households were grouped into high, middle, low and very low economic index categories, depending on the number of indicators for which they gave positive responses.

Households, which recorded positive responses to all the seven factors, listed above, were classified as “high” while those that scored 61 to 99 percent, were classified as “middle”. A score of 31-60 percent was defined as “low” and the rest were grouped as “very low”.

CHAPTER 2: CHARACTERISTICS OF RESPONDENTS

2.1 Characteristics of the 10 – 14 year old respondents

The data of the 10 – 14 year-old respondents shows that 54.4% were male while 45.6% were female. There are also rural-urban variations in terms of gender mix. For instance, in the urban areas, 62.8% of those interviewed were male while 37.2% were female. However, in the rural areas, the sample was almost the same for both genders (Table 2). Slightly over 70% of these children live with both parents. However, there are significant regional and rural-urban differentials. For instance, Eastern region has the highest proportion of the 10-14 year olds who live with both parents at 77.8% while North Eastern has the lowest proportion (60% and 62.3% respectively).

Overview

This chapter provides details of the background characteristics of the respondents. First, we present the details of the respondents aged 10 – 14 years. Finally, a similar presentation is made for the respondents aged 15 – 65 years.

Across all regions, as well as the rural-urban continuum, 'lives with mother' alone category recorded higher proportions as compared to 'lives with father' category. Further, 98.6% of the 10-14 year-olds who were interviewed are in school.

Table 2: **Characteristics of the 10 – 14 year old respondents (%)**

	Setting		Region								
Indicator	**Rural**	**Urban**	**Nairobi**	**Central**	**Coast**	**Eastern**	**Nyanza**	**Rift Valley**	**Western**	**North Eastern**	**Total**
Gender											
Male	49.2	62.8	62.5	50.0	70.9	51.5	49.4	52.9	41.4	80	**54.4**
Female	50.8	37.2	37.5	50.0	29.1	48.5	50.6	47.1	58.6	20	**45.6**
Who do you live with											
Father & mother	71.3	68.4	72.5	62.3	72.2	77.8	64.7	76.0	63.8	60.0	**70.3**
Father alone	4.1	2.8	2.5	2.4	3.7	2.1	8.2	2.6	4.3	4.0	**3.5**
Mother alone	15.1	18.2	20.0	20.0	11.1	10.6	15.3	16.9	18.8	20.0	**16.4**
Grandparents	6.7	5.7	1.2	11.8	7.4	5.3	8.2	1.9	11.6	8.0	**6.2**
Others (e.g. guardian)	2.8	4.9	3.8	3.5	5.6	4.2	3.5	2.6	1.4	8.0	**3.5**
Schooling status											
In school	98.2	99.2	98.2	96.5	100	97.9	100	100	97.1	95.8	**98.6**
Not in school	1.8	0.8	1.2	3.5	-	2.1	-	-	2.9	4.2	**1.4**
N =	**397**	**250**	**80**	**87**	**55**	**97**	**85**	**157**	**70**	**25**	**656**

2.2 Characteristics of the 15 - 65 year old respondents

This study examined a number of selected respondents' background characteristics that may provide useful pointers to the use of alcohol, drugs and other substances of abuse. These background characteristics include: residence or setting, gender, age in years, geographical region, marital status, religion, education status as well as employment status. Through one or a combination of these background indicators, it is possible to provide informed explanation on the observed differentials in the use of alcohol and other substances of abuse.

The 15 – 65 year old respondents comprised of 51.3% male and 48.7% female. The gender distribution of the respondents also varied with the research setting as well as the geographical region. For instance, in the North Eastern region, the sample was predominantly male, with men accounting for more than 80%. In the Rift Valley and Eastern region, the 15 – 65 year old respondents were nearly split into equal numbers (Table 3). These differences should be viewed against the background of religious differences (e.g. Muslim in North Eastern) and residence (i.e. rural vs. urban).

Table 3: **Characteristics of the 15 - 65 year old sample (%)**

	Setting		Region								
Indicator	**Rural**	**Urban**	**Nairobi**	**Central**	**Coast**	**Eastern**	**Nyanza**	**Rift Valley**	**Western**	**North Eastern**	**Total**
Gender											
Male	51.3	52.1	58.2	45.7	49.8	50.6	48.8	50.5	46.7	82.8	**51.3**
Female	48.7	47.9	41.8	54.3	50.2	49.4	51.2	49.5	53.2	17.1	**48.7**
Age in Years											
15 – 17	4.7	5.4	4.3	4.9	14.0	7.2	3.4	4.7	2.3	14.0	**5.0**
18 – 24	19.0	26.0	22.0	20.8	30.1	22.9	20.3	20.3	22.9	30.1	**21.7**
25 – 35	29.0	31.6	40.7	25.4	30.1	22.6	38.8	30.0	27.4	30.1	**30.0**
36+	47.3	36.9	33.0	48.9	25.8	47.3	37.5	45.0	47.4	25.8	**43.3**
Marital status											
Single/never married	39.3	24.6	46.7	27.7	28.6	32.0	18.7	30.7	15.6	57.6	**30.2**
Divorced/ Widowed	9.4	15.4	6.0	8.8	14.3	9.9	12.0	8.8	12.2	2.2	**9.6**
Married / living with a partner	51.3	65.6	47.3	63.5	57.1	58.1	69.3	60.6	72.2	39.1	**60.2**
Religion											
Christian	92.5	78.8	91.3	95.5	45.7	92.4	95.5	95.3	97.7	11.8	**87.3**
Muslim	5.1	18.5	6.0	0.8	53.8	4.5	3.8	1.3	0.4	87.1	**10.2**
Others	2.4	2.7	2.7	3.6	0.4	3.1	0.7	3.4	1.9	1.1	**2.5**
Education status											
No formal	3.6	3.0	2.1	2.4	8.7	2.6	2.4	2.8	2.7	12.0	**3.4**
Primary	47.7	35.0	21.4	42.0	50.9	49.4	44.3	46.5	48.3	17.4	**42.7**
Secondary	40.5	44.7	47.4	43.1	33.9	42.4	42.2	41.6	42.5	46.7	**42.3**
Post-secondary	8.2	17.2	29.1	12.5	6.4	5.7	11.2	8.9	6.6	23.9	**11.6**
Employment status											
Self employed	45.5	40.0	40.3	37.6	40.3	38.9	49.5	48.9	50.6	20.7	**43.2**
Student	9.0	11.7	11.7	10.4	6.5	13.5	7.9	8.5	6.6	26.1	**10.1**

Indicator	Setting		Region								
	Rural	Urban	Nairobi	Central	Coast	Eastern	Nyanza	Rift Valley	Western	North Eastern	Total
House wife / house husband	12.5	8.1	3.3	11.7	11.6	9.8	10.3	13.2	17.0	8.7	**11.0**
Unemployed	7.8	11.7	13.0	8.2	14.8	12.2	10.0	6.3	5.4	7.6	**9.4**
Informal employment	8.5	9.5	9.7	14.2	10.6	7.5	4.5	9.4	5.4	5.4	**8.8**
Formal employment	8.9	12.1	15.7	9.0	10.2	7.3	10.7	7.2	9.7	27.2	**10.1**
Casual labourer	5.8	5.7	5.3	6.8	4.2	8.3	5.8	5.2	3.1	4.3	**5.7**
Pensioner/ retired	2.1	1.1	1.0	2.2	1.9	2.6	1.4	1.3	2.3	3.3	**1.7**
Total	**1549**	**976**	**305**	**371**	**226**	**391**	**292**	**636**	**266**	**93**	**2580**

The sample was further split into four age categories, namely: 15 – 17 years, 18 – 24 years, 25 – 35 years and those above 35 years. Data shows that 43% of those interviewed were aged 36 years and above. This was closely followed by those aged 25 – 35 years at 30%. The age category 18 – 24 years accounted for 21.7% while the age category 15 – 17 years accounted for 5% of the sample. It should be noted that the ages 15 – 24 years represent a youthful segment of the population, most of whom are either in secondary school; university or college, or attending some vocational training.

Marital status is another important background characteristic. Slightly over 60% are married or living with a partner while 30.2% reported being single or never being married. In terms of religious affiliation, Christians accounted for the bulk of the respondents (87.3%) while the remaining were Muslims (10.2%) or described themselves as belonging to other religious groups (2.3%). The Christian religion category included both the Catholics and the Protestants. The data also shows that 42.7% of the 15 – 16 year-old respondents have a primary level of education while 42.3% have a secondary education. It is 11.6% of the respondents who reported having pursued post-secondary education. Apart from Nairobi and North Eastern regions, the other regions have limited variations in terms of the level of education. Finally, self-employment featured prominently as the main occupation for 43.2% of the respondents.

CHAPTER 3: AWARENESS, ACCESSIBILITY AND USE OF DRUGS

3.1 Awareness of drugs and substances of abuse

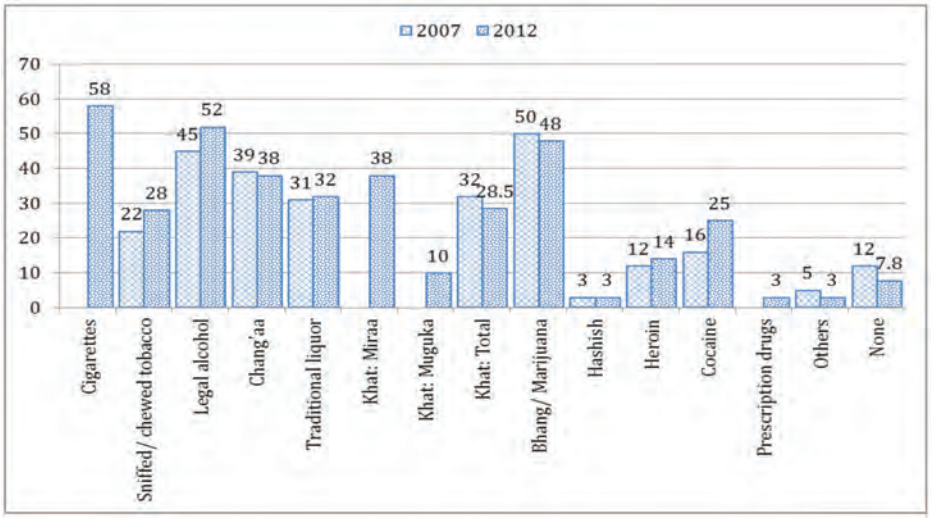
In assessing the level of awareness of various drugs and substances of abuse, respondents were required to answer two separate but interlinked questions. The first question sought to generate, spontaneously, knowledge on all drugs and substances of abuse that the respondent had. After this spontaneous response, all the respondents were prompted on other drugs that one may have not mentioned. Put together, the spontaneous response and the prompted response was used to estimate total awareness level among the studied population.

Overview

This chapter presents the findings on knowledge of drugs and other substances of abuse among the respondents in the two samples. Besides awareness, the chapter also explores accessibility and use of drugs and substances of abuse. Finally, it presents the role of immediate social environment

Figure 2 shows the changes which have occurred since the 2007 baseline survey. However, in some, cases data was not captured in the 2007 survey hence only the 2012 estimates are given. Cigarettes and legal alcohol were mentioned spontaneously by over 50% of the 10–14 year old respondents (Figure 2). Bhang was third with 48.4%. Overall, an increase in awareness is recorded with respect to tobacco (from 22% in 2007 to 28% in 2012), use of legal alcohol (from 45% in 2007 to 52% in 2012) and cocaine (from 16% in 2007 to 25% in 2012), while there is a general reduction or little change in the other drugs/substances recorded.

Figure 2: **Spontaneous recall (%) of drugs among 10 – 14 year old respondents**



3.1.1 Awareness of tobacco products

Among the 10-14 years sample, the data shows a high level of total awareness of cigarettes. Total awareness is estimated as a combination of spontaneous recalls and prompted recalls. The level of total awareness among the 10 – 14 year olds, with regard to cigarettes, is high (97%) compared to sniffed, chewed or piped tobacco (73.8%). These differences are captured in Table 4.

Although in general the youth demonstrate a high level of total awareness of tobacco and other substances of abuse, the sample for those out of school was too small to result in a generalization of the results. This low number of youth, out of school, is as a result of the government's efforts to ensure universal access to education through free primary schooling and subsequent legislation and directive that all children be enrolled in school.

Table 4: **Total awareness (%) among 10 – 14 year-olds by sample characteristics**

		Tobacco Products		
		Cigarettes	Sniffed, chewed or piped tobacco	No. of respondents
Setting	Urban	96.4	72.8	**250**
	Rural	80.0	74.8	**397**
Region	Nairobi	96.3	62.5	**80**
	North Eastern	80.0	68.0	**25**
	Coast	100	96.4	**55**
	Central	98.9	67.8	**87**
	Eastern	99.0	82.5	**97**
	Rift Valley	96.9	77.7	**157**
	Nyanza	97.7	70.6	**85**
	Western	100.0	64.3	**70**
Gender	Male	97.5	73.3	**356**
	Female	97.3	74.9	**299**
Economic status	High	95.5	81.8	**44**
	Medium	96.1	73.6	**178**
	Low	97.4	71.7	**194**
	Very low	98.8	75.0	**240**
School	In- school	97.5	74.6	**646**
	Not in school	100.0	44.4	**9**
Religion	Christian	98.4	72.8	**559**
	Muslim	92.1	81.6	**76**
Total		**97.0**	**73.8**	**656**

Total awareness of tobacco products among respondents in the age bracket 15-65 years is presented below. Total awareness was estimated on the basis of the spontaneous recalls as well as prompted recalls. Hence, when a drug was spontaneously recalled, it was automatically reflected under the prompted score. Shisha and kuber recorded the lowest levels of total awareness at 11.2% and 47.1%, respectively. Generally, total awareness of tobacco products was high (98.6%), with no significant differences across the different characteristics, namely, setting (whether urban or rural), region, gender, age and religious affiliation.

Regionally, total awareness of tobacco products was highest in North Eastern (100%) and lowest in Rift Valley and Central at 97.8% (Table 5).

The total awareness of cigarettes is 97.7% while that for sniffed/ chewed/ piped tobacco is 80.4%.

Table 5: **Total awareness (%) of tobacco among 15 – 65 year-olds by sample characteristics**

		Cigarettes	Sniffed/ chewed/piped tobacco	*Kuber*	*Shisha*	All tobacco products	Total
Setting	Rural	97.6	81.9	41.3	7.4	**98.5**	**976**
	Urban	98.1	79.2	56.8	17.7	**98.8**	**1549**
Region	Nairobi	97.7	75.4	58.7	23.0	**98.7**	**305**
	N. Eastern	98.9	90.3	68.8	29.0	**100**	**93**
	Coast	99.1	97.4	55.3	12.4	**99.6**	**226**
	Central	97.6	56.3	22.6	5.1	**97.8**	**371**
	Eastern	98.5	86.5	42.2	9.7	**98.7**	**391**
	R. Valley	95.8	84.6	45.0	10.1	**97.8**	**636**
	Nyanza	98.0	84.3	74.3	11.0	**99.0**	**292**
	Western	99.6	79.0	35.3	4.1	**99.6**	**266**
Gender	Male	97.8	82.9	53.9	15.0	**98.7**	**1310**
	Female	97.8	77.8	40.1	7.5	**98.6**	**1244**
Age in years	15 – 17	99.2	41.9	41.9	11.6	**99.2**	**129**
	18 – 24	98.4	53.9	53.9	13.1	**98.9**	**558**
	25 – 35	97.7	47.3	53.1	13.5	**98.6**	**772**
	36+	97.4	40.1	39.2	8.4	**98.4**	**1116**
Religion	Christian	97.6	45.6	45.6	9.7	**98.5**	**2206**
	Muslim	98.5	59.9	59.9	23.9	**99.6**	**259**
	Others	100.0	47.6	47.6	7.9	**100.0**	**63**
Total		**97.7**	**80.4**	**47.1**	**11.2**	**98.6**	**2580**

3.1.2 Awareness of alcoholic products

The awareness levels for packaged /legal alcohol, *changa'a* and traditional liquor for the 10-14 year old respondents, has reduced since the 2007 rapid assessment survey (Table 6). The respondents indicate reduction in awareness levels for packaged/legal alcohol, *chang'aa* and traditional liquor from 87.3% to 83.9%, 85.8% to 76% and 83.3% to 73.8% respectively.

For the 15-65 years group, packaged/legal alcohol and *chang'aa* recorded the highest total awareness levels at 92.4% and 88.6% respectively compared to traditional liquor and 2nd generation alcohol at 76.4% and 46.5% respectively. North Eastern region reported the lowest levels of total awareness with respect to traditional liquor, 2nd generation alcohol and *chang'aa*. Nairobi region (56.7%) and Rift Valley (50.3%) led in the total awareness with respect to the 2nd generation alcoholic drinks (Table 7).

With regard to residence, the respondents in the rural setting reported relatively higher levels of prompted knowledge of *chang'aa* and traditional liquor. The 2nd generation alcohol is the least known among the other categories of alcoholic drinks.

Generally, Christians have a higher total awareness of alcohol products compared to those professing the Islamic faith. Regionally, North-Eastern recorded the lowest total awareness levels of alcohol products (Table 7).

Overall, there are variations with a tendency towards lower total awareness of packaged/legal alcohol, *chang'aa* and traditional liquor between 2007 and 2012 surveys (Table 7).

Table 6: **Total awareness (%) of alcohol among 10 – 14 year-olds by sample characteristics**

		Alcohol Products						No. of respondents
		Packaged/ legal alcohol		*Chang'aa*		Traditional liquor		
		2007	2012	2007	2012	2007	2012	
Setting	Urban	87.8	90.0	91.4	73.2	80.2	70.8	**250**
	Rural	87.1	80.6	83.9	78.3	84.4	76.3	**397**
Region	Nairobi	89.9	90.0	91.0	75.0	76.4	65.0	**80**
	North Eastern	39.1	68.0	41.4	44.0	23.4	24.0	**25**
	Coast	96.2	98.2	93.2	70.9	92.4	94.6	**55**
	Central	95.3	95.4	87.1	64.4	84.4	65.2	**87**
	Eastern	92.1	93.8	72.6	65.0	82.1	59.8	**97**
	R. Valley	86.8	75.2	93.8	82.8	93.6	76.6	**157**
	Nyanza	87.3	81.2	92.4	89.4	89.6	87.1	**85**
	Western	95.0	70.0	98.7	94.3	93.7	88.6	**70**
Gender	Male	84.4	83.7	86.3	75.3	83.0	73.6	**356**
	Female	90.3	85.0	85.3	77.6	83.6	74.6	**299**
Economic status	High	94.4	90.1	92.5	54.6	80.6	59.1	**44**
	Medium	89.7	89.3	89.7	85.4	85.2	76.2	**178**
	Low	93.1	87.1	86.6	72.2	87.4	72.2	**194**
	Very low	80.9	77.1	81.5	77.1	79.9	78.3	**240**
School	In- school	89.9	84.4	88.1	77.2	86.1	74.3	**646**
	Not in school	51.1	88.9	54.2	22.2	45.1	66.7	**9**
Religion	Christian	92.7	83.9	90.9	79.3	90.8	76.2	**559**
	Muslim	68.8	86.8	70.2	56.6	54.8	61.8	**76**
Total		**87.3**	**83.9**	**85.8**	**76.0**	**83.3**	**73.8**	**656**

Table 7: **Total awareness (%) of alcohol among 15 – 65 year-olds by sample characteristics**

		Packaged/ legal alcohol		*Chang'aa*		Traditional liquor		2nd generation alcohol	Total for all alcohol	Total
		2007	2012	2007	2012	2007	2012			
Setting	Rural	94.0	91.6	94.0	89.0	93.0	77.9	49.9	99.0	**976**
	Urban	95.0	93.9	96.0	88.3	92.0	74.8	44.7	98.3	**1549**
Region	Nairobi	94.0	93.8	95.0	94.1	92.0	76.7	56.7	99.3	**305**
	N. Eastern	68.0	85.0	64.0	63.4	48.0	34.4	22.6	87.1	**93**
	Coast	97.0	95.6	97.0	88.9	97.0	89.8	38.5	98.2	**226**
	Central	98.0	97.0	98.0	79.3	96.0	65.2	49.3	98.9	**371**
	Eastern	97.0	94.1	90.0	81.6	95.0	83.6	46.3	99.0	**391**
	R. Valley	92.0	93.2	96.0	92.9	95.0	78.0	50.3	99.1	**636**

		Packaged/ legal alcohol		*Chang'aa*		Traditional liquor		2nd generation alcohol	Total for all alcohol	Total
		2007	2012	2007	2012	2007	2012			
	Nyanza	98.0	89.0	99.0	94.0	97.0	81.5	39.4	99.7	**292**
	Western	93.0	83.1	96.0	98.1	94.0	74.8	45.1	99.6	**266**
Gender	Male	95.0	93.4	95.0	89.2	94.0	77.4	49.9	98.7	**1310**
	Female	94.0	91.3	93.0	88.3	92.0	75.6	43.2	98.7	**1244**
Age in years	15 – 17	93.0	96.1	93.0	89.2	89.0	70.5	41.1	98.5	**129**
	18 – 24	95.0	94.6	95.0	87.5	94.0	72.0	46.4	98.4	**558**
	25 – 35	95.0	91.7	94.0	90.5	93.0	78.7	48.7	98.8	**772**
	36+	94.0	91.4	93.0	88.1	92.0	78.1	46.0	98.8	**1116**
Total		**94.0**	**92.4**	**94.0**	**88.6**	**93.0**	**76.4**	**46.5**	**98.7**	**2,580**

3.1.3 Awareness of narcotics

Apart from cocaine and heroin, where total awareness has increased, the indicators for hashish and bhang points to a reduction in awareness (Table 8). Most respondents indicate that they are aware of bhang, followed by those who reported being aware of cocaine, heroin and hashish, in that order. Total awareness of bhang also varies significantly across regions. The North Eastern and Rift Valley regions recorded the lowest level of awareness among the 10 – 14 year olds while those in Coast region recorded one of the highest awareness levels. Central and Eastern regions are second and third, respectively, in terms of awareness (Table 8). Between 2007 and 2012, a decline in awareness of hashish (from 17% to 11.4%) and bhang (from 86.5% to 79.2%) is recorded, while on the other hand, there is an increase in the general awareness of cocaine (from 42.3% to 44.9%) and heroin (from 35.8% to 37.3%).

Table 8: **Total awareness (%) of narcotics among 10 – 14 year-olds by sample characteristics**

		Narcotics								No. of respondents
		Hashish		Bhang		Cocaine		Heroin		
		2007	2012	2007	2012	2007	2012	2007	2012	
Setting	Urban	25.8	21.2	87.8	84.0	62.9	52.0	51.7	44.0	**250**
	Rural	14.0	5.3	86.1	77.3	35.4	40.6	30.5	32.8	**397**
Region	Nairobi	17.8	23.8	87.6	78.8	64.0	52.5	50.4	31.3	**80**
	North Eastern	46.0	40.0	44.4	68.0	32.9	24.0	29.5	24.0	**25**
	Coast	43.0	34.6	90.9	94.6	55.5	61.8	56.3	65.5	**55**
	Central	15.4	10.3	94.5	87.4	62.2	52.9	52.0	47.1	**87**
	Eastern	3.6	4.1	89.7	85.6	33.6	41.2	26.6	42.3	**97**
	R. Valley	17.9	7.0	85.4	69.4	35.7	38.2	35.5	36.3	**157**
	Nyanza	2.4	1.2	90.3	82.4	25.0	52.9	12.9	35.3	**85**

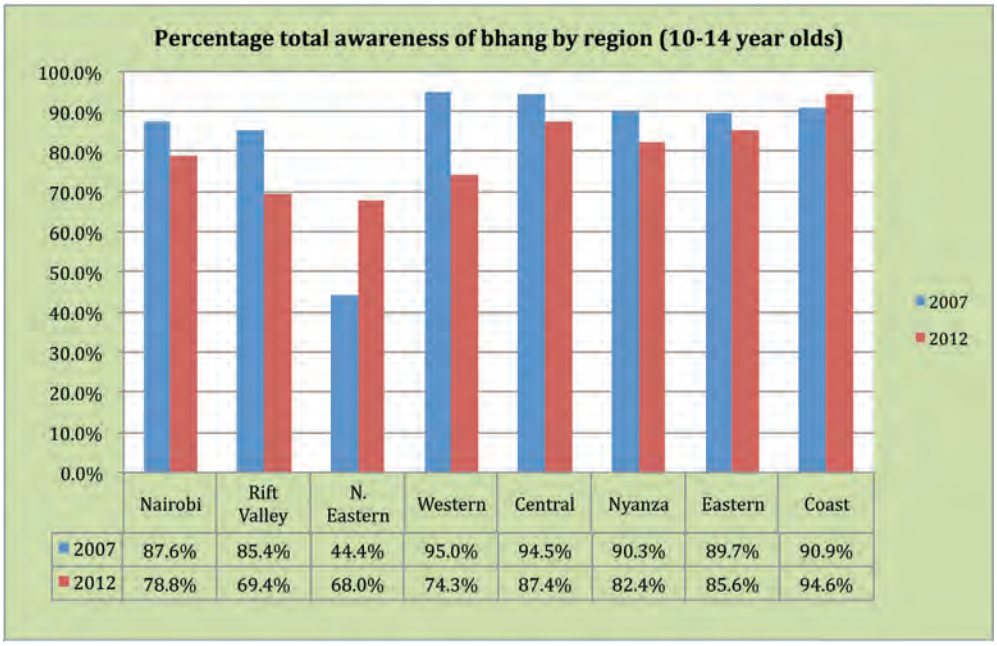
		Narcotics								No. of respondents
		Hashish		Bhang		Cocaine		Heroin		
		2007	2012	2007	2012	2007	2012	2007	2012	
	Western	22.1	2.9	95.0	74.3	46.4	32.9	38.2	14.3	**70**
Gender	Male	18.3	14.9	85.6	80.3	44.6	45.5	35.8	38.5	**356**
	Female	15.6	7.0	87.5	78.6	39.8	44.5	35.8	36.1	**299**
Economic status	High	31.3	18.2	94.4	79.6	82.5	56.8	70.6	40.9	**44**
	Medium	20.9	21.4	89.7	82.0	54.7	56.2	47.8	47.8	**178**
	Low	12.8	8.3	88.4	81.4	44.1	42.8	33.2	38.1	**194**
	Very low	14.5	5.4	81.9	76.3	26.2	36.7	23.5	28.8	**240**
School	In- school	16.6	11.5	89.3	79.9	43.2	45.4	36.5	37.9	**646**
	Not in school	22.0	11.1	48.1	66.7	29.9	33.3	26.9	11.1	**9**
Religion	Christian	13.8	11.5	91.8	79.5	43.1	45.0	36.7	37.5	**635**
	Muslim	42.6	-	70.6	100	46.8	66.7	39.2	50.0	**6**
Total		**17.0**	**11.4**	**86.5**	**79.2**	**42.3**	**44.9**	**35.8**	**37.3**	**656**

A closer analysis of bhang, which is the drug mentioned by most 10-14 year olds, reveals clear regional differences and differences between 2007 and 2012 surveys. Total awareness of bhang also varies significantly across regions. The North Eastern and Rift Valley regions recorded the lowest level of awareness among the 10 – 14 year olds while those in Coast region recorded one of the highest awareness levels. Central and Eastern regions are, second and third, respectively, in terms of awareness (Figure 3).

Between 2007 and 2012, there is a decline in awareness among the 10-14 year olds, except for North Eastern and Coast regions which recorded an increase in the level of awareness among this age group.

The study assessed the level of total awareness with regard to narcotics, for those aged between 15 – 65 years. The narcotics assessed include: bhang, cocaine and heroin. For each of these drugs, the study sought information on the mode of administering the drug e.g. smoking, snorting and injecting. The findings are presented in Table 9. Smoked bhang recorded the highest total awareness (84.1%) compared to bhang cooked in food or drink (12.1%). The total awareness of hashish is 13.0%. Considering the regions, Coast has the highest total awareness levels of bhang.

Figure 3: **Total awareness (%) of bhang among 10 – 14 year-olds by region**



Compared to bhang products, there is a relatively limited awareness of cocaine and heroin. The total awareness of both cocaine and heroin is below 50%. The most common form of cocaine and heroin is the injected type (28.0% and 29.1% respectively). Total awareness of cocaine and heroin is highest in Nairobi and the Coast regions. In general, knowledge of bhang, cocaine, and heroin is highest among respondents in urban areas than among respondents in rural areas as is among men as compared to women. The findings further show that total awareness of cocaine and heroin declines with advancing age. For instance, the total awareness, with respect to cocaine, declines from 60% to 40% in the age categories 15 – 17 years and above 35 years, respectively.

Table 9: **Total awareness (%) narcotics among 15 – 65 year-olds by sample characteristics**

		Bhang / Marijuana						Cocaine					Heroine					Total
		Smoked	cooked in food / drink	Hashish		Total bhang		Snorted	Smoked	Injected	Total cocaine		Snorted	Smoked	Injected	Total heroin		
				2007	2012	2007	2012				2007	2012				2007	2012	
Setting	Rural	81.7	10.0	27.0	8.7	95.0	85.4	16.0	15.5	21.2	63.0	40.3	13.4	17.4	23.3	56.0	42.3	**976**
	Urban	88.5	15.2	54.0	20.5	96.0	91.9	36.3	32.7	39.2	85.0	62.5	31.1	32.3	38.9	80.0	60.5	**1549**
Region	Nairobi	87.2	25.6	50.0	22.0	96.0	92.5	41.9	42.6	46.2	86.0	69.8	38.0	40.3	45.9	82.0	67.2	**305**
	N. Eastern	91.4	12.9	72.0	38.7	72.0	92.5	44.2	39.8	38.7	51.0	59.1	43.0	41.9	47.3	45.0	63.4	**93**
	Coast	88.1	12.8	68.0	28.3	97.0	94.7	12.7	31.4	45.1	88.0	64.2	39.4	28.8	49.1	84.0	66.8	**226**

		Bhang / Marijuana						Cocaine					Heroine					
		Smoked	cooked in food / drink	Hashish		Total bhang		Snorted	Smoked	Injected	Total cocaine		Snorted	Smoked	Injected	Total heroin		Total
				2007	2012	2007	2012				2007	2012				2007	2012	
	Central	84.6	14.6	33.0	9.4	99.0	89.8	26.6	11.6	22.4	76.0	36.9	14.0	18.1	23.2	70.0	44.7	**371**
	Eastern	82.9	10.0	19.0	10.0	97.0	83.6	19.2	22.9	28.4	62.0	44.8	24.3	26.1	25.1	51.0	47.1	**391**
	R. Valley	80.4	7.7	28.0	6.3	92.0	82.2	12.0	12.9	19.3	61.0	42.8	14.6	14.9	23.9	57.0	43.9	**636**
	Nyanza	85.3	12.7	19.0	10.3	98.0	92.5	11.7	26.0	33.2	65.0	58.9	7.5	24.3	24.7	52.0	47.6	**292**
	Western	83.5	5.3	36.0	9.0	95.0	85.0	27.9	15.8	10.9	68.0	33.5	5.6	12.4	18.1	64.0	33.1	**266**
Gender	Male	87.6	14.4	43.0	17.3	96.0	90.5	38.0	27.9	32.1	78.0	55.4	25.3	27.9	34.7	71.0	57.8	**1310**
	Female	80.5	10.0	25.0	8.6	94.0	84.7	27.2	19.4	23.9	60.0	41.9	15.0	18.2	23.3	53.0	40.4	**1244**
Age in years	15 – 17	85.3	17.1	31.0	11.6	95.0	89.9	18.6	38.0	31.8	75.0	60.5	31.0	20.9	34.9	68.0	55.8	**129**
	18 – 24	87.1	12.7	36.0	13.1	95.0	89.8	21.5	27.2	31.2	72.0	55.6	22.8	27.6	32.8	66.0	55.7	**558**
	25 – 35	83.9	13.2	36.0	13.5	96.0	87.6	43.6	25.5	29.4	70.0	51.9	20.5	24.9	28.5	63.0	49.3	**772**
	36+	82.9	10.1	32.0	12.7	94.0	86.4	23.8	18.6	24.4	61.0	40.7	17.5	19.5	26.8	55.0	44.8	**1116**
Total		**84.1**	**12.1**	**34.0**	**13.0**	**95.0**	**87.6**	**41.9**	**23.7**	**28.0**	**69.0**	**48.8**	**20.2**	**23.1**	**29.1**	**62.0**	**49.3**	**2,580**

3.1.4 Awareness of *khat*

The level of total awareness among the 10 – 14 year, olds with regard to khat (*muguka* and *miraa*) and inhalants, is relatively higher compared to other drugs. Furthermore, there are clear differences across the rural-urban continuum. There are also substantial variations across economic status with a tendency towards lower levels of knowledge, for all the drugs, with declining household socio-economic status (Table 10). Although in general the youth demonstrate a high level of total awareness of drugs and substance of abuse, the sample for those out of school was too small to result in a generalization of the results. The differences between the two survey periods i.e. 2007 and 2012, are clearly demonstrated in Table 10 below. The data reveal a trend towards a lower level of awareness for khat and inhalants.

The study also assessed the level of total awareness with respect to *khat* (*miraa* and *muguka*) for those between 15 – 65 years. *Khat* is predominantly cultivated as a cash crop in parts of Eastern and Central Kenya. However, some variants of *khat* grow wild in the Rift Valley region of Kenya. As shown in Table 11, the total awareness of *miraa* is much higher compared to *muguka* (84.5% and 40.0% respectively). Regionally, North Eastern and Eastern recorded the highest total awareness of both *miraa* while Eastern region recorded the highest total awareness levels of *muguka*.

In terms of gender, 87% of males interviewed, compared to 81% females, reported awareness of *miraa*, while 46% males compared to 33% females, reported awareness of *muguka*.

There are observable age differentials with regard to knowledge of both *miraa* and *muguka*. In general, awareness of khat (*miraa* and *muguka*) declines as age increases.

Thus, knowledge of *khat* is highest at 93% for those aged between 15-17 years, which falls to 87.5% among those aged 18-24 years, 86.5% among those 25-35 years and is lowest for those over 35 years (83.6%). Overall, in 2007, among those aged 15-65 years, total awareness of khat was 92% compared to 86% in 2012.

Table 10: **Total awareness (%) of khat and other drugs among 10 – 14 year-olds across sample characteristics**

		Khat Products				Others						
		Miraa	*Muguka*	*Khat* (Total)		Inhalants		Prescription / synthetic drugs	Other drugs	None[2]		No. of respondents
				2007	2012	2007	2012			2007	2012	
Setting	Urban	86.8	44.8	92.4	87.6	72.1	66.0	22.4	4.0	2.5	10.4	**250**
	Rural	72.8	18.4	77.7	73.6	50.7	48.9	17.6	3.3	2.7	9.6	**397**
Region	Nairobi	87.5	53.8	94.4	87.5	66.2	71.3	20.0	6.3	2.3	12.5	**80**
	North Eastern	84.0	44.0	93.5	84.0	25.3	64.0	8.0	8.0	6.5	28.0	**25**
	Coast	94.5	23.6	94.7	94.5	65.8	67.3	36.4	1.8	1.9	5.5	**55**
	Central	87.4	32.2	88.8	88.5	79.3	52.9	24.1	8.1	2.7	8.1	**87**
	Eastern	90.0	61.9	97.0	91.8	54.1	54.6	16.5	5.2	1.8	14.4	**97**
	R. Valley	66.9	14.0	74.5	68.2	57.0	44.0	12.1	1.9	2.1	7.0	**157**
	Nyanza	72.9	7.1	52.2	72.9	43.1	65.9	29.4	1.2	5.2	9.4	**85**
	Western	55.7	4.3	69.1	55.7	48.0	41.4	12.9	-	-	5.7	**70**
Gender	Male	79.2	30.9	80.7	79.8	57.0	58.7	19.9	4.5	4.9	10.4	**356**
	Female	76.6	25.1	82.1	77.6	55.2	51.2	19.1	2.7	0.3	9.0	**299**
Economic status	High	88.6	38.6	94.4	88.6	78.6	63.6	22.7	6.8	1.6	4.5	**44**
	Medium	86.0	38.8	87.4	86.0	69.8	68.5	23.0	4.5	3.5	7.3	**178**
	Low	76.8	31.4	81.7	78.4	58.6	53.6	18.0	3.1	1.4	13.9	**194**
	Very low	71.3	16.3	74.9	72.1	41.4	45.4	17.5	2.9	3.0	9.2	**240**
School	In- school	78.3	28.3	83.4	79.1	57.8	55.9	19.5	3.7	-	9.8	**646**
	Not in school	66.7	33.3	52.6	66.7	33.0	22.2	22.2	-	39.8	11.1	**9**
Religion	Christian	76.0	27.8	81.0	76.7	59.4	53.7	18.3	3.4	0.2	9.1	**559**
	Muslim	92.1	83.3	98.2	92.1	46.4	65.8	27.6	-	0.8	-	**76**
Total		**77.7**	**28.2**	**81.4**	**78.5**	**56.1**	**55.1**	**19.4**	**3.6**	**2.7**	**9.7**	**656**

Table 11: **Total awareness (%) of khat among 15 – 65 year-olds by sample characteristics**

		Khat: miraa	*Khat: muguka*	Total *khat*		Total
				2007	2012	
Setting	Rural	80.6	28.3	92.0	92.4	**976**
	Urban	91.1	59.1	94.0	82.0	**1549**
Region	Nairobi	91.8	67.2	94.0	93.8	**305**
	N. Eastern	100.0	71.0	99.0	100.0	**93**
	Coast	90.7	40.7	96.0	92.0	**226**
	Central	82.8	39.6	97.0	84.9	**371**
	Eastern	92.1	77.0	98.0	92.6	**391**
	R. Valley	77.7	23.9	87.0	78.9	**636**
	Nyanza	79.8	16.8	90.0	82.2	**292**
	Western	77.8	7.9	86.0	78.6	**266**

2 None represents those who did not report being aware of tobacco, alcohol, narcotics, khat or others

		Khat: miraa	*Khat: muguka*	Total *khat*		Total
				2007	2012	
Gender	Male	87.4	46.6	94.0	89.0	**1310**
	Female	81.4	33.3	91.0	82.5	**1244**
Age in years	15 – 17	93.0	41.1	93.0	93.0	**129**
	18 – 24	85.8	45.3	93.0	87.5	**558**
	25 – 35	85.2	41.4	94.0	86.5	**772**
	36+	82.2	35.6	90.0	83.6	**1116**
Total		**84.5**	**40.0**	**92.0**	**85.9**	**2,580**

3.1.5 Awareness of inhalants, prescription and synthetic drugs

The level of total awareness for inhalants, prescription drugs and synthetic drugs was assessed. Like other drugs presented earlier, knowledge of each of the drugs was analyzed in the context of residence, age, region, gender and religion. The total awareness of inhalants stands at 57% (Table 12). Respondents in the urban setting recorded higher levels of awareness of inhalants, compared to rural respondents. In terms of regions, Nyanza, North Eastern and Nairobi recorded the highest levels of awareness, at 68%.

There are several drugs that fall within the family of prescription drugs. These include: sedatives or sleeping pills such as valium, serapax, and rohypnol as well as morphine, condeine and pethidine. Between sedatives and morphine, condeine and pethidine, a higher level of total awareness was recorded for sedatives, at 25%. For all the prescriptive drugs, North Eastern region demonstrated a higher level of total awareness, while the least level of awareness was recorded in the Western region.

The synthetic drugs include amphetamine, hallucinogens and mandrax. Of all the synthetic drugs assessed, mandrax turned out to be the most known, at 8%, while the total for all synthetic drugs was estimated at 12%. Total awareness also differs with region, gender and religion. For instance, respondents in the urban setting and male respondents, were associated with higher levels of total awareness of synthetic drugs.

Table 12: **Total awareness (%) of inhalants, prescription and synthetic drugs among 15 – 65 year-olds across sample characteristics**

		Inhalants		Prescription drugs			Synthetic drugs				Total
		2007	2012	Sedatives or sleeping pills (Valium, Serapax, Rohypnol)	Morphine, Condeine, Pethidine	Total	Amphetamine	Hallucinogens	Mandrax	Total	
Setting	Rural	68.0	52.4	22.1	2.0	23.2	4.3	1.2	6.4	9.8	**976**
	Urban	88.0	64.6	31.8	4.3	32.8	6.5	4.8	11.0	16.8	**1549**
Region	Nairobi	89.0	67.9	33.4	6.6	35.1	10.5	8.9	13.1	23.0	**305**

		Inhalants		Prescription drugs			Synthetic drugs				Total
		2007	2012	Sedatives or sleeping pills (Valium, Serapax, Rohypnol)	Morphine, Condeine, Pethidine	Total	Amphetamine	Hallucinogens	Mandrax	Total	
	N. Eastern	49.0	67.7	41.9	-	41.9	2.2	5.4	8.6	12.9	**93**
	Coast	84.0	58.4	38.9	5.8	40.3	11.5	4.4	15.0	23.0	**226**
	Central	85.0	46.4	20.8	1.6	21.3	2.4	1.1	5.4	7.6	**371**
	Eastern	75.0	53.2	22.8	3.3	24.3	2.3	0.8	9.0	11.0	**391**
	R. Valley	67.0	55.4	18.2	2.2	19.5	3.1	1.1	6.6	8.0	**636**
	Nyanza	71.0	68.2	36.0	2.4	37.0	6.5	2.1	5.5	11.6	**292**
	Western	57.0	51.9	16.2	0.4	16.3	4.9	1.5	4.9	10.5	**266**
Gender	Male	78.0	60.5	28.9	3.1	29.9	5.8	3.2	9.9	14.8	**1310**
	Female	68.0	53.8	22.4	2.7	23.5	4.3	1.9	6.1	9.7	**1244**
Age in years	15 – 17	76.0	58.1	24.8	3.9	29.7	3.1	2.3	23.3	25.6	**129**
	18 – 24	76.0	60.2	28.7	3.9	29.6	5.7	3.2	10.8	15.1	**558**
	25 – 35	76.0	59.4	26.9	2.8	28.0	5.3	3.3	7.5	12.7	**772**
	36+	66.0	53.3	23.1	2.2	24.0	4.6	1.7	5.0	8.7	**1116**
Total		**73.0**	**57.0**	**25.5**	**2.9**	**26.6**	**5.0**	**2.6**	**8.1**	**12.3**	**2,580**

3.1.6 Spontaneous recall of drugs

In terms of spontaneous recall of selected drugs among those aged 15 – 65 years, respondents were asked for information relating to alcoholic products, tobacco products, khat, narcotics, synthetic and prescription drugs. For some of these substances, there is no data from the baseline survey of 2007. The data shows that for alcoholic products, there is an increase in their recall while for narcotics, other than heroin and cocaine, which show a slight increase, the remaining two—hashish and bhang—, show a decrease in spontaneous recall. This data is summarized in Table 13 below. Data for prescription and synthetic drugs is not available from the 2007 survey.

Table 13: **Spontaneous recall (%) of selected drugs among 15 – 65 year-olds**

	Drug/ substance	2007	2012
Alcohol products	Packaged/ legal alcohol	54.0	58.2
	Chang'aa	47.0	54.8
	Traditional liquor	45.0	41.9
	2nd generation alcohol	-	18.6
Tobacco products	Cigarettes	-	57.3
	Sniffed/ chewed/ piped tobacco	-	26.1
	Kuber	-	11.9
	Shisha	-	1.9
Khat	*Khat*: miraa	-	36.9
	Khat: muguka	-	11.1
	Total khat	37.0	37.7
Narcotics	Cocaine	29.0	23.1
	Heroin	19.0	21.0
	Bhang	70.0	63.1
	Hashish	5.0	2.5

	Drug/ substance	2007	2012
Synthetic drugs	Hallucinogens	-	1.0
	Amphetamine Type Stimulants	-	1.0
Prescription drugs	Morphine, codeine, pethidine	-	1.0
	Sedatives/ sleeping pills	-	4.0
	Mandrax	-	2.4
None	None	5.0	4.0

3.2 Drugs accessibility

All respondents, aged 15-64 years were asked how easy it was to get different drugs and substances in their community. Among the different types of alcoholic drinks analysed, the study established that traditional liquor is the most easily accessible type of alcohol, followed by wines and spirits and lastly, *chang'aa*. Regional comparison shows that *chang'aa* is easily accessible in Western, followed by Nyanza, and least accessible in North Eastern. Traditional liquor is most accessible in Coast, followed by Western, and least accessible in North Eastern. Wines and spirits are most accessible in Nairobi, followed by Central, and least accessible in North Eastern (Table 14).

Table 14: **Access to various alcoholic drinks by region (%)**

Type of Drug/ Substance	Region	Very difficult	Fairly difficult	Fairly easy	Very easy	Do not know	N
Chang'aa	**National**	**22.5**	**8.4**	**11.8**	**49.7**	**7.6**	**2558**
	Nairobi	10.3	8.3	11.3	61.9	8.3	**302**
	N. Eastern	60.2	16.1	2.2	14	7.5	**93**
	Coast	35.4	8.0	4.9	44.7	7.1	**226**
	Central	26.9	13.9	11.7	28.3	19.3	**368**
	Eastern	50.4	10.0	8.0	20.1	11.6	**389**
	R. Valley	10.6	5.9	18.8	60.9	3.8	**624**
	Nyanza	8.6	5.9	14.1	70.3	1.0	**290**
	Western	8.6	4.5	8.6	76.7	1.5	**266**
Traditional liquor	**National**	**14.4**	**5.0**	**13**	**61.6**	**6.1**	**2545**
	Nairobi	8.3	4.7	9.3	68.8	9.0	**301**
	N. Eastern	44.6	2.2	1.1	39.1	13.0	**92**
	Coast	7.1	2.2	2.2	86.3	2.2	**226**
	Central	29.2	7.4	17.2	36.2	10.1	**367**
	Eastern	19.5	4.9	7.5	62.2	5.9	**389**
	R. Valley	8.2	4.8	20.8	61.1	5.0	**619**
	Nyanza	12.8	5.2	11.8	68.9	1.4	**289**
	Western	5.0	5.7	15.6	67.6	6.1	**262**
Wines and Spirits	**National**	**18.7**	**5.0**	**14.7**	**52.1**	**9.4**	**2536**
	Nairobi	10.0	1.3	7.0	70.0	11.7	**300**
	N. Eastern	32.6	4.3	2.2	46.7	14.1	**92**
	Coast	31.0	2.7	3.5	54.4	8.4	**226**
	Central	22.5	3.8	14.0	51.9	7.7	**364**
	Eastern	16.8	4.4	6.7	58.9	13.2	**387**
	R. Valley	13.8	5.0	28	44.2	9.1	**618**
	Nyanza	28.1	6.6	10.4	52.8	2.1	**288**
	Western	12.3	12.6	23.8	39.5	11.9	**261**

Table 15 shows that *kuber* is easily accessible in Nyanza, followed by Nairobi, and least accessible in Central. *Miraa* is most accessible in Nairobi and least accessible in Nyanza. In general, nationally, it is more difficult to access *kuber* (45.6%) compared to *miraa* (27.3%).

Table 15: **Access to *Kuber* and *Khat* by region (%)**

Type of Drug/ Substance	Region	Very difficult	Fairly difficult	Fairly easy	Very easy	Do not know	N
Kuber	**National**	**38.3**	**7.3**	**9.3**	**17.9**	**27.2**	**2532**
	Nairobi	26.0	9.7	12.7	26.7	25.0	**300**
	North Eastern	51.6	12.9	3.2	22.6	9.7	**93**
	Coast	42.9	4.9	4.4	19.5	28.3	**226**
	Central	43.1	6.4	5.0	11.0	34.5	**362**
	Eastern	47.8	8.3	4.9	13.5	25.5	**385**
	R. Valley	33.3	5.0	14.3	15.4	31.9	**615**
	Nyanza	38.1	11.1	11.4	34.3	5.2	**289**
	Western	35.1	5.7	9.9	8.4	40.8	**262**
Khat (Miraa)	**National**	**19.6**	**7.7**	**13.6**	**53.2**	**5.9**	**2545**
	Nairobi	5.3	2.3	10.3	78.4	3.7	**301**
	North Eastern	14.1	1.1	2.2	80.4	2.2	**92**
	Coast	9.3	1.8	1.8	85.4	1.8	**226**
	Central	28.6	8.7	15.5	39.2	7.9	**367**
	Eastern	12.9	3.1	3.6	77.1	3.3	**389**
	R. Valley	18.7	8.7	25.3	40.2	7.1	**620**
	Nyanza	39.4	15.9	11.1	31.1	2.4	**289**
	Western	24.9	14.9	19.2	26.1	14.9	**261**

Table 16 shows that bhang is easily accessible in Central, followed by Nairobi, and least accessible in North Eastern. Cocaine and heroin are most accessible in the Coast region and least accessible in North Eastern. Overall, bhang is the most easily available in the country (49%), followed by cocaine (8.7%), while heroin is the least easily accessible (7.4%).

Table 16: **Access to narcotic drugs by region (%)**

Type of Drug/ Substance	Region	Very difficult	Fairly difficult	Fairly easy	Very easy	Do not know	N
Bhang	National	29	13.4	15	34.2	8.4	**2558**
	Nairobi	21.5	9.9	13.9	42.1	12.6	**302**
	N. Eastern	43.0	24.7	11.8	20.4	-	**93**
	Coast	31.4	9.3	6.2	43.4	9.7	**226**
	Central	9.2	10.6	22.8	48.1	9.2	**368**
	Eastern	27.8	10.8	15.4	35.2	10.8	**389**
	R. Valley	39.7	12.2	14.9	23.9	9.3	**624**
	Nyanza	26.2	20.3	14.1	37.2	2.1	**290**
	Western	37.2	19.5	14.3	22.9	6.0	**266**
Cocaine	National	57.5	6.3	3.6	5.1	27.6	**2549**
	Nairobi	57.8	10.0	3.7	7.6	20.9	**301**
	N. Eastern	79.6	5.4	1.1	4.3	9.7	**93**
	Coast	50.0	10.2	5.3	14.6	19.9	**226**
	Central	43.7	8.7	7.7	4.4	35.5	**366**
	Eastern	63.8	6.2	2.8	3.4	23.8	**387**
	R. Valley	56.1	2.9	2.4	3.1	35.5	**622**
	Nyanza	77.7	6.9	2.1	3.1	10.3	**291**
	Western	46.8	3.0	2.7	4.6	43.0	**263**
Heroin	National	58.5	4.9	2.6	4.8	29.3	**2530**
	Nairobi	59.3	8.3	2.7	7.7	22.0	**300**
	N. Eastern	80.6	3.2	1.1	4.3	10.8	**93**
	Coast	50.4	8.8	4.9	15.5	20.4	**226**
	Central	48.2	7.2	3.9	3.9	36.8	**361**
	Eastern	66.1	5.7	1.6	1.8	24.9	**386**
	R. Valley	55.6	2.1	3.1	2.3	36.9	**615**
	Nyanza	78.1	3.5	0.7	2.8	14.9	**288**
	Western	44.4	1.5	1.9	6.1	46.0	**261**

On the other hand, among synthetic and prescription drugs, the latter are the most easily accessible (34.1%), followed by amphetamines and hallucinogens (17.7%) and mandrax (11.4%). Within regions, prescription drugs are most easily accessible in Nairobi (54.6%) followed by Nyanza (45.2%) and least accessible in North Eastern (54.4%). This data is summarized in Table 17 below.

Table 17: **Access to synthetic and prescription drugs by region (%)**

Type of Drug/ Substance	Region	Very difficult	Fairly difficult	Fairly easy	Very easy	Do not know	N
Synthetic drugs (Mandrax)	**National**	**50.3**	**4.7**	**4.3**	**7.1**	**33.6**	**2528**
	Nairobi	41.0	10.2	4.4	12.5	31.9	**295**
	N. Eastern	68.5	2.2	-	19.6	9.8	**92**
	Coast	49.1	2.7	0.4	3.1	44.7	**226**
	Central	45.4	6.6	3.3	8.3	36.3	**361**
	Eastern	59.7	4.1	1.6	6.5	28.2	**387**
	R. Valley	42.0	3.1	7.6	5.5	41.7	**616**
	Nyanza	73.7	4.5	2.8	4.8	14.2	**289**
	Western	41.6	3.8	8.0	5.7	40.8	**262**
Synthetic drugs (Amphetamines and hallucinogens)	**National**	**32.6**	**8.0**	**5.8**	**11.9**	**41.7**	**2482**
	Nairobi	23.7	9.2	6.8	26.4	33.9	**295**
	N. Eastern	47.8	21.7	1.1	13	16.3	**92**
	Coast	22.6	8.4	4.4	14.2	50.4	**226**
	Central	38.1	3.9	6.7	9.2	42.0	**357**
	Eastern	35.1	14.2	2.3	9.8	38.5	**387**
	R. Valley	26.9	3.1	6.8	11.6	51.6	**587**
	Nyanza	46.0	7.0	4.9	9.5	32.6	**285**
	Western	33.2	9.9	10.3	3.2	43.5	**253**
Prescription Drugs	**National**	**26.3**	**7.6**	**6.8**	**27.3**	**32.1**	**2499**
	Nairobi	17.2	5.1	6.1	48.5	23.2	**297**
	N. Eastern	34.8	19.6	2.2	27.2	16.3	**92**
	Coast	20.8	3.1	1.8	31.9	42.5	**226**
	Central	34.5	4.5	8.4	21.4	31.2	**359**
	Eastern	27.4	12.7	4.7	24.3	31	**387**
	R. Valley	24.6	6.7	6.9	19.7	42.0	**593**
	Nyanza	29.9	9.4	8.0	37.2	15.6	**288**
	Western	24.9	7.0	12.8	17.5	37.7	**257**

3.3 Ever use of alcohol

About 30% of the respondents, aged 15 – 65 years have ever used[3] an alcoholic drink (Table 18). The most reported ever use cases of alcohol, is for packaged/legal alcohol (accounting for one in four respondents), which is followed by traditional liquor (12.5%), *chang'aa* (10.3%) and, lastly, by 2nd generation alcohol (2.9%). While legal alcohol seems more pronounced in the urban areas, traditional liquor and *chang'aa* are the dominant alcoholic drinks among the rural respondents, aged 15 – 65 years. On the other hand, ever use cases of 2nd generation alcohol seem to be evenly distributed between urban (3.1%) and rural (2.8%) areas. The findings further show that use of alcoholic drinks varies with the level of formal education.

3 An interesting finding of this is the positive correlation between knowledge of various drugs and ever use of those who report knowledge of the drugs decreases, so does the proportion of those reporting ever use of those drugs. A plausible explanation for these correlations is that less knowledge of the drugs is equated with none use of those drugs, hence the observed positive correlation for the variables assessed.

For instance, the data suggests a rising level of use with rising levels of formal education, a pattern that is replicated for two of the alcoholic drinks: legal and the 2nd generation alcohol. On the other hand, traditional liquor seems closely associated with lower levels of formal education.

The data also reveals rural-urban differences in ever use cases of alcohol by men and women, aged 15-65 years (Table 18).

For example, respondents in rural areas are more likely to have ever consumed traditional liquor (15%) than those in urban areas (8.5%). Furthermore, men and women aged 15-65 years in urban areas, are more likely to have ever consumed packaged/legal alcohol (25.1%) than those in rural areas (15.9%). Rural men and women are much more likely to have consumed *chang'aa* (11.6%), compared to urban men and women aged 15-65 years (8.2%). The results also show that rural men and women are much more likely to have consumed any alcohol compared to urban men and women aged 15-65 years, even though the variation is not pronounced.

Table 18: **Ever use of alcohol among 15 – 65 year-olds**

		Packaged / legal alcohol		*Chang'aa*		Traditional liquor		2nd generation alcohol	Any alcohol		N
		2007	2012	2007	2012	2007	2012	2012	2007	2012	
Setting	Urban	31.6	25.1	15.9	8.2	24.0	8.5	3.1	40.2	31.6	**976**
	Rural	21.6	15.9	13.0	11.6	16.6	15.0	2.8	38.8	29.2	**1549**
Gender	Male	35.4	27.3	23.8	14.8	30.4	17.8	4.0	53.2	41.9	**1310**
	Female	13.5	10.7	6.8	5.6	14.2	6.8	1.8	25.8	17.4	**1244**
Religion	Christian	26.0	20.0	16.2	10.8	23.1	12.8	2.8	41.9	31.1	**2206**
	Muslim	8.3	11.2	2.5	3.5	8.5	6.6	2.3	14.0	16.2	**259**
	Others	30.0	27.0	27.2	19.1	39.3	24.4	7.9	51.8	46.0	**63**
Education	No formal	8.3	9.3	9.6	9.3	24.0	16.3	1.3	27.7	22.1	**86**
	Primary	19.3	15.0	17.3	13.7	25.4	15.8	2.6	38.3	28.8	**1068**
	Secondary	27.9	21.0	14.7	8.1	18.7	10.1	3.4	40.0	29.8	**1057**
	Post-secondary	44.7	32.4	13.4	4.8	19.3	7.9	2.8	50.4	36.9	**290**
Current employment	Student	12.4	9.8	6.3	3.5	9.0	5.1	2.0	22.9	14.1	**255**
	Unemployed	23.1	14.4	14.4	4.6	20.3	8.9	3.4	37.0	23.6	**237**
	Employed	32.0	23.0	20.1	12.6	27.5	14.5	3.6	48.6	35.1	**1712**
	Others	13.5	10.6	9.1	7.1	19.3	9.0	-	28.7	18.6	**322**
Economic status	High	38.6	33.1	10.5	6.5	16.9	6.1	2.3	45.3	36.9	**263**
	Middle	29.9	18.7	11.5	4.8	16.4	6.4	2.6	38.8	24.4	**702**
	Low	26.4	19.1	15.2	10.9	22.5	14.5	3.2	39.7	30.0	**843**
	Very low	16.1	15.0	18.5	16.0	26.9	18.2	3.1	38.2	32.0	**771**
Age in years	15 – 17	8.7	3.9	5.9	3.1	8.1	7.0	0.8	18.6	10.9	**129**
	18 – 24	20.4	15.8	11.5	6.1	16.8	6.8	3.8	34.6	22.9	**558**
	25 – 35	27.7	22.8	15.9	12.3	21.3	11.5	3.4	41.8	33.6	**772**
	36+	29.4	20.3	20.8	11.8	32.8	16.5	2.4	48.0	33.1	**1116**

Region	Nairobi	32.6	27.2	11.6	11.2	14.8	5.9	3.3	40.1	36.1	**305**
	N. Eastern	0.6	6.5	9.5	-	-	3.2	1.1	0.6	10.8	**93**
	Coast	23.1	19.5	8.3	8.0	29.5	12.4	3.1	41.4	27.9	**226**
	Central	34.9	23.2	7.7	3.5	18.5	6.2	1.9	42.4	24.5	**371**
	Eastern	29.6	23.8	29.6	5.6	21.5	13.6	2.8	39.1	32.0	**391**
	R. Valley	19.3	15.9	16.9	13.8	22.8	18.1	4.4	38.2	32.6	**636**
	Nyanza	23.7	16.4	23.7	12.7	27.5	10.6	2.1	46.1	24.3	**292**
	Western	16.1	13.5	-	20.3	31.2	19.2	1.9	42.7	35.7	**266**
	Total	**24.2**	**19.3**	**15.1**	**10.3**	**22.1**	**12.5**	**2.9**	**39.2**	**29.9**	**2580**

As anticipated, the ever use cases of alcohol among 10-14 years is lower than that of the 15-65 years age group (Table 19). Among the 10-14 years age group, there is a clear decline in the ever use of alcohol—packaged, *chang'aa* and traditional liquor—between 2007 and 2012. For example, ever use cases of packaged/legal alcohol reduced from 2.4% (2007) to 0.9% (2012) and traditional liquor from 5.0% (2007) to 1.7% (2012). Overall, use of any form of alcohol reduced from 7.8% in 2007 to 3.0% in 2012. Whereas the consumption of packaged/legal alcohol is higher among urban respondents than in rural areas, the use of *chang'aa* and traditional liquor is more pronounced among rural respondents.

Table 19: **Ever use of alcohol among respondents aged 10 -14 years**

		Packaged / legal alcohol		*Chang'aa*		Traditional liquor		Any alcohol	
		2007	**2012**	**2007**	**2012**	**2007**	**2012**	**2007**	**2012**
Setting	Urban	4.1	2.0	1.5	0.8	1.0	1.2	5.6	0.8
	Rural	1.6	0.3	2.7	1.0	6.4	2.0	8.6	1.0
Gender	Male	2.8	1.1	2.7	0.8	5.8	2.3	8.6	3.7
	Female	1.7	0.6	2.2	1.1	4.2	1.1	7.1	2.3
Religion	Christian	2.0	0.9	2.6	1.1	6.1	2.0	9.1	3.4
	Muslim	-	1.3	-	-	-	-	-	1.3
	Others	6.7	-	6.7	-	-	-	7.8	-
Economic status	High	4.0	-	-	-	-	2.3	4.0	2.3
	Middle	4.9	2.8	3.2	1.1	3.3	2.3	8.3	4.5
	Low	0.8	-	1.2	0.5	2.9	0.5	4.5	1.0
	Very low	1.0	0.4	3.0	1.3	8.3	2.1	10.1	3.8
School attendance	In school	2.0	0.9	2.2	0.9	5.3	1.7	7.7	3.1
	Out of school	6.1	-	6.1	-	1.5	-	9.1	-
Total		**2.2**	**0.9**	**2.4**	**0.9**	**5.0**	**1.7**	**7.8**	**3.0**

3.4 Ever use of tobacco

Comparing the 2007 baseline survey to the 2012 one, there is a decline in the ever use cases of both tobacco and sniffed/chewed/piped tobacco (Table 20). The decline in the use of cigarettes is higher among rural as opposed to urban residents. On the other hand, the decline in the use of sniffed/chewed/piped tobacco is higher among urban as opposed to rural residents. Nairobi and Coast regions show the highest decline in the use of cigarettes with the highest reduction in the use of sniffed/chewed/piped tobacco being recorded in the North Eastern region. As well, there are gender differences in the use of tobacco products.

Data from male respondents indicate steeper declines in the use of tobacco compared to data from female respondents.

Table 20: **Ever use of tobacco among the 15 – 65 year olds**

		Cigarettes		Sniffed/ Chewed/Piped tobacco		Kuber	Shihsa	Total alcohol	N
		2007	2012	2007	2012	2012	2012	2012	
Setting	Urban	20.0	18.0	5.6	2.6	2.5	0.8	20.5	**976**
	Rural	26.6	12.2	2.9	2.3	1.2	0.2	14.5	**1549**
Region	Nairobi	29.6	20.0	2.8	2.3	2.3	2.0	22.6	**305**
	N. Eastern	21.3	19.4	3.2	4.3	2.2	1.1	21.5	**93**
	Coast	28.4	20.4	8.6	4.4	3.1	-	21.7	**226**
	Central	29.5	17.3	2.3	1.4	0.8	0.3	18.1	**371**
	Eastern	24.4	16.6	10.5	2.8	1.3	-	19.2	**391**
	R. Valley	17.6	13.4	5.4	3.5	1.4	0.5	15.9	**636**
	Nyanza	17.7	6.9	2.9	0.3	2.1	-	7.9	**292**
	Western	9.3	9.8	1.4	0.8	1.1	-	10.2	**266**
Gender	Male	40.4	24.8	11.2	3.0	2.1	0.5	27.3	**1310**
	Female	3.9	4.1	3.6	1.7	1.1	0.3	5.6	**1244**
Age in years	15 – 17	7.2	4.7	1.1	-	1.6	-	6.2	**129**
	18 – 24	16.9	10.9	6.5	2.7	2.9	1.1	13.1	**558**
	25 – 35	26.9	15.4	8.9	2.2	1.9	0.5	16.1	**772**
	36+	25.5	17.7	5.9	2.7	0.7	0.1	20.1	**1116**
Religion	Christian	20.9	13.6	4.3	0.1	1.5	0.4	15.3	**2206**
	Muslim	24.2	20.9	5.9	4.3	2.3	0.8	23.9	**259**
	Others	34.1	33.3	16.7	3.2	4.8	-	34.9	**63**
Economic status	High	29.1	20.9	2.6	2.7	3.8	3.0	24.0	**263**
	Middle	22.3	12.5	2.7	1.9	1.6	0.3	13.8	**702**
	Low	21.2	15.8	3.9	2.5	1.9	-	17.8	**843**
	Very low	21.7	14.1	7.7	2.7	0.7	0.1	15.7	**771**
Employment status	A student	8.8	6.3	1.1	1.6	2.4	0.8	7.8	**255**
	Unemployed	19.6	15.2	5.2	1.3	0.8	0.8	16.9	**237**
	Employed	31.0	18.1	5.4	2.7	2.0	0.4	20.0	**1,712**
	Others	9.0	4.4	6.4	1.9	-	-	5.9	**322**
Education status	No formal	13.6	14.8	2.6	16.3	1.3	0.1	16.5	**1068**
	Primary	20.6	15.4	1.7	4.4	1.8	0.3	16.5	**1057**
	Secondary	22.3	16.9	1.7	2.6	2.8	1.7	18.6	**290**
	Post-secondary	31.3	12.8	5.8	4.2	-	-	17.4	**86**
	Total	**21.7**	**14.9**	**4.9**	**2.4**	**1.6**	**0.4**	**16.7**	**2580**

The ever use cases of tobacco for those aged 10-14 years, is presented in Table 21. The data reveals a decline from 4.2% in 2007 to 1.2% in 2012, in the ever use category of cigarettes; while for sniffed/chewed/piped tobacco, there is a decline from 0.9% to 0.6%, respectively. Generally, more male children reported ever using tobacco products compared to female children. Similarly, more of those not in school and among those in the middle class, as opposed to other groups, reported ever using tobacco products.

Table 21: **Ever use of tobacco products among respondents aged 10 -14 years**

		Cigarettes		Sniffed / Chewed or piped		N
		2007	2012	2007	2012	
Setting	Urban	3.7	1.0	-	0.3	**397**
	Rural	5.6	1.6	1.2	1.2	**250**
Gender	Male	7.4	2.0	1.6	0.6	**356**
	Female	0.7	0.3	0.2	0.7	**299**
School attendance	In school	4.0	-	0.7	-	**646**
	Not in school	6.1	2.3	4.5	1.7	**9**
Economic status	High	2.0	1.6	-	0.5	**44**
	Middle	7.5	0.4	1.4	-	**178**
	Low	2.5	1.2	0.4	0.6	**194**
	Very low	3.2	-	1.0	-	**240**
	Total	**4.2**	**1.2**	**0.9**	**0.6**	**659**

3.5 Ever use of *Khat*

In the 2007 survey, there was no differentiation between *miraa* and *muguka*. Instead, these two products were lumped together as *khat*. Consequently, data from 2007 shows the prevalence levels of *khat*, for those aged 15-65 years. This reveals a shift from 11.3% in 2007, to 8.9% in 2012, representing a general decline in those reporting ever using it (Table 22). The disaggregated data for *miraa* and *muguka* show the ever use category of khat to be 8.1% and 2.3% respectively, for *muguka* and *miraa*.

Table 22: **Ever use of miraa among 15 – 65 years olds**

		Khat (Muguka)	Khat (Miraa)	Total Khat[4]		N
		2012	2012	2007	2012	
Setting	Urban	3.7	13.1	9.9	14.3	**976**
	Rural	1.4	5.2	15.4	5.6	**1549**
Region	Nairobi	6.2	10.5	15.3	12.8	**305**
	N. Eastern	4.3	37.6	23.4	38.7	**93**
	Coast	1.8	15.0	16.6	15.5	**226**
	Central	0.3	3.8	7.4	4.0	**371**
	Eastern	5.6	11.3	25.8	13.0	**391**
	R. Valley	1.3	5.0	4.7	5.4	**636**
	Nyanza	-	4.1	5.1	4.1	**292**
	Western	0.4	2.6	1.7	2.6	**266**
Gender	Male	3.7	12.5	18.5	14.0	**1310**
	Female	0.8	3.5	4.5	3.5	**1244**

4 In 2007 khat was captured as "*miraa*" and not disaggregated into two common variants (i.e. *muguka* and *miraa*)

		Khat (Muguka)	Khat (Miraa)	Total Khat[4]		N
Age in years	15 – 17	0.8	1.6	6.3	2.3	**129**
	18 – 24	3.6	9.3	11.7	10.0	**558**
	25 – 35	2.9	11.1	14.4	11.4	**772**
	36+	1.4	6.3	9.6	6.7	**1116**
Religion	Christian	1.8	5.7	9.1	6.2	**2206**
	Muslim	5.4	28.2	24.7	30.1	**259**
	Others	6.4	9.0	22.8	12.7	**63**
Economic status	High	4.9	10.7	13.6	12.6	**263**
	Middle	2.6	9.8	12.4	10.3	**702**
	Low	2.0	7.0	10.9	7.8	**843**
	Very low	1.4	7.0	10.4	7.5	**771**
Employment status	A student	6.7	2.0	6.3	7.1	**255**
	Unemployed	7.2	1.3	12.3	8.0	**237**
	Employed	9.3	3.0	15.0	10.2	**1,712**
	Others	4.4	-	5.0	4.4	**322**
Education status	No formal	6.6	2.3	11.7	7.4	**1068**
	Primary	8.9	2.4	11.1	9.7	**1057**
	Secondary	9.3	2.4	11.4	9.7	**290**
	Post-secondary	16.3	2.3	11.8	16.3	**86**
	Total	**8.1**	**2.3**	**11.3**	**8.9**	**2580**

Similarly, for those between 10-14 years, the ever use of category *miraa* dropped from 2.4% in 2007 to 0.5% in 2012 (Table 23). There is no difference among those who reported ever using *miraa* and *muguka*.

Table 23: **Ever use of miraa among 10 – 14 years olds**

		Khat: Miraa	*Khat*: Muguka	*Khat* (Total)		N
		2012	**2012**	**2007**	**2012**	
Setting	Urban	0.8	0.8	2.6	0.8	**397**
	Rural	0.3	0.3	2.0	0.3	**250**
Gender	Male	0.6	0.7	3.6	0.6	**356**
	Female	0.3	-	1.3	0.3	**299**
School attendance	In school	0.5	0.5	2.2	0.5	**646**
	Not in school	-	-	6.1	-	**9**
	High	-	-	4.0	-	**44**
	Middle	1.7	1.7	2.7	1.7	**178**
Economic status	Low	-	-	3.3	-	**194**
	Very low	-	-	1.5	-	**240**
	Total	**0.5**	**0.5**	**2.4**	**0.5**	**659**

3.6 Ever use of narcotics

Ever use cases of narcotics among 15-65 year olds are summarized in Table 24. There is a higher proportion of those who reported ever using of bhang (5.4%) compared to other narcotics (hashish, 0.6%; cocaine, 0.6%; and heroin, 0.7%).

While for bhang there is a slight reduction among those who reported ever using it (from 6.5% in 2007 to 5.4% in 2012), for the other narcotics, there is a slight increase.

Table 24: **Ever use of narcotics among 15 – 65 year olds**

		Bhang		Hashish		Cocaine		Heroin		N
		2007	2012	2007	2012	2007	2012	2007	2012	
Setting	Urban	8.9	7.5	0.9	0.9	1.2	0.7	0.9	1.0	**976**
	Rural	5.7	4.1	0.2	0.4	0.2	0.6	0.2	0.6	**1549**
Region	Nairobi	8.0	8.9	1.4	1.0	1.4	0.7	1.5	1.0	**305**
	N. Eastern	21.3	4.3	-	2.2	-	-	-	-	**93**
	Coast	8.6	8.4	1.7	2.2	1.8	0.9	0.8	1.3	**226**
	Central	9.9	4.6	-	-	0.3	-	0.9	0.5	**371**
	Eastern	24.4	4.0	-	0.5	0.2	1.0	-	1.3	**391**
	R. Valley	17.6	4.6	0.1	0.3	0.3	0.9	0.2	0.5	**636**
	Nyanza	17.7	4.6	-	0.3	-	-	-	0.7	**292**
	Western	9.3	6.2	-	-	-	0.8	-	0.4	**266**
Gender	Male	11.9	8.0	0.4	1.0	0.7	0.5	0.7	0.7	**1310**
	Female	1.4	2.7	0.3	0.2	0.2	0.7	0.2	0.8	**1244**
Age in years	15 – 17	1.1	3.1	-	0.8	0.2	-	-	-	**129**
	18 – 24	6.5	6.3	0.3	0.5	0.6	1.3	0.4	1.4	**558**
	25 – 35	8.9	6.9	0.6	0.7	0.7	0.8	0.5	0.8	**772**
	36+	5.9	4.1	0.1	0.5	0.1	0.3	0.3	0.5	**1116**
Religion	Christian	6.2	4.4	0.3	0.5	0.4	0.6	0.4	0.6	**2206**
	Muslim	6.9	7.7	0.6	1.9	0.6	0.4	0.3	1.2	**259**
	Others	12.6	17.5	0.8	-	1.8	-	1.0	3.2	**63**
Economic status	High	5.9	9.1	1.2	0.8	1.6	1.9	1.6	1.5	**263**
	Middle	7.9	4.3	0.3	0.9	0.5	0.7	0.8	0.9	**702**
	Low	6.0	5.7	0.1	0.6	0.4	0.6	-	0.6	**843**
	Very low	5.9	4.5	0.3	0.3	0.2	0.4	0.1	0.8	**771**
Employment status	A student	3.2	2.4	0.2	0.4	0.4	0.8	-	0.8	**255**
	Unemployed	6.5	4.6	0.5	0.4	0.6	0.4	-	0.4	**237**
	Employed	9.1	6.3	0.3	0.7	0.5	0.9	0.5	1.0	**1,712**
	Others	2.3	2.5	0.4	-	0.3	-	0.4	-	**322**
Education status	No formal	3.6	9.1	0.3	0.8	0.3	1.9	0.3	1.5	**1068**
	Primary	6.0	4.4	0.2	0.9	0.2	0.7	0.2	0.9	**1057**
	Secondary	7.2	5.7	0.2	0.6	0.4	0.6	0.3	0.6	**290**
	Post-secondary	8.5	4.5	1.3	0.3	1.3	0.4	1.6	0.8	**86**
	Total	**6.5**	**5.4**	**0.3**	**0.6**	**0.4**	**0.6**	**0.4**	**0.7**	**2580**

On the other hand, the data for those aged 10-14 year olds show an increase from 0.3% in 2007 to 1.1% in 2012, for those reporting ever using bhang (Table 25). This increase was recorded among rural, male, in school and low economic status categories. The use of hashish, cocaine and heroin is generally low.

Table 25: **Ever use of narcotics among 10 – 14 year olds**

		Bhang		Hashish		Cocaine		Heroin	N
		2007	2012	2007	2012	2007	2012	2012	
Setting	Urban	0.3	0.3	0.4	-	0.4	0.3	-	**397**
	Rural	0.5	2.4	-	-	-	0.4	0.4	250

		Bhang		Hashish		Cocaine		Heroin	N
Gender	Male	0.6	1.7	0.6	-	0.6	0.3	0.3	356
	Female	-	0.3	-	-	-	0.3	-	299
School attendance	In school	0.4	6.8	-	-	-	2.3	2.3	646
	Not in school	-	1.7	4.5	-	4.5	0.6	-	9
Economic status	High	-	0.5	-	-	-	-	-	44
	Middle	0.8	-	0.4	-	0.4	-	-	178
	Low	-	1.1	-	-	-	0.3	0.2	194
	Very low	0.3	-	0.5	-	0.5	-	-	240
	Total	**0.3**	**1.1**	**0.3**	**-**	**0.3**	**0.3**	**0.2**	**659**

3.7 Ever use of inhalants and prescription drugs

In 2007, data on ever use cases of inhalants and a prescription drugs was not collected. The 2012 data reveals rates of less than 1% for both those aged 15-65 years and those in the 10-14 years age category (Table 26 and Table 27). Ever use category of inhalants and prescription drugs is likely to be reported among urban respondents and those of middle to high economic status (Table 26). This is also true for those aged 10 – 14 years (Table 27).

Table 26: **Ever use of inhalants and prescription drugs among 15 -65 year olds**

		Inhalants	Prescription drugs	N
Setting	Urban	0.7	0.9	**976**
	Rural	0.8	0.4	**1549**
Region	Nairobi	1.3	1.0	**305**
	N. Eastern	-	1.1	**93**
	Coast	0.4	0.4	**226**
	Central	0.5	0.3	**371**
	Eastern	1.0	0.5	**391**
	R. Valley	0.8	0.9	**636**
	Nyanza	0.3	0.3	**292**
	Western	0.8	-	**266**
Gender	Male	0.5	0.5	**1310**
	Female	1.0	0.7	**1244**
Age in years	15 – 17	0.8	0.8	**129**
	18 – 24	1.6	1.4	**558**
	25 – 35	0.8	0.5	**772**
	36+	0.3	0.2	**1116**
Religion	Christian	0.7	0.6	**2206**
	Muslim	0.4	0.4	**259**
	Others	-	-	**63**
Economic status	High	1.1	1.5	**263**
	Middle	1.0	0.9	**702**
	Low	0.7	0.5	**843**
	Very low	0.4	0.1	**771**
Employment status	A student	0.4	1.2	**255**
	Unemployed	1.0	0.4	**237**
	Employed	1.7	0.7	**1,712**
	Others	-	0.3	**322**
Education status	No formal	1.2	0.5	**1068**
	Primary	0.8	0.6	**1057**
	Secondary	0.8	2.1	**290**
	Post-secondary	-	-	**86**
	Total	**0.7**	**0.7**	**2580**

Table 27: **Ever use of inhalants and prescription drugs among 10 -14 year olds**

		Inhalants	Prescription drugs	N
Setting	Urban	1.6	-	**397**
	Rural	0.3	0.3	**250**
Gender	Male	1.1	-	**356**
	Female	0.3	0.3	**299**
School attendance	In school	0.8	0.2	**646**
	Not in school	0	-	**9**
Economic status	High	2.3	-	**44**
	Middle	1.1	-	**178**
	Low	1.1	-	**194**
	Very low	-	0.4	**240**
	Total	**0.8**	**0.2**	**659**

Among those in the 15-65 years group, who reported that they have never used drugs, there is an improvement from 51.7% in 2007 to 62.9% in 2012 (Table 28). That increase is highest among female respondents as opposed to male respondents and among rural respondents as opposed to urban respondents. Similarly, among those aged 10-14 years, there is an in improvement on those reporting that they have never used any drugs (Table 29). Thus, the proportion of those reporting use of drugs has dropped in the 2012 survey as compared to that of 2007.

Table 28: **Never used any drug (among 15 - 65 year olds)**

		None		N
Setting		**2007**	**2012**	
	Urban	49.8	58.7	**976**
	Rural	52.4	65.1	**1549**
Region	Nairobi	50.0	57.1	**305**
	N. Eastern	72.6	52.7	**93**
	Coast	46.0	59.7	**226**
	Central	51.4	68.5	**371**
	Eastern	44.8	60.4	**391**
	R. Valley	56.8	62.4	**636**
	Nyanza	48.8	72.3	**292**
	Western	56.8	62.8	**266**
Gender	Male	33.5	46.0	**1310**
	Female	69.2	80.5	**1244**
Age in years	15 – 17	73.4	82.2	**129**
	18 – 24	56.1	70.1	**558**
	25 – 35	48.2	60.1	**772**
	36+	43.7	59.1	**1116**
Religion	Christian	51.5	21.9	**2206**
	Muslim	58.8	56.4	**259**
	Others	36.8	46.0	**63**
Economic status	High	45.3	55.5	**263**
	Middle	52.2	66.8	**702**
	Low	54.3	63.5	**843**
	Very low	50.7	61.2	**771**
Employment status	A student	70.5	78.8	**255**
	Unemployed	52.4	67.1	**237**
	Employed	40.8	57.3	**1,712**
	Others	65.4	78.0	**322**
Education status	No formal	57.6	64.8	**1068**
	Primary	52.7	63.0	**1057**
	Secondary	52.5	55.5	**290**
	Post-secondary	40.4	61.6	**86**
	Total	**51.7**	**62.9**	**2580**

Table 29: **Never used any drug (among 10 – 14 year olds)**

		None		N
		2007	**2012**	
Setting	Urban	86.9	96.0	**397**
	Rural	87.3	94.4	**250**
Gender	Male	83.4	94.1	**356**
	Female	90.9	97.0	**299**
School attendance	In school	87.0	95.4	**646**
	Not in school	87.9	100	**9**
Economic status	High	90.1	93.2	**44**
	Middle	83.4	93.8	**178**
	Low	90.9	96.9	**194**
	Very low	86.7	95.8	**240**
	Total	**87.0**	**95.4**	**659**

3.8 Current use of alcohol among 15 – 65 year-olds

The current use of alcohol among 15-65 year olds[5] is presented in Table 30. In general, there is a reduction in the use of any alcohol from 14.2% in 2007 to 13.6% in 2012. Nonetheless, a closer look at the dynamics, within the different alcoholic drinks, reveals important differences.

For example, while there is a reduction in those reporting current use of packaged/ legal alcohol and traditional liquor, there is an increase in those reporting use of *chang'aa*. Further, the data reveals differences between rural and urban residents, with more urban residents reporting use of packaged/legal alcohol while more rural respondents report use of *chang'aa*.

There are also gender differences, with more male than female respondents reporting use of alcohol. On the basis of regions, Nairobi reported the highest proportion of those who use alcohol (22%) followed by Rift Valley (15.7%) and Eastern (14.6%).

Table 30: **Current use of alcohol among 15 – 65 year olds**

		Packaged / legal alcohol		*Chang'aa*		Traditional liquor		2nd generation alcohol	Total alcohol		N
		2007	2012	2007	2012	2007	2012	2012	2007	2012	
Setting	Urban	15.1	12.3	2.3	3.9	3.1	3.5	1.7	17.7	17.0	**976**
	Rural	7.0	6.4	4.3	4.4	6.3	4.5	0.8	13.0	11.8	**1549**
Gender	Male	15	13.2	6.6	6.2	8.9	6.1	1.9	22.9	21.2	**1310**
	Female	3.4	3.8	1.1	2.0	2.2	1.9	0.4	5.9	5.9	**1244**
Religion	Christian	9.7	8.9	3.9	4.2	5.1	4.3	1.1	14.6	14.1	**2206**
	Muslim	2.2	5.0	0.3	1.2	4.0	2.3	0.8	5.7	7.0	**259**
	Others	14.3	11.1	11.8	14.3	17.7	4.8	4.8	30.5	23.8	**63**
Education	No formal	1.8	6.8	1.5	5.2	7.9	5.4	1.3	9.4	12.7	**1068**
	Primary	6.1	8.6	4.8	3.0	6.6	2.8	1.2	12.5	13.2	**1057**
	Secondary	10.0	16.2	3.8	2.1	4.2	1.7	0.3	14.1	17.9	**290**
	Post-secondary	23.8	3.5	2.1	4.7	3.2	5.8	-	25.5	11.6	**86**
Current employment	A student	3.7	3.9	0.4	0.4	0.9	0.8	0.4	4.6	4.7	**255**
	Unemployed	8.8	9.3	3.5	3.4	3.7	3.0	0.8	12.7	13.5	**237**
	Employed	13.1	10.3	5.3	5.1	7.8	4.9	1.6	19.9	16.6	**1,712**
	Other	2.9	2.5	2.5	2.3	4.0	2.2	-	7.8	4.4	**322**
Economic status	High	21.7	17.1	0.6	3.0	2.2	1.9	1.1	22.1	19.8	**263**
	Middle	12.6	8.6	2.1	1.9	3.0	2.1	1.0	14.4	11.7	**702**
	Low	8.4	8.7	4.3	4.2	5.6	4.4	1.5	14.4	13.8	**843**
	Very low	4.9	5.6	5.2	6.6	7.8	6.1	0.9	12.7	13.2	**771**

5 For the 10-14 year group, data on current use of alcohol, tobacco, khat, narcotics, inhalants and prescription drugs was not collected. The data for 2012, for this group, indicates no current use except for *miraa* (one respondent), *muguka* (three respondents) and tobacco (one respondent). Therefore, there are no Table generated for this group.

		Packaged / legal alcohol		*Chang'aa*		Traditional liquor		2nd generation alcohol	Total alcohol		N
Age in years	15 – 17	1.8	-	0.5	0.8	0.6	0.8	-	2.6	1.6	**129**
	18 – 24	8.7	7.5	2.6	1.3	3.6	1.8	1.1	11.7	10.2	**558**
	25 – 35	10.5	11.7	4.4	6.4	5.2	4.9	1.5	16.4	17.6	**772**
	36+	10.7	7.5	5.4	4.2	9.1	4.9	1.1	18.4	13.6	**1116**
Region	Nairobi	16.8	15.7	1.8	7.2	1.3	2.3	1.3	18.6	22.0	**305**
	N. Eastern	-	4.3	-	-	-	1.1	-	-	5.4	**93**
	Coast	7.9	7.5	0.8	1.3	13.2	4.4	0.9	18.6	10.6	**226**
	Central	16.3	9.2	0.9	0.5	2.9	1.4	1.1	17.7	10.0	**371**
	Eastern	11.0	9.0	1.7	2.1	6.9	4.6	1.0	14.8	14.6	**391**
	R. Valley	6.4	8.7	5.6	5.5	6.2	6.0	2.0	12.5	15.7	**636**
	Nyanza	7.6	6.2	9.8	6.2	7.3	5.1	1.0	17.0	12.0	**292**
	Western	1.3	3.8	3.7	7.1	3.4	3.8	-	6.8	10.2	**266**
Total		**9.1**	**8.6**	**3.8**	**4.2**	**5.5**	**4.0**	**1.2**	**14.2**	**13.6**	**2580**

The current use of alcohol drinks, among the 15-65 years category and by region, are shown in Figure 4 and Figure 5, respectively. Overall, current use of alcoholic drinks has remained relatively stable across the different types (Figure 4). Nonetheless, between the different regions, some (for example, Nairobi, Rift Valley and Western) have witnessed an increase in consumption, while others – Coast and Central –, have shown a notable decline while Eastern has remained relatively stable. Worth noting is North Eastern which has recorded 5.4% in 2012 against insignificant levels of alcohol use in 2007 (Figure 5).

Figure 4: **Trends in current use of alcoholic beverages among 15 – 65 year olds**

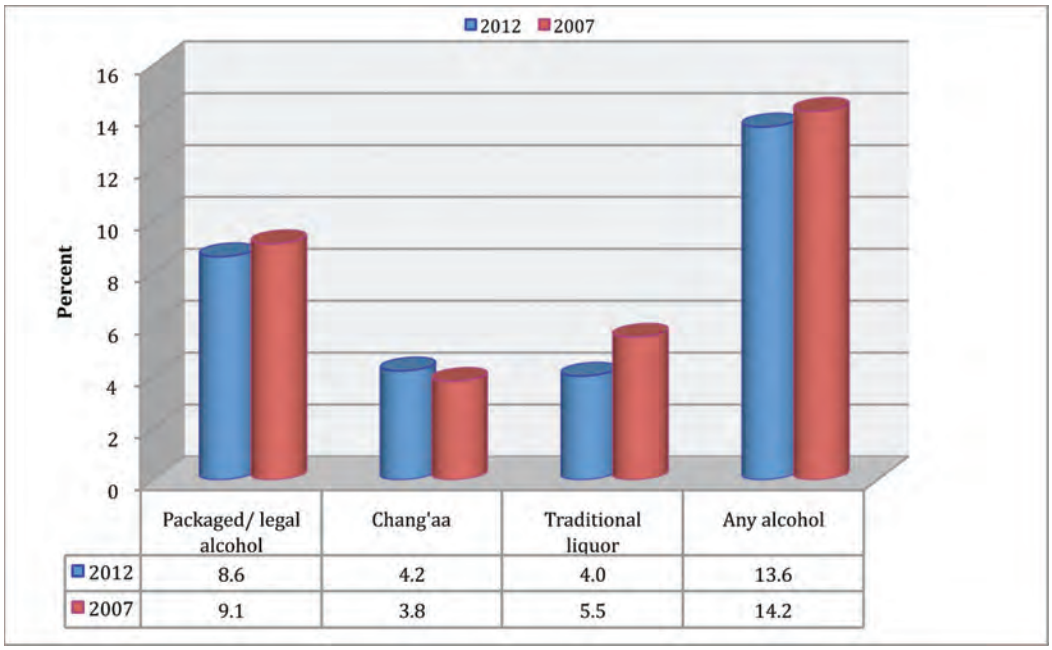
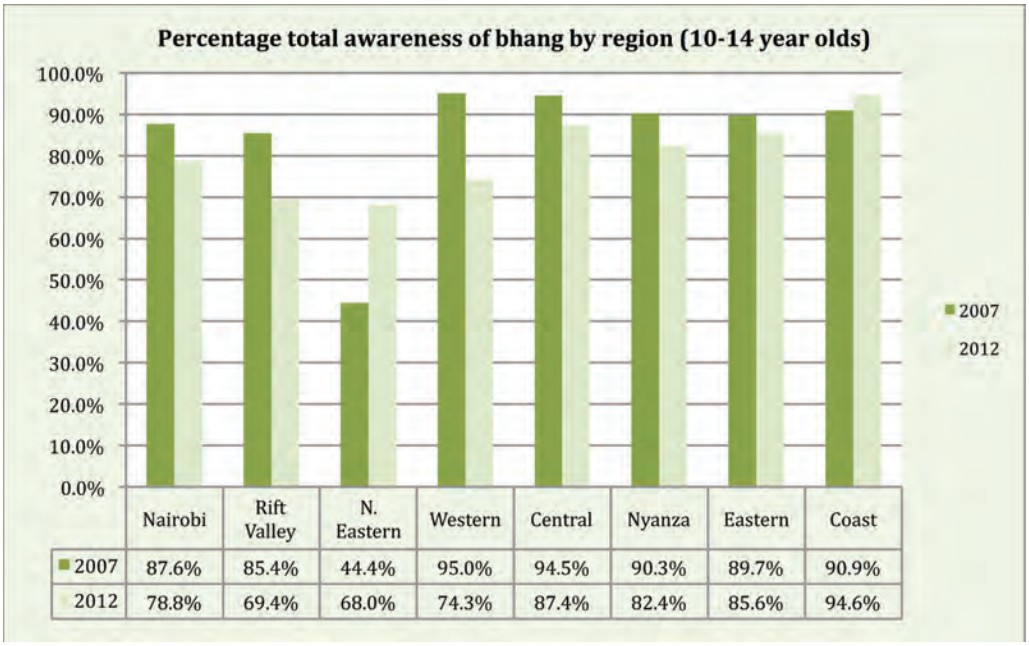


Figure 5: **Trends in current use of alcoholic beverages among 15-65 years old category, by region**



Considering respondents aged 18-64 years, current use of legal alcohol by males stands at 17.0% while that of females is estimated at 2.1%. For males, Nairobi region has the highest proportion of users of legal alcohol (22.9%), followed by Central (22.2%), North Eastern (20.6%), Rift Valley (18.3%), Coast (17.6%), Eastern (16.8%), Nyanza (7.6%), and Western (6.8%). For females, Eastern region has the highest proportion (5.8%), followed by Nairobi (4.5%), Rift Valley (1.3%), Coast (1.9%), Nyanza (0.7%) and Central (0.5%). North Eastern reported insignificant levels of current alcohol use (Table 31).

Table 31: **Current use of legal alcohol among 18 – 64 year olds**

		Male		Female	
		2007	2012	2007	2012
Region	Nairobi	25.3	22.9	11.9	4.5
	N. Eastern	-	20.6	-	-
	Coast	14.0	17.6	4.1	1.9
	Central	30.8	22.2	4.1	0.5
	Eastern	22.4	16.8	2.3	5.8
	R. Valley	12.4	18.3	2.1	1.3
	Nyanza	14.8	7.6	2.4	0.7
	Western	2.1	6.8	0.7	-
	Kenya	**16.9**	**17.0**	**3.5**	**2.1**

3.9 Current use of tobacco among 15 – 65 year-olds

Current use of tobacco products for 15-65 years respondents reveals a reduction in the proportion of those reporting use of cigarettes (from 10.9% in 2007 to 8.6% in 2012) as well as in the use of sniffed/chewed/piped tobacco (from 1.5% in 2007 to 0.7% in 2012). This data is summarized in Table 32. Tobacco use is higher among urban (12%) than rural (7.4%) residents, among male (16%) than female (2%) respondents and among older than younger respondents. North Eastern has the highest reported level of current use of tobacco (16.1%), followed by Nairobi (14.4%) and Central and Eastern (10%).

Table 32: **Current use of tobacco among 15 – 65 year – olds**

		Cigarette		Sniffed / chewed / piped tobacco		Kuber	Shisha	All tobacco products* (Total)	N
		2007	2012	2007	2012	2012	2012	2012	
Setting	Urban	13.4	11.7	0.2	0.9	0.5	0.3	12.0	**976**
	Rural	9.9	6.7	1.9	0.6	0.2	0.1	7.4	**1549**
Gender	Male	20.9	14.9	1.7	1.2	0.5	0.3	16.0	**1310**
	Female	1.3	2.0	1.3	0.2	0.2	-	2.0	**1244**
Religion	Christian	9.8	7.5	1.0	0.6	0.2	0.1	7.9	**2206**
	Muslim	15.3	13.5	3.5	1.9	1.2	0.8	15.1	**259**
	Others	21.8	27.0	7.1	-	1.6	-	27.0	**63**
Education	No formal	6.6	8.6	8.0	1.2	0.2	0.1	9.6	**1068**
	Primary	10.4	8.7	1.3	0.2	0.3	0.3	8.9	**1057**
	Secondary	11.7	8.6	0.2	0.7	0.7	-	9.3	**290**
	Post-secondary	13.6	7.0	0.9	1.2	0	1.3	8.1	**86**
Current employment	A student	1.8	2.8	-	-	0.4	-	2.8	**255**
	Unemployed	10.1	10.1	1.9	1.3	0.4	0.4	11.4	**237**
	Employed	16.5	10.5	1.6	0.8	0.4	0.2	11.4	**1,712**
	Others	3.4	1.6	2.1	0.6	-	-	2.3	**322**
Economic status	High	13.5	11.4	0.5	1.5	0.8	0.8	12.6	**263**
	Middle	10.4	7.4	0.1	0.3	0.1	0.1	7.7	**702**
	Low	11.2	10.0	1.2	0.6	0.5	-	10.2	**843**
	Very low	10.5	7.1	2.9	1.0	0.1	0.1	8.0	**771**
Age in years	15 – 17	0.6	0.8	-	-	-	-	0.8	**129**
	18 – 24	8.4	6.6	0.6	0.4	0.5	0.2	7.0	**558**
	25 – 35	14.1	9.7	0.5	0.8	0.2	0.2	10.1	**772**
	36+	13.2	9.8	3.9	0.9	0.2	0.1	10.6	**1116**

		Cigarette		Sniffed / chewed / piped tobacco		Kuber	Shisha	All tobacco products* (Total)	N
Region	Nairobi	15.3	13.4	0.2	1.0	0.3	0.3	14.4	**305**
	N. Eastern	15.1	14.0	1.2	1.1	2.2	1.1	16.1	**93**
	Coast	14.4	9.7	5.0	1.3	-	0.4	9.7	**226**
	Central	16.9	10.5	-	-	-	-	10.2	**371**
	Eastern	12.5	9.0	3.8	1.0	-	-	10.0	**391**
	R. Valley	7.4	8.2	1.2	1.3	0.8	0.2	9.1	**636**
	Nyanza	7.6	3.8	0.6	-	-	-	3.8	**292**
	Western	3.6	3.0	1.2	-	-	-	3.1	**266**
Total		**10.9**	**8.6**	**1.5**	**0.7**	**0.3**	**0.2**	**9.1**	**2580**

Note: * **There were no totals for all tobacco products for the 2007 survey**

Current use of tobacco products is largely limited to males. Data collected shows that 17.0% of the males who were interviewed are current users of tobacco products. This contrasts sharply with 2.1% of the females. Across all regions, data is overwhelmingly in pointing at men as the key users of tobacco products. Nairobi region leads with 22.9% of the males interviewed reporting that they use tobacco products. This was closely followed by Central at 22.2%. For females, Eastern region leads with 5.8% of the females interviewed reporting that they use tobacco products. This was followed closely by Nairobi at 4.9% (Table 33). Comparing the 2007 survey to the 2012 one, there is a decline in the proportion of respondents reporting current use.

Table 33: **Current use of tobacco among 18 – 64 year olds**

		Male		Female	
		2007	**2012**	**2007**	**2012**
Region	Nairobi	28.6	22.9	4.5	4.9
	N. Eastern	33.3	20.6	-	0
	Coast	33.6	17.6	8.3	1.9
	Central	35.9	22.2	-	0.5
	Eastern	32.2	16.8	3.9	5.8
	R. Valley	17.9	18.3	2.6	1.3
	Nyanza	17.5	7.6	1.6	0.7
	Western	9.2	6.8	-	0
	Kenya	**25.0**	**17.0**	**2.8**	**2.1**

3.10 Current use of *khat* among 15 – 65 year-olds

Reported current use of *miraa* has reduced from 5.5% in 2007 to 4.2% in 2012 (Table 34). The use of *khat* is high among urban as well as male respondents as opposed to rural as well as female respondents. In terms of regions, highest use is reported in North Eastern (28%) followed by Nairobi (7.2%), Coast (6.2%) and Eastern (5.4%). Lowest current use is recorded in Western.

Table 34: **Current use of khat among 15 – 65 year olds**

		Khat (miraa)	*Khat* (muguka)	Total (khat)		N
		2012	2012	2007	2012	
Setting	Urban	7.2	1.3	7.7	7.9	**976**
	Rural	1.6	0.4	4.7	1.9	**1549**
Gender	Male	6.5	1.5	9.4	7.3	**1310**
	Female	0.9	-	1.7	0.9	**1244**
Religion	Christian	2.1	0.5	3.5	2.4	**2206**
	Muslim	18.2	2.7	8.3	20.1	**259**
	Others	-	1.6	13.6	1.6	**63**
Education	No formal	3.6	0.8	7.2	3.9	**1068**
	Primary	3.7	0.9	5.5	4.4	**1057**
	Secondary	4.8	0.3	4.9	4.8	**290**
	Post-secondary	4.7	1.2	5.6	4.7	**86**
Current employment	A student	1.6	0.4	3.1	2.0	**255**
	Unemployed	5.1	1.3	4.4	5.9	**237**
	Employed	4.6	0.9	8.1	5.1	**1,712**
	Others	0.6	-	1.0	0.6	**322**
Economic status	High	4.6	2.7	6.5	6.1	**263**
	Middle	5.4	0.6	5.7	5.4	**702**
	Low	3.1	0.6	4.8	3.6	**843**
	Very low	2.6	0.4	5.6	3.0	**771**
Age in years	15 – 17	0.8	0.8	2.9	1.6	**129**
	18 – 24	4.1	0.7	6.3	4.7	**558**
	25 – 35	4.9	1.3	7.4	5.7	**772**
	36+	2.6	0.3	3.6	2.6	**1116**
Region	Nairobi	5.6	3.3	7.6	7.2	**305**
	N. Eastern	26.9	1.1	18.7	28.0	**93**
	Coast	5.8	0.9	7.8	6.2	**226**
	Central	0.8	-	2.3	0.8	**371**
	Eastern	4.6	1.3	13.9	5.4	**391**
	R. Valley	2.0	0.2	1.4	2.2	**636**
	Nyanza	2.0	-	1.5	2.1	**292**
	Western	0.4	-	-	0.4	**266**
	Total	**3.7**	**0.7**	**5.5**	**4.2**	**2580**

Note: In **the 2007 survey, *miraa* was captured as just *miraa* and there was no distinction between *muguka* and *miraa***

Current use of *miraa* also varies by region of residence as well as gender. Like tobacco products, use of *miraa* is largely a male dominated affair. Between the two survey periods (2007 and 2012), there is an overall increase in the proportion of respondents reporting current use of *miraa*, from 10% to 17% for males and 1.8% to 2.1% for females (Table 35).

Table 35: **Current use of miraa among 18 – 64 year olds**

		Male		Female	
		2007	2012	2007	2012
Region	Nairobi	14.3	22.9	1.7	4.9
	N. Eastern	38.3	20.6	-	-
	Coast	16.8	17.6	-	1.9
	Central	4.3	22.2	-	0.5
	Eastern	21.3	16.8	7.0	5.8
	R. Valley	3.4	18.3	-	1.3
	Nyanza	0.9	7.6	2.0	0.7
	Western	-	6.8	-	-
	Kenya	**10.0**	**17.0**	**1.8**	**2.1**

3.11 Current use of narcotics among 15 – 65 year-olds

Current use of narcotics, compared to other substances of abuse, is low (Table 36). In terms of reported current use, bhang has a higher reported use compared to hashish, heroin and cocaine. Furthermore, the differences between 2007 and 2012 for current use of narcotics are minor. There are clear differences between urban and rural respondents, with a higher proportion of urban respondents reporting use of narcotics compared to rural respondents.

Table 36: **Current use of narcotics among 15 – 65 year olds**

		Bhang		Hashish		Heroin		Cocaine		Total
		2007	2012	2007	2012	2007	2012	2007	2012	
Setting	Urban	1.4	1.7	0.4	0.3	0.1	0.1	0.5	-	**976**
	Rural	0.9	0.6	0.1	-	0.1	0.1	0.1	0.1	**1549**
Gender	Male	1.7	1.7	0.1	0.2	0.1	-	0.2	-	**1310**
	Female	0.3	0.3	0.3	-	0.1	0.2	0.2	0.1	**1244**
Religion	Christian	0.8	0.8	0.1	0.1	0.1	0.1	0.1	0.1	**2206**
	Muslim	1.9	1.9	0.6	0.8	0.3	0.4	0.6	-	**259**
	Others	2.8	1.6	0.8	-	-	-	1.8	-	**63**
Education	No formal	0.9	1.6	0.3	0.2	0.3	0.1	0.2	-	**1068**
	Primary	0.8	0.9	0.1	0.1	-	-	-	0.1	**1057**
	Secondary	1.5	-	0.2	-	0.1	0.3	0.2	-	**290**
	Post-secondary	0.3	1.2	0.6	-	0.3	-	0.3	-	**86**
Current employment	A student	1.4	-	0.2	-	-	0.4	0.2	-	**255**
	Unemployed	1.5	0.8	0.2	-	-	-	-	-	**237**
	Employed	1.0	1.2	0.1	0.2	0.1	0.1	0.2	0.1	**1,712**
	Others	0.3	0.3	0.3	-	0.3	-	0.3	-	**322**
Economic status	High	0.6	1.1	-	0.4	0.5	0.4	-	-	**263**
	Middle	0.9	1.0	0.2	-	0.1	-	0.3	-	**702**
	Low	0.5	1.3	-	0.2	-	-	-	0.1	**843**
	Very low	1.4	0.7	0.3	-	0.1	0.1	0.3	-	**771**

		Bhang		Hashish		Heroin		Cocaine		Total
Age in years	15 – 17	0.9	-	-	-	-	-	-	-	**129**
	18 – 24	1.6	1.8	0.3	-	0.1	0.2	0.2	-	**558**
	25 – 35	1.2	1.6	0.3	0.1	-	0.1	-	0.1	**772**
	36+	0.3	0.2	-	0.2	0.2	-	-	-	**1116**
Region	Nairobi	1.1	1.3	0.8	0.3	0.2	-	0.5	-	**305**
	N. Eastern	0.8	1.1	-	-	-	-	-	-	**93**
	Coast	2.3	1.3	0.8	-	0.4	0.4	1.3	0.4	**226**
	Central	0.6	1.1	-	-	0.2	-	-	-	**371**
	Eastern	1.3	0.8	-	0.3	-	-	-	-	**391**
	R. Valley	0.6	0.9	0.2	-	-	-	0.2	-	**636**
	Nyanza	1.4	1.7	-	0.3	-	-	-	-	**292**
	Western	0.3	-	-	-	-	-	-	-	**266**
Total		**1.0**	**1.0**	**0.2**	**0.1**	**0.1**	**0.1**	**0.2**	**-**	**2580**

3.12 Current use of inhalants, prescription drugs and synthetic drugs (15 – 65 year olds)

Current use of inhalants, prescription, synthetic and other drugs among the 15-65 year old category is low. Overall, a majority (80.2%) of those interviewed reported that they do not currently use any of these drugs (Table 37). Among those who reported use, the overall use of any of these drugs is less than 1%.

Table 37: **Current use of inhalants, prescription, synthetic and other drugs (15 -65 years)**

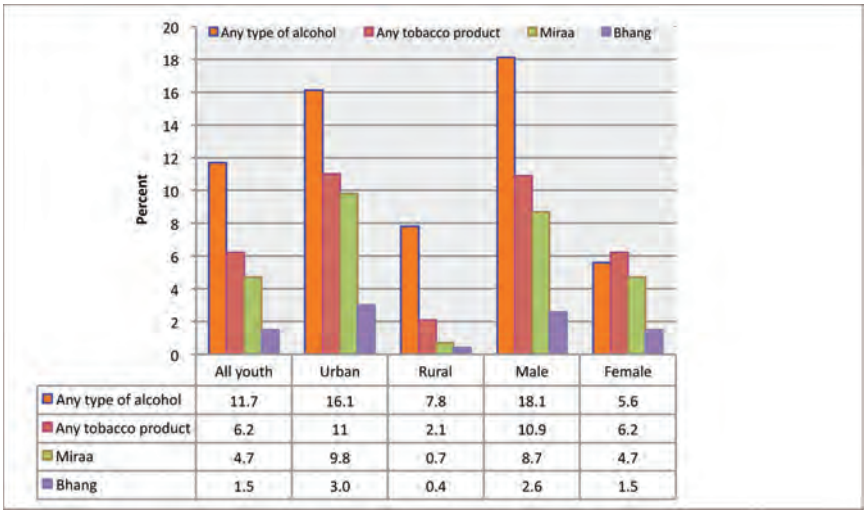
		Inhalants	Prescription drugs	Synthetic drugs	Others		None		N
		2012	**2012**	**2012**	**2007**	**2012**	**2007**	**2012**	
Setting	Urban	-	0.2	-	0.6	0.1	72.5	74.9	**976**
	Rural	-	-	-	-	0.1	79.5	83.2	**1549**
Gender	Male	-	0.1	-	0.3	0.1	63.7	68.0	**1310**
	Female	-	0.1	-	-	0.1	91.2	92.7	**1244**
Religion	Christian	-	0.1	-	0.1	-	79.4	81.6	**2206**
	Muslim	-	-	-	0.3	0.8	72.2	71.8	**259**
	Others	-	-	-	-	-	57.0	66.7	**63**
Education	No formal	-	0.2	-	-	0.1	79.4	81.4	**1068**
	Primary	-	-	-	0.1	-	79.4	80.3	**1057**
	Secondary	-	-	-	-	-	77.9	77.6	**290**
	Post-secondary	-	-	-	0.7	1.2	69.4	80.8	**86**
Current employment	A student	-	-	-	-	-	91.3	92.2	**255**
	Unemployed	-	-	-	-	0.4	79.1	79.8	**237**
	Employed	-	0.3	-	0.3	-	69.0	76.1	**1,712**
	Others	-	-	-	-	-	89.5	93.8	**322**

		Inhalants	Prescription drugs	Synthetic drugs	Others		None		N
Economic status	High	-	0.4	-	-	-	69.2	73.4	**263**
	Middle	-	-	-	0.2	0.1	78.6	81.9	**702**
	Low	-	-	-	0.1	-	78.4	80.2	**843**
	Very low	-	0.1	-	0.1	0.1	78.1	80.9	**771**
Age in years	15 – 17	-	-	-	-	-	93.7	96.9	**129**
	18 – 24	-	0.2	-	-	-	80.9	83.9	**558**
	25 – 35	-	-	-	0.3	0.1	74.3	76.2	**772**
	36+	-	0.1	-	-	0.1	72.9	79.5	**1116**
Region	Nairobi	-	-	-	0.6	-	71.7	71.8	**305**
	N. Eastern	-	-	-	0.8	-	78.7	66.7	**93**
	Coast	-	0.4	-	-	0.9	69.3	81.0	**226**
	Central	-	-	-	-	-	75.0	84.1	**371**
	Eastern	-	0.3	-	-	-	70.0	79.3	**391**
	R. Valley	-	-	-	0.1	-	84.0	80.4	**636**
	Nyanza	-	-	-	0.1	-	79.4	83.2	**292**
	Western	-	-	-	-	-	78.7	86.1	**266**
	Total	**-**		**-**	**0.1**		**77.8**	**80.2**	**2580**

3.13 Current drug use among youth aged 15 – 24 years

Among all young people aged 15-24, 11.7% are currently using alcohol, 6.2% tobacco, 4.7% *miraa*, and 1.5% bhang. Male youth are more likely to be current users of alcohol compared with their female counterparts (18.1% and 5.6% respectively). Alcohol, at 16.1%, tobacco 11.0%, *miraa* 9.8% and bhang 3.0%, are more common among urban youth (Figure 6). The data from 2007 is insufficient to allow for comparisons between the two survey outcomes.

Figure 6: **Percentage of youth aged 15 – 24 years by current use and background characteristics**



	All youth	Urban	Rural	Male	Female
Any type of alcohol	11.7	16.1	7.8	18.1	5.6
Any tobacco product	6.2	11	2.1	10.9	6.2
Miraa	4.7	9.8	0.7	8.7	4.7
Bhang	1.5	3.0	0.4	2.6	1.5

3.14 Ever use of a substance of abuse

Respondents were asked whether they had ever used at least one substance of abuse. Their responses were compared with the baseline survey of 2007 (Figure 7). The results show a decline in the proportion of those who reported ever using of at least one substance of abuse, from 48.3% in 2007 to 37.1% in 2012. Similarly, when the 2012 data of current use of substances of abuse is compared with that of 2007, it reveals a decline from the level witnessed in 2007. Those who reported current use of at least on substance of abuse reduced from 22.2% in 2007 to 19.8% in 2012 (Figure 8)

Figure 7: **Ever use of at least one substance of abuse**

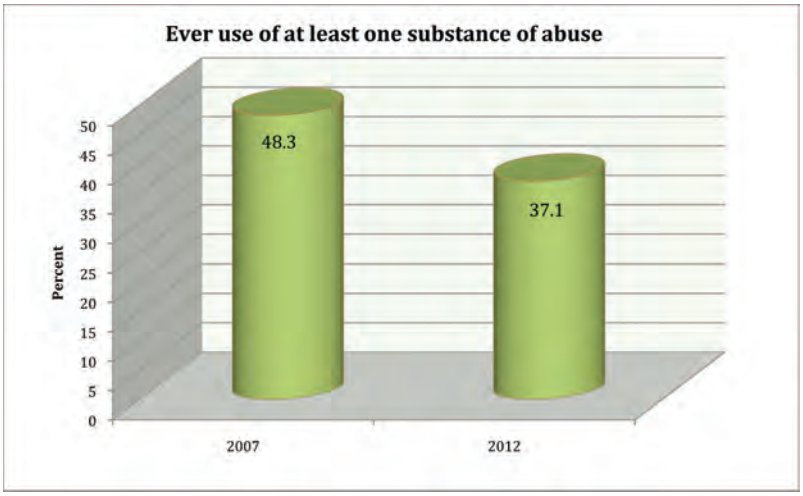
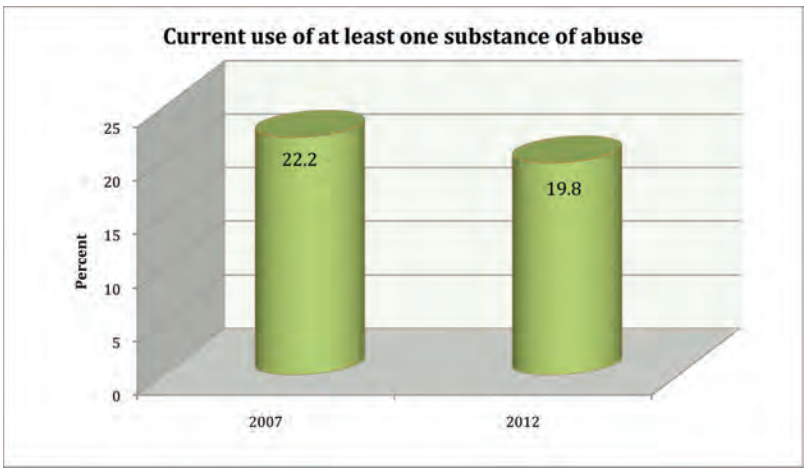


Figure 8: **Current use of at least one substance of abuse**



3.15 Initiation into using various drugs and substances

Among the respondents aged 10 – 14 years, the median age for using a tobacco product is 10 years, while the minimum is 8 years. For alcohol, the median age is 10 years while the minimum is 4 years. For bhang, the median age of initiation among the 10 – 14 year olds is 12 years. A similar age was reported for *miraa*. Overall, these findings show a tendency to clustering around age 10 as the possible age of initiation into drugs and substances of abuse.

3.16 Role of social environment in drug and substance abuse

About 10% of children who have ever consumed alcohol have friends who take alcohol, compared to only 5% of those whose friends did not take alcohol. It is also evident that relatively bigger proportions of children who think that drugs are readily available in school, are likely to have ever used alcohol. Moreover, those who have ever taken alcohol are likely to report that a close relative was using one drug or the other (Table 38).

Table 38: **Percentage of respondents who have ever taken alcohol by social environment**

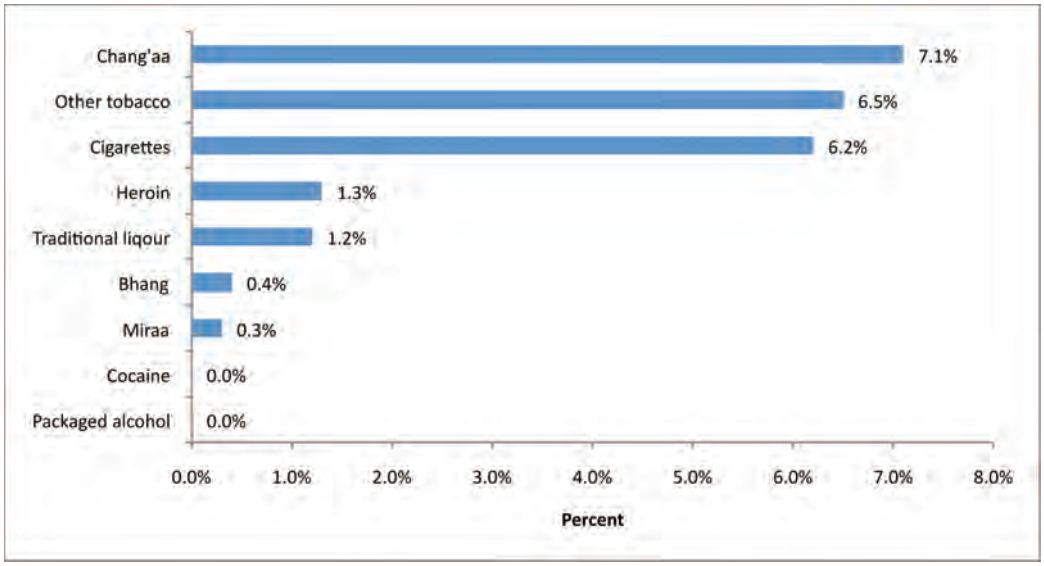
Variable	% Ever taken alcohol	
	Yes	No
Friends take alcohol	9.5	2.1
Drugs available in school	13.1	2.1
Lives with both parents	7.4	2.2
Mother/father/family member takes any drug	7.2	1.8
Drugs available in the community	4.0	1.1

CHAPTER 4: HEALTH AND SOCIO-ECONOMIC IMPACT OF DRUG ABUSE

4.1 Health problems emanating from drug use

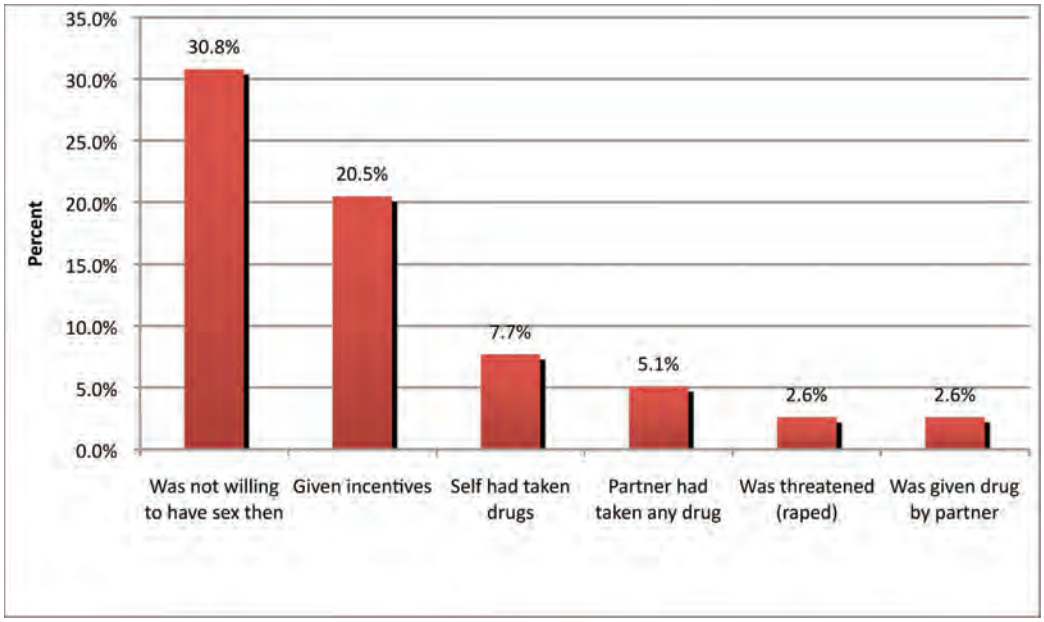
The survey sought to determine the proportion of users of various drugs who have ever sought medical attention following the use of the drug. The findings reveal that out of those who have ever used *chang'aa*, 7% have ever sought medical attention for problems related to its use. This is followed by lifetime users of other tobacco products (6%) and cigarettes, at 6%. Among the people who have used packaged alcohol, none reported ever seeking medical attention for problems related to using drugs (Figure 9).

Figure 9: **Users of various drugs who have ever sought treatment due to drug use (%)**



Among respondents aged 15-65 years, who reported use of alcohol or drugs in the last one year, 13.2% of them had ever had sex while drunk or on drugs, with someone other than their regular partner. Overall, out of 632 children in this study, 6% have ever engaged in sex (7.3% for boys and 4.4% for girls). The median age, at sexual debut, is estimated at 11 years. An assessment of the situation, during the first sexual intercourse, indicates that 30% had sex, unwillingly. Further, about 20% were given incentives to lure them into the sexual act, with a further 8% reporting having taken drugs before the first sexual encounter. For another 5.1%, their partner had taken a drug (Figure 10).

Figure 10: **Percentage of respondent's (aged 10 – 14 years) by context of first sexual encounter**



Among respondents aged 15-65 years, 16.3% of them know of a person in their community who had lost eyesight after consuming alcohol, in the last 12 months prior to the survey while another 6.4% have a family member who has lost eyesight after alcohol consumption. Further, over the same duration, 38.2% reported to know a person in their community who had died after alcohol consumption and another 13.5% had a family member who had died after alcohol consumption. Finally, 20.6% of the respondents reported that they have a family member with a mental disorder resulting from the taking of drugs (Table 39)

Table 39: **Health impact of drug and substance abuse**

Variable	Percentage (%) Affirmative
Do you know any person in this community who has lost their eyesight after consuming alcohol, in the last 12 months, prior to the survey?	16.3
Do you have a family member or relative who has lost their eyesight after consuming alcohol, in the last 12 months, prior to the survey?	6.4
Do you know any person in this community who has died after consuming alcohol, in the last 12 months, prior to the survey?	38.2
Do you have a family member or relative who has died after consuming alcohol, in the last 12 months, prior to the survey?	13.5
Do you have a family member who has a mental disorder because of taking drugs, in the last 12 months, prior to the survey?	20.6

4.2 Socio-economic impact of drug abuse

About 35.7% of all alcohol users reported that they had diverted resources in order to buy alcohol, in the 12 months preceding the survey. Findings also show that 34.8% of all users of bhang and 32.9% of all users of tobacco had diverted resources in order to finance bhang and tobacco use respectively. *Miraa* has the least proportion of people reporting to have diverted resources meant for domestic use to finance their drug taking habits (25.6%). Nearly 1 in every 4 users of alcohol (25.4%), 16% users of bhang and 12.5% users of tobacco reported work or school absenteeism as a result of taking the respective drug/substance.

Alcohol and bhang users are more likely to report having been violent towards their family members as compared to users of tobacco and *miraa*. Alcohol is the commonest cause of domestic violence. Findings show that 32.4% of alcohol and 28.6% of bhang users reported being violent to a spouse/ partner or a family member.

CHAPTER 5: CHEMICAL DEPENDENCE & PERCEPTIONS ON COUNSELLING, TREATMENT AND REHABILITATION

This Chapter focuses on chemical dependence and on perceptions on counselling, treatment and rehabilitation. In particular, it seeks to establish the extent of chemical dependence among those aged between 15- 65 years. In addition, issues relating to perceptions on counselling, treatment and rehabilitation are explored.

5.1 Extent of chemical dependence

Addiction to substances of abuse was assessed using a number of indicators, namely: craving for the substance, needing the substance first thing in the morning; concern by someone close to the respondent or a doctor about the person's drug consumption habits. Tobacco is the most addictive substance, with more than 62.3% of users reporting craving for it always, and another 55.3% saying that they always needed the substance first thing in the morning. About 21% of users of any type of alcohol also reported craving for alcohol always, and 14% reported that they always needed it first thing in the morning. About 44% of bhang users reported craving for it always, and 30.4% reported that they always needed it first thing in the morning. For *miraa*, 34.4% of the users reported craving for it always and 15.9% reported that they always needed it first thing in the morning.

5.1.1 Moderate use, abuse and dependence

The 7 DSM-IV criteria were used to categorize respondents into: moderate users, abusers or dependent. The criteria were applied to all respondents reporting drug or substance use in the last 12 months, prior to the survey. A respondent, who did not answer yes to any of the questions, was categorized as a moderate user. A respondent with 1 – 2 positive responses was categorized as an abuser and a respondent with 3 or more positive responses, was categorized as being dependent. Table 40 shows the different levels of use of various drugs and substances in the general population. About 5.8% of Kenyans are abusing alcohol while another 5.5% are dependent on alcohol use; 3.7% are abusing tobacco while 4.5% are dependent on tobacco use; 1.6% are abusing *miraa* while 1.5% are dependent on *miraa* use and finally, 0.4% are abusing bhang while another 0.4% are dependent on bhang use.

Table 40: **Levels of use in the general population (15 -65 years)**

Type of drug/ substance	Levels of usage			General Annual Prevalence (%)
	Proportion of moderate users (%)	Proportion of abusers (%)	Proportion of dependent persons (%)	
Alcohol	4.7	5.8	5.5	16.0
Tobacco	1.7	3.7	4.5	9.9
Miraa	0.9	1.6	1.5	4.0
Bhang	0.5	0.4	0.4	1.3
Heroin	0.2	-	-	0.2%

5.1.2 Level of use by background characteristics

Table 41 compares the level of abuse or dependence, across the different age categories and area of residence. Findings show that respondents aged 36-65 years who are likely to be dependent on alcohol, tobacco, *miraa* and bhang. Respondents residing in urban areas who are likely to be dependent on the use of alcohol, tobacco and *miraa*, while those residing in the rural areas are likely to be dependent on the use of bhang.

Table 41: **Levels of drug/substance usage by age category and area of residence**

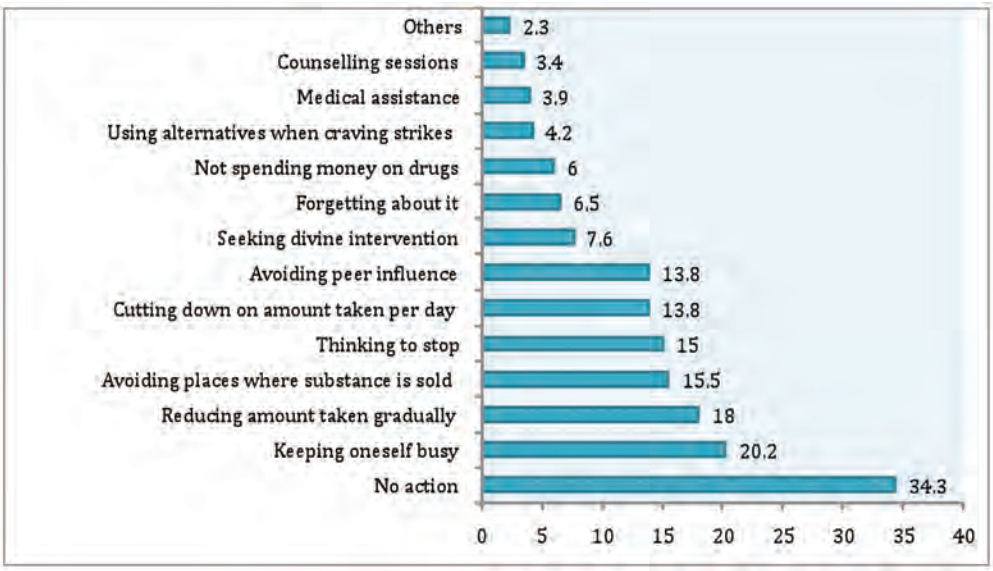
Drug/ substance	Background characteristic	Level of use			Total (n)
		Proportion of users (%)	Proportion of abusers (%)	Proportion of dependent persons (%)	
Alcohol	15–24 years	30.1	35.6	34.3	73
	25-35 years	26.0	34.4	39.6	154
	36-65 years	30.8	40.3	28.9	159
	Urban	26.5	33.0	40.5	185
	Rural	31.3	39.3	29.5	224
Tobacco	15-24 years	20.0	37.1	42.9	35
	25-35 years	15.0	37.9	47.1	87
	36-65 years	18.0	36.0	46.0	111
	Urban	16.5	36.2	47.3	127
	Rural	17.1	39.8	43.1	123
Miraa	15-24 years	34.6	30.8	34.6	26
	25-35 years	14.6	41.5	43.9	41
	36-65 years	20.7	48.3	31.0	29
	Urban	22.4	39.4	38.2	76
	Rural	22.2	40.8	37.0	27
Bhang	15-24 years	33.3	44.4	22.3	9
	25-35 years	21.4	21.4	57.2	14
	36-65 years	42.9	42.9	14.2	7
	Urban	39.1	34.8	26.1	23
	Rural	33.3	25.0	41.7	12

5.2 Desire to stop drug use and knowledge and attitudes towards rehabilitation facilities

At least one in every 6 users of any substance is willing to stop taking the substance. Desire to discontinue is higher among heroin and *miraa* users compared to other drugs. It can be seen in Figure 11 below that only 7.2% of substance users have sought professional help, including counselling and medical attention.

Majority are trying to discontinue by keeping themselves busy and gradually cutting down on the amount of substance taken.

Figure 11: **Percentage distribution of respondents by measures taken to end addiction**



Indeed, 83.3% of all the respondents are not aware of any drug treatment centre, with rural areas having lower awareness levels (85.9%) compared to urban ones (79.1%). Western region recorded the lowest awareness levels of such facilities, at only 8.4%. Consequently, a significant number did not give much information on such facilities. Of those who responded, most of the facilities mentioned are government hospitals. Over one half of the respondents perceive drug treatment facilities as "not easy to reach" (52.4%) in terms of cost and distance. About 25.4% of them also viewed them as facilities for people with serious addiction problems.

Quality of the staff at the facilities is perceived to be good by 36.8%. Affordability of the services is not clear to the communities, as indicated by a 35% non-response rate. Without prompting, only 4.2% of the respondents are aware of Mathari hospital, as a treatment centre for drug abusers. When prompted, 76% of the respondents acknowledge awareness of Mathari hospital, with the majority being in urban areas (79.3%) as compared to rural areas (73.8%).

Nairobi, Central and Nyanza regions recorded a prompted awareness of 80% and above. Of the 1886 respondents, who said they are aware of Mathari, a substantial proportion of them (72.4%) perceive the facility to be capable of counselling, treating and rehabilitating drug abusers. The rating amongst different age groups, as well as the different genders, are both similar at over 70%.

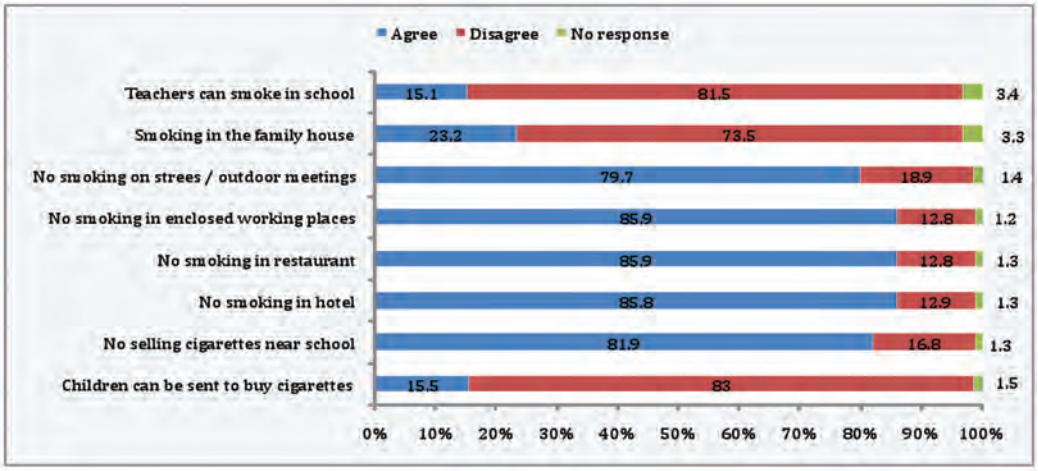
5.3 Attitudes towards drugs

Attitude towards drugs was assessed by asking respondents to agree or disagree on eight statements which included: teachers can smoke in school, smoking in the family house is acceptable, smoking in a restaurant or hotels is acceptable, and selling cigarettes near schools is acceptable. The results are presented in Figure 12. Results suggest that majority of Kenyans hold positive attitudes towards consumption of licit drugs such as packaged liquor (65.6%), cigarettes (64.8%), *miraa* (59.9%), traditional brew (55.6%), sniffed/ chewed/ piped tobacco (53.1%), *kuber* (34.1%) and *shisha* (13.1%). In contrast, illicit drugs have a particularly low acceptability rating: cocaine and heroin have a rating of 9 percent and 11.3 percent, respectively. Another drug in this category is bhang (20.8%).

Acceptability of the various drugs covered in this survey also varies by region. Acceptability of cigarettes is over 50% in all regions except North Eastern and Central. Bhang, heroin, cocaine and packaged alcohol have particularly high acceptability ratings in Nyanza region. Illicit brews have a high acceptability rating in Western while *miraa* has high acceptability rating in Coast.

Over 80% of the respondents agree that children should not be sent to buy cigarettes and teachers should not smoke around the school area. There is also a general unfavourable attitude against smoking in enclosed work places (85.9%), selling of cigarettes near schools (81.9%), smoking on the street or outdoor meetings (79.7%), smoking in hotels (85.8%) and smoking in restaurants (85.9%).

Figure 12: **Community attitudes towards smoking**



The perceived negative effects of all drugs on an individual is similar, both in urban and rural areas, except for hard drugs like cocaine and heroin. These two drugs are rated highly (cocaine 86.1%; heroin 84.9%) in urban areas as compared to rural areas at 70.7% for cocaine and 69.7% for heroin.

The perceived harm of drugs on self is similar amongst women and men with the exception of the hard drugs which most men gave a higher rate (cocaine 73.2%; heroin 72.2%) compared to women (cocaine 60%; heroin 57%).

A user of substances perceives their harmful effects on other people to be similar to those experienced by him/her. Use of bhang, tobacco and alcoholic beverages are rated higher in terms of their harmful effects to other people by users (93%, 91% and 84.9% respectively). *Miraa*, cocaine and heroin also received a relatively higher rating of causing harm to others at 79.9%, 76.7% and 75.6% respectively.

CHAPTER 6: TRENDS IN DRUG ABUSE AND PRACTICES REGULATING DRUG USE IN THE COMMUNITY

There is a general observation of an increase in the number of drug users in the community. Looking at the different age categories, respondents reported a higher increase in alcohol and drug consumption among those aged 19-24 years (71.1%), 24-34 years (70.5%) and 14-18years (55.1%). In addition, 20.6% and 13.2% of the respondents also felt that there is an increase in the consumption of alcohol and drugs among those aged between 10-13 years and those below 10years respectively. In order to delve into these issues deeply, an FGD guide was developed and used to guide the discussions touching on a number of aspects relating to: community awareness of alcohol and drug abuse, community perceptions towards alcohol and drug abuse, people's perceptions, rehabilitation as well as community control mechanisms and government efforts to control alcohol and drug use.

6.1 Awareness of ADA

The FGD participants identified the alcoholic drinks and drugs available in their localities. In particular, they identified the names used to refer to the different alcholic drinks. Within communities, one finds *chang'aa*, *busaa* and what they refer to as the legal drinks, such as beer and spirits. In Kuikui, Baringo North some of the other drinks that were mentioned, in addition to those mentioned above, are *sapphire* and *muratina* (a traditional brew taken mainly by elderly women, but was described as not being very common). In the same region, it was reported by the FGD that *busaa* is brewed and that many people, including the youth and married women drink it. However, very few girls take it. According to the FGD for men, about 20% of women drink *busaa* compared to 80% men. *Busaa is brewed in the forests and brought to the busaa dens (at river banks) where drinkers are many* (FGD, Male 36+ years, Kuikui, Baringo Central). In Laikipia, female FGD participants noted that alcohol which is dispensed in small quantities is enticing because it is cheap. *"Pombe ya kupima yapendeza juu bei yake ni nafuu."* [FGD, Female 36+ years, Thingitho, Laikipia East].

These drinks are consumed within the community, with the earliest age of first use being identified as 6 years. The main factor contributing to the availability of drinks at this age is its availability at home. Thus, in families, which produce alcoholic drinks, one is likely to find individuals, at a younger age, trying alcoholic drinks. The parents are seen as being a negative role model for these children. According to Male FGD participants in Kuikui, Baringo, "*children are usually influenced by parents and their neighbours. Parents usually send their children to go and buy, thus leading them to trying it out*."

Nonetheless, participants were quick to report that religion is contributing to the reduced involvement of children in such activities due to what they are taught in Sunday Schools.

The average age of using alcoholic drinks, however, was estimated at 14 years, when the children are in Standard 8. The FGD with youth, in Bahati, Nakuru noted that at standard 8, the children feel grown up and start taking alcohol (FGD, 20-35 years, Youth, Bahati, Nakuru County). They also reported that the students use alcoholic spirits depending on their economic status and they get drunk as early as 6 a.m.

Reasons for using alcohol & drugs

- It reduces stress caused by lack of employment
- Peer pressure
- Used for socialization [FGD, Male 36+ yrs, Kuikui, Baringo North]

Although the various FGDs generally pointed to an early debut in the use of drugs with an average of 14 years, the FGD of women in Garissa seems to suggest a later starting point of drug use. The women FGD participants agreed that the most probable age for engaging in drug use is 18 years, mainly because these youth have finished school and because they do not have any jobs. Even then, they pointed out that some of the youth may start engaging in drug use when they are between 14 – 16 years and sometimes as early as 12 years. (FGD, Women, Garissa County).

Besides alcoholic beverages, the FGDs also focused on the use of bhang. In Bahati, Nakuru County, and in Kisauni District, Mombasa County, the youth FGD participants noted that people start using bhang at an early age but it depends on the availability of the drug. The average age for starting is 14 years. The entry into bhang is often through smoking cigarettes before they graduate into taking bhang. This is especially common among teenagers. In one of the FGDs, it was noted that the teenagers start taking cigarettes, first at the age of 10 years before graduating to bhang. The rite of passage (circumcision) plays a significant role in influencing the initiation into smoking bhang. This is because the boys have transited from childhood to adulthood (FGD Youth, 20-35 years, Bahati, Nakuru County). However, in some of the other places such as Kuikui, it was reported that bhang is not available in the area [FGD, Male 36+ years, Kuikui, Baringo North]. The use of hard drugs was, however, seen as being linked to college life and university students. The participants in the FGDs explained that hard drugs included cocaine and mandrax tablets. These drugs, they noted, are abused subject to a person's financial status and/or one's educational level. "They are for rich 'kids' or students from rich families," they noted.

Miraa was identified as a drug transported into and sold at the town centers. For *miraa*, FGD participants argued that children learn to use it from their relatives, at an early age. The points of sale at the trading centres also contribute. In addition, children practice what they learn in school as regards to the effects of drug abuse.

For example, *miraa* is known to keep someone awake, thus the standard 8 pupils use it to keep them awake as they study or during the *keshas* (FGD Youth, 20-35 years, Bahati, Nakuru County). The average age of initiation was linked to the associating of *miraa* with staying awake, by those in school. They are thus tempted to try it when they reach standard 8, at the age of between 13-14 years.

Unlike the cigarettes, *miraa* and alcoholic drinks, tobacco snuff is first used at the age of about 18 years. This is in contrast to information from Baringo where it was reported in the FGD with men (36 years and above) that tobacco is mainly a preserve of the old people. "The old men of 60 years and above as well as old women use *tobacco ya mdomo*." (FGD, Male, 36+years, Kuikui, Baringo North). However, for the young people, it was noted that they use tobacco secretly and that other tobacco products such as cigarettes are found in the urban centers such as Kabarnet and not in Kuikui, which according to FGD participants does not have points of sale for cigarettes.

Kuber, on the other hand, is "used like a sweet by placing it under the lower lip and teeth in order to conceal it." (FGD Youth, Bahati, Nakuru County). It was described as containing a sweet smell and is used mainly by high school students. *Kuber* was linked to male rather than female students although it was noted that some female students also used *kuber*. The other substances that were identified include shoe glue, which is mainly used by street children and another one is *largactil*, a drug mainly meant for treating mentally unstable people. This drug is misused by people who are able to access it to help them sleep.

6.2 Perception towards ADA

It was noted that people engage in taking drugs because of idleness. The youth, especially, have no jobs and have a lot of time to idle around. Those who drop out of school in Class 8 are said to have lost any hope and therefore engage in taking alcohol. For those out of school, the hard economic conditions force them to seek solace in alcohol. Peer influence was also thought to lead people into taking alcohol.

It is important to note that the community only learns or notices that an individual is taking drugs when the effects show up. Such people are seen as "odd people" who are incapable of positively contributing to the welfare of the community. They are seen as people with distorted minds, with low capacity and who lack focus.

Generally, though, the community does not perceive cigarettes as a drug. Thus, its use is not condemned. Unlike cigarette smoking, which appears to have a tacit approval from the community, bhang is condemned because of its dire and negative effects. A person taking bhang is regarded as one who will become a nuisance to the community, an idler and a troublemaker. Similarly, people's perception of alcohol drinking changes according to the level of use. There are two types of alcohol drinkers, namely, "the light drinkers" and "the heavy drinkers."

Whether one is a light consumer of alcohol or a heavy consumer of alcohol, the community does not look favourably at those who get disorderly and disturb other members of the community. The strong disapproval of alcohol and drug abuse in some communities is captured by views in Kuikui, Baringo North. These are summarized below:

- Use of alcohol by girls is a taboo in this area. Alcohol is considered to be a drink for elders, especially men.
- A young girl was once drunk, disorderly and wore a pair of trousers. This shocked the entire village and everyone wanted to know whose child she was.
- Usually, the trading centres are filled with sober people, thus it is uncommon for people to be drunk and disorderly. When they do so, they are shunned by the community and reprimanded by the elders.
- Use of *busaa* by persons who are 40 years and above is accepted by the society
- The youths who use *sapphire* are warned of the consequences of taking it. This is done at the household level.
- Tobacco is used from the age of 30 years. Culturally, the age of using it was at 40, years but today, its use starts at 18years.
- Tobacco cannot destroy or affect anyone, but alcohol does, as reflected in broken homes.

These strong negative sentiments possibly act as disincentives for the youth who might want to engage in alcohol and drug use.

Effects of ADA

- Loss or reduction of property
- Death as a result of alcoholism
- Conflict between persons due to drunkenness
- Promotes unbecoming behavior such as rape and incest due to loss or reduced mental faculty.
- High school dropout rates.
- Negative health outcomes.
- Breakup of families.
- Leads to promiscuity and teenage pregnancies.
- Increase in accidents as a result of alcoholism.

FGD, Male 36+ years, Kuikui, Baringo North

In some places, such as Tharaka, however, communities are worried about new and faster methods of brewing alcohol. These new methods of brewing, produce alcohol in a shorter time compared to the traditional method of brewing *marwa*, which they said takes three days. The Focus group discussion with men in Tharaka reported the use of what they described as *ngusho*. This is made from flour that is mixed with chemicals and sugar. The flour is bought from the shops. You cook it like porridge. When *ngusho* was introduced it replaced *marwa* because it is easier to make (it takes 24 hours) unlike *marwa* which takes 3 days." In order to deal with this problem, the FGD participants suggested that *ngusho* should be banned from the market.

6.3 Effects of drugs and substance abuse

Consumption of drugs and other substances of abuse lead to a number of adverse effects. First, people are known to have sold their property and wasted their livelihood and inheritance in order to maintain their addiction. These people have been rendered homeless and hopelessness has creeped in. They have no sense of belonging in the community. Secondly, families have broken up as wives leave their alcoholic and irresponsible husbands. The Youth FGD participants in Bahati noted that a new trend of women headed households has emerged, as men are no longer able to be heads. The men can no longer make sound judgments and decisions. Third, within communities where there is addiction, there is an increasing trend of theft within the community as addicts steal to feed their addiction, resulting in conflict within the community.

There are other effects that were noted such as (i) spread of HIV/AIDS due to promiscuity; (ii) low levels of education as children drop out of school because their parents are unable to educate them further due to poverty, stemming from the addiction habits; (iii) increase in many single people as men and women are "unable and incapable of starting families"; (iv) lack of proper guidance to children leading to child delinquency in communities and children loitering in the streets for lack of proper parenting; and (v) increased prostitution and promiscuity. According to Women FGD participants in Laikipia East, alcohol and drug abuse has the potential to lead to domestic violence at home. On girls, they noted that girls of 14-17 years are in prostitution because of drugs which go hand in hand with prostitution [FGD, Women 36+years, Thingitho, Laikipia East].

Alcohol and drugs abuse also has adverse effects of ADA on the economy. ADA leads to a deteriorated economy because the youth become largely unproductive. The other economic related effects include: (i) low levels of investments because the available cash is used on alcohol and not in developmental activities; (ii) lack of employment due to a low number of qualified people; and (iii) increased theft and conflict in the areas where alcohol and drug abuse is high. The net effect of all these is that the economy of the area becomes poor.

6.4 Regulation of alcohol and drug abuse.

There are a number of legal and community-based regulatory mechanisms put in place to address the problem of alcohol and drug abuse in communities. For the legal framework, the "Mututho Law" has come in to play a critical role in regulating the consumption of alcohol. According to FGD participants, the rules that came into effect as a result of the Law, regulate a number of things, namely: (i) the rules regulate the opening and closing times of bars. Bars should operate from 5pm to 11pm; (ii) the rules prohibit the sale of alcohol to people under the age of 18years.

However, it was noted that in some places such as Bahati, Nakuru County some bar owners do not follow these laws. This is, for example, witnessed in town centres where high school students will be seen drinking in the bars without a hindrance. During such times, it was observed that "money talks'' and, as a result, rules do not have to be followed. For example, it was noted that people arrested with bhang pay bribes and are released. "Smoking bhang is a normal thing and it is smoked like a cigarette in some areas," they added.

Some towns such as Nakuru have designated smoking zones, but use of these areas is often disregarded or not reinforced as people can be seen smoking in public. When one reprimands a smoker in the matatu or in public, one is told to go and smoke their own, translated in Kiswahili as "enda vuta yako". People can also be seen smoking in enclosed public spaces such as Cinema Halls. As a result of all these, there is a lot of disrespect for the rules amongst the people thus leading them into breaking them.

6.5 Traditional mechanisms for regulation

Just as there is a mechanism for regulating alcohol and drugs through legal means, communities too have instituted their own ways of regulating the use of alcohol and drugs. The FGDs were conducted with the aim of investigating the nature of the regulatory mechanisms put in place. According to one of the FGDs for Youth (20-35 years) in Bahati, the traditional society regulated the use of alcohol and only the adults were allowed to drink alcohol. The levels of consumption were also regulated. But this has changed. The level of ADA has changed in the last couple of years, especially since the year 2000, because of idleness and desperation. In the farming areas, such as in Nakuru, large scale agriculture is no longer the practice and the economy is no longer performing as it used to. "Today the land is divided into many plots which do not justify large scale commercial farming," the youth noted.

The role of the community in dealing with alcohol and drug addiction was aptly captured in Kuikui, Baringo North. The FGD participants noted that community members understand and respect each other and therefore should be involved in counselling each other. When an individual is warned by an elder, they cease their bad behaviour and rectify. The elder's word is a law unto itself [FGD, Male 36+ years, Kuikui, Baringo North]. At the family level, the family could potentially play a key role in controlling alcohol and drugs. According to some FGD participants, the family has a great role to play because they pay the fines that their relatives have been fined. Thus, by paying the fines, they become directly involved in their relative's issues.

6.6 Response from stakeholders in regulating ADA

In order to regulate ADA in communities, stakeholders have responded in various ways. From the administrators' point of view, those found to engage in the distribution of drugs are arrested. However, this is not adequate as it does not deal with the source of the drugs. It was noted in one of the FGDs that "*the source of these drugs needs to be found and destroyed*" (FGD Youth 20-35 years, Bahati, Nakuru County). However, in order to be more effective in these interventions, a number of issues were identified as needing attention. These include the following: (i) raising awareness on the effects of ADA amongst the children and youth as this will provide them with critical information thus empowering them to make informed decisions; (ii) reshuffling of the Administration Police more regularly to avoid complacency. It was noted that some of these officers are involved in the trade or are on the payroll of those involved in peddling drugs or bar owners who sell alcohol to young people or outside the normal hours as allowed by law. (iii) More rehabilitation centers for helping addicts should be set up in order to help support those who need help. (iv) On top of that, a more strict enforcement of the law would help in curbing or reducing cases of ADA, while keeping the youth busy and engaged through sports activities would drive them away from engaging in alcohol and drugs abuse.

The apparent frustration felt within communities was captured aptly by female participants of an FGD in Laikipia who noted that, *"These drug people never reach the courts because they buy their freedom."* They ended up recommending that, *"Drug dealers should be sentenced to many years without fines."* They said this because fines are easy to pay due to a lot of money that the drug dealers have.

Within communities, it was noted in many of the FGDs that the community members arrest offenders, who are then presented to the chiefs, only for those arrested to be released. This acted as a source of frustration in the community. It was also noted that since those who drink are more than those engaged in the business of brewing alcohol, the later should be dealt with as it would be more cost-effective. According to different FGDs, the administration does not experience the pain of ADA as much as the community does, thus communities are best placed to engage in policing on the local brewers.

In some places, such as in Laikipia, the women have previously stood up united, to try and stop illicit brews. The women have taken action against those who brew. However, as they note, community policing, assisted by the government will work towards eradicating the ADA issue. The villagers are ready to organize themselves in teams, but this can only work when supported [FGD, Women 36+ years, Thingitho, Laikipia East].

In addition, the civil society has a role to play. The women, especially, pointed out the importance of involving religious leaders. They thought that these leaders should also include, in their messages, issues touching on drugs, instead of just focusing on spirituality. *"Religious leaders should not just think spiritual matters. They must deal with the real issues affecting their followers."* [FGD, Women 36+ years, Thingitho, Laikipia East].

There is also need to involve recovered addicts. For example, in Kibera, FGD participants noted that NACADA should use people with "real life experiences" to sensitize the public on the negative consequences of ADA." [FGD, Youth 20-35 years, Nyayo Highrise]. They argued that those who have recovered have a personal story to tell; they are more likely to bring 'live' experiences and communities will more readily identify with those problems. This, in the long run, is likely to bring change within communities.

Children can also be used as agents of change as has been demonstrated elsewhere in other health interventions. Within schools, teachers have a key role to play and they should be actively engaged in educating the school going children. The children use the knowledge learnt in schools to educate their parents against ADA.

6.7 Rehabilitation

There is a general lack of rehabilitation facilities for drug addicts and other substance abusers. These centers are largely found in urban centers such as Nakuru and Nairobi and are thus out of reach for most of the people. Within communities, however, one can easily find organized groups of women and youth which could be used as entry points into communities.

In places like Bahati, Nakuru County, it was noted by FGD participants that there are no organized interventions targeting ADA addicts. The only youth group that was involved in sensitizing the community about drug related issues, collapsed due to lack of financial support. In Kuikui, Baringo North, due to lack of rehabilitation and counseling centers in the area, it was observed by the FGD participants that the responsibility of counseling has been taken up by families, at the family level, and at the trading centers, by the elders and pastors. The role of NACADA, especially in providing guidance on these issues, was highlighted by the different groups.

The key messages that come from the different focus group discussions is that the use of alcohol is widespread and that parents play a key role in influencing their children into starting to use alcohol or smoke cigarettes. Also, the initiation into drinking alcohol and smoking cigarettes is done quite early in life, with most of the FGDs placing the initiation age at senior years in primary (that is in Standard 8). In situations where the father drinks or smokes, it is difficult for the mothers to help their children not to get into drinking or smoking.

CHAPTER 7: DISCUSSION

This chapter discusses the findings of the survey in the context of study objectives and relevant previous studies. It is divided into four parts, focusing on awareness, accessibility, availability and drug use; consequences of drug use; chemical dependence, perceptions on counselling, treatment and rehabilitation and, finally, traditional regulatory practices and trends in drug abuse.

7.1 Awareness, accessibility and use of drugs

The survey sought to establish the awareness levels, accessibility and drug use of two groups – 10-14 years and 15-65 years. Close to half of those aged 10-14 years mentioned, spontaneously, cigarettes and legal alcohol, while bhang was mentioned by 48.4%. These survey results, while showing some improvement from the 2007 rapid assessment survey, still reflect more or less a similar pattern. Cocaine was mentioned, spontaneously, by close to one quarter of those interviewed, while one in five respondents mentioned heroin and hashish. Consistent with the 2007 rapid assessment survey, bhang, legal alcohol, *chang'aa* and cigarette accounted for the highest levels of spontaneous recall (over 50%) for those aged 15-65 years old (NACADA 2007). Traditional alcohol and *miraa* show relatively high levels of awareness. Among the hard drugs, cocaine, followed by heroin, are the most commonly mentioned drugs. The least known drugs and substances include synthetic drugs, *shisha*, mandrax, hashish and prescription drugs, having recorded unaided awareness levels below 10%. People have low levels of awareness of the different forms of usage of heroin and cocaine (smoking, injecting and snorting). Individual prescription and synthetic drugs have the least unaided awareness levels.

The findings demonstrate clear rural-urban differentials in terms of knowledge of the various drugs and substances of abuse. Respondents in the rural settings reported relatively higher levels of prompted knowledge of *chang'aa* and traditional liquor. The 2nd generation alcohol is the least known among the other categories of alcoholic drinks. Generally, Christians have a higher total awareness level of alcohol products compared to those professing the Islamic faith. This is expected, given the religious prohibition of alcohol in Islam. Thus, North Eastern recorded the lowest total awareness levels of alcohol products.

In comparison with bhang products, there is a relatively limited awareness level of cocaine and heroin, which is below 50%. The most common form of cocaine and heroin is the injected type (28.0% and 29.1% respectively). There are higher total awareness levels of heroin and cocaine among Muslims compared to Christians.

Total awareness levels of cocaine and heroin are highest in Nairobi and the Coast regions. In general, knowledge of bhang, cocaine, and heroin is highest among respondents in urban areas than among respondents in rural areas as is higher among men compared to women.

The findings further show that total awareness levels of cocaine and heroin decline with advancing age. Studies elsewhere have shown that young people are more likely to experiment with drugs compared to older people.

The rural-urban differences reported in the context of this survey, seem to reflect differential access to information, as well as access to the different substances of abuse. These differences have been reported elsewhere (e.g. Swaim and Stanley 2011; Sarvela, Pape and Bajracharrya 1990). Swaim and Stanley (2011) in their study of 7th-12th grade students from a sample of 260 rural communities across the United States, have shown that residents in a more rural setup were more likely to have used alcohol and gotten drunk than their 'less rural' counterparts. Similarly, due to religious prohibitions, one is likely to find differences in alcohol and substance abuse among different religious groups, say between Muslims and Christians or even among the different denominations of the Christian religion.

In terms of gender, there are differences in awareness levels with more men showing a higher level of awareness compared to women, when controlling for type of drug. Thus, men tend to be more aware of the drugs compared to women. There are observable age differentials with regard to knowledge of both *miraa* and *muguka*, with awareness showing a general decline as age increases.

Among the different types of alcoholic drinks analysed, the study established that traditional liquor is the most easily accessible type of alcohol followed by wines and spirits and lastly *chang'aa*. Regional comparison shows that *chang'aa* is easily accessible in Western followed by Nyanza, and least accessible in North Eastern. Traditional liquor is most accessible in Coast followed by Western, and least accessible in North Eastern. Wines and spirits are most accessible in Nairobi followed by Central, and least accessible in North Eastern. These findings echo earlier studies (e.g. NACADA, 2011) which have revealed similar results. In particular, areas like Bungoma County report higher access to traditional liquor compared to other counties.

As was established during the 2007 rapid assessment survey, rural children are much more likely to have consumed alcoholic drinks other than packaged/legal alcohol, compared to urban children. This is most probably because in rural areas, alcoholic drinks, especially *chang'aa* and traditional liquor, are mostly prepared at home. In urban areas, on the other hand, distribution of alcoholic beverages has taken a more business-like style. In particular, the perceived non-enforcement of the "Mututho Laws" is likely to afford under-age drinkers access to alcoholic drinks.

In one of the studies, NACADA (2011) has noted that people in rural areas feel that the Mututho Law is more effective in urban settings such as Nairobi where law enforcement is strict. Consequently, in rural areas, there are greater opportunities for children to experiment.

Current use of alcohol was defined as those reporting use of alcohol in the last one month. About 17.0% of urban dwellers are current users of various types of alcoholic drinks compared to 11.8% of rural dwellers.

This represents a marginal decline from the estimates of the 2007 rapid assessment survey. Comparison within the eight regions of Kenya depicts very interesting shifts in the trend of alcohol consumption. Regions registering a considerable increase in current alcohol consumption, in comparison to the 2007 survey, include North Eastern (by 5.4%), Nairobi (by 3.4%), Western (by 3.4%) and Rift Valley (by 3.2%). It is important to note that unlike in 2007, North Eastern region has shown that a sizeable proportion of its residents are currently consuming alcohol. This trend may be attributed to the cosmopolitan nature of towns like Garissa. Regions registering considerable decline in current alcohol consumption include Coast (8.0%), Central (by 7.7%), Nyanza (by 5.0%) and Eastern (by 0.2%). An interesting observation is the one on rapid decline of alcohol consumption in Coast and Central regions. For the case of Central, there has been intensive campaign against alcohol abuse in the region over the years. The region has received a lot of focus on alcohol abuse from both the Government and the media compared to other regions. Considering the different types of alcoholic drinks, Nairobi has the highest current use of packaged/legal alcohol (15.7%) followed by Central (9.2%). For *chang'aa*, Nairobi has the highest current use (7.2%) followed closely by Western (7.1%). Rift Valley has the highest current use of traditional liquor (6.0%) followed by Nyanza (5.1%). For current use, of 2nd generation alcohol, it is highest in Rift Valley (2.0%) followed by Nairobi (1.3%). The provincial administration and NACADA have put in considerable resources in an attempt to bring the problem of drinking under control. These efforts may indeed be achieving results as shown in this study.

Results show that 37.1% of the respondents aged 15 – 65 years have taken at least one drug. Consistent with the 2007 rapid assessment survey, male respondents presented the highest proportion of those who have ever taken any substance of abuse (54%). In terms of lifetime prevalence, men take the lead in most of the drugs. Further, North Eastern region presents the lowest lifetime use of any drug or substance across the regions. This difference could easily be accounted for by gender and religion. Religion, in particular, has a major role to play in this case. North Eastern is a predominantly Muslim region. The Islamic religion prohibits use of intoxicants and, in particular, alcoholic drinks. One in five people have ever taken legal alcohol; one in ten have taken cigarettes and one in twenty have taken bhang.

Traditional liquor has been taken by 12.5% of the respondents aged 15 – 65 years. For *chang'aa* and traditional liquor, Western and Rift Valley lead in terms of regions with the highest lifetime prevalence rates.

Initiation into drugs and substance abuse: Among the respondents aged 10 – 14 years, the median age for using a tobacco product is 10 years while the minimum is 8 years. For alcohol, the median age is 10 years while the minimum is 4 years. For bhang, the median age of initiation among the 10 – 14 year olds is 12 years. A similar age was reported for *miraa*. Overall, these findings show a tendency to clustering around age 10 as the possible age of initiation into drugs and substances of abuse. These results are further supported by FGD data with men, women and youth.

The different FGDs concurred with that age, as ranging from11 to 14 years, which would place the children in upper primary or early secondary. The results reflect general trends elsewhere (e.g. van Heerden *et al*., 2009). In South Africa, for example, a national survey has shown that younger age cohorts are more likely to get into drug use at that younger age. Of those who had used any substance, the survey revealed that the age of onset was earlier for younger age cohorts, and this was more evident in the use of drugs other than alcohol and tobacco (van Heerden et al., 2009).

Role of social environment in drug and substance abuse: The social environment plays a major role in drug and substance abuse. Individuals develop relations within social networks where peer pressure plays a critical role in influencing group behaviours (Patrick *et al*., 2010; Duan *et al*., 2009; Berdnt 1992). Due to the desire to act within the norms of a social setting, an environment which makes it easy to access alcohol and other substances will encourage the use. Just as the social environment can negatively influence, it can also lead to positive changes by driving current users into stopping or those not using, not to start (Berndt, 1992). The role of the social environment is clearly demonstrated in this survey. About 10% of children who have ever consumed alcohol have friends who take alcohol compared to only 5% of those whose friends did not take alcohol. It is also evident that a relatively bigger proportion of children who think that drugs are readily available in school, are likely to have ever used alcohol. Moreover, those who have ever taken alcohol are likely to report that a close relative was using one drug or the other.

7.2 Health and socio-economic impact of drug abuse

The link between alcohol and drug use on one hand and high risk sexual behaviour (e.g. multiple sexual partners and non-use of condoms) as well as violence on the other, is well documented (Cavasos-Rehg *et al*., 2011, Smith *et al*., 2008).

Among respondents aged 15-65 years, who reported use of alcohol or drugs in the last one year, 13.2% of them had ever had sex while drunk or on drugs with someone other than their regular partner. Overall, out of 632 children in this study, 6% have ever engaged in sex. The median age at sexual debut is estimated at 11 years, which is lower than for children who do not use alcohol or drugs. A recent study (McGrath et al., 2009) on age at first sex in rural South Africa, showed that age at first sex was correlated with the aspect of ever use of alcohol. An assessment of the situation shows that during the first sexual intercourse, 30% had sex unwillingly. Further, about 20% were given incentives to lure them into the sexual act, with a further 8% reporting having taken drugs before the first sexual encounter. For another 5.1% their partner had taken a drug. Their young age makes it difficult for them to negotiate for safe sex and exposes them to forced relations and risks of violence.

The negative impact of alcohol consumption in the community is a reality that can no longer be ignored. As a pointer to the health risks, among respondents aged 15-65 years, 16.3% of them know of a person in their community who had lost eyesight after consuming alcohol in the last 12 months prior to the survey and another 6.4% had a family member who had lost eyesight after alcohol consumption.

Over the same duration, 38.2% reported to know a person in their community who had died due to alcohol consumption and another 13.5% have had a family member who has died due to alcohol consumption. Finally, 20.6% of the respondents reported that they had a family member with a mental disorder because of taking drugs. Together, these findings point to a high risk of bodily and psychological harm as a result of alcohol intoxication or excessive use of alcohol.

Alcohol use also affects the social and economic prospects of individuals and households. About 35.7% of all alcohol users reported that they had diverted resources in order to buy alcohol in the 12 months preceding the survey. Findings also show that close to a third of all users of bhang and tobacco have diverted resources in order to finance their habits. *Miraa* has the least proportion of people reporting to have diverted domestic resources to finance their drug taking habits (25.6%). Nearly 1 in every 4 users of alcohol (25.4%), 16% users of bhang and 12.5% users of tobacco reported work or school absenteeism as a result of taking the respective drug/substance. The findings support earlier studies which have shown a link between substance abuse and absenteeism (e.g. Mbatia *et al*., 2009; Patrick *et al*., 2009). In these studies, absenteeism is generally reported to be high among substance abusers. Furthermore, in the Tanzania study, Mbatia *et al*., (2009) concluded that those areas considered less affluent were associated with higher lifetime rates of tobacco and alcohol use. The study concluded that substance use was higher in poorer areas.

Alcohol and bhang users are more likely to report having been violent towards their family members compared to users of tobacco and *miraa*.

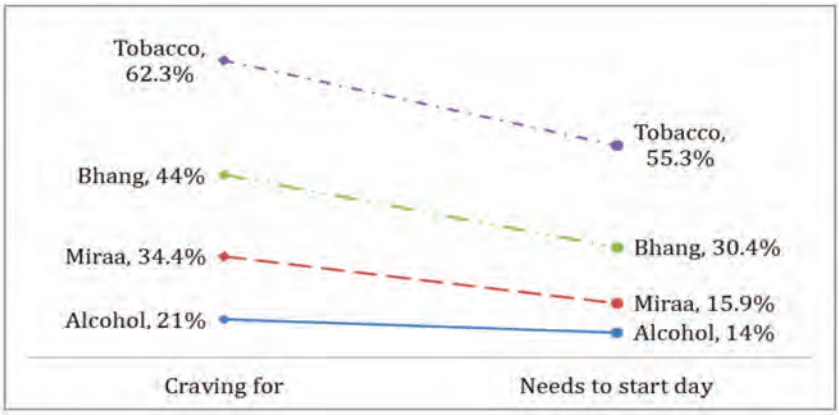
Alcohol is the commonest cause of domestic violence. Findings show that 32.4% of alcohol and 28.6% of bhang users reported being violent to a spouse/partner or a family member.

7.3 Chemical dependence, perceptions on counselling, treatment and rehabilitation

Tobacco is the most addictive substance with more than three in five (62.3%) of users reporting craving for tobacco always and another one in two (55.3%) saying that they always needed it, first thing in the morning. About one in five (21%) of users of any type of alcohol also reported craving for alcohol always and 14% reported that they always needed it first thing in the morning. About 44% of bhang users reported craving for it always and 30.4% reported that they always needed it first thing in the morning. For *miraa*, 34.4% of the users reported craving for it always and 15.9% reported that they always needed it first thing in the morning. These differences are captured in Figure 13.

About one in ten Kenyans are either abusers of or dependent on alcohol use, 4% are abusing tobacco and 5% are dependent on tobacco use, 2% are abusing *miraa* or dependent on *miraa* while 0.4% are abusing bhang or dependent on bhang. Respondents in urban areas are likely to be dependent on alcohol (40.5%), tobacco (47.3%) and *miraa* (38.2%), while those in the rural areas are likely to be dependent on bhang (41.7%).

Figure 13: **Differences in addictive levels to substances of abuse**



More than 80% of respondents are not aware of any drug treatment centre with rural areas having lower awareness levels (86%) compared to urban ones (80%). Indeed, FGDs revealed that participants are not aware of rehabilitation centres, with most saying that such are found in urban areas. Western region recorded the lowest awareness levels of such facilities at only 8.4%. Consequently, a significant number did not give much information on rehabilitation facilities.

Of those who responded, most of the facilities mentioned are Government hospitals. Over one half of the respondents perceive drug treatment facilities as "not easy to reach" because of cost or distance. Perceptions shape views of rehabilitation centres and, therefore, the likelihood of using them. About a quarter of those interviewed saw rehabilitation centres as facilities for people with serious addiction problems. Thus, individuals/families are likely to shy away from using the facilities or delay their use until a drug abuse problem is out of control.

Over 80% of the respondents agree that children should not be sent to buy cigarettes and teachers should not smoke around school areas. There is also an unfavourable attitude towards smoking in enclosed spaces (86%) such as offices, hotels and restaurants, selling of cigarettes near schools (82%) or smoking on the streets or outdoor meetings (80%), smoking in hotels (86%) and smoking in restaurants (86%).

7.4 Trends in drug abuse and practices regulation drug use in the community

The earliest age of first use of alcoholic beverages in the community ranges from 4 to 6 years, depending on the region. The main factor contributing to the use of drinks at this age is its availability at home. Thus, in families which produce alcoholic drinks, one is likely to find individuals trying alcoholic drinks at a younger age. The environment is seen as being a negative factor for these children. In a recent study by Ryan, Jorm and Lubman (2010), it has been shown that delayed alcohol initiation is predicted by parental modeling, limiting availability of alcohol to the child and parental monitoring among other variables. These findings point to the important role played by parents in their children's initiation into alcohol or lack of it. Nonetheless, it is also noted that religion contributes to reduced involvement of children in such activities.

Generally, though, the community does not perceive cigarettes as a substance of abuse. Thus, its use is not condemned. Unlike cigarette smoking, which appears to have a tacit approval from the community, bhang is condemned perhaps because of its dire and negative effects. A person taking bhang is regarded as a nuisance to the community, an idler and a troublemaker. The initiation into bhang is often through smoking cigarettes. This is especially common among teenagers from as early as 14 years. The use of hard drugs was, however, seen as linked to college life and university students (e.g. Masese, Nasongo and Ngesu 2012).

Consumption of drugs and other substances of abuse lead to a number of adverse effects. First, people misuse their property and waste their livelihood and inheritance in order to maintain their addiction. They are rendered homeless leading to hopelessness and loss of sense of belonging in the community. Secondly, families disintegrate as spouses leave their alcoholic and irresponsible partners.

Third, within communities where there is addiction, there is an increase in theft as addicts steal to feed their addiction, which results in conflict within the community.

There are a number of legal and community-based regulatory mechanisms put in place to address the problem of alcohol and drug abuse in communities. For the legal framework, the "Mututho Law" now plays a critical role in regulating alcohol consumption. Participants in the various FGDs identified the specific key aspects of the "Mututho Law," such as opening and closing hours and rules regulating who may buy alcohol. However, culture based regulating sanctions, nonetheless, appear to have lost their place as individuals become more independent and the role of the "extended family" diminishes. In terms of the legal regime, FGD participants raised concerns regarding enforcement. Most, in the rural areas, thought that the "Mututho Law" was only applicable in the urban areas, especially in Nairobi. Thus, unless enforcement of the law is carefully thought through, its impact may not be felt in the rural areas.

Health promotion efforts have seen some towns legislating various by-laws against smoking in undesignated areas. For example, Nakuru has designated smoking zones but use of designated areas is often disregarded or not reinforced. People can be seen smoking in public including in enclosed public spaces such as Cinema Halls. Similarly, in Nairobi there are designated areas for smoking and there are signs indicating where one can smoke. Often one can see people smoking in these designated areas. However, use of these places is not by all smokers as some can be seen smoking in undesignated places.

In order to regulate ADA in communities, stakeholders have responded in various ways. From the administrators' point of view, those found to engage in the distribution of drugs are arrested. However, this is not adequate as it does not deal with the source of the drugs. Administration officers, especially, have been quite active in areas such as Murang'a and at the Coast, where efforts have had a significant impact on the use of alcohol and other drugs of abuse.

The role of the community in dealing with alcohol and drug addiction cannot be ignored. Community members understand and respect each other and therefore should be involved in counselling others. At the family level, the family could potentially play a key role in controlling the use of alcohol and drugs since the family is involved in payment of fines for convicted relatives. Within communities, it was noted in many of the FGDs that the community members arrest offenders. In Central region in areas like Murang'a and Nyeri, and in the Rift Valley, especially in Naivasha, communities have come out in the open to demonstrate against the selling and use of alcohol and drugs. Such demonstrations have included raiding *chang'aa* production dens and pouring down any liquor they confiscate. This acted as a source of deterrence in the community. It was also noted that since those who drink are more than those engaged in the business of brewing alcohol, the later should be dealt with as it would be more cost-effective.

In addition, non-state actors such as the civil society and religious groups are important groups which should be involved. The women, especially, pointed out the importance of involving religious leaders. They thought that religious leaders should be used to convey messages to members of their congregations. The women pointed out that the leaders should include, in their messages, issues touching on drugs instead of just focusing on spirituality.

There is also need to involve recovered addicts as exemplars of people who have reformed. Because those who have recovered have a personal story to tell, they are more likely to bring to 'live' experiences and communities will more readily identify with the issues. This, in the long run, is likely to bring change within communities.

Children can also be used as agents of change as has been demonstrated elsewhere in other health interventions. Within schools, teachers have a key role to play and they should be actively engaged in educating the school going children. The children use the knowledge learnt in schools to educate their parents against ADA. This has, for example, been demonstrated in health promotion involving hand-washing in schools (see Mwanga *et al*., 2008; Onyango-Ouma, Aagaard-Hansen and Jensen 2005).

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

This survey focuses on six issues of concern to NACADA, namely: (i) the public awareness, accessibility, availability and use of various drugs; (ii) the health and socioeconomic consequences of drug abuse; (iii) the perceptions, attitudes and behaviours related to drug abuse, counselling, treatment and rehabilitation; (iv) the extent of chemical dependence; (v) current trends in drug abuse and traditional practices that regulated alcohol and drugs consumption; and (vi) the interventions that will effectively deal with causes and consequences of drug abuse. Broadly, the conclusions are based on these issues:

(i) The results indicate varying levels of awareness, access and use of various drugs. The level of awareness varies between rural and urban areas as well as use of drugs which still varies between rural and urban areas. On the other hand, awareness and use is linked to whether one is male or female. In general, men are more likely to report higher levels of awareness, access and use of alcohol and other substances of abuse.

(ii) Initiation into drug and substance use is likely to happen at about 10 years of age, for both alcohol and drug use. However, for bhang the median age for initiation is 12 years.

(iii) The negative effects of alcohol and substance abuse are clearly identified by the respondents. Dependence on alcohol or substance abuse leads to negative health outcomes, with more men than women reporting a high likelihood of visiting a health care facility for a health problem related to their drinking or smoking habits. Similarly, the results also show that people are also affected economically, with a high chance of reallocation of resources towards funding their drinking and substance use.

(iv) The survey reveals that tobacco is the most addictive substance followed by bhang while those who report addiction to alcohol is lower. Generally, though, the community does not perceive cigarettes as a drug.

(v) Rural children are more likely to have consumed alcohol compared to their urban counterparts.

(vi) Interventions that will effectively deal with causes and consequences of drug abuse rely on a concerted effort by the community and other actors such as the provincial administration. While legislation is critical in curbing alcohol and drug use, without enforcement, legislation is not effective. Community members felt that their efforts are not appreciated and, may lead to repercussions within the community as those they arrest for alcohol production and distribution are released from custody without being charged.

(vii) There is a lack of rehabilitation centres in rural areas. Thus, communities are left to use whatever means at the community level, such as using elders and church leaders.

8.2 Recommendations

A number of recommendations can be drawn from the findings of this national survey. *First, in Chapter 3*, data from those aged 10-14 years and those between 15-65 years reveals that there are gains that have been made since the 2007 Rapid Assessment Survey. The indicators show a decline in the use of alcohol, drugs and substances of abuse. Nevertheless, the gains that have been made have also witnessed loses in other areas. The introduction of the *Mututho Law* has boosted the campaign against the use of alcoholic drinks and in limiting access to individuals who are below 18 years. While this has contributed to the observed trends, the National Authority for the Campaign against Alcohol and Drug Abuse should work out a mechanism of ensuring total compliance with the law especially in the rural areas and regions where illicit brews seem to be rampant. In particular, enforcement should involve the community in carrying out policing activities.

Second, alcohol and drug use has implication on the health and socio-economic status of individuals, families, community and the nation. Data presented in *Chapter 4* shows clearly the negative health and socio-economic consequences as a result of alcohol and drug abuse. In particular, study participants point out the link between alcohol and drug use with violence. This link should be carefully documented in the context of Kenya and the role of social networks in supporting those affected. Social networks provide mechanisms which have the potential to cushion those affected by alcohol and drug abuse. Furthermore, as *Chapter 6* shows, the role communities, civil society and other bodies play in providing health promotion and responsible behaviour messages to communities, is critical. NACADA should consider mechanisms to make these channels more efficient and cost-effective so that they play a supporting role to NACADA's efforts in campaigning against alcohol and substance abuse.

Third, Chapter 5 focuses on chemical dependence, perceptions on counselling and rehabilitation. There is a general lack of rehabilitation facilities for drug addicts and other substance abusers, while where they are available, they are found in urban centers. Within communities, however, one can easily find organized groups of women and youth which could be used as entry points into communities. These groups should be empowered in order for them to provide support to those in need, before such people can find their place in rehabilitation centers. This is a role which NACADA can effectively spearhead using their national reach and networks.

Fourth, there is also need to involve recovered addicts as exemplars of people who have reformed. Exemplars can provide the link between alcohol and substance abuse and the negative effects resulting thereof.

Using the exemplars can, in the long run, bring change within communities.

Fifth, in this survey, it was not possible to capture enough out of school respondents (ages 10-14 years). As a result, it is difficult to extrapolate the findings from this survey to cover this group as they face unique problems and the social support systems are different from those available for in-school children. There is, therefore, a need to conduct further and focused studies, specifically targeting this group of out of school youth.

Finally, the role of school-going children as agents of change has been demonstrated in other health promotion efforts. In the case of alcohol and substance abuse, children can be used as agents of change. Within schools, teachers have a key role to play and they should be actively engaged in educating the school going children. The children use the knowledge learnt in schools to educate their parents against ADA.

Using a Social Norms Approach, which has been applied successfully in other settings, NACADA should be able to drive its agenda to achieve the desired goals. A Social Norms Approach challenges popular perceptions held as norms and designs messages based on empirical data to challenge the popularly held beliefs to gradually shift those beliefs in a positive direction so as to achieve the desired programme goals.

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ANNEXES

Annex 1: Study Limitations

The survey sought to determine the situation of drug and substance abuse in Kenya. The survey covered all the eight regions of the country, namely, Nairobi, Central, Rift Valley, Western, Nyanza, Eastern, North Eastern and Coast. The data was collected from all these regions. Nonetheless, a number of factors limited the study and the findings reported here should be interpreted with these limitations in mind. The limitations of the study include concerns regarding security, distances covered during the survey, location of the enumeration areas, logistical issues such as vehicle and drought-related factors. These are discussed below.

New administrative units: Creation of new administration boundaries provided challenges to the research teams. The Kenya National Bureau of Statistics is in the process of establishing new Enumeration Areas. This meant that the study team sometimes could not get adequate direction in sampling the sites. However, in anticipation of this challenge, the study team had pre-selected the study sites and adequate direction given to the research assistants to ensure compliance and minimizing the errors in the field.

Security concerns: Security was a key area of concern for the research team as the study was being conducted in some of the areas where there had been reported cases of kidnapping. Thus the Authority made sure that the relevant Government departments and security organs had been informed of this exercise in order to accord security in some of the places.

Vast and Inaccessible distances: Some of the sampled sites were quite inaccessible due to vast distances. This meant that the research teams sometimes spent more time on the road to reach the sampled sites, thus taking considerably more days than originally planned. Due to the rains at the time of the survey, it also meant that some of the sites could not be reached because the vehicles could not access the research sites.

Vehicles needed to carry out a major national survey: Due to the nature and complexity of the survey, the Authority had to mobilize transport from other departments, which was not always easy to achieve. The Authority relied mainly on transport from the Office of the President, through the Provincial Administration.