EXPLORATORY SURVEY REPORT ON THE USE OF NARCOTIC DRUGS IN THE PRODUCTION OF CONFECTIONERIES IN KENYA

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ABBREVIATIONS AND ACRONYMS

ANU	Anti-Narcotics Police Unit
CND	Commission on Narcotic Drugs
FGDs	Focus Group Discussions
GoK	Government of Kenya
INCB	International Narcotics Control Board
LSD	Lysergic Acid Diethylamide
NACADA	National Authority for the Campaign Against Alcohol and Drug Abuse
THC	Tetrahydrocannabinol
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organisation

EXECUTIVE SUMMARY

Globally, it is estimated that in 2012, between 162 million and 324 million people, corresponding to between 3.5 percent and 7.0 percent of the world population aged 15-64, had used an illicit drug — mainly a substance belonging to the cannabis, opioid, cocaine or amphetamine-type stimulants group — at least once in the previous year (UNODC, 2014). In Kenya, marijuana/bhang is the most widely used narcotic drug. According to a survey conducted by NACADA in 2012, 1.0% of the population aged 15-65 years is currently using this illicit drug. In terms of regional variation, Nyanza has the highest prevalence of current marijuana/bhang users at 1.7% followed by Nairobi (1.3%), Coast (1.3%), North Eastern (1.1%), Central (1.1%), Rift Valley (0.9%) and Eastern (0.8%).

The Narcotic Drugs and Psychotropic Substances (Control) Act, 1994 prohibits possession of, and trafficking in, narcotic drugs and psychotropic substances. One of the emerging trends of concealing narcotic drugs is lacing with confectioneries where drugs e.g. cannabis/bhang are used as ingredients when baking cookies and cakes. Lack of a distinctive smell of these narcotic laced confectioneries makes it more difficult to tell the difference between the ordinary baked foods or confectionaries and the illegal narcotic laced products making them very attractive to the youth. However, the country lacks factual evidence to prove the existence and use of narcotic laced confectioneries.

The survey therefore sought to assess the usage of narcotic drugs in the production of confectioneries in Kenya. Data was collected in all the eight regions of Kenya namely; Nairobi, Central, Eastern, North Eastern, Rift Valley, Nyanza, Western and Coast. In total, 17 counties were covered in the survey. Qualitative data was collected using a focus group discussions while quantitative data was collected through sample collection and laboratory analysis to test for presence of cannabis/bhang. Laboratory analyses results were used to supplement data from the FGDs in order to identify the range of confectioneries likely to be adulterated with narcotics, especially cannabis/bhang and the common hotspots for narcotic laced confectioneries.

According to the study findings, use of narcotics especially bhang was very high among the youth and the problem was endemic across the country. Although the most prevalent form of using bhang was through smoking, other emerging modes like oral use with narcotic laced edibles e.g. confectioneries was gaining popularity among the youth. From the study findings, bhang was the most commonly used narcotic drug to lace confectioneries like cookies and cakes. However, the use of heroin and cocaine was not reported. According to the FGDs, the most commonly used narcotic laced confectioneries were cookies *("weed cookies")*, cakes *("weed cakes")* and "*kaimatis" ("weed kaimatis")*. This observation corroborates with the laboratory analyses report. The report shows out of the total 176 samples of suspected narcotic laced confectioneries, 48.9% were positive for cannabis/bhang. Of the 86 samples that tested positive for cannabis/bhang, 59.3% were unlabelled cookies, 33.7% unlabelled cakes mostly "black forest" and "brown cakes", 5.8% fried round buns/ *"andazi"* and 1.2% lollipop sweets.

Qualitative data continued to show that narcotic laced confectioneries especially *"weed cookies"* and *"weed cakes"* were more prevalent among the youth especially those in higher institutions of learning. It was also more prevalent among female students and majority were aged 18 – 26 years. Further, production, sale and consumption of narcotic laced confectioneries were common near institutions of learning and students hostels. Laboratory analyses confirmed this observation where most of the counties that carry the bulk of higher institutions of learning in the country e.g. Nairobi, Nakuru, Eldoret, Mombasa, Meru and Embu were actually hotspots for cannabis/bhang laced confectioneries. Qualitative data showed that the major sources for narcotic laced confectioneries especially "weed cookies" and "weed cakes" were coffee shops, bakeries and individual homes. It was revealed that narcotic laced confectioneries were readily available because they could be easily procured by placing an order to known suppliers in the community. The survey also established that narcotic laced confectioneries were very affordable especially the "weed cookies". Further, access by children below the age of 18 years was a growing concern. This was confirmed by laboratory results where adulteration

with items popular to children like the so called "lollipop sweets", fried round buns/*andazi* and cookies was common.

Based on the findings, the study makes the following recommendations:

1. Strengthening parent-child communication about drug use, enforcing prevention at the home, having parents serve as positive role models, and strengthening general parenting skills can all serve to prevent or reduce drug use by the youth. Hence, there is need for elaborate drug prevention intervention aimed at educating youth and their parents about the dangers of substance abuse, emerging concealment methods of cannabis/ bhang, and the drug use risk exposure associated with events associated with the young people e.g. parties in order to promote family focused prevention skills.

2. Under schedule 1 of the Narcotic Drugs and Psychotropic Substance (Control) Act of 1994, cannabis/bhang has been listed under the first schedule of narcotic drugs in Kenya. Hence, there is need for all the relevant enforcement agencies to suppress supply by carrying out regular market surveillance to prosecute individuals involved in the production, sale and consumption of narcotic laced confectioneries.

3. There is need to review education materials targeting the youth especially those in school to reflect the new emerging trends of drug use. Further, ADA sensitization program that targets first year students in higher learning institutions should be enhanced and cascaded to secondary schools to target newly admitted form one students. Head teachers should also be targeted in order to raise their awareness on the new emerging drug concealment methods.

4. The Regulatory Agencies, especially KEBS and the Ministry of Health- Directorate of Public Health should take agent action to ban and remove adulterated confectionaries from the market and to ensure the public and enforcement agencies are informed accordingly.

CHAPTER ONE: INTRODUCTION

1.1Background

Illicit drug use continues to exact a significant toll, with valuable human lives and productive years of many persons being lost. An estimated 183,000 drug-related deaths were reported in 2012. That figure corresponds to a mortality rate of 40 deaths per a million among the population aged 15-64 (UNODC, 2014).

Globally, it is estimated that in 2012, between 162 million and 324 million people, corresponding to between 3.5 per cent and 7.0 per cent of the world population aged 15-64, had used an illicit drug — mainly a substance belonging to the cannabis, opioid, cocaine or amphetamine-type stimulants group — at least once in the previous year (UNODC, 2014).

The Government of Kenya (GoK) has recognized the threat posed by illicit drug abuse and has sought to enact a legal and institutional framework within which the vice can be fought. Kenya is a signatory to the Single Convention on Narcotic Drugs of 1961 is an international treaty to prohibit production and supply of specific (nominally narcotic) drugs and of drugs with similar effects except under license for specific purposes, such as medical treatment and research. As noted below, its major effects included updating the Paris Convention of 13 July 1931 to include the vast number of synthetic opioids invented in the intervening thirty years including new ones. Earlier treaties had only controlled opium, coca, and derivatives such as morphine, heroin and cocaine. The Single Convention, adopted in 1961, consolidated those treaties and broadened their scope to include cannabis and drugs whose effects are similar to those of the drugs specified. The Commission on Narcotic Drugs (CND) and the World Health Organization (WHO) were empowered to add, remove, and transfer drugs among the treaty's four schedules of controlled substances. The International Narcotics Control Board (INCB) was put in charge of administering controls on drug production, international trade, and dispensation.

The United Nations Office on Drugs and Crime (UNODC) was delegated the Board's day-to-day work of monitoring the situation in each country and working with national authorities to ensure compliance with the Single Convention.

This treaty has since been supplemented by the Convention on Psychotropic Substances of 1971, which establishes an international control system for psychotropic substances. It responded to the diversification and expansion of the spectrum of drugs of abuse and introduced controls over a number of synthetic drugs according to their abuse potential on the one hand and their therapeutic value on the other; and the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, which provides comprehensive measures against drug trafficking, including provisions against money laundering and the diversion of precursor chemicals. It provides for international cooperation through, for example, extradition of drug traffickers, controlled deliveries and transfer of proceedings.

The government of Kenya formed the Anti-Narcotics Police Unit (ANU) in 1983 as a way of combating the illicit drug problem in Kenya, having realized that Kenya was increasingly becoming a transit point for narcotic drugs destined to other world markets.

1.2 Narcotics use in Kenya

In Kenya, marijuana/bhang is the most widely used narcotic drug. According to a survey conducted by NACADA in 2012, 1.0% of the population aged 15-65 years is currently using this illicit drug. In terms of regional variation, Nyanza has the highest prevalence of current marijuana/bhang users at 1.7% followed by Nairobi (1.3%), Coast (1.3%), North Eastern (1.1%), Central (1.1%), Rift Valley (0.9%) and Eastern (0.8%). Other commonly used narcotic drugs in Kenya include heroin (0.1%) and hashish (0.1%). In terms of regional variation, Coast has the highest prevalence of hashish (0.8%), heroin (0.4%) and cocaine (0.4%) users (NACADA, 2012).

1.3 Rationale

The Narcotic Drugs and Psychotropic Substances (Control) Act, 1994 prohibits possession of, and trafficking in, narcotic drugs and psychotropic substances. One of the emerging trends of concealing narcotic drugs is lacing with confectioneries where drugs e.g. marijuana/bhang are used as ingredients when baking cookies and cakes. Lack of a distinctive smell of these narcotic laced confectioneries makes it more difficult to tell the difference between the ordinary baked foods or confectionaries and the illegal narcotic laced products making them very attractive to the youth. Further, many unsuspecting youth, both in school and out of school partake of these drugs unknowingly and therefore end up as drug addicts at a very early age. However, the country lacks factual evidence to prove the existence and use of narcotic laced confectioneries. This evidence could be vital towards informing policy on prevention, control and management of narcotic laced confectioneries. The exploratory survey therefore sought to assess the usage of narcotic drugs in the production of confectioneries in Kenya.

1.4 Objectives

1.4.1 General objective

To establish the use of narcotic drugs in the production of confectioneries in Kenya.

1.4.2 Specific objectives

a. To determine the sources of narcotic laced confectioneries in the country;
b. To determine the demographic characteristics and consumption habits of the consumers of narcotic laced confectioneries;
c. To establish the causes of using narcotic laced confectioneries;
d. To establish the possible adulterants used in the production of narcotic laced confectioneries;
e. To determine the perceived effects of using narcotic laced confectioneries.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

One of the simplest ways of taking drugs is through the mouth and this allows the drugs to move onto the stomach where they are absorbed by the stomach lining and then enter the bloodstream. The most common drugs to be taken in this way are alcohol, marijuana, opium, amphetamines, ecstasy, LSD and magic mushrooms. According to literature, the most common narcotic drug that is used in the production of confectioneries is marijuana/bhang.

2.2 Narcotic laced confectioneries

Marijuana is the most common narcotic drug used globally because it is easily available in both developing and developed nations and still remains the cheapest drug in the market. Marijuana is used in different ways but most commonly it is smoked. Marijuana may be brewed and sipped like tea and may also be mixed with food or baked to form a marijuana cookie or cake. For orally administered marijuana/ bhang to be effective, the plant material must be heated to decarboxylate or transform the inactive tetrahydro-cannibinolidic acids into δ-9-tetrahydrocannabinol (Grotenhermen, 2003).

Heating for five minutes at 200˚-210˚C is optimal for this conversion. Potency and efficacy of cannabis products is significantly increased by cooking or baking the material (Grotenhermen, 2003). Cannabinoids are soluble in lipids or alcohol not water, therefore any effective transformation of the cannabis plant into edible form must include infusion into fats or alcohol with heat. Most edible products produced using cannabis include fats such as butters or oils infused with cannabis. According to Gottlieb (1993), edibles are a more efficient means to absorb cannabinoids. Once eaten, absorption by the gastrointestinal tract is quite effective, relatively slow and noticeably different from that of smoking.

Onset of the marijuana effect is slower and lasts longer at lower plasma Tetrahydrocannabinol (THC) concentrations (Lindgren *et al.,* 1980).

After absorption through the gastrointestinal tract, THC passes through the liver and is metabolized into 11-OH-THC (11-hydroxy-tetrahydrocannabinol) which is four to five times more potent than δ-9-THC (Aggarwal *et al.,* 2007; Lemberger *et al.,* 1972). This effect of cannabis is realized by the user because the metabolite 11-OH-THC is almost bound completely to protein in the plasma, can cross the blood brain barrier with ease, and is eliminated only slowly from lipid containing tissue, which provides the patient with a more consistent, steady medicinal effect.

The effect is gradual, usually taking forty minutes to one hour; it then continually increases in effectiveness to plateau for 4-6 hours. Unlike smoked cannabis, users avoid the "rush" caused by de-oxygenation of the blood combined with a short-term rise in blood pressure and heart rate (Adams and Billy, 1996; Lindgren *et al.,* 1980). Pragmatically, those choosing to use edible cannabis products experience a more consistent effect that does not require repeat dosing throughout the day or night. Long exposure in the stomach may decrease the potency of oral cannabis for example, if taken with meals that are difficult to digest. Cannabis laced confectioneries can also be made with hashish, created from marijuana resin (Gottlieb, 1993).

2.3 The Narcotic and Psychotropic Substances (Control) Act, 1994

The Narcotic Drugs and Psychotropic Substances (Control) Act No. 4 was enacted in 1994 and it incorporates various provisions of the United Nations Conventions dealing with drugs. Trafficking in drugs is punishable with life imprisonment under the Act. It also provides for money laundering and forfeiture of proceeds derived from drugs, rehabilitation of addicts, international assistance in drug investigation and proceedings.

2.3.1 Penalty for possession of narcotic drugs

(1) Subject to subsection (3), any person who has in his possession any narcotic drug or psychotropic substance shall be guilty of an offence.

(2) A person guilty of an offence under subsection (1) shall be liable—

(a) in respect of cannabis, where the person satisfies the court that the cannabis was intended solely for his own consumption, to imprisonment for ten years and in every other case to imprisonment for twenty years; and

(b) in respect of a narcotic drug or psychotropic substance, other than cannabis, where the person satisfies the court that the narcotic drug or psychotropic substance was intended solely for his own consumption, to imprisonment for twenty years and in every other case to a fine of not less than one million shillings or three times the market value of the narcotic drug or psychotropic substance, whichever is the greater, or to imprisonment for life or to both such fine and imprisonment.

(3) Subsection (1) shall not apply to—

(a) a person who has possession of the narcotic drug or psychotropic substance under a license issued pursuant to section 16 permitting him to have possession of the narcotic drug or psychotropic substance; or

(b) a medical practitioner, dentist, veterinary surgeon or registered pharmacist who is in possession of a narcotic drug or psychotropic substance for any medical purposes; or

(c) a person who possesses the narcotic drug or psychotropic substance for medical purposes from, or pursuant to a prescription of, a medical practitioner, dentist or veterinary surgeon; or

(d) a person authorized under the regulations to be in possession of the narcotic drug or psychotropic substance.

CHAPTER THREE: METHODOLOGY

3.1 Study area

The survey was conducted in the eight regions of Kenya namely; Nairobi, Central, Eastern, North Eastern, Rift Valley, Nyanza, Western and Coast. In total, 17 counties were covered in the survey.

3.2 Study design

The survey utilized an exploratory qualitative cross-sectional design. While the dominant methodological approach in contemporary drugs research remains quantitative, there has been increasing receptivity to the use of qualitative methods as a means of understanding and responding to drug use (Agar, 1980; 1995; 1999).

3.3 Target population

The target population constituted the sub-group population of youth between 18-35 years in school or out of school.

3.4 Sampling technique

The survey relied on non-probability sampling methods given that narcotic laced confectioneries is an emerging trend that is not well understood or even previously studied (NACADA, 2012). All the eight regions namely: Nairobi, Central, Eastern, North Eastern, Rift Valley, Nyanza, Western and Coast were sampled purposively to ensure that respondents with different cultural, economic and socio-demographic characteristics were included in the survey. From each of the sampled regions, 17 counties were purposively selected from the eight regions. From the 17 counties, 21 Sub-Counties were purposively selected taking into account unique features like proximity to an urban setting or a learning institution where narcotic laced confectioneries were most prevalent. From each Sub-County, one location was randomly selected. The FGDs were held at the sub-location level where a venue was provided by the area Provincial Administration. Mobilization of participants for the FGDs was conducted with the support of the area Chief. A total of twenty one (21) focus group discussions (FGDs) were conducted across the 8 regions.

The FGDs gave insights to the possible sources of narcotic laced confectioneries, sale, consumption habits and perceived effects among the users.

Samples of suspected confectioneries were also purposively collected using key informants who were knowledgeable on their sources. After purchase of the suspected assorted confectioneries, filling of the sampling form and packaging was undertaken by the Government Chemist officials. After sample collection, the samples were transported to the Government Chemist laboratories for storage and analysis. A total of 176 samples of assorted confectioneries were collected.

Table 1: Focus Group Discussion Sites

Region	Sampled County	Sampled District	Sampled Location
Nyanza	Kisumu	Kisumu Town East	Town
	Kisii	Kisii Central	Nyatieko
	Siaya	Siaya	Siaya Township
Nairobi	Nairobi	Lang'ata	Nairobi West
		Kasarani	Githurai
		Westlands	Kilimani
Central	Nyeri	Nyeri Central	Mukaro
	Nyandarua	Nyandarua North	OL Kalou
North Rift Valley	Uasin Gichu	Eldoret West	Kibulgeny
	West Pokot	Pokot Central	Kapenguria
South Rift Valley	Nakuru	Nakuru	Municipality
	Kajiado	Kajiado Central	Township
Eastern	Makueni	Makueni	Wote
	Isiolo	Isiolo	Central
Western	Trans-Nzoia	Trans-Nzoia West	Municipality
	Busia	Busia	Township
Coast	Mombasa	Kisauni	Kisauni
	Kilifi	Bahari	Mtwapa
		Malindi	Malindi
North Eastern	Garissa	Ijara	Ijara
			Masalani

3.5 Sampling procedure

Participants were recruited on the basis of their willingness to participate in the survey. Participants who met the inclusion criteria and consented to participate in the proposed survey were considered. The country was divided into 9 regions namely: Nairobi, Coast, North Eastern, Eastern, Central, South Rift, North Rift, Nyanza and Western. A total of twenty one (21) Focus Group Discussions (FGDs) were conducted across the 9 regions.

3.6 Research instruments

Qualitative data was captured using a focus group discussion guide. This elicited rich qualitative data that aided a deeper understanding of the different dynamics associated with narcotic laced confectioneries. One focus group discussion (FGDs) with 8 - 10 participants each was conducted in each of selected Counties with youth aged 18-35 years in school or out of school. The individual responses were captured both electronically by use of a digital tape recorder and in writing. The interviews were conducted in Swahili, the language acceptable to all. Employing this method within quantitative research enriches the findings rather than contaminating its methodological quality (Ong, 1993).

3.7 Data analysis

Data from the FGDs were collected through note taking and audiotaping. Soon after the interviews, field notes were reviewed where major ideas, concepts, or issues raised by participants were documented. After completing the field notes, the audiotape was reviewed in consultation with the notes taken to ensure that they provided an accurate reflection of the discussions. This involved listening to the audiotape several times, comparing it with the field notes and amending the notes until they provided a thorough and descriptive representation of the discussions. Once the field notes accurately represented the discussions that occurred in each interview, the process of content analysis was used to elicit common themes between discussions. Laboratory analyses results of the samples collected were used to supplement data from the FGDs in order to identify the range of confectioneries likely to be adulterated with narcotics, especially cannabis/bhang and the common hotspots for narcotic laced confectioneries.

CHAPTER FOUR: RESULTS OF QUALITATIVE DATA

4.1 Introduction

The exploratory survey on the use of narcotic drugs in the production of confectioneries covered all the eight regions of the country; Rift Valley (West Pokot, Nakuru, Uasin Gishu and Kajiado); Western (TransNzoia and Busia); Nyanza (Kisumu and Kisii); Nairobi; Eastern (Makueni and Isiolo); Coast (Mombasa and Kilifi); and North Eastern (Garissa).

4.2 Patterns of usage of narcotic drugs

It was reported that the use of narcotics especially bhang was very high in the community. To echo this observation, a former supplier reported that "*I used to peddle bhang and it was used by everyone*." Another participant reported that "*in the 1980s, offenders used to be arrested if found with bhang. However, it concerns me that nowadays they use bhang openly without fear of arrest*." Marijuana/bhang was ranked second after alcohol in terms of the extent of usage in most of the regions visited. It was also called by various local names like *ndom*, *roll*, *matawi*, *mshiko*, *shashamane*, *gode*, *shada*, *weed*, *stick*, *kenti*, *boza* and *ganja*. However, the usage of narcotics like heroin and cocaine was low in many parts of the country except Mombasa and Nairobi regions.

In terms of the demographic profiles of marijuana/bhang users, majority were male youth aged 15-35 years although younger children as low as 8 years were common. It was reported that though majority were out-of-school youth the trend was also high among youth in school. Majority of marijuana/bhang users were also unemployed and had a low level of education. Although majority of marijuana/bhang users were unemployed, some occupations were reported as high risk in terms of usage. The occupations that were being associated with marijuana/bhang use included *boda boda* riders, car wash attendants and casual labourers. In terms of learning institutions, usage was higher among students in institutions of higher learning compared to those in primary and secondary school levels.

4.3 Patterns of usage of narcotic laced confectioneries

The commonly used mode of consuming marijuana/bhang was through smoking followed by mixing with foodstuffs. The most commonly reported narcotic laced confectioneries were cookies ("weed cookies"), cakes ("weed cakes") and to a small extent *"kaimatis" "weed kaimatis."* The other modes of usage reported were boiling marijuana/bhang with tea especially coffee and boiling with water that is used to make "Ugali". Boiled marijuana/bhang was also used to prepare cocktails that were very common during student parties organized by university students. For the purpose of this survey, focus was given to the use of bhang in foodstuffs especially confectionery products.

Narcotic laced confectioneries especially *"weed cookies"* and *"weed cakes"* were more prevalent among the youth especially those in higher institutions of learning especially universities and colleges. It was reported that it was a very common phenomenon during parties especially those targeting first year students. These narcotic laced confectioneries were mostly used by female students because they were very appealing to them and the practice was regarded fashionable and trendy. According to the female users, smoking was not fashionable for a lady. It was also reported that the weed cookies were also being used in secondary schools. Majority of the users of narcotic laced confectioneries were mostly aged 18 – 26 years. The production, sale and consumption of narcotic laced confectioneries were reportedly prevalent around institutions of learning and students hostels.

4.4 Sources of narcotic laced confectioneries

Understanding the sources of narcotic laced confectioneries is critical towards suppressing supply and therefore reducing harm among potential users. The major sources reported were coffee shops, bakeries and individual homes. However, production was strictly made by placing an order and through known people. According to a participant, "*to buy the laced confectioneries you just need to send someone who knows someone because they are baked in secret and very few people know the source*."

4.5 Availability and accessibility of narcotic laced confectioneries

Controlling narcotic laced confectioneries by limiting their availability and accessibility is a common approach to suppress demand and supply. It was generally reported that narcotic laced confectioneries especially weed cookies and weed cakes are readily available and accessible. According to a participant in Nairobi, "*you can find weed cookies in every party you attend and they are always a phone call away if you have connections. If you don't have connections, just find a friend who will ask a friend. Within two hours, you will have the products*."

It was also very affordable with a *"weed cookie"* retailing between Ksh 30-50. It was reported that half a *"weed cookie"* was enough to make one high depending on the potency that is usually very difficult to tell. For the *"weed cake"*, a kilogram was retailing around Ksh 1,000. Of concern was the revelation of access by children under the age of 18 years. To echo this observation, a participant had this to say: "*I am 18 years now and my age mates use the cookies. I also used the cookies in a boarding secondary school*."

4.6 Reasons for using narcotic laced confectioneries

There were varied reasons given by users of narcotic laced confectioneries. The commonly cited reasons were as follows:

- It makes one confident thereby overcoming shyness
- It gives somebody extra energy and a feeling of happiness to enjoy a party
- It is attractive to female users especially those who are not comfortable with smoking bhang
- It can be consumed anywhere without being noticed that one is using marijuana/bhang. According to a participant, "*no one will suspect that you are consuming bhang because it is just a cookie and everyone eats cookies*."
- It is a healthier alternative to smoking marijuana/bhang
- Smoking bhang is portrayed as a deviant behaviour compared to eating a *"weed cookie"*
- They are safer because you can use without the knowledge of law enforcement agencies

- It is fashionable. According to a participant, *"it's the hype of the moment."*
- The high lasts longer, up to two days
- The narcotic laced confectioneries can easily pass through security checks

4.7 Effects of using narcotic laced confectioneries

The most commonly reported effects of using narcotic laced confectioneries were as follows:

- It causes heightened sense of anxiety and fear
- It causes drowsiness and dizziness
- It leads to difficulties with concentration
- It causes lack of sleep or insomnia
- It leads to increased heartbeat and blood pressure
- It causes hallucinations to the user
- It causes nausea and vomiting
- It is associated with violence

CHAPTER FOUR: RESULTS OF LABORATORY ANALYSIS

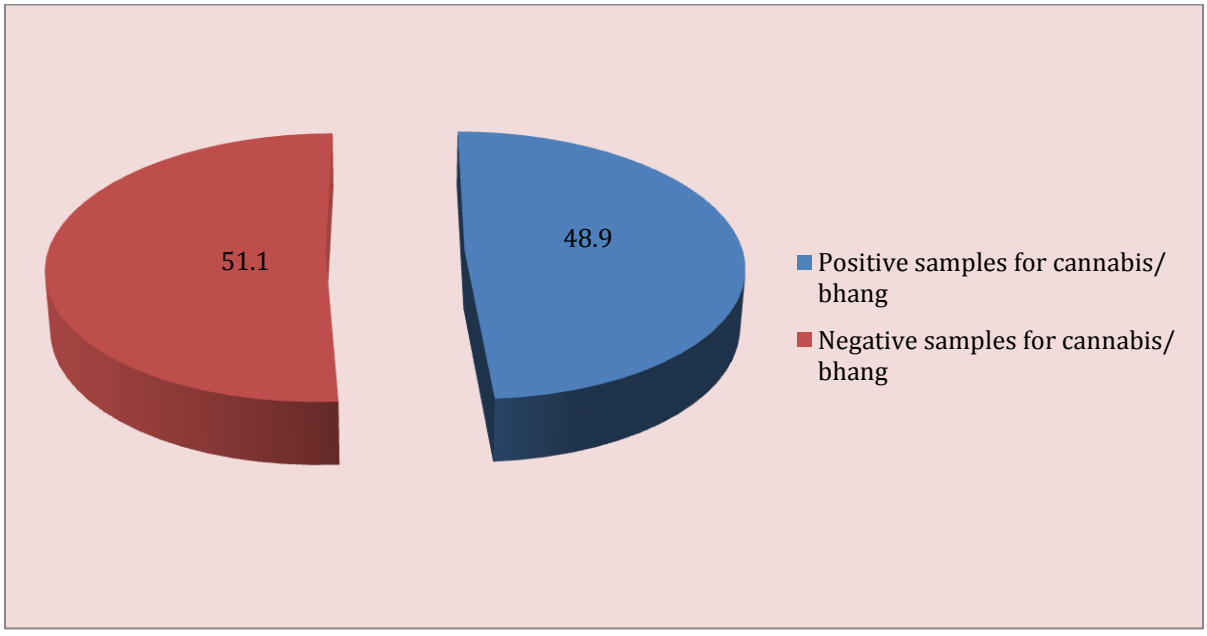
5.1 Introduction

The samples of suspected narcotic-laced confectioneries were collected in all the eight regions of the country; Rift Valley (West Pokot, Nakuru, Uasin Gishu and Kajiado); Western (TransNzoia and Busia); Nyanza (Kisumu and Kisii); Nairobi; Eastern (Makueni and Isiolo); Coast (Mombasa and Kilifi); and North Eastern (Garissa). A total of 176 samples of suspected narcotic laced confectioneries (cannabis/bhang) were collected through the support of key informants and delivered to Government Chemist for analysis.

5.2 Proportion of samples positive for cannabis/ bhang

According to the laboratory results from Government Chemist, 86 (48.9%) out of the total 176 samples of suspected narcotic laced confectioneries were positive for cannabis/ bhang.

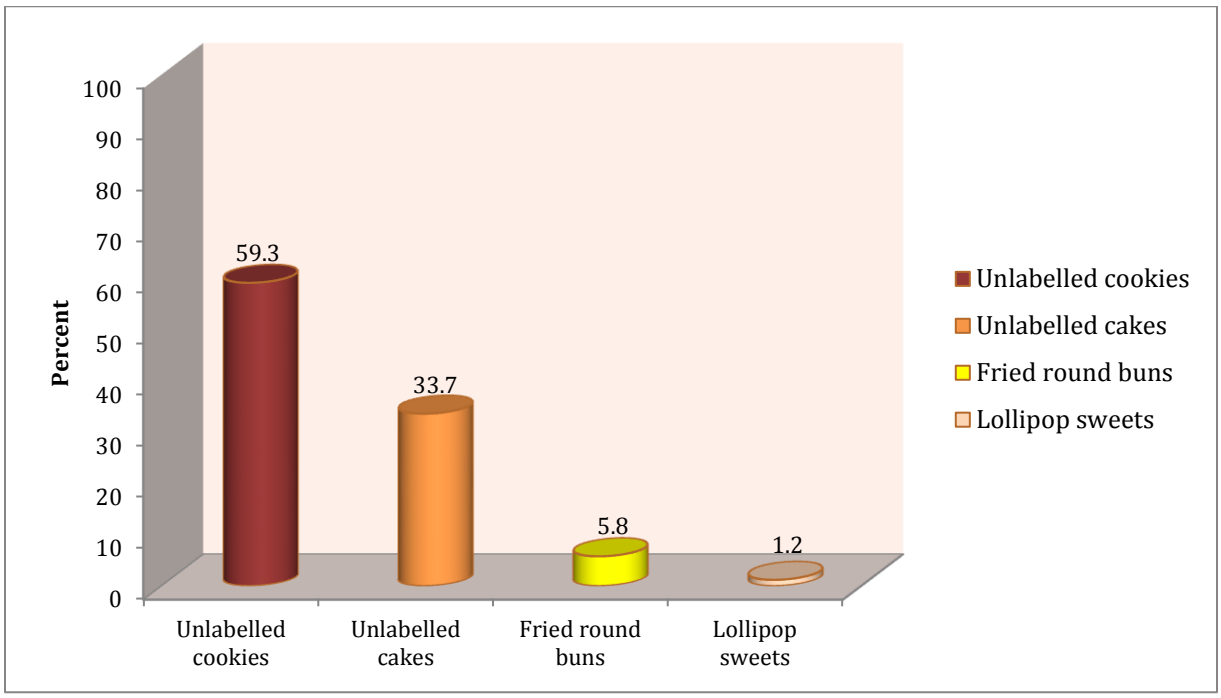
Figure 1: Proportion of suspected samples positive for cannabis/bhang



5.3 Profile of samples positive for cannabis/ bhang

Of the 86 samples that tested positive for cannabis/bhang, 59.3% were unlabelled cookies, 33.7% unlabelled cakes mostly "black forest" and "brown cakes", 5.8% fried round buns/*"andazi"* and 1.2% lollipop sweets.

Figure 2: Profile of confectionery samples laced with cannabis/bhang



5.4 Hotspots for cannabis laced confectioneries in Kenya

Laboratory analysis results gave an indication on the possible hotspots for cannabis/ bhang laced confectioneries in the county. According to the findings, the hotspots included Nairobi, Mombasa, Kilifi, Meru, Embu, Nakuru and Uasin Gishu Counties. The indication was that most of these hotspots were in close proximity to institutions of learning especially Colleges and Universities.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The use of narcotics especially bhang was very high among the youth and the problem was endemic across the country. Although the most prevalent form of using bhang was through smoking, other emerging modes like oral use with narcotic laced edibles e.g. confectioneries was gaining popularity among the youth. From the study findings, bhang was the most commonly used narcotic to lace confectioneries like cookies and cakes. However, the use of heroin and cocaine was not reported. According to the FGDs, the most commonly used narcotic laced confectioneries were cookies *("weed cookies")*, cakes *("weed cakes")* and *"kaimatis" ("weed kaimatis")*. This observation corroborates with the laboratory analysis that showed cookies (59.3%), cakes (33.7%) and fried round buns (5.8%) were more likely to be laced with cannabis/bhang. Qualitative data continued to show that narcotic laced confectioneries especially *"weed cookies"* and *"weed cakes"* were more prevalent among the youth especially those in higher institutions of learning. It was also more prevalent among female students and majority were aged 18 – 26 years. Further, production, sale and consumption of narcotic laced confectioneries were common near institutions of learning and students hostels. Laboratory analysis confirmed this observation where most of the counties that carry the bulk of higher institutions of learning in the country e.g. Nairobi, Nakuru, Eldoret, Mombasa, Meru and Embu were actually hotspots for cannabis/bhang laced confectioneries. Qualitative data showed that the major sources for narcotic laced confectioneries especially *"weed cookies"* and *"weed cakes"* were coffee shops, bakeries and individual homes. It was revealed that narcotic laced confectioneries were readily available because they could be easily procured by placing an order to known suppliers in the community. The survey also established that narcotic laced confectioneries were very affordable especially the *"weed cookies"*. Further, access by children below the age of 18 years was a growing concern. This was confirmed by laboratory results where adulteration with items popular to children like the so called "lollipop sweets", fried round buns/*andazi* and cookies was common.

6.2 Recommendations

1. Strengthening parent-child communication about drug use, enforcing prevention in the home, having parents serve as positive role models, and strengthening general parenting skills can all serve to prevent or reduce drug use by the youth. Hence, there is need for elaborate media campaigns aimed at educating youth and their parents about the dangers of substance abuse, emerging concealment methods of cannabis/bhang, and the drug use risk exposure associated with events associated with the young people e.g. parties in order to promote family focused prevention skills.

2. Under schedule 1 of the Narcotic Drugs and Psychotropic Substance (Control) Act of 1994, cannabis/bhang has been listed under the first schedule of narcotic drugs in Kenya. Hence, there is need for all the relevant enforcement agencies to suppress supply by carrying out regular market surveillance to prosecute individuals involved in the production, sale and consumption of narcotic laced confectioneries.

3. There is need to review education materials targeting the youth especially those in school to reflect the new emerging trends of drug use. Further, the ADA sensitization program that targets first year students in higher learning institutions should be enhanced and cascaded to secondary schools to target newly admitted form one students. Head teachers should also be targeted in order to raise their awareness on the new emerging drug concealment methods.

4. The Regulatory Agencies, especially KEBS and the Ministry of Health- Directorate of Public Health should take agent action to ban and remove adulterated confectionaries from the market and to ensure the public and enforcement agencies informed accordingly.

7.0 REFERENCES

Adams, I. B. and Billy, R. M. (1996). "Cannabis: Pharmacology and Toxicology in Animals and Humans." Addiction, 91(11): 1585-1614.

Agar, M. (1980). *The Professional Stranger: an Informal Introduction to Ethnography*, New York: Academic Press.

Agar, M. (1995) 'Recasting the "ethno" in "epidemiology"', *Medical Anthropology*, 16, 1–13.

Agar, M. (1999, forthcoming) 'Qualitative research and public policy', in T. Rhodes (Ed.) *Qualitative Methods in Drugs Research,* London: Sage.

Aggarwal, S. K., Muraco, K. T. and Gregory, T. C. (2007). "Dosing Medical Marijuana: Rational Guidelines on Trial in Washington State." *Medscape,* 9(3): 52.

Gottlieb, A. (1993). The Art and Science of Cooking With Cannabis: The Most Effective Methods of Preparing Food and Drink with Marijuana, Hashish, and Hash Oil. Berkeley, CA: Ronin Pub.

Grotenhermen, F. (2003). "Pharmacokinetics and Pharmacodynamics of Cannabinoids." *Clinical Pharmacokinetics*, 42(4): 327-60

Lemberger, L., Weiss, J. L., Watanabe, A. M., Galanter, I. M., Wyatt, R. J. and Cardon, P. V. (1972). "Delta-9-tetrahydrocannabinol: Temporal Correlation of the Psychologic Effects and Blood Levels after Various Routes of Administration." *The New England Journal of Medicine,* 286(13): 685-88

Lindgren, Jan-Erik, Agnetta, O., Stig, A., Leo, H. and Hamp, G. (1980)."Clinical Effects and Plasma Levels of Δ9-Tetrahydrocannabinol Concentrations and Clinical Effects after Oral and Intravenous Administration and Smoking." *Clinical and Pharamacology Therapeutics,* 28(3): 209-18

Ong, B. N. (1993). *The Practice of Health Services Research*. Chapman and Hall. London.

UNODC (2014). World Drug Report. United Nations, Vienna, Austria

8.0 APPENDICES

8.1 Focus Group Discussion Guide

Drug use

1. Which are the major drugs used in this area?
2. How would you describe the usage of marijuana/ bhang and other narcotic drugs in this region?
3. How would you describe usage of marijuana/ bhang and other narcotic drugs among: young people (in-school and out of school; adult men and women)?
4. How would you describe the usage of marijuana/ bhang and other narcotic drugs in terms of age, gender, occupation, education level and religion?
5. How would you describe the usage of marijuana/ bhang and other narcotic drugs in schools and learning institutions? (Probe how they are accessed in these institutions)
6. Which ways is marijuana/ bhang and other narcotic drugs concealed? (Probe concealment in confectioneries)
7. How would you describe the availability, accessibility and affordability of narcotic laced confectioneries?
8. Why do people use marijuana/ bhang and other narcotic laced confectioneries?
9. Which are the perceived effects of using narcotic laced confectioneries? (Probe socio-economic and health effects including dependence)

Drug sources

10. Where can somebody access marijuana/ bhang and narcotic laced confectioneries in this area?
11. How would you describe access of marijuana/ bhang and other narcotic laced confectioneries by children below the age of 18 years?
12. How would you describe access of marijuana/ bhang and other narcotic laced confectioneries in schools and institutions of higher learning?

Recommendations

13. What should be done to effectively manage the production, sale and consumption of marijuana/ bhang and other narcotic laced confectioneries?