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Prevalence and Distribution of Use of Tobacco Products in Relation to Socio-Demographic Characteristics among Final Year Primary School Pupils in Kitui Central Division

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Abstract

The objective of the study was to determine the prevalence and distribution of use of tobacco products in relation to socio-demographic characteristics among final year primary school pupils in Kitui Central Division. The study was conducted in Primary schools in Kitui Central Division using a questionnaire administered to 470 primary school pupils aged 13 to 15 years under supervision in the classroom. Prevalence estimates of lifetime smoking and use of smokeless tobacco were calculated using frequencies and percentages. The results indicated that a total of 14% had experimented with tobacco, 7% with smoking and 7% with smokeless tobacco. The study concluded that the proportions of primary schools pupils use of tobacco was high (31%) in Kitui Central Division, probably because tobacco is grown in the area and also due to wide exposure to advertisement. This calls for discouragement of tobacco growing in the division. Advertising can be removed by banning all forms of tobacco promotion to young people. Pupils are mostly influenced by peers and mass media and receive health related information from a variety of sources but mostly from the teachers hence this calls for teachers to be trained in guidance and counseling in order to handle this crisis.

Keywords: *Prevalence and Distribution, Tobacco Products, Socio-Demographic Characteristics, Primary School Pupils & Kitui Central Division.*

1.0 Introduction

1.1 Background of the study

Kitui County is a county in the former Eastern Province of Kenya. Its capital and largest town is Kitui, although Mwingi is also another major urban centre. The county has a population of 1,012,709 (2009 census) and an area of 24,385.1 km². Kitui County is located 170Km to the South East of Nairobi City. It covers an area of about 30,496 km². It borders Machakos and Makueni Counties to the West, Tana River County to the East, Taita-Taveta County to the South, and Embu and Tharaka- Nithi Counties to the North. This is a study of assessing and explaining use of tobacco among primary school pupils using Kitui County.

One in every five children between 13 and 15 years of age in developing and transitional countries smokes (Warren, Riley, Asma, Eriksen, Green & Branton, 2000). Half of these adolescents will die a premature death as a result of tobacco related illness if they continue smoking tobacco (Peto, Lopez, Borehan, Thun & Heath, 2014). These young people get physically and psychologically dependent to the nicotine in tobacco and thus go into a career of smoking before they know the danger of tobacco use. The young ones have also become targets of the tobacco industry as the next generation of tobacco consumers. A situation that needs to be addressed (Lang, Chung, Betson, Wong & Hedley, 2012).

Tobacco is the only legal product that if used as intended by the manufacturer, not only results in addiction but also increasingly leads to death. Tobacco industries kill its best customers, and that is why they require new ones every day to replace those who have quit the habit or died. As the prevalence of smoking among adult population decrease in the industrially developed countries due to increased public awareness, stringent government policies and successful litigation, the tobacco companies are moving aggressively to developing countries to improve their global sales (Mackay & Crofton, 2011).

Unfortunately, many governments in these countries do not have the experience or the awareness of the risks involved, and many lack the resources to counter the ruthless marketing by tobacco industry. According to Macigo, Guthua & Gathece (2012), the misinformation by the tobacco industry can only be successfully controlled with evidence-based facts. Most developing countries do not have representative data on the prevalence of smoking in their population, nor do they have

any records on the effect of tobacco smoking on the health of their population, the environment and the economy in general.

Studies from developed countries report that most people begin using tobacco before the age of 18 years (United State Department of Health and Human services, 1994; secretary of state for Health and secretaries of state for Scotland, Wales and Northern Ireland, 1999). Nicotine addiction takes hold almost exclusively in children and the young. Data from the USA report that 87% of nicotine addiction starts below the age of 18 years (United State Department of Health and Human Services, 1994). It is this addiction nature of nicotine that makes most smokers maintains tobacco use (United State Department of Health and Human Services, 1988). Documents from tobacco industry itself confirm that they have been targeting the young in their search for more clients (Hurt & Robertson, 1998). To quote Dr. David Kessler, Commissioner of the USA Food and Drug Administration, “nicotine addiction begins when most tobacco users are teenagers, so lets call this what is really is a pediatric disease”. To combat this “paediatric disease” therefore we need to collect and collate data from different schools so that the status and trends of relevant behavior risk factors are known. This will then provide the evidence for setting priorities in guidance and counseling and health related policies.

Unfortunately there is very little information on the prevalence of tobacco use among the youth in sub-Saharan Africa, including Kenya. An extensive literature search did not reveal any published studies conducted in Kenya on behavioral risk factors associated with smoking among the young and/or the general population. Further this researcher did not come across any published literature relating to the youth perceptions and attitudes on the effect of smoking on their health and family. These three areas will form the basis for this research. It is becoming increasingly important to study health behavior because a substantial proportion of the mortality from leading causes of death is due to behavior patterns, most of which are modifiable (Strobe & Strobe, 1995). It is especially important in young people because at times the concerns of the young are at variance with those prescribed by teachers, parents, health professionals and even government (Jacobson & Wilkinson, 1994; Kenya Institute of Education, 1999).

1.2 Problem Statement

School children as young as four years old are abusing drugs, the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA, 2019). NACADA reported that at least 17% of pupils in primary schools are using one drug or substance of abuse. Further, the report indicated that 7.2% were currently using prescription drugs; 3.2% were using tobacco, 2.6% were using alcohol, 2.3% miraa/muguka, 1.2% were using inhalants and 1.2% heroin.

The media outlets are inundated with advertising information whose purpose is to entice Kenyans and especially the young and women to start using tobacco products. The true state of behavioral risk factors associated with smoking among the young, their perceptions and attitudes on the effects of smoking on their health and life is however not known (Bosire, 2000). Knowing the tobacco companies influence on policy formulation in any country and seeing the need to respond early to this global epidemic, credible information and data is necessary to help guide the formulation of policies for tobacco growing, sale and consumption. This is crucial if we are to get evidence –based tobacco control policies and actions; heighten awareness and mobilize resources; and accelerate implementation of national strategies to prevent tobacco use.

A study among students in five mostly rural districts of Kenya reported that 20.6% of them were regular users of tobacco (Omino, 1985). In Kitui District the main cash crop produced are cotton, tobacco, fruit tree, sunflower and sweet potatoes. The district is divided into ten (10) administrative divisions namely: Central, Chuluni, Matinyani, Mwitika, Mutitu, Ikutha, Yatta, Mutonguni, Mutomo and Mutha. Out of the 10 division, tobacco is grown as main cash crop in central and Chuluni divisions only. Where Central division grows more tobacco than Chuluni division (District Agriculture Office Kitui, 1996).

Central division has higher number of primary schools totaling 80 with total pupil enrolment of 25,332 where 12,568 are boys and 12, 764 are girls, following Mutomo division which has highest number of primary school totaling 150 with total pupil's enrolment of 26,883 where 13,510 are boy and 13,373 are girls. (District Education Office Kitui, 2004). The central divisional has also seen some reported instances of lateness to school and to home by teachers and parents despite pupils leaving the various places at the right time. Investigation revealed that some pupils were being used as drug transporters (Officer Central Division Office Kitui 2004). Basic epidemiological information on tobacco abuse and its effects in Kenya is lacking. Thus this study

sought to determine the prevalence and distribution of use of tobacco products in relation to socio-demographic characteristics among final year primary school pupils in Kitui Central Division.

1.3 Objective of the Study

The objective of the study was to determine the prevalence and distribution of use of tobacco products in relation to socio-demographic characteristics among final year primary school pupils in Kitui Central Division.

1.4 Research Questions

What is the prevalence and distribution of use of tobacco products in relation to socio-demographic characteristics among final year primary school pupils in Kitui Central Division?

2.0 Literature Review

The people of Africa have used psychoactive substance like alcohol, tobacco, cannabis and a wide range of natural hallucinogens throughout recorded history (Partanen, 1991). In the 20th century, wars, Decolonization, Westernization, external cultural influence, urbanization and inclusion in the global economy, are among the main reasons for the increased pace of social and cultural changes. Many observers have therefore held the view that this has created a breeding ground for a rapid increase in the use of intoxicating, often harmful substances like alcohol and tobacco (Manla, Lindblad & Tigerstedt, 1998). Following this, it is expected that young people are going to be particularly vulnerable to the change and thus are liable to use intoxicants more often and in larger quantities. The importance of the young generation is underlined by the fact that in Sub-Saharan Africa, about half the population comprises of children below 15 years of age (Rimmer, 1991).

In neighboring Ghana, a 1992 publication paper reported similar figures from nine secondary schools, with current smokers being 10% and lifetime users 31% of the total population (Amonoo-Lartson & Pappoe, 1992). A study of 1,133 secondary schools students of 11 to 22 years from Lesotho reported that 27% and 2% of males and females respectively were lifetime users of cigarettes (Meursing & Morojele, 1989). It is interesting to note that a study done among the elderly of 60 years or more in a village in Botswana reported that 11% of them smoked daily and all the smokers but one were men (Clausen, Sandberge, Inastad & Jortdahl, 2000). Further, that

70% of those who smoked, consumed more than 15 cigarettes per day. Taking snuff was a common habit, as 50% of the women and 33% of the men took snuff more than twice in a day.

Tanzania has reported some regional differences in tobacco use. Available statistics show a variation between 5.4% and 16.9% in the general population (Mwaluko, Swai & Mclarty, 1991). A 1993 publication paper reported 0.4% and 8.3% smoking prevalence among females and males respectively (Kitange, Swai Masuki, Kilima, Alberti & Mclarty, 1993) while Arusha had levelsof 2.6% for lifetime use (Lugoe, Klepp, Rise, Skutle & Biswalo, 1995). More recent data reveal smoking rates of 21.7%, 55.8% and 60% among males in Dares-Salaam, Hai and Morogoro respectively. Female rates are lower at 1.5%, 19.7% and 16% in the same areas (Adult morbidity and mortality project (Ammpp, 1997). Though criticizing the survey and interview methods for under reporting, Rashid et al still show an increased trend of smoking from 10.4% (18.1% for male and 1.9% for female) to 16% (19.8% for male and 4.0% for female) in the Ilala area is Dares-Salaam (Rashid, Aspray, Edwards, Mugusi, Whiting, Unwin, Setel & Alberti, 2000).

Though Tanzania has collected more data on tobacco use than many Sub-Saharan Africa countries, none of these have been representative of the whole population. From Uganda, the researcher could not identify much published data on smoking. A survey among Ugandan student teachers reported current daily smoking at 7% for males and 1% for females (Masokoyih, 1999).

In Kenya, comprehensive national data are not available a situation that is not different from other Sub-Saharan countries. Anecdotal reports and a few small-scale surveys have been done, which shows that tobacco use is increasing in the population and especially among the young. In a study among secondary school students aged 14 to 20 years, it was reported that 16.1% of them smoked more than three times every week (Dhadphale, Mengech, Syme & Acuda, 1982).

A year later in 1983, a study that covered Nairobi (Urban) and Machakos (rural) reported a lifetime use of 40% (Yambo, 1984).A recent study conducted throughout the country reports that 48.2% of all students and 20% of the females in secondary schools smoke (Amayo, 1998). Another study investigated the prevalence and pattern of abuse of drugs at a private University and reported a lifetime use of tobacco of 54.7% and current use at 24.7% among students (Odek-Ogunde & Panderleak, 1999). A Kenya Global Youth Tobacco Survey conducted in 2001 reported 13% of students currently use any form of tobacco; 7% currently smoke cigarettes and 9% currently use some other form of tobacco (Global Youth Tobacco Survey, 2001)

Anecdotal information shows that the most affected group is that of the low-income earners, and this extra expenditure further puts pressure on their meager resources. Tobacco products are freely available for purchase in Kenya. There are over 20 different brands of cigarettes from the three main tobacco companies operating in the country. There is no legislation regulating the growing, manufacturing, sale and consumption of tobacco (Macigo, Guthua & Gathece, 2002). The only official regulation in Kenya is legal notice No.122 of 31st July 1984. This appeared in the Kenya Gazette supplement No. 52 of 10th August 1984, where the Minister for Health published what is referred to as “public Health (warning on cigarettes) rules under the Public Health Act. These rules deal with the nature, form and content of the health warning on cigarette packs and advertisement that we have in Kenya today.

It says, “Cigarette smoking is harmful to your health (Kenya Gazette, 1984). It also prohibits smoking in public places and vehicles but this has been largely ignored. This is grossly inadequate as a control measure if compared to the current magnitude of the tobacco use problem. In Kenya, cigarette can be sold to anyone who asks for them, whether minors or adults, male or expectant mothers. Sale of single cigarette is the norm, which makes them easily available to anyone. This coupled with the extensive and unregulated advertising, makes it easy for the young to start the habit at a very tender age. Kenya is therefore in need of a formal policy on the growing, promotion and consumption of tobacco.

Preventive strategies in Kenya have been largely modest efforts by individuals, institutions and especially the health professional bodies for example Kenya Dental Association, Guidance and counseling firms and currently the established department under the office of the president. Individual health workers have been encouraging and providing support to their patients who smoke and wish to stop the practice.

There have been no coordinated efforts in targeting the young and school children and those who are caught in the smoking habits are mostly suspended from school, because the guidance and counseling departments in schools are not well established to deal with smoking. Individual health workers and professional bodies have occasionally organized lectures, seminars, youth centers in churches or hospitals and open fora for young people to share knowledge on the effects of tobacco on health and to show them related films. This has enabled the message to be delivered to some

schools, institutions of higher learning and professionals especially those in guidance and counseling and in health, but most schools are not aware of the services.

There have also been international media campaigns to sensitize the public on the danger of smoking. Largely through press statements and publicity functions, the campaign against tobacco use has over the years become more visible. For example the annual World Health Organization (W.H.O) “No Tobacco Day” is one such opportunity. The government has recently been even more seriously involved in such occasions and this shows a commitment to regulating the use of tobacco products especially among the young. But does this information reach all teachers and pupils?

3.0 Research Methodology

The study used across sectional school based survey. This study area was conducted in Kitui Central division, which is in Kitui District. The target population was primary school pupils who were during their final year primary course Kenya Certificate of primary Education. The accessible population was primary school pupils in Kitui Central Division who were doing their final year primary course (K.C.P.E). Their average age ranged from 13 to 14 years. According to the ministry of education, Kitui Central Division had 74 public primary schools and 6 private primary schools totaling to 80 primary schools. Sampling frame was obtained from the district education office, which had the listing of all the primary schools in the division listed according to their zones. All the pupils of both genders doing their final year at primary level in the 10 selected primary schools were invited to participate in the study, providing a total of 470 pupils eligible for the study.

A total of 470 pupils completed self-administered questionnaires in their respective schools. The pre- test results were used to make minor adjustments to the original questionnaire, which collected data on socio- demographic characteristics; primary school pupils access to main sources of information and communication about tobacco products; knowledge about risk awareness associated with tobacco use, attitude, social norms, behavioral norms, perceived susceptibility and perceived severity of diseases in relation to use and non-use of tobacco products and regulation policies; Tobacco consumption and other risk behavior to school rules and regulation; and effects of tobacco growing by family members. Data on socio- demographic characteristic included the subject’s date of birth, gender place of residence and educational status of the father and mother.

4.0 Results and Discussion of Findings

4.1 Experience of tobacco use

The study sought to find out the prevalence rates with respect to lifetime smoking; current tobacco use; lifetime smokeless- tobacco use; current smoking; father, mother, brother/sister, friends; teachers; pupils and other relatives use of tobacco; offered cigarette by friends; get tobacco on their own; smoke with friends; perception of who uses tobacco most between boys and girls and lastly the onset of smoking. The results are shown in Table 1.

Table 1: Percentage Estimates of Reported Tobacco Use

Variable (N= base for calculation)	Frequency(F)	Percent (%)
Lifetime smoking (n=466)	33	7%
Current tobacco use(N= 469)	21	6%
Lifetime smokeless-tobacco use(n= 467)	33	7.00%
Current smoking (n= 467)	30	4.50%
Father uses tobacco (n=456)	161	35%
Mother uses tobacco (n=464)	11	2%
Brother & sister use tobacco (n=915)	77	8%
Friends uses tobacco (n=467)	153	33%
Teachers uses tobacco (n= 468)	298	64%
Pupils use tobacco in school (n= 466)	145	31%
Other relatives use tobacco (n=420)	146	35%
Offered cigarette by friends (n=467)	18	4%
Get tobacco on their own (n=467)	18	4%
Smoke with friend (n= 469)	22	5%
Perception boys use tobacco the most (n=463)	451	97%
Perception girls use tobacco the most (n=463)	12	3%
Onset of smoking (n= 469)		
14years& younger	23	5%
15years and older	11	2%
less than 10years	5	1%

A total of 7% confirmed lifetime smoking whereas 6% were current smokers. Seven percent-confirmed lifetime smokeless –tobacco uses whereas 4.5% were current tobacco users. Most pupils reported tobacco use by father (35%), mother (2%), brother and sister (8%), friends (33%), teachers (64%), pupils (31%) and other relatives (35%). A total of 1 % of the participating school pupils reported to have tasted tobacco for the first time before the age of 10 years, whereas 5% and

2% reported to have started at the age of 10- 14 years and 15years respectively. Four percent of pupils reported having been offered cigarette by their friends whereas 4% bought or rolled on their own, while 5% smoked with their friend. Perception of pupils about use of tobacco was that boys (97%) use more than girls (3%).

4.2 Reasons for tobacco use

The study sought to find out the reasons, which make most pupils start using tobacco. The results are shown in Table 2.

Table 2: Reasons for tobacco use

VARIABLE (N=base for calculation)	Frequency(F)	Percent (%)
Peer pressure (n=459)	303	66
Curiosity (n=436)	230	53
Adventurism (n=426)	198	46
Pressure from school work (n=425)	165	39
Boredom (n=431)	196	45
Frustration (n=416)	189	45
Advertisements (n=439)	206	47
Rebellion (n=430)	169	39
Lack of parental guidance (n=447)	256	57
Free exposure to tobacco(n=436)	214	49
Lack of information on tobacco (n=458)	218	48

The results in Table 2 shows that 66% confirmed peer pressure had the highest influence followed by lack of parental guidance (57%), curiosity (53%), free exposure to tobacco (49%), lack of information on tobacco (48%), Adventurism (46%), boredom and frustration had the same (45%) whereas pressure from school work and rebellion also had the same percentage (39%) being the lowest.

4.3 Pupil's Knowledge of Tobacco Related Health Risk or Dangers

The study further sought to establish the pupil's knowledge of tobacco related health risk or dangers. The results are as shown in Table 3.

Table 3. Percentage estimate of pupil's knowledge of tobacco related health risk or dangers.

(N= base for calculation)	Estimate % (n)	
Causes diseases and disorders e.g cancer(n=457)	89	(405)
Causes social ill health e.g pollution (n=454)	86	(390)
Affects personal hygiene e.g tar on teeth(n=449)	86	(388)
Affects mental health (n=468)	85	(399)
Affects pupils morality (n=449)	74	(332)
Affect academic performance (n=455)	68	(308)
Affect family health e.g passive smoking (n=450)	68	(305)
Reduces endurance to exercise and physical fitness (n=451)	63	(283)
Affects unborn babies (n= 426)	62	(265)

The results in Table 3 shows than more than 60% of all the pupils were aware of the tobacco related health risks or dangers confirming tobacco: Causes disease and disorder (89%), affect persona hygiene (86%), causes social ill health (86%), affect mental health (85%), affect pupils morality (74%), affect academic performance (68%) affect family health (68%), reduces endurance to exercise and physical fitness (63%) and affects unborn babies (62%).

5.0 Conclusion and recommendations

Since the results are based on pupil's self –reports there is a possibility that pupils' reluctance to give socially undesirable responses might have resulted in under reporting of tobacco use habits. Caution should also be exercised in interpreting the data on age when cigarette or other tobacco products were first used because young people may not have reached the developmental stage that permit accurate recall. Media anti-tobacco message should be supported by active involvement of parents, school teachers and other professionals and should be culture and gender specific. Programs seeking to prevent smoking initiation among primary school pupils and smoking cessation programs should take into account the diverse arenas through which young people currently obtain anti-tobacco messages and strive to strengthen the full range of them. Lastly guidance and counseling teachers should be deployed or posted to primary schools and the guidance and counseling department strengthened.

References

- Adult Morbidity and Mortality Project (AMMP). (1997) *Policy implications for adults' mortality and morbidity*. End of phase I report. Dar-es-Salaam: Department of International Development (DFID). .
- Amayo GN. (1998). Use of Tobacco and Bhang among Kenyan students and teachers in secondary schools and colleges. *Healthline*.2 (30): 63-66
- Amonoo-lartson R and Pappoe ME. (1992). Prevalence of smoking in secondary schools in greater Accra region of Ghana. *Social Science Medical*, 34 (11): 1291-1293
- Bosire J (September 19th 2000). Drug Abuse is Affecting Education. *The Daily Nation* page 15
- Clausen F, Sandberge E, Inastad B and H Jortdahl P. (2000). Morbidity and health care utilization among elderly people in Mmankgodi village, Botswana. *Journal epidemiology community Health*, 54:58-63.
- Corner M and Norman P. (1996) *Preface. Predicting health behaviour*. Vii-ix. Buckingham: Open Press,
- Cunningham R. (1996) *Tobacco or Health: The consequences of tobacco use*. In: *Smoke and Mirrors: the Canadian tobacco war*. IDRC, page 8-17
- Dhadphale M, Mengech HNIL, Syme D and Acuda SW. (1982, February) Drug abuse among secondary school students in Kenya: A preliminary survey. *East African Medical Journal*, 59:152-156
- Eide Alt and Acuda SW. (1996 may) Adolescents' drug use in Zimbabwe-comparing two recent studies. *Central African Journal of Medicine*, 42(5): 128-135
- Gossop M and Grant M. (1990) *Preventing and controlling drug abuse*. Geneva. World Health Organization.
- Growing up tobacco free, preventing nicotine addiction in children and youth. (1994) Washington DC, National Academy Press.
- Haworth A. (1982) a preliminary report on self-reported drug use among students in Zambia. *Bulleting National research centre (Narc)*. 34(3 & 4): 45-60.
- Kenya Institute of Education. - (2000) *Secondary Agriculture form four pupils Book*, Kenya, Kenya Literature Bureau, page 65-75

- Kenya Institute of Education. 1997 (December.1999) *Bloom or doom: your choice*. A resource book for youth in and out of secondary Schools, Kenya, Kenya Institute of Education, page 43-44.
- Kerre R, (1997) *God meets us, Christian Religious Education form four book*, Kenya, East Africa Education Publishers Ltd, page 60-63.
- Khan N and Arnoft R. (1996) substance use among rural secondary schools in Zimbabwe: Patterns and prevalence. *Central African journal of medicine*, 42(8): 223-229.
- Kitange HM, Swai AB, Masuki G, Kilima PM, Alberti KG and Malarty DG. (1993) coronary heart disease risk factors in Sub-Saharan Africa: Studies in Tanzanian adolescent: *Journal of Epidemiology and community Health*, 47(4):303-307
- Lang TH, Chung F, Betson CL, Wong CM, Hedley, AJ (1998) Tobacco advertisement: one of the strongest risk factors for smoking in Hong Kong students. *American journal of preventive medicine* 14 (3): 217 - 223.
- Levi F. (1999 December) Cancer prevention: epidemiology and periectives. *European Journal of cancer*, 35 (14):1912-1924.
- Lugoe WL, Klepp KI, Rise J, Skutle A and Biswalo PM.(1995) Relationship between sexual experience and non-sexual behavior among secondary school students in Arusha, Tanzania. *East African medical Journal*, 72:63 5-640
- Mackay J and Crofton J. (1996) Tobacco and the developing world *British journal of medicine bulletin*. , 52 (1): 206-221.
- Manla J, Lindblad M and Tigerstedt C (Eds) (1998) Alcohol in Developing countries. Proceedings of a Meeting in Oslo, Norway, *Helsinki*, Nordic council for alcohol and Drug Research 1998
- Masokoyin W. (1999) *oral health-related behavior, knowledge and beliefs among Uganda primary school students and teachers*. A study carried out in Kampala and Mbale districts. Medical briefs. (October 19th 2003). Cancer. *Sunday nation* Page 9
- Meursing K and Morojele N. (1989 November). Use of alcohol among high school students in Lesotho. *British Journal addict*, 84 (11) 1337-1 3 42
- Millstein SG, Petersen AC, Nightingale EO. (1993) *Promoting the health of adolescence*. New York. Oxford University Press.

- Ministry of Education - (1999) Kenya Annual statistics. Internet homepage ([www. Kenya web.com](http://www.kenya.gov.ke))
- Mwaluko GMP, Swai ABM, and Mclarty DG (Eds) (1991) *Non-communicable diseases. Health and disease in Tanzania*. London. Harper Collins.
- Mwenesi H.Rapid (1996) Assessment of drug abuse in Kenya. *Bulletin national research center* 48 (1-2): 65-78.
- National Institutes of Health. (1986 September- October)Consensus Development Conference statement: health implications of smokeless tobacco use on January 13th –15th , 1986. *CA cancer journal clinical*.36 (5): 310-316
- Nutbeam D, Aarol, World B. (1991) *the lifestyle concept and health education with young people*. Results from World Health Organisation International survey. *World Health statistics quartely*, 44:55-61
- Omino G. (1985) *Report on the problems of drugs among Kenyan students in secondary schools and teachers' colleges*. Presentation at the Drug Abuse Congress. Nairobi.
- Strobe W and Strobe WS. (1995) *Social psychology and Health*. Buckingham Open University press Substance use amongst secondary school students in Ilorin, northern Nigeria. *West African Journal Medical*, volume 13 number2 page 91-97
- UNDCP. (1991) Report on Drug Abuse. Page 15-17
- UNICEF (2000) *the lost children*. Data briefs: progress and disparity. The progress of Nations.
- Yambo M, (1984) *Epidemiology of drug users and abuse: a final report of pilot study of NairobiCity and Kyaume Sub-location, Kenya*.