

PRACTICE OF DRUG PEDDLERS AND HEALTH WORKERS IN RELATION
TO SEXUALLY TRANSMITTED DISEASES IN KENYA.

A dissertation submitted in part fulfillment for the degree of
Masters in Public Health of the University of Nairobi.

By

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December 1992

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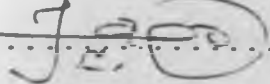


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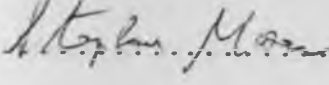
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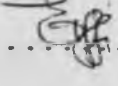
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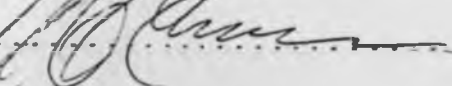
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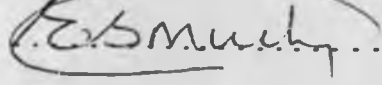
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DEDICATION

To all the members of my family.

List of abbreviations:

CDP	_____	Client of drug peddler.
DP	_____	Drug peddler.
PA	_____	Pharmacy attendant.
PMP	_____	Private medical practitioner.
PPMP	_____	Patient of private medical practitioner.
STCP	_____	Special Treatment Clinic Patient.
STC	_____	Special treatment Clinic.
STD	_____	Sexually transmitted diseases.

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THE PRACTICE OF DRUG PEDDLERS AND HEALTH WORKERS IN RELATION
TO SEXUALLY TRANSMITTED DISEASES IN KENYA.

INTRODUCTION

This area of study had gained great attention among Community Health Workers, especially after the 1971 motion raised in the Kenya House of Parliament. The motion concerned sales of antibiotics and similar drugs at bus stations, railway stations and some hotels in Kenya; Daily Nation 1971. Unfortunately, the initial concern on this problem has eroded, hence little attention seems to have been paid to this problem. The need to know and understand the extent of this practice on the health of the individual in the community is very important.

Drug peddlers and health workers do treat people suffering from sexually transmitted diseases and other stigmatised diseases such as tuberculosis, leprosy and some forms of skin diseases like vitiligo and scabies; Justice 1986. Some people practice self-medication, which itself needs further investigation to establish its positive or negative contributions to the health of the users. Some drugs in health facilities are said to end up in the wrong hands. This may deprive some of the patients of adequate and complete treatment regimes. However, we know that in Kenya, the Ministry of Health has standardized the treatment of sexually transmitted diseases. ; National Guidelines for the control of sexually transmitted diseases, 1990.

Our concern with drug peddlers has been made more important because, in a number of developing nations, among them Indonesia, India and Brazil, clinical pharmacologists and other drug experts are revealing mounting concern over the marketing of fraudulent drug products. These are shaped, coloured, flavoured, marked and packaged to mimic the real product; Silverman,

Lydecker and Lee 1990.

Some people who contract sexually transmitted disease may not get adequate and complete treatment, either through self-medication, private practitioners, paramedics, traditional healers or herbalists and drug peddlers. Some patients go untreated altogether due to the stigma of sexually transmitted diseases; Wilcox R R. 1975.

The services provided by the drug peddlers and some private medical practitioners are known to many people in Kenya; Wasunna 1973. These people seem to take these services for granted as the correct practise, and regard them as an essential part of the health services. Therefore the need to look into this problem is of paramount importance to the individual and the community so as to determine the positive and the negative contributions provided by these services.

The potential problems of the practices are:-

1. Wrong drug choice and inadequate dosage are being given by health workers, peddlers, or being taken by self-medicators.
2. Development of resistance to the antibiotics as a result of under-dosage or wrong drug choice.
3. Development of chronic infections and other complications due to partial treatment of cases.
4. Lack of explanations and directions on how to use the antibiotics as pharmacists are not involved in dispensing.
5. Development of side effects due to toxicity of the drugs.
6. Exorbitant prices of new drugs in some instances and low prices in other instances.
7. Nerve injury due to injection administration by unqualified persons or

development of injection-site infections due to the use of unsterilised or used needles on different patients.

8. The use of expired drugs from the peddlers or some unscrupulous health workers can lead to toxicity and other side effects.
9. The possibility of the presence of counterfeit drugs in the country and hence, the need to purchase and analyse the antibiotics being sold in the open market.
10. The possibility of added cost to the patient.
11. The possibility of HIV transmission.

The potential benefits of the practice are:-

1. Probable reduction of the transmission chain if the treatment is adequate and complete.
2. Bringing services closer to the individual and the community.
3. Cheaper and affordable drug prices in some instances.

LITERATURE REVIEW

When drug abuse is discussed, attention is often centred around the drugs of addiction such as marijuana, amphetamine, morphine, pethidine, cocaine and bhang. Both the professional and lay press in western countries are full of articles about various aspects of the wrong use of these drugs Fig 3 and 4.

A form of abuse of drugs which seems peculiar to many developing countries, including Kenya, is the traffic of non-addictive drugs through unqualified and unauthorized persons; Daily Nation 1971. The Wasunna study found out that at every place visited that had large mobile crowds of Kenyans, there were people selling drugs and in every case these were men. At bus stations, open air markets, the so called "shanties", in the train and even

on board in the lake steamers, there were people selling drugs. With remarkable regularity, they announced in low but clear voices their drugs in order "MB, Suta, capsules". The drugs were often kept in plastic bags, in jackets, pockets or on the roof of the stall. No word of dosage or even the type of illness that could be treated with these drugs was forthcoming, except one was told on direct questioning that M.B. was for minor illness, suta was for moderate illness, and capsules for severe diseases.

The misuse and abuse of drugs by patients prescribed to them in a health care delivery service can arise from many factors. Important amongst these factors are poor instructions by the health workers, poorly organized drug-dispensing services, the prescription of too many drugs at a time and long term prescriptions; Ratman et al 1982. Coupled with this is the tempo at which the number of pharmaceutical preparations and specialities have increased over the last few years. Accordingly, drug consumption will increase tremendously especially in the presence of uncontrolled advertising and propaganda and in addition to the improvement of health services for the people. Any country will be forced to spend a good amount of its national income to satisfy the demand for drugs whether those drugs are going to be well used in prophylaxis and treatment or abused; Mehdat 1973.

In industrialized nations the major issues in antibiotic use involves the selection of the most appropriate agent, the dose and the duration of the therapy for infectious diseases. There is a wide array of effective, highly promoted products from which to choose. Antibiotics over used, particularly for prophylaxis in surgery; Shapiro et al 1979. In contrast, the situation in developing countries is of under-use and incorrect usage because of the unavailability of effective agents and of the self-prescribing of over-the-counter drugs. In some parts of the developing world "obsolete" antibiotics - unacceptable in the developed nations where they originated, are marketed;

Galal 1973. These find their way into the open market and in the hands of the peddlers.

Although there is widespread recognition of the serious health consequences resulting from inappropriate antibiotic prescription and usage in developing countries, the socio-cultural and economic factors contributing to these problems are poorly understood and analyzed. There is a widespread perception that for every symptom there is a specific remedy or drug; Medicus 1991. Antibiotics are viewed as wonder drugs capable of healing a wide variety of illness. In societies in which drug effectiveness is often equated with the rapidity of response, the quick and dramatic impact of antibiotic therapy is particularly valued. Patient's reliance on single administration of an antibiotic by injection is supported by the belief that injections are more powerful and effective than pills or liquid medicine. Capsules are considered second powerful to injections.

The fact that many patients do not complete a full course of antibiotic treatment may derive from a belief that drug use should be stopped when symptoms subside; Stein et al 1984. Hence under-treatment is by far the most commonest misuse of drugs. This situation is encountered in the cases of tuberculosis and STD treatment; Kandid 1973.

Culture apart, how do people come into contact with antibiotics? In many developing countries antibiotics are secured by diverse delivery systems. Sources of supply range from clinic-based systems in the public sector to commercial-based distribution systems in the private sector, for example pharmacists, shopkeepers, traditional healers, herbalist and curanderas. For each of these settings, there are informal, illegal, and clandestine aspects of antibiotic distribution; Galal 1973. However, public hospitals and clinics are often the last source of health care sought by patients and are used for illnesses perceived as serious and persistent and usually after the failure

of self-medication and advise of drug peddlers, traditional healers and pharmacists; Stein et al 1984. Shortages of antibiotics and other essential drugs in public clinics in Nepal resulted in the prescription of less-than-optimal doses; Jayasuriya 1981.

Anecdotal evidence suggests that illegal distribution of drugs is prevalent in many developing countries. Weisberg 1982, reports that non-licensed injectionists range throughout rural areas dispensing antibiotics and vitamin injections, pills and advise and these often receive their drug supplies from pharmacists. There is also pilfering by attendants in pharmacies, who on occasion steal whole cartons of medicines and sell them to non-licensed sources.

The tempo at which the number of pharmaceutical preparations and specialities has increased over the last few years is impressive. However, the use and misuse of medicines and other chemicals for curative, palliative and preventive treatment of venereal diseases in Uganda showed an inadequate treatment and an increase in self-medication; Anonymous 1980. Drug abuse is a major problem particularly in the developing countries. Drugs are being recommended haphazardly by students, relatives, legislators, judges, lawyers, nurses, physicians, teachers, diplomats, and even police officers. More facts and better understanding of the effects of drugs are needed by both the public and the medical profession in our countries; Kagima 1981.

The abuse of broad-spectrum antibiotics in the countries of Africa may have a direct impact on the pathogenic bacteria responsible for diseases in developing countries; these are:-

1. The development of drug resistance.
2. An increase in the number of pathogenic gram-negative bacteria isolated from anatomical sites where they had not hitherto been known to cause lesions.

These two developments can be stopped, and indeed reversed by applying more strictly a number of well-known rules in the usage of antibiotics: Nnochiri 1973.

Self-medication with modern drugs especially antibiotics are extremely popular due to the strong persuasive support of commercial interests. In the Third World, little is known about self-care and there has not yet been any systematic research into the distribution and use of drugs at community level; Hardon and van der Geest 1987. Despite the fact that there exist essential drugs list and national formulary whereby doctors could obtain objective information, they do not use them. This underlies the crucial role of primary health care programmes and consumer groups in the improvement of drug distribution and use. Grassroot education should inform people about rational self-medication and explain the hazards of present practices; Abosede 1984.

The dose of penicillin required to cure gonococcal infection has increased more than 100 fold. Sequelae of sexually transmitted disease produce enormous direct and indirect costs. Reports from several African countries indicate that a quarter to a half of all gynaecological admission are of pelvic inflammatory diseases (PID), which is also common in other parts of the world. In Africa infertility is closely linked to sexually transmitted diseases and in isolated areas prevents up to 50% of women from having children; Arya & Bennet 1973. Throughout the world, people increasingly recognise that sexually transmitted diseases cause ectopic pregnancy, perinatal morbidity and mortality, infertility and pelvic infections. The prevalence of gonococcal infections in populations attending clinics not specializing in sexually transmitted diseases has been as high as 5 - 20%, and incidence estimates made in a few settings have ranged from 3 - 10% per annum; Michael 1985. The prevalence of reactive serological tests for syphilis among women attending antenatal clinics has been as high as 10 - 15%. In some

countries it is estimated that at least 1% of all pregnancies are lost as a result of maternal syphilis; Weisberg 1982. Resistance to antibiotics among agents causing the disease is increasing and is a serious barrier to patient care in many developing countries.

Most African cities are said to have large populations of the unemployed; Economic Survey of Kenya 1990. Government health services cannot provide adequate care for these populations due to unavailability of resources. To supplement government efforts are the health care services provided by the private sector at competitive costs to the population. Unfortunately, the needed services provided by the established private health services are being marred by some unscrupulous private practitioners. As concluded by the UNICEF/WHO Joint Committee on Health Policy in 1981, "... the private medical sector now has negative effects on primary health care implementation"; Rallof 1981. Therefore dubious methods are sometimes used to sell therapeutic drugs in the third world countries as corollary of the above favours. Vital information on these drugs may be lacking. Regulation is therefore desirable and the innovations introduced in Sri Lanka in this field may be found appropriate elsewhere. In Sri Lanka, besides prohibitions on the manufacture, import, sale and distribution of adulterated or substandard drugs, the Act contains an absolute prohibition on the sale of certain types of drugs which are listed in the schedule; Jayasuriya 1981.

There are some ineffective drugs that should be removed from the market. Many doctors have simply gotten into the habit of prescribing certain drugs and do not heed whatever warning labels or inserts there may be concerning their efficacy. Some doctors on the basis of limited and certainly scientifically uncontrolled personal experience with individual patients, continue to prescribe a drug after studies have indicated that it is ineffective and may be harmful; Rallof 1981. The other problem facing

developing countries is lack of drug policy guidelines.

In the final analysis the basis for a real approach to the aim of proper use of drugs and the minimal abuse is proper education: the education of the planner, the executive, the professional and the public; Galal 1973. Much more targeted education for the patient/client is required.

JUSTIFICATION OF THE STUDY

Although sexually transmitted diseases had lost a lot of their interest in the '70's the recent appearance of acquired immune deficiency syndrome (AIDS) has put them back on the map. These diseases by definition have their method of transmission in common; Thompson 1988.

Cases of sexually transmitted diseases are on the increase in many developing countries, especially African countries, and at the same time the use of non-addictive drugs and illicit trade in them is also flourishing. Antimicrobial agents consume a large proportion of the costs of the health care systems in developing countries. The World Health Organisation (WHO), 1979 estimates that up to 40% of the health costs may be for drugs. Studies in India, Bangladesh, Thailand and Tanzania estimate that from 24% to 50% of the total pharmaceutical budget is spent on antimicrobial agents; Africa, Med & Health, 1979, fig 3, Hardon and van der Geest 1987, Silverman et al 1990, UNAPDI 1978. These expenditures are proportionately much greater than those in West Germany or the United Kingdom, where expenditures for antimicrobial agents are 4 - 15% of the pharmaceutical costs.

There are only limited data concerning the pattern of use of antimicrobial agents in the developing countries. Much of the current information is anecdotal. Several studies can be cited. In one study in Africa, 50% of outpatients received at least one antibiotic; Shapiro et al 1979. In hospitals in Bangladesh, 57% of patients in medical, surgical and

paediatric units received antibiotics. Only 50% of these antibiotic prescriptions were considered to be appropriate; Hossain et al 1982.

There is the stigma attached to STD and therefore the patient has to hide and buy medicines from obscure places for fear of being discovered. Whereases the patients of PMP prefer the Private Practioners because they know that these PMP cannot divulge the nature of their disease. Some of the people lack appreciation of subsequent effects on their health due to untreated or badly treated cases of STDs. The public's view of STD as a social stigma is shared also by professional health workers. This negative attitude is reflected in the treatment which some professionals give to patients, thereby creating in them unconfatable feeling possibly leading to seeking of treatment from the drug peddlers. STD diagnosis may creat an impact on certain persons who regard STD as synonymous with sin and personal debasement.

Antibiotics may be purchased without prescription in most developing countries from pharmacies, shops, kiosks, open markets and drug peddlers; Wasunna 1973. Nevertheless, much attention and many studies have been focused on abuse and misuse of drugs in the form of psychotic and addictive drugs, leaving out the abuse and misuse of non-addictive and non-psychotic drugs that are rampant in most developing nations. A study on this topic was undertaken by A E O. Wasunna and M. Wasunna in Nairobi and other Kenyan towns in 1971. The hawking/peddling process was studied by passive observation. My study focused on an active interviewing of the peddlers, health workers and their clients. I endeavoured to purchase some of the drugs for identification but their analysis was not possible, due to lack of facilities and funds.

This study should help in creating public awareness of the possible dangers of drug abuse and misuse. This form of drug abuse and misuse poses a potential health problem from the public point of view, since the indication, dosage and information on possible side effects were absent and

much of the time the drugs may have passed their shelf-life. The health planner and policy maker could make use of the study's findings in planning activities of health care services, especially in relation to STDs and antibiotics. The public, the health workers, the private sector could all join in to effectively control this form of drug abuse and misuse, or at least improve it or incorporate it into the health care system.

STUDY OBJECTIVES

The objectives of this study were to:-

1. Determine the knowledge, attitude and practices of drug peddlers, Private medical practitioners, pharmacy attendants with respect to drug use for sexually transmitted and other stigmatised diseases.
2. Determine Knowledge, Attitude and Practice of clients of DP, patients of PMP, STC patients with respect to sexually transmitted and other stigmatised diseases and drug use.
3. Identify the nature, sources and costs of these drugs.
4. Make recommendations to the authorities and public health workers on the best way to deal with this problem.

HYPOTHESIS

Private medical practitioners and drug peddlers represent a major source of treatment for sexually transmitted and other stigmatised diseases and the management provided is generally inadequate.

METHODOLOGY

I. SITE DESCRIPTION:

The study was conducted in Nairobi and Kisumu. This covered the up-country bus parks, the railway stations, the market centres in and around the cities and the slum dwelling areas of Kibera, Eastleigh, Pumwani, Pangani, Industrial area, Nairobi South B & C in Nairobi and Kondele, Nubian village, Majengo and Kibuye in Kisumu. Nairobi has an estimated population of 1,400,000 and Kisumu has 230,000 inhabitants. Both cities are industrial with large numbers of the unemployed; (Economic Survey of Kenya 1990).

The private clinics in the two cities were identified by the inhabitants of the respective areas. The STC gave a group of patients to be interviewed. The private practitioners as well as their clients in these clinics were interviewed by the investigator and an assistant using questionnaires.

II. SELECTION PROCEDURE:

a) Drug peddlers and their clients:

The target population or the population at risk is the community. The drug peddlers and their clients made up that part of the community. This group was selected using the Quota Sampling Technique, that is, the units were selected on first-come basis till quotas were filled. After an on-the-spot survey of the parks, markets, stations and the slum areas, there were about 5 to 10 peddlers and 10 to 25 clients each day. I got a sample size of 48 drug peddlers and 35 of their clients from the decided sample size of 50 DP and 50 clients of DP.

b) Private practitioners and their clients:

Because of the difficulty in getting a list of the private practitioners and their clients, the Quota sampling method was applied here. The inhabitants of the above-mentioned places helped in identifying the private clinics. There were about 2 to 7 private clinics in each of the slum areas

under consideration, thereby gave a sample size of 40 private practitioners. The clients attending these clinics were estimated at 20 - 50 per clinic per day, that gave a sample size of 67 clients.

In both (a) and (b), it took the investigator and an assistant 15 weeks to gather the data from these groups.

c) The STC Patients

About 150 - 200 clients attend the clinic daily. Using the interval sampling technique (systematic random sample) every 10th patient was interviewed using questionnaires. This gave 20 patients per day, totaling 300 patients for the study period of 3 weeks.

III DATA COLLECTING TECHNIQUE

After pretesting, using different questionnaires with different questions, the data used in this study was obtained from the respondents by use of questionnaires specifically designed for each group, that is the DP, PMP and their clients and were administered by the researcher and an assistant. On admission to the study, the data collected from the respondents included: age, sex, marital status, education, employment and individual income. . Issues such as social grouping, occupational association and treatment contacts offered at first and subsequent visits were covered.

The tools for data collection:

- (a) General information questionnaire (Appendix III)
- (b) Self-rating questionnaire for clients of DP, PPMP & STC patients (Appendix IV a & b)
- (c) Passive observation of the peddlers and their clients during the selling and buying of drugs in the areas mentioned, so as to be of help in the stage of active observation.

- (d) Active observation of the peddlers and their clients, using financial incentives discretely to solicit their cooperation in identifying other peddlers and the sources of their drugs using questionnaires (Appendix V a & b).
- (e) Questionnaire addressed to private medical practitioners (Appendix VI a & b)
- (f) Buying samples of the drugs from the drug peddlers for identification though it was not possible to analyse these drugs, due to lack of facilities and funds.

In both (c) and (d), the observation methods of participant and non-participant were employed, that is, identifying oneself as an observer after establishing a good working relationship in the latter case and disguising that purpose in the first case.

IV. INCLUSION, EXCLUSION CRITERIA:

Included in this study were the drug peddlers, the private medical clinics under medical and clinical officers, pharmacists and pharmacy attendants of any age and sex. This was so because their number was not known. Also included in the study were the clients of drug peddlers of any age and sex, the patients attending this private clinics and the STC patients of any sex of 14 years and above.

Excluded were dental clinics, nursing and maternity homes, herbalists and traditional healers because I considered their inclusion into the study to be inappropriate although these institutions actually treat STDs.

V. ETHICAL CONSIDERATION

Verbal informed consent was obtained from each respondent. All data collected was treated confidential. No individual was named but only assigned a number for the purpose of the study.

RESULTS OF THE STUDY

1.0 Data Analysis

Data was coded to create numerical fields. It was then entered in Dbase III Programme. For further statistical computations the raw data was converted into SPSS Pc+ (Statistical Package for Social Scientists). Data analysis called for various tools. Frequency tables were made and simple statistics such as mean, median, mode, standard deviation, minimum, maximum and range were computed.

Further analysis called for the use of statistical methods such as the P value and the computation of the Chisquare (X^2) where appropriate.

Finer analysis such as computation of column and row totals and drawing of tables called for use of lotus (Spreadsheet) programme.

Graphical presentation such as bar charts, pie charts and population pyramids called for the use of Havards Graphics Programme.

1.1 Size and structure of the study population

Using quota sampling technique to select all the respondents except for the STC patients who were selected using the interval sampling method, a total of 505 respondents were interviewed in Nairobi and Kisumu between January and August 1991. These respondents were:-

- A. Drug peddlers (DP).
- B. Clients of drug peddlers (CDP).
- C. Private medical practitioners (PMP).
- D. Patients of private medical practitioners (PPMP).
- E. Patients at the Special Treatment Clinic (STCP).
- F. Pharmacists and pharmacy attendants (PA).

These respondents were aged between 12 and 58 years. Their distribution by numbers, mean age and sex is shown on table 1 and on figure 1 is their age groups. The clients of DP are younger than the other patients. Drug peddling

is a male dominated business because it involves staying out of home, in the streets and in public places. The 4 female peddlers were nurses and auxiliary health workers who use their places of living to sell the drugs.

Among the private medical practitioners, there were only 5 female medical officers found and interviewed, may be due to their low number in medical enrolment compared to male ones.

At the STC, I interviewed STD cases. The STC patients were predominantly male because the male patients presented more with STD symptoms than the female patients who presented with lower abdominal pain, were referred from other clinics as gynaecological cases and there were not enough facilities to examine the female patients fully. The clients of drug peddlers were more easily accessible in Kisumu than in Nairobi.

1.2 Education Status

96.5% of the respondents were literate. The literacy level of drug peddlers, their clients, patients of private medical practitioners and STC patients is shown on table 1. Most of the drug peddlers and patients of private medical practitioners attained post primary education. 5.3% (16) STC patients did not have any formal education.

1.3 Economic Status

68.7% (309) respondents including all the peddlers earn more than Kshs. 1,000 per month. Most of the PPMP could afford treatment in the private clinics because they earn more than Kshs. 1000 per month. However, most of the respondents were reluctant to disclose their real income because this should not be known not only by strangers, but by relatives especially wives.

1.4 Occupation

75.3% (339) respondents were gainfully employed. The unemployed were the students and housewives. Only 12.5% (6) drug peddlers had relation to health care activities. These were a clinical officer, 3 nurses, a medical storekeeper and a driver supplying clinics mainly with medicines. The majority of the DP consider themselves as businessmen and women.

1.5 Marital Status

The married respondents include the divorced, separated and widowed. Most of the clients of drug peddlers and patients of private practitioners were single. Table 1. They were vulnerable to STD infections because they are young and sexually active.

Table 1 Size and structure of the study groups

Study group:	DP	CDP	PPMP	STCP
No:	48	35	67	300
Mean age:	26.4	23	25.8	26.1
Sex: Male:	44	22	32	226
Female:	4	13	35	74
Education:				
None:	--	--	--	16
Primary:	17	19	16	140
Secondary:	31	16	51	144
Income Kshs.:				
< 1000	--	18	09	114
> 1000	48	17	58	186
Occupation:				
Trader:	42	09	25	61
Artisan:	--	10	32	114
Clerk:	--	--	--	31
Services:	--	09	--	--
Health:	06	--	--	--
Unemployed	--	07	10	94
Marital status:				
Single:	24	27	48	152
Married:	24	08	19	148

1.6 The study has identified the following informal medicine markets:-

1. The drug peddlers

These were mainly men found around car/bus parks, the markets, railway stations, ports and night spots. The Nairobi peddlers were residential-area based, while the Kisumu ones were street based. The peddlers sold all sorts of medicines especially antibiotics and other items (figures 5, 6, 12). The majority of these peddlers were young men who considered drug peddling a business and so they think of themselves as gainfully employed. Most of the peddlers worked in groups or gangs. The leaders of these groups have names like Alcapone, Boss, Signeur, Professor, Doctor, Don. The group under Alcapone in Nairobi was divided into three sub-groups, one dealing with medicines for STDs, Malaria, Worms, fevers and skin diseases. The second sub-group dealt in medicines for sportsmen and women, that is, body building and first-aid. The third sub-group dealt in "hard drugs" the narcotics. Those peddlers who have been in the business for a year or less were mainly school leavers.

In Kisumu, I found a peddler selling medicines one day and the next day he sold non-medicinal wares around the same spot. The Professor had a stall selling beans at the market. He is the peddlers' consultant and supplier of drugs. Boss ran a music recording kiosk and also controlled the movement of taxis at the park.

2. The Medicine Kiosks:

These were found at Kibuye market, Kisumu and are licensed to sell non-prescription drugs. The medicines were well displayed in glass jars and bottles. (figures 7, 8, 9, 10, 11). However, the antibacterial capsules and injectables were kept away with the other market vendors and tailors. A capsule here goes for Kshs. 1/50 - 2/= and an injectable fetches kshs 10-20/= per vial.

3. Market Traders:

These sold medicines like antibiotics, over-the-counter medicines, bhang and other narcotics along with other merchandise, mainly agricultural products. They are common in Kisumu markets such as the Professor, who has been in the business for a long time and is a source of the drugs to the young peddlers.

4. Shopkeepers:

The shopkeepers normally sell general provisions. They are allowed to sell non-prescription medicines, but they also sell antibiotics in the form of capsules. The sources of their stock is not certain and they do not want to talk about it.

5. Health Workers.

Health trained and non-medical personnel in health care institutions do sell medicines to clients, pedlers and others (Table 2.1). Some of the peddlers claimed that the source of their drugs were relatives and friends in health care institutions. The private medical practitioners' source of drug supply included the hospital. (Table 3.3).

6. The pharmacists and pharmacy attendants

These like the health workers belong to the formal network of drug distribution. Because they sell prescription only drugs without a doctor's prescription, they become informal (Table 4.1)

7. Other drug vendors

Some of the drug peddlers in Nairobi said that they had friends and relatives working at airports, harbours and boarder posts, who either get free

or impounded drugs "hard and soft" or purchased them from couriers and sailors. These people then pass on the drugs to their friends or relatives to sell. Two of the drug peddlers in Nairobi claimed to have got their supply of drugs from Mombasa harbour and from Mandera boarder post.

2.0 The practices of drug peddlers.

The drug peddlers (DP) were selected using the quota sampling technique.

2.1 Sources of drug supply

Some DP had more than one source of drug supply. The drug peddlers got their medicines from the pharmacies, friends working in health care facilities, hospitals, the open market and pharmaceutical companies as shown in Table 2.1

The open market was the source of drugs for some Kisumu drug peddlers. Some drug peddlers in Nairobi got the drugs from friends and relatives who work in Pharmaceutical companies, hospitals and Pharmacies. These friends or relatives usually are salesmen, storekeepers or drivers in these institutions.

Table 2.1 Sources of the peddlers drug supply each drug source considered separately.

Drug Source	Place	
	Kisumu N = 28	Nairobi N = 34
1. Hospital N = 8	03.6% (1)	20.6% (7)
2. Pharmacy N = 23	50.0% (14)	26.5% (9)
3. Market N = 8	28.6% (8)	--- ---
4. Pharmaceutical co. N = 3	--- ---	08.8% (3)
5. Friends N = 20	17.8% (5)	44.1% (15)

2.2 Medicine packaging, instruction leaflets and knowledge of drugs.

A good number of DP in both Nairobi and Kisumu had drugs in their original packaging. All the Kisumu DP and most of the Nairobi DP know the drugs in their possession by name. The remaining number of the Nairobi drug peddlers have been in the business for less than a year because most of them were school leavers Table 2.6. Insertions or leaflets were found with drugs in the hands of the Nairobi DP as compared to the Kisumu DP.

Table 2.2 a, b & c Drug Packaging, instruction leaflets and knowledge of drugs by place of peddler.

a)

PACKAGING	Place	
	Kisumu N=19	Nairobi N=29
Packed N=35	63.2% (12)	65.7% (23)
Unpacked N=13	36.8% (7)	46.2% (6)

b)

INSTRUCTIONS		
Yes N=32	52.6% (10)	75.9% (22)
No N=16	41.4% (9)	24.1% (7)

c)

KNOWLEDGE OF DRUGS		
Know N=42	100% (19)	79.3% (23)
Not Know N=6	---	20.7% (6)

2.3 Training of STD Management

There were only 6.3% (3) peddlers who had a medical training knowledge. One was a clinical officer in Kisumu and the other two were male nurses each in Mairobi and Kisumu. Most of the drug peddlers never had any training in the management of STDs in particular and other diseases condition in general.

Table 2.3 Training on STDs Management.

STD Training	PLACE	
	Kisumu N = 19	Nairobi N = 29
Trained N = 3	10.5% (2)	3.4% (1)
Untrained N = 45	89.5% (17)	96.6% (28)

2.4 Diseases the peddler treat, peddlers condoms and their costs.

A few drug peddlers in Kisumu and Nairobi claimed that they could treat all kinds of diseases. The majority of drug peddlers treated some diseases, among these were STDs. Only 12.5% (6) drug peddlers, 4 in kisumu and 2 in Nairobi had condoms for sale. Each condom costs between 50 cents and Shs3/50. Otherwise 97.5% of DP in Nairobi and Kisumu knew that condoms are being provided free of charge in family planning clinics.

Table 2.4 Treatable diseases by the drug peddlers

Diseases	PLACE	
	Kisumu N = 19	Nairobi N = 29
All N = 11	72.7% (8)	27.3% (3)
Some N = 37	29.7% (11)	70.3% (26)

2.5 The sources of peddlers condoms

Most of the DP in Nairobi and Kisumu got the condoms from family planning clinics. A few DP got the condoms from pharmacies. Those who got the condoms from hospitals were all from Nairobi. A good number of Kisumu DP did not know where to get condoms.

Table 2.5 Sources of Peddlers condoms.

Condom Source	PLACE	
	Kisumu N = 19	Nairobi N = 29
Hospital N = 11	---	38.0% (11)
FP Clinic N = 18	31.6% (6)	41.4% (12)
Pharmacy N = 4	15.8% (3)	03.4% (1)
None N = 15	52.6% (10)	17.2% (5)

2.6 The period of selling drugs, the clientele and the socio-economic status of the clients according to the peddlers.

Most of the Kisumu and Nairobi DP have been selling drugs for more than a year. 77.1% of the clients of drug peddlers in Kisumu and Nairobi were youth and children under 16 years. 58.3% (28) DP & 41.7% (20) DP in Nairobi and Kisumu assessed their clients as middle income and poor respectively.

2.7 Peddlers' Medicine, their costs.

The drug peddlers had antibacterials like Penicillin, Tetracycline Sulfonamide and others in the forms of capsules, tablets, injectables and other forms. The cost of a unit antibiotic with the peddler depended on its form, gramme content, the area of sale, the socio-economic status of the client and on the period of the month and year. The majority of the peddlers sold the antibiotic capsules at between Kshs. 1 to Kshs. 10 Table 2.7 a, b and Fig. 2

Table 2.7 a & b Peddlers' antibacterial forms and costs.

Antibacterial	Availability	
a) Penicillin	72.9%	(35)
Tetracycline	68.8%	(33)
Sulfonamide	35.4%	(17)
Others	81.3%	(39)

Unit cost Kshs.	Cost of antibiotics	
<1/=	25.0%	(12)
1-10/=	45.8%	(22)
11-20/=	20.8%	(10)
>21/=	16.7%	(08)

3.0 The practices of private medical practitioners

The private practitioners were selected on first come basis. These were mainly qualified medical doctors and clinical officers. Of the 55 questionnaires distributed, only 40 were completed and returned.

3.1 STD cases per day, treatment charges and socio-economic status assessment of the patients.

The majority of the Nairobi private practitioners attended to more than five STD patients a day, whereas the Kisumu PMP saw an average of three STD cases a day. The STD cases were gonorrhoea, non-specific urethritis, trichomoniasis, candidiasis, syphilis. A good number of the private practitioners in Nairobi and Kisumu charged more than Kshs. 200/= per STD case treatment. Private practitioners in Nairobi and Kisumu assessed their patients to be of low income group. See appendix II

Table 3.1 a, b Daily STD cases attended to and STD treatment charges by Private medical practitioners.

a) MEAN STD Cases	PLACE	
	Kisumu N = 9	Nairobi N = 31
3 N = 19	66.7% (6)	42% (13)
5 N = 21	33.3% (3)	58% (18)

b) MEAN Charges Kshs.		
150 N = 14	44.5% (4)	32% (10)
200 N = 26	55.5% (5)	68% (21)

3.2 Drug forms prescribed by PMP and preferred by their patients.

The prescribing volume of the Nairobi PMP for injectables, capsules and tablets is slightly higher than the Kisumu PMP. This could be due to the presence of many drug sources in Nairobi as compared to Kisumu; see Table 3.3. None of the PPMP in Nairobi preferred tablets. The majority of the patients in Nairobi and Kisumu preferred injectables and capsules. Appendix II

Table 3.2 a & b Drug forms prescribed and preferred.

a) Forms Prescribed	Drug Form		
	Tablet N=30	Capsule N=37	Injectable N=37
Kisumu N=9	55.5% (5)	78% (7)	89% (8)
Nairobi N=31	81% (25)	97% (30)	94% (29)

b) Forms preferred	Tablet N=30	Capsules N=37	Injectable N=37
Kisumu N=9	41% (4)	55.5% (5)	100% (9)
Nairobi N=31	----	77% (24)	97% (30)

3.3 Sources of drug supply of PMP

The majority of the Kisumu PMP bought their drugs from pharmaceutical companies and pharmacies whereas most of the Nairobi PMP got their drug supplies from pharmacies and to a lesser extent from hospitals and pharmaceutical companies.

Drug Sources	PLACE	
	Kisumu N = 9	Nairobi N = 31
Hospital N = 15	----	48% (15)
Pharmacy N = 32	78% (7)	81% (25)
Pharm. Co N = 19	89% (8)	35% (11)
Others N = 2	11% (1)	03% (1)

4.0 The practices of pharmacy attendants The pharmacists and pharmacy attendants were selected using the quota sampling technique. The pharmacy attendants become informal when they sell prescription-only drugs without a doctor's prescription. Of the 15 pharmacies visited, that is, 7/10 in Nairobi and all the other 5/5 in Kisumu sold me antibacterial capsules and tablets without asking for a doctor's prescription to treat the supposed discharge, but not all the medications were appropriate. Table 4.1. They could be treating non-specific urethritis or gonorrhoea.

4.1 The prices of antibacterials in pharmacies for a urethral discharge

The prices for the same antibacterials, same quantity and gramme content vary in these pharmacies. The average price of 40 caps Tetracycline 250 mg was Kshs.78/40 and that of 20 caps Ampicillin 250 mg was Kshs 72/65. The dosages too differ. The Nairobi pharmacies charged clients more for the antibiotics than the Kisumu ones compared to the whole sale price.

Table 4.1 Antibacterials, costs and place of sale

	Pharm. price	Whole sale price		
Antibacterial (Kshs)	Price (Kshs)		Place	No. of Pharm.
Tetracycline 250mg Capsule (40)	58/= 75/= 84/= 96/50	1/= per cap = 40/= 2 x 4 x 5/7	Nairobi	4
Ampicillin 250mg Cap. (20)	68/50 76/80	2/50 per cap.=50/= 1 x 4 x 3/7	Nairobi	2
Erithromycin tab. (42)	150/40	6/50 per tab=273/= 2 x 3 x 7/7	Nairobi	1
Sulfadiazine 0.5 tablet (10)	25/= 30/=	2/50 per tab=25/= 1 x 2 x 3/7	Kisumu	2
Septrin tab (38)	138/=	7/= per tab=210/= 2 x 3 x 5/7	Kisumu	1
Tetracycline 500mg Cap (10)	40/= 50/=	2/50 per cap=25/= 2 x 2 x 3/7	Kisumu	2

5.0 The Responses of the clients of drug peddlers in relation to STDs and antibacterials.

The clients of drug peddlers were selected on first come basis. 35 clients were interviewed.

5.1 Presenting symptomatology

82.9% (29) clients of drug peddlers presented with urethral/vaginal discharge. The other clients presented with pain during and after passing urine, itching sensation and ulcers on the genitals respectively.

Table 5.1 STD symptom presentation by clients of drug peddlers.

STD Symptom	%	No.
Discharge	82.8	29/35
Itching	31.4	11/35
Post micturation pain	31.4	11/35
Ulcer genitalia	5.7	2/35

5.2 Previous STD infection among clients of drug peddlers.

77.1% (27) clients of drug peddlers had contracted an STD in the past. Most of the male clients of DP suffered from previous STD infection than the female clients. These are high risk group.

Table 5.2 Past STD infection among clients of drug peddlers.

Past STD	Sex		Total N = 35
	Male N = 22	Female N = 13	
Suffered	86.4% (19)	61.5% (8)	77.1% (27)
Not Suffered	13.6% (3)	38.5% (5)	22.9% (8)

5.3 The source of STD infection

Almost all the male and female clients of drug peddlers contracted the STD from friends (commercial sex worker, bar woman, girl friend, boy friend, street woman). This could be so because these clients were young and single.

Table 5.3 The source of STD infection among clients of drug peddlers.

STD Source	Sex		Total N = 35
	Male N = 22	Female N = 13	
Friend	95% (21)	100% (13)	97.1% (34)
Spouse	05% (1)	-- --	02.9% (1)

5.4 Reasons for preferring the peddler

80% (28) clients of drug peddlers preferred treatment with the peddler because of the availability of medicine and 71.4% (25) said the peddler was easily accessible.

5.5 Is contact under treatment?

60% (21) clients of drug peddlers did not know whether their sexual partners were under treatment, because they did not know each other prior to sexual contact. 5 males and 3 females knew their partners who were of steady relationship.

Table 5.5 Is contact under treatment?

Contact Treatment N=35	%	No.
Yes	22.9	8
No	17.1	6
I dont Know	60.0	21

5.6 For whom are you buying these drugs?

57.1% (20) clients of drug peddlers bought the drugs for self and friends use, the others bought the medicine for self care.

5.7 Knowledge and identification of drug forms.

97.1% (34) clients of drug peddlers could easily identify the drugs as capsules, 42.9% (15) identified them as injectables and 40% (14) identified them as tablets. They even said that drugs in capsule and injection form are the most important for STD treatment.

5.8 Condom Use

Only 14.3% (5) clients of drug peddlers use condoms with regards to STD prevention, when not sure of the partner. These are mainly married male patients. The majority of the clients said they did not know how to use the condoms and that the condoms were not comfortable to use. The female patient said that it is the male partner who determines the use or not of condoms.

6.0 The Responses of the patients of private medical practitioners in relation to STDs and antibacterials.

The selection of the 67 patients was by the quota sampling technique.

6.1 Presenting Symptomatology

76.1% (51) patients presented with urethral/vaginal discharge. The others presented with pain during and after passing urine, itching and ulcers on the genitals respectively.

Table 6.1 Presentation of STD symptoms by patients of private practitioners.

STD Symptom N = 67	%	No.
Discharge/vag./ure.	76.1	51
Itching	32.8	22
Post mict. Pain	44.8	30
Ulcer gen:	10.4	7

6.2 Previous STD infection

In the past 67.2% (45) patients of PMP suffered from an STD. The male patients suffered more episodes of STD in the past than the female ones.

Table 6.2 Previous STD infection

Past Std	Sex		Total N = 67
	Male N = 32	Female N = 35	
Suffered	87.5% (28)	48.6% (17)	67.2% (45)
Not suffered	12.5% (4)	51.4% (18)	32.8% (22)

6.3 The source of STD infection

95.5% (64) patients contracted the STD from "friends" males and females alike, and the remaining 3 female patients contracted the disease from spouses.

Table 6.3 The source of STD infection among patients of PMP.

Sex	Std Source	
	Friend N = 64	Spouse N = 3
Male N=32	50% (32)	0
Female N=35	50% (32)	100%(3)

6.4 Reasons for preferring the private practitioner.

The patients of private practitioners preferred the private clinic because medicine is available and is easily accessible.

Table 6.4 Reasons given by patients for preferring the private clinic.

Reasons	%	No.
Easy Access	55.2	37
Medicine Avail.	64.2	43
Polite Staff	4.5	3

6.5 Is contact under treatment?

55.2% (37) patients of private medical practitioners said that their sexual partners were undergoing treatment for the STD. A good number of patients did not know whether their sexual contacts were under treatment since the partners did not know one another before the contact.

Table 6.5 Is your partner under treatment?

STD Treatment N = 67	%	No
Yes	55.2	37
No	6.0	4
I dont know	38.8	26

6.6 Knowledge and identification of drug forms

94% (63) patients of private medical practitioners could identify and know capsules. 58.2% (39) patients, 40.3% (27) patients and 20.9% (14) patients of private medical practitioners could identify injectables, tablets and other forms respectively.

6.7 Condom Use

7.5% (5) male and female patients of private medical practitioners use condoms as a family planning method and for prevention of STD.

7.0 The Responses of the STC patients in relation to STDs and antibacterials.

The STC patients were selected using the interval sampling technique (systematic random sampling). Every 10th patient was interviewed, giving a sample size of 300 patients.

7.1 Presenting symptomatology

The majority of the STC patients presented with urethral/vaginal discharge. The other patients had genital ulcers, itching and pain after passing urine. Most of the female patients complained of itching sensation.

Table 7.1 Presentation of STD symptoms by STC patients.

STD Symptoms N = 300	%	No.
1. Discharge	62.7	188
2. Itching	35.7	107
3. Post-mituration pain	27.0	81
4. Ulcer	36.0	108

7.2 Previous STD infection

The male STC patients suffered most from previous STD infections than the female patients.

Table 7.2 Previous STD infection among STC patients.

Past STD	Sex		Total N=300
	Male N=226	Female N=74	
Suffered	78% (176)	24% (18)	64.7% (194)
Not suffered	22% (50)	76% (56)	35.3% (106)

7.3 The source of STD infection

The majority of the STC patients contracted the STD from friends, most of whom were males. Two thirds of the female patients contracted the STD from their spouses

Table 7.3 The source of STD infection among STC patients.

STD Source	Sex		Total
	Male N=226	Female N=74	N=300
Friend	88.5% (200)	39.2% (29)	76.3% (229)
Spouse	11.5% (26)	60.8% (45)	23.7% (71)

7.4 Reasons for preferring this (STC) health facility.

A very small number of the STC patients gave reasons for preferring this health facility for treatment. Most of them were referred here from other health centres, dispensaries and hospitals.

Table 7.4. Reasons for preferring the STC.

Reasons	%	No.
Easy Access	4.0	12
Medicine Available	7.0	21
Polite Staff	1.0	3
Referred	88.0	264

7.5 Is Contact/partner under treatment?

Most of the STC patients did not know whether their sexual partners were under treatment for the STD because they had met once and did not know each other.

Table 7.5 Is your sexual contact under treatment?

STD Treatment N =300	%	No.
Yes	14.7%	44
No	14.3%	43
I dont Know	71.0%	213

7.6 Knowledge and identification of drug forms.

Of the 300 STC patients, 62.3 % (187) patients, 46.7% (140) patients and 30.7% (92) patients knew and could easily identify capsules, injectables and tablets respectively.

The well known antibacterial forms are Capsules, injectables and tablets. The patients and clients take the antibiotics to combat STDs and as prophylaxis for STDs before and after sexual contact. The clients of drug peddlers and the patients of PMP resorted to self medication because:-

- Of long waiting periods in public hospitals, dispensaries.
- One could get medicine anytime with the medicine vendors.
- There were cheaper drugs in the open market.
- They had experienced this disease before and knew the antibiotic and how to take it.
- They did not want others to know that they have contracted STD, that is, stigma.

7.7 Condom use

20.3% (61) STC patients used condoms to prevent STDs and as a family planning method. The majority of the patients did not know where to get or how to use the condoms, others said that condoms were not comfortable to use.

8.0 Comparison of the groups of STC patients, CDP and PPMP.

Of the 402 patients of STC, DP and PMP, there were 280(69.7%) males and 122(30.3%) females. In all these groups, there were more males than females. All the three groups had more single persons 241(60%) than married ones. The majority of these patients 292(73.4%) in all the groups earn more than Kshs.1000/= per month. Most of 259(64.4%) patients in all the groups had contracted at least an episode of STD in the past. See table below:

Table 8.1: Past Episode of STD by group

STD in the Past	GROUPS OF PATIENTS			Total N=402
	STC N=300	DP N=35	PMP N=67	
Yes	191(63.7%)	26(74.3%)	42(65.7%)	259(64.4%)
No	109(36.3%)	9(25.7%)	25(34.3%)	143(35.6%)

The source of the STD had been prostitutes for most of CDP and PPMP than the patients of STC.

Table 8.2: Source of STD infection by group

STD Source	GROUPS OF PATIENTS			Total N=402
	STC N=300	DP =35	PMP N=67	
Prostitute	158(52.7%)	33(94.3%)	62(92.5%)	253(62.9%)
Spouse	142(47.3%)	2(5.7%)	5(7.5%)	149(37.1%)

259 (64.4%) patients knew that they contracted an STD through urethral/vaginal discharge. Of these, 182(60.7%) were STC patients, 29(83%) were CDP and 48(71.6%) PPMP, whereas 124(30.8%) patients and 112(27.9%) patients went for treatment after discovering that they had dysuria and genital ulcers respectively. Out of those who had dysuria, 32(47.8%), 11(31.4%) and 81(27%) were PPMP, CDP and STC, patients respectively. Those patients who had genital ulcers were 101(33.7%) STCP, 9(13.4%) PPMP and 2(5.7%) CDP.

245(60.9%) patients preferred the private clinic for treatment of their disease condition. Of these, 192(64%) were STCP, 41(61.2%) were PPMP and 12(34.3%) were CDP. Some of these patients preferred treatment at the hospital (health centre, disoensary) - 76(18.9%), self-care - 19(4.7%) and 62(15.5%) had no special preference.

275(68.4%) patients could identify capsules, of whom 34(97.1%) were CDP, 62(92.5%) were PPMP and 179(59.7%) were STCP.

Of the 193(48%) patients who could identify injectables, 40(59.7%) were PPMP, 140(46.7%) were STCP and 13(37.1%) were CDP. The same pattern goes for identification of tablets among these groups.

92(22.9%) patients preferred their respective health facilities for treatment because drugs were available whereas 81(20.1%) said that these facilities were easily accessible to them i.e. 27(77%) CDP, 43(64.2%) PPMP and 11(3.7%) STCP and only 5 (1.2%) patients said that the staff in these facilities were polite. Of those patients who preferred the health facility because of the availability of drugs, 29(82.9%) were CDP, 42(62.7%) were PPMP and 21(7%) were STCP.

In the case of the STCP, this could be explained by the fact that most of the patients were referred to the STC.

Out of the 86(21.4%) patients who knew that their sexual partners were under treatment for STD, 36(53.7%) were PPMP, 11(31.4%) were CDP and 39(13%) were STCP. The majority of the STC patients, CDP and patients of PMP did not know their sexual partners prior to sexual contact.

31(7.7%) patients admitted using condoms during sexual contact to prevent contracting STD and as a family planning method. All the three groups of patients were all low on the usage of condoms, claiming that condoms are uncomfortable - 103(25.6%), expensive - 13(3.2%), unavailable - 88(21.9%) and only for prevention of STD - 103(25.6%).

9.0 DISCUSSION:

9.1 The practices of the drug peddlers, private practitioners and pharmacy attendants in relation to STDs and antibiotics.

From this study, it could be argued that the informal medicine market owes its existence to the malfunctioning of the formal system. This would suggest that the informal drug market fills a vacuum where formal services fail. However, the relations between formal and informal medicine markets are intricate. This has been argued by Peters 1981 and Dandiya et al 1991. Tables 2.1 and 3.3 showed the sources of drug supply of the peddlers and private practitioners.

Drug peddlers are successful in their business because they are available and have the medicines. This success according to the peddlers is due to the fact that their clients can afford to buy any quantity of medicines at any time of the day or night because the drug peddlers are accessible. Also the social distance between the peddlers and their clients is much narrower than in the formal sector. The drug peddler, unlike Health Workers in health institutions do not ask sensitive questions of their clients.

Similar advantages bolstering the informal sale of drugs have been reported for Kenya by Wasunna and Wasunna 1973, Ethiopia by Buschkens and Slikkerveer 1982. There are disadvantages in buying drugs from the peddler. The products are often inferior in quality, unpacked and with no instruction inserts or expiry dates to know from. The choice is limited. 93% (45) peddlers have no medical training on drugs and the STDs. The choice to get medicine from a peddler has to be viewed within the total range of therapeutic possibilities.

The local media, Sunday Standard 1991 carried stories about some drugs finding their way into the open market and the private clinics. Some drug peddlers in Nairobi claimed to be selling medicines to the private clinics and

to other peddlers in cartons and gallons (fig 3). This could explain some of the drug shortages in hospitals and dispensaries.

Drug samples, a form of drug promotion is one of the most important sources of drugs for private practitioners. Sampling abuse has enabled some private practitioners to accumulate a lot of drugs which probably are later sold to the peddlers and wholesalers. However, it is difficult to say just how far this influences prescribing habits. Sampling does not allow assesment of new drugs. It brings a tendency to discard an old and well tried drug as soon as a new one comes on to the market, often without assessing critically the claims in the new drug's favour and usually without considering the relative costs of the new and old drugs.

All private medical practitioners are exposed to almost all disease cases especisly sexually transmitted diseases, where they see about 8 cases per day. Private practitioners charge their patients more than Kshs. 200 per visit and treatment, whereas the peddlers charge their clients per unit drug. If the practitioner prescribes some of the exotic new medicines, then the charges go up. Since 97.5% (39) patients of PMP prefer injectables, a treatment where an injection is administered costs more in exploitation of this belief.

The management of STDs has been standardized by the STD Control Unit of the Ministry of Health in collaboration with the University of Nairobi, Departments of Community Health and Microbiology, as contained in the book published by Ministry of Health 1990. The majority of the private practitioners did not use the STD regimens recommended (Appendix II). In Kenya an estimated 10 - 12% of all prescriptions for antibiotics are for the common cold which can do no good; Medawar 1979.

80% (12) Pharmacy attendants sell prescription-only antibacterials without asking for a doctor s prescription to treat the supposed urethral

discharge. The prices of the same quantities and gramme content of these medicines varried with each Pharmacy visited. 47.9% (23) drug peddlers bought their drugs from the Pharmacies in the manner described above.

9.2 The Knowledge, attitude and practices of the clients of drug peddlers, patients of private practitioners and the STC patients in relation to STDs and antibiotics.

The clients of drug peddlers in particular are self medicaters because most of them bought the drugs for self care or for the treatment of self and friend. 51.4% (18) clients considered the peddler as a private practitioner. 77.1% (27) clients had visited a private clinic during prevoius STD infection. The high treatment charges on patients by private practitioners and the users assumption that they know the medicine to take when infected by an STD made the clients go to the drug peddler. 80% (28) clients said that the peddler had cheap medicine and 71.4% (25) clients said the peddler was easily accessible. Most of the clients buy the drugs for themselves and friends, and 42.9% (15) clients buy the medicine for peronal use.

All the three types of patients presented with discharge (urethral/vaginal) whereas 36% of the STC patients presented with genital ulcers. Table 5.1, 6.1, 7.1. The pattern of previous STD infection among the male clients of DP, patients of PMP and STC patients is the some. The male STC patient suffered more from past STD than the female ones. Tables 5.2, 6.2, 7.2. 90% (21) clients of DP and 88.5% (200) STC patients claimed to have acquired the STD from "friends" in contrast to the 50% (32) patients of PMP Tables 5.3, 6.3, 7.3. The clients of DP, patients of PMP prefered the DP and PMP because of the availability of medicine, easy access and polite staff respectively. However, most of the STD patients were referred to this center from other clinics. Tables 5.4, 6.4, 7.4.

It is difficult to trace sexual contacts because 60% (21) clients of DP did not know where their contacts live or work having met in a public place by chance and agreeing to sexual relationship. Only 14.3% (5) clients of DP use condoms with some partners sometimes. The other clients said that condoms were expensive, not easy to get, not natural, that the partner did not approve its use, that they had trust in their partners or that they did not go out much with women/men.

The clients of DP, patients of private practitioners and the STC patients all used the words "friend" and "spouse" as sources of their STD infection. Friend means: boy friend, girl friend, a casual acquaintance, or a person one came across in a bar, restaurant or a social gathering like marriage or funeral, on a journey, in a hotel, in place of work, at the market place; that is anyone one has met and agreed to have sexual relationship with, no matter how long they have met or known each other. That is why when asked to notify and bring contacts for treatment some of the patients did not know where the friend lives or works or even looks like. A spouse here means husband or wife, a married man or woman.

These patients resorted to self care especially after an episode or two of an STD infection. 22% (66) STC patients preferred self medication. This is an indication that many of these patients have been to the peddler before. Indeed most of them were referred to the STC because the self care practised did not cure them of the STD.

9.3 The medicines in the hands of the peddlers and private practitioners.

Among the drug peddlers I registered 82 different medicines, 23 antibiotics, sulfonamides and cephalosporins; 10 antiamebiasis and antehelminthics; 10 narcotics, sedatives and stimulants; 8 analgesics, antipyretics and antirheumatics; 7 body building drugs; 5 antiseptics and

disinfectants; 4 antimalarials; 4 anaesthetics; 3 laxatives or purgatives; 3 cough suppressants; 3 vaginal tablets and pessaries and 2 antihistamines. These are only some of the drugs in their possession. There were others that I did not list because I could not identify them or categorise them, for example engine oil (Appendix I).

Judging the suitability of drugs in the open market can only be meaningful when social economic and medical aspects of the people in Nairobi and Kisumu and most likely in the whole country are taken into consideration. However, this study found that some of the drugs help against common diseases and are correctly dispensed by the peddlers with little risk to the users. (Appendix I). However most of the drugs were incorrectly dispensed to the public especially the antibacterials. Werner 1981, approved including specified antibiotics in home and village medicine kits, but only under certain conditions. He strongly discourages the use of antibiotics by people who do not know exactly how the drug should be used. He also warns against injectables if oral use is likely to work. It is known that unsterile injection needle, if used can cause abscess. One of HIV routes of transmission is unsterile needle used on more than one person, as evidenced by IV drug users in major cities of the West eg Amsterdam.

The conditions under which the drugs were kept (not stored) by the peddlers leave much to be desired. The drugs were exposed to direct sunlight, heat, dust and moisture that could lead to their rapid deterioration. Indeed drugs were replaced or emptied into convenient jars and bottles to be seen by the public as is the case in Kibuye market, Kisumu (figures 5-12).

CONCLUSION

Drug peddling is a growing illicit business because:- the government cannot afford to provide health services for the growing population; the public health sector lacks sound health policy guidelines for the management of STDs; the population demands for cheaper and affordable health services and drug peddling is an economic venture, exploiting the stigmatised nature of the disease. The peddlers are growing into syndicates and are becoming specialized and growing into economic giants. They treat gonorrhoea, syphilis and even claim to treat HIV infections. The peddlers and private medical practitioners get some of their drugs from formal health care institutions and the open market. The clients of the drug vendors and some patients of private medical practitioners are self medicators. Socio-economic factors, deteriorating services provided by the formal health sector, the health seeking behaviour of the patient all play a big role in the emergence of drug peddling and self-medication. There seems to be laxity in the storage and distribution of drugs in formal health institutions because there is no proper accountability and transparency on the part of those incharge. STDs having such a stigma makes the population to shy away from health institutions into the hands of the drug vendors.

Fig. 1

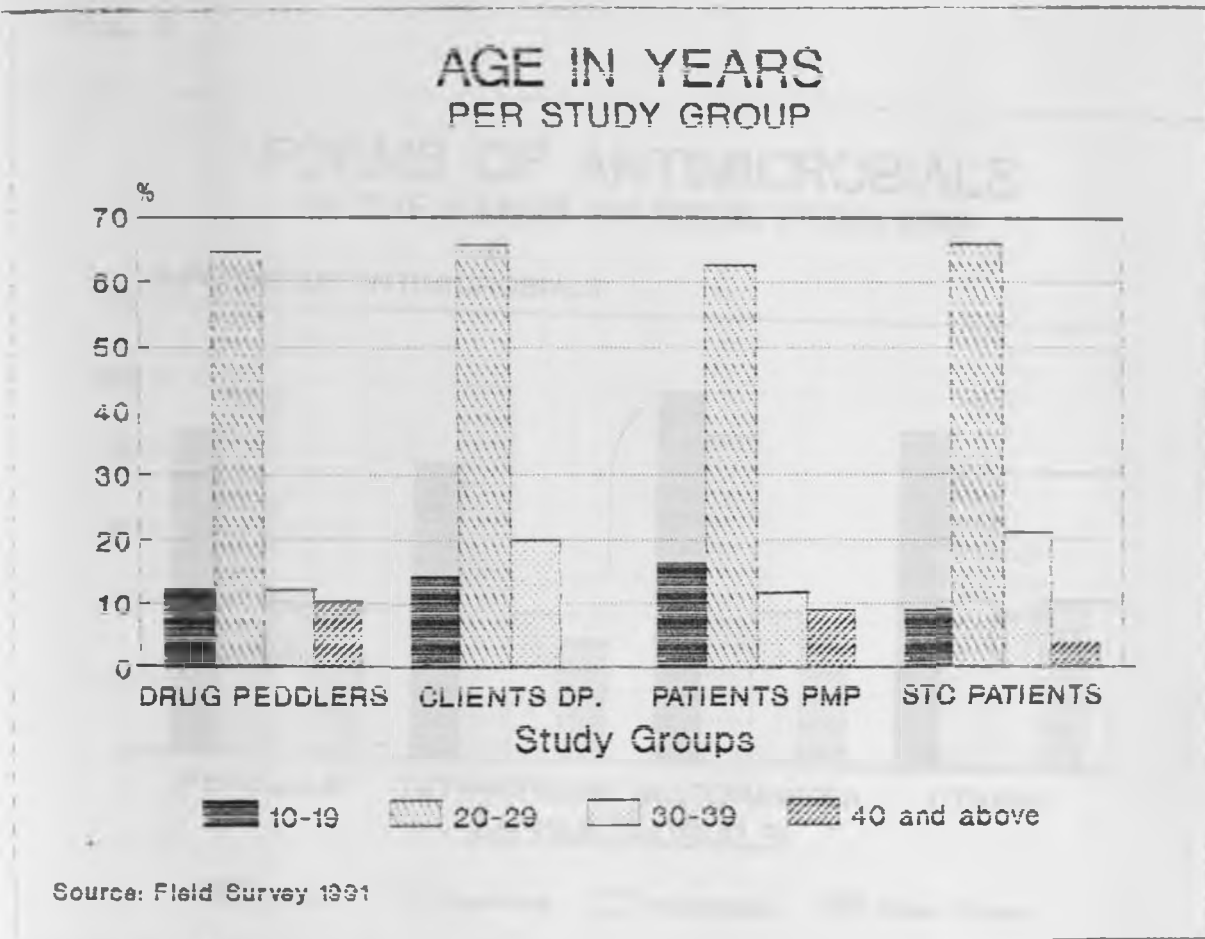
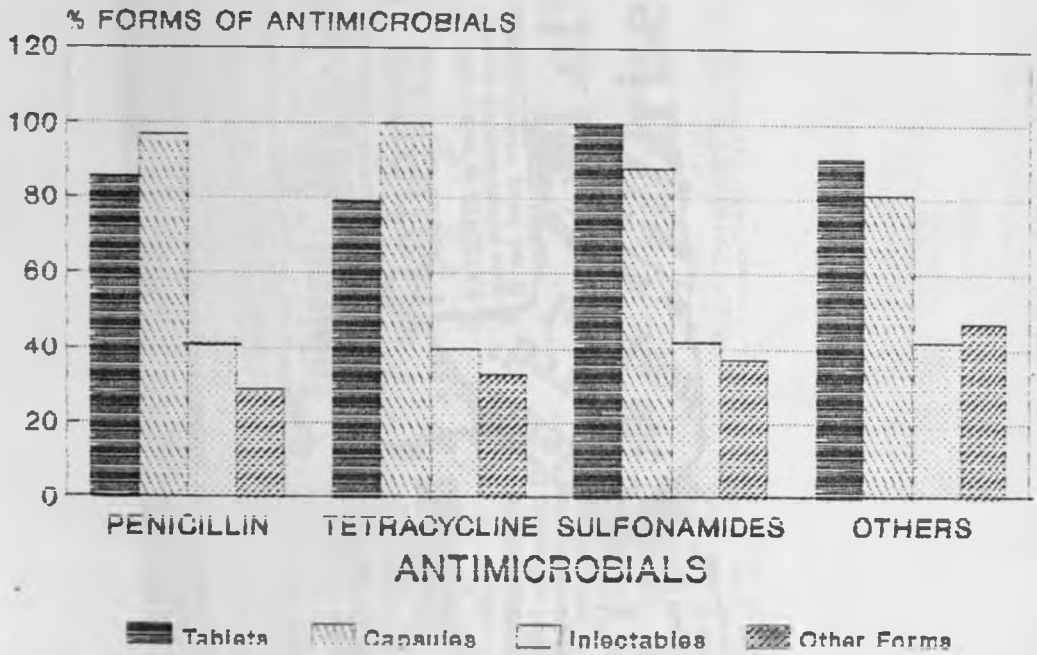


Fig. 1

Fig. 2

FORMS OF ANTIMICROBIALS IN THE HANDS OF DRUG PEDDLERS



Source: Field Survey 1991

Fig. 2

Government hospitals are run with public funds and they are supposed to provide medical services to wananchi. But many Kenyans who have sought solace there have been disappointed by the disorder there. Urgent action is needed.

What ails Kenyatta National Hospital?

From Page 1

look at Kenyatta Hospital
talk to the people who ac
do the work in the plac

'Patients are harassed'

By Kenya News Agency
NYERI Medical Officer of
Health, Dr. Eliud Mwangi, has
criticised harassment of patients
by public health workers and
negative attitude of staff
image of the medical profession.

He was speaking at the
Farmers Training Centre
Nyeri town during a week
seminar on health and ne

Treat all patients equally—DO

ALL patients should be given
regardless of their status

Patients told to bring beddings

By Correspondent

PATIENTS at Nanyuki District
Hospital are being asked to
bring their own blankets
Laikipia County have
who are unable to afford

Mr. J. O. Ochieng
also "showed

Injured boy 'sent away'

Patients neglected

PATIENTS in both public and
some private hospitals are simply
not being well-attended to
nothing complete.

have had ... oh, it is
relate. Isn't food
cardinal medicine?

'Patients ignored' hospital

By Enoch Anyango
Patients referred to
National Hospital
Garissa

Let KNH rise to glory

Kenyatta again

by drug shortage

Fig. 4

AFRICA, Medicine and Health, Vol.1 No4, July-Sept. 1979.

MEDICUS

JULY/SEPTEMBER 1979 3

by Julla Lawrenc

THE SICK DRUGS SCENE

THE drug situation in Kenya has become something of a Pandora's Box — the wider the lid is opened the more horrific are the results that fly out.

MP hits at lack of drugs in hospitals

Moi calls for end to drug shortages

Drug Supplies Uncollected Despite Shortages

Explain drugs tenders—Muregi

Doctors Blamed For Drug Shortages

Dr. [Name] Named MP Linked to 1973 Drug Scandal Firm

No drug shortage, says PS

hospital drugs

hint of conspirac

Moi hits out at shortages in hospitals

Scandal drugs flow market

Danger Posed by Similarity in Two Drugs

Fig. 5

A peddler in the process of selling drugs to a client, Kisumu



Fig. 6

Drug peddlers with their wares (medicinal) looking for clients, Kisumu



Fig. 7

Pharmaceutical kiosks at Kibuye, Kisumu. The investigator in foreground



Fig. 8

One of the Kibuye Pharmacy Kiosk.
A client buying medicine and the assistant investigator observes.



Fig. 9

"Ask for medicine here" says the bold type in Swahili, followed by a list of the medicines.



Fig. 10

The investigator and the kiosk vendor made friends.



Fig. 11

One of the many medicine kiosks with advertisements, and the vendor is behind the counter, Kibuye market



Fig. 12

Some of the medicines of a mobile drug peddler at Pumwani, Nairobi.
A chain of Aspirin tablets, packages of antibiotics.



APPENDIX IMEDICINE, INDICATION, DOSAGE AND DURATION ACCORDING TO DRUG PEDDLERS.

DP NO. 1 KIBERA - NAIROBI

DRUG	TREATMENT OF, DOSAGE, & DURATION	COST P/UNIT
Ampicillin cap	Running stomach 2 x 250mg x 2 x 3/7 Gonorrhoea, Syphilis 500 mg x 2 stat then 1 x 3 x 7/7	75 cents 2/=
Tetracycline cap	Diarrhoea 250mg x 4 stat then 2x3x3/7 Strong diarrhoea 8 caps stat Wounds - Break open and apply on wound daily for 5/7	1/=
Septrin Tab	Strong cough 3 stat then 1x3x3/7	50 cents
Penicillin V Tab	Stomach ulcers 2 stat then 2x3x5/7 Diarrhoea with blood 2 stat then 2x3x3/7	1/=
Tagamet Tab.	Stomach ulcers 2 stat, then 1x3x7/7	10/=
Gentamycin Inj.	chronic disease 1 vial	15/=

	inj. 1M x 2 x 3/7	
	Gonorrhoea, syphilis	
	1 vial 1M x 2 x 3/7	
Togamycin Inj.	chronic disease	25/=
	STD Abdominal pain	
	5cc x 2 x 2/7	
PP (oil) Inj.	STD 1 Inj. 1M/day x 2/7	20/=
Triplopen Inj.	Gonorrhoea	15/=
	2cc 1M every other day x 3/7	
Panadur Inj.	Malaria	
	Abdominal pain	
	1 vial 1M weekly x 3/52	150/=

DRUG PEDDLER NO. 5 KIBERA - NAIROBI

DRUG	TREATMENT OF DOSAGE AND DURATION	COST P/UNIT
Ampicillin cap	GITI, Pneumonia, Tonsillitis and STD 1 x 4 x 5/7	2/=
Septrin tab	STD, GITI, Cough 1x4x5/7	2/=
Tetracycline Cap	STD, GITI, Chest infection 1 x 4 x 5/7	1/=
PPF Inj.	STD, 1 vial 1M once	15/=
Longacillin	STD 1-2 vials 1M	15/= Inj.
Septrin Syr.	Respiratory diseases in children 1 teasp. x 3 x 3/7	50/= bot.
Chloroquine Syr	Malaria 1 gallon	100/=
Cough Mix	Respiratory diseases 250ml	10/=

Cough Mix	Respiratory diseases	250ml	10/=
		1 gall	70/=
Piperazine Syr	Deworming	250ml	75/=
		1 gall	200/=
Piriton Syr	Respiratory diseases	250ml	10/=
		1 gall	70/=
Flagyl tab	Deworming adults	1 tab	60 cents
		1 tin	600/=
OValium 5/10mg	Insomnia	1 tab	10 cents tab.
		1 tin	100/=

DRUG PEDDLER NO 8 PUMWANI-NAIROBI

DRUG	TREATMENT OF, DOSAGE AND DURATION	COST P/UNIT
Brown Sugar pow	Feel high Sniff or smoke	350/= gm 50/= for smallest qty.
Mandax Tab (Mx)	Feel high 1/4 - 3/4 tabs	50/=-150/=
Capsules	STD, Gonorrhoea 200mg	2/=-2.50/=
	500mg	3/= -5/=

DRUG PEDDLER NO. 9

DRUG	TREATMENT OF, DOSAGE AND DURATION	COST P/UNIT
Roche 5 tab	Depression 2-4-6 stat	10-15/=
Mandrax (Mx)	Ecstasy, fun 1/4-1/2-3/5-1	70/=
Capsules 500mg		
Black & Red	STD, infections	5/=
Panadur Inj.	Infections 1 vial 1M	100-200/=
Paint white	Skin diseases applyx2/day	50/= per 250 ml

Capsules 500mg		
Black & Red	STD, infections	5/=
Panadur Inj.	Infections 1 vial 1M	100-200/=
Paint white	Skin diseases applyx2/day	50/= per 250 ml

DRUG PEDDLER NO. 10

Bhang Marijuana	Depression to smoke	
	1 rolled piece	7/=
	to feel high	
	1 piece	10-15/=
Capsules Red & Yellow	Infections	2/50
Mogadon tab	Restlessness, 1-4 tab.	2/=
	Sleeping problem stat	
	anxiety for exams	

DRUG PEDDLER NO 21 KISUMU

Septin tab.	Throat pain, 2x2x7/7	1/=
	cough, STD, Boils	
Flagyl tab.	Amoebiasis, Candidiasis	
	1 x 4 x 2/52	1/=
Chloampheniol cap	Malaria, 1x4x4/52	1/=
	Typhoid (112 caps dose)	1/=
FeSCa tab	Increased blood volume	
	pregnancy 2 x 3 x 2/52	15 cents
		1/=for 6
Daonil tab.	Asthma 1 x 2	15 cents
		1/=for 6

DRUG PEDDLER NO. 25 EASTLEIGH - NAIROBI

Mandarx (Mx) tab.	Good mood 1 - 2	10/=
Ciba cap.	STD 4 stat x 2/7	22/=
Roche 5 tab	Feel high 2-4-6 at once	3/=
Cosmos cap.	Gonorrhoea 4 stat x 2/7	5/=

DRUG PEDDLER NO. 30 PUMWANI - NAIROBI

Lidaprim Forte	Syphilis 4 stat x 2/7	17/=
caps		
Red & Black caps	Gonorrhoea, strong colds	
	2 x 2 x 4/7	2/50
Junior aspirin	Fever in children 1x3	20 cents

DRUG PEDDLER NO 35 KISUMU

Tetracycline cap	Diarrhoea, Gonorrhoea	
	8 stat then 2x4x7/7	50 cents
PPF Inj.	STD 1 vial 1M once	25/=
Triactin (G) tab	Antiflatulent, Backache,	
	chest pain 2 x 2 x 3/7	35-50 cts
Ostacalcium (Vit.D)	Body building 1 x 3	75 cts-1/=
Indocid caps.	Joint pain, Backache	
	1 x 2 x 6/7	1/50
Chloramphenicol	Chronic malaria 1x4x4/52	1/50
Vial KMnO ₄	Snake bite, toothache,	
	skin disease	5/=
Engine Oil	Skin disease 250mg bottle	10/=
Cosmisol tab	Worms 4 tab. adults	15/= per
	2-3 tab children	4 tabs.
Aspirin tab.	Malaria, Headache 2x2x2/7	20 cents
Franol tab.	Asthma 1 x 2	25 cents

APPENDIX IISTD TREATMENT REGIMES BY PRIVATE MEDICAL PRACTITIONERS (PMP)

PMP	DISEASE	MEDICATION	DOSAGE & DUR.	COST OF	NO.
	4. 1. Gonorrhoea	Antibiotics caps	Stat dose	200/=	
	2. Urethritis	" "	5 days	200/=	
	3. Trichomoniasis	Metronidazole tab.	stat dose	150/=	
	4. Candiasis	"/Canesten cream	7 days	150/=	
	5. Herpes Genitalis				
	6. Syphils	Longacillin inj.	10 days	300/=	
	7 AIDS	N/A			
5.	1.	Tetracycline cap	5 days	60/=	
	2.	Septrin tab	5 days	60/=	
	3.	Flagyl tab/supp.	7 days	60/=	
	4.	Nystatin tab/supp.	7 days	60/=	
	5.	Ampicillin & analg.	5 days	60/=	
	6.	Longacillin inj.	weekly x 4	35/=	
	7.	Counselling and treatment of complications			
10.	1.	Togamycin inj./			
		Triplopen or sept.	stat	150/=	
	2.	Ampicillin cap	5 days	150/=	
	3.	} Flagyl tab/sup	7-10 days	150/=	
	4.				
	5.	N/A			
	6.	BPG/Penadur inj	Weekly x 4	180/=	
	7.	N/A			

15. 1.	Spectromycin cap 12 hrs		200/=
2.	Inj. Gentamycin/		
	Sulfoprim	3 days	300/=
3.	Fasiqyn 2 g	stat	200/=
4.	Canesten cream	6 days	200/=
5.	Viru-Merz oint.	7 days	200/=
6.	Panadur L.A. inj.	21 days	350/=
7.	Treat Cocncomitant infection		300/=
20. 1	Inj. Longacillin	1M x 2 days	200/=
2.	Tetracycline cap		
3.	Flagyl tab.	3 - 5 days	150/=
4.	Vaginal tab.		
5. <	Candid B cream or Terramycin oint.	7 days	150/=
6.	Inj. Togamycin	7 days	300/=
7.	N/A		
25. 1.	Tetracycline caps	2x4x3 days	200/=
2.			
3.	Metronidazole tab	1x4x5 days	150/=
4.			
5.	Terramycin ointment Panadol tabs.	5 days	200/=
6.	Inj. PPG	1M 7 days	300/=
7.	Symptomatic		300/=
30. 1	Inj. PPF or	1M stat	200/=
2.	caps Ampicillin	2x4x3 days	
3.	Fasiqyn tab	1x4x5 days	150/=

4.	Vaginal tab	1x2x5 days	
5.	Dettol, Pannol tab	7 days	150/=
6.	Longacillin inj.	1Mx7 days	250-300/=
7.	Symptomatic		250-300/=
35. 1.	PPG inj.	1M stat	150/=
2.	Panadur inj.	1M stat	150/=
3.	[Flagyl tab		150/=
4.		Nystatin sup.	
5.	Septrin tab +		
	piriton tab	3 days	150/=
6.	Gentamycin inj.	1M 5 days	200/=
7.	None		
40 1.	[PPF inj. or	1M stat	200/=
2. <		Longacillin inj. or 8 stat	
	Ampicillin caps.		
3.	[Erythromycin tab	3 days	200/=
4.		Flagyl tab/sup.	
5.	Gyno-pevary cream	3-5 days	150/=
	Local or Kamcyan oint.		
6.	Togamycin inj. or)	1M weekly	350/=
	Gentamycin inj.)	x 4 weeks	
	or Kelfiprim caps	8 stat weekly	
		x 4 weeks	
7.	Symptomatic		300/=

APPENDIX III

General Information Questionnaire for Drug Peddlers, Patients of PMP, their Clients and Patients at the STC.

Date Place Interviewer

1. Name/Number Code No.

2. Age: Under 13 ___ 14 - 19 ___ 20 - 25 ___ 26 - 35 ___ 36 - 45 ___
46 and above. 1, 2, 3, 4, 5, 6.

3. Sex: Male Female 1, 2

4. Marital status: Single ___ Married ___ Widowed ___ Divorced ___
1 2 3 45. Number of children: None 1 - 3 4 - 6 7 and above
1 ___ 2 ___ 3 ___ 4 ___6. Education: Primary Secondary College None
1 ___ 2 ___ 3 ___ 4 ___7. Occupation: Nurse ___ Com. H.W. ___ Pharmacist ___
Health related ___ None ___
1 2 3 4 5

8. How much do you earn per month?

Less than 1000-1500 ___ 1600-2000 ___ 2000-5000 ___ more than 5000 kshs ___
1000 Kshs ___
1 ___ 2 ___ 3 ___ 4 ___ 5 ___

APPENDIX IV (a)

Self rating questionnaire for clients of drugs peddlers, patients of private medical practitioners and patients at STD referral centre "STC"

1. In the past, did you suffer from:

GITI UTI Chest infection Skin disease other disease

1 _ _ _ 2 _ _ _ 3 _ _ _ 4 _ _ _ 5 _ _ _

2. How did you acquire STD?

Friend _ _ _ Spouse _ _ _ 1 2

3. How did you know you have contracted an STD?

Discharge Itching Post micturition pain Ulcer

1 _ _ _ 2 _ _ _ 3 _ _ _ 4 _ _ _

4. Where did you go for your first treatment?

Hospital Private Clinic Self - care Traditional

1 _ _ _ 2 _ _ _ 3 _ _ _ 4 _ _ _ 4 _ _ _

5. Currently, are you taking any drugs in the from of:

None Tablets Capsules Injections Herbs Others

1 _ _ _ 2 _ _ _ 3 _ _ _ 4 _ _ _ 5 _ _ _ 6 _ _ _

6. Can you identify any of the drugs you have/taken/are taking? showing the patient/client pictures if the drugs)

None Tablets Capsules Suppository/Pessary Injection

1 _ _ _ 2 _ _ _ 3 _ _ _ 4 _ _ _ 5 _ _ _

7. What names do they call some of these drugs?

mp. Suta
.....
.....
.....
.....
.....
.....

APPENDIX IV (b)

9. For whom are you buying these drugs?

Self ___ Friend ___ Relative ___ Partner ___

1 2 3 4

10. Why do you prefer treatment here/where you are?

Easy Medicines Belief Polite Other
 access available superstition staff

1 2 3 4 5

11. How long have you been suffering from this disease?

1-7 days ___ 2-3 weeks ___ 2-3 months ___ 4-8 months ___ 9-12 months ___

1 2 3 4 5

12. Is your STD contact/partner under treatment and where?

Yes ___ No ___ 1 2

Hospital ___ Private clinic ___ Self-care ___ Traditional ___

1 2 3 4

13. Do you use condoms?

Yes ___ No ___ 1 2

14. Why do/don't you use condoms?

Not comfortable To avoid STD Expensive Not available

1 ___ 2 ___ 3 ___ 4 ___

APPENDIX V (a)

Active Observation of the drug peddlers.

1. Where do you get these drugs from?

Hospital__ Pharmacy__ Market__ Company__ Friend__ Others__
 1 2 3 4 5 6

2. Where the drugs packed or not when you got them?

Packed__ Unpacked__ 1 2

3. Are there any instructions accompanying the drugs?

Yes__ No__ 1 2

4. How do you know one drug from the other?

By name__ By colour__ By size__ Be smell__ Other__
 1 2 3 4 5

5. These drugs are for the treatment of and they cost:

Drug No.	Treatment	Cost
1)
2)
3)
4)
5)
6)
7)
8)
9)
10).....
11).....
12).....
13).....

APPENDIX V (b)

6. Do you have any training knowledge of STD?

Yes ___ No ___ 1 2

7. What other diseases are you able to treat?

i. Gastro-intestinal tract infections

ii Chest infections

iii Skin diseases

iv Minor accidents/injuries

v Urinary tract infections ...

1 2 3 4 5

8. Do you have condoms for sale?

Yes ___ No ___ 1 2

9. How much do you charge for a condom?

50 cents ___ 1 Kshs. ___ 2 Kshs. ___ 3 - 5 Kshs. ___

1 2 3 4

10. What is the source of your condom supply?

Hospital ___ Family Planning centre ___ Company ___ Pharmacy ___

1 2 3 4

11. In your opinion, the socio-economic status of your clients can be described as:

1. Poor ___ 2. Middle class ___ 3. Rich ___ 1 2 3 4

12. Most of your clients are:

1. Men ___ 2. Women ___ 3. Men and Women ___ 4. Children ___ 5. Clinics ___

13. How long have you been selling drugs.

1. < 1 year 2. > 2 years. 1 2

APPENDIX VI (a)

Questionnaire for Private Medical Practitioners.

1. What disease-cases visit your clinic?
 1. GITI _ _ _ 2. Chest infections _ _ _ 3. UTI _ _ _ 4. Skin diseases _ _ _
 5. All diseases _ _ 1 2 3 4 5
2. In your opinion, the socio-economic status of your clients is:
 1. Poor _ _ _ 2. Middle _ _ _ 3. Rich _ _ _ 1 2 3
3. How many cases of STD do you see per day?
 1. 1-5 _ _ _ 2. 6-10 _ _ _ 3. 11-20 _ _ _ 4. 21 and above _ _ _
 - 1 2 3 4
4. Do you ask STD clients to bring their partners for treatment?
 1. Yes _ _ _ 2. No _ _ _ 1 2
5. Do the STD clients comply with your request in 4. above?
 1. Yes _ _ _ 2. No _ _ _ 1 2
6. Do the STD clients follow your instructions after initial contact?
 1. Yes, in the course of treatment
 2. Only after re-infection
 3. Never
7. What is your regime of treating

Disease	Medication	Duration
1. Gonorrhoea?	_ _ _ _ _	_ _ _ _ _
2. Urethritis?	_ _ _ _ _	_ _ _ _ _
3. Trichomoniasis?	_ _ _ _ _	_ _ _ _ _
4. Candidiasis?	_ _ _ _ _	_ _ _ _ _
5. Herpes simplex genitalis?	_ _ _ _ _	_ _ _ _ _

APPENDIX VI (b)

6.	Syphilis?	-	-	-	-	-	-	-	-	-	-
7.	AIDS?	-	-	-	-	-	-	-	-	-	-
			1	2	3	4	5	6	7		

8. How much do you charge for treating the following? Kshs.

1.	SDT in general
2.	Gonorrhoea
3.	Urethritis
4.	Trichomoniasis
5.	Candidiasis
6.	Herpes simplex
7.	Syphilis
8.	AIDS

1 2 3 4 5 6 7

9. What forms of medicine do you prescribe the STD clients?

1. Tablets.....	2. Capsules	3. Injections
		1 2 3

10. What forms of medicine do the STD clients prefer?

1. Tablets.....	2. Capsules	3. Injections
		1 2 3

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