

## **HEROIN USE IN KENYA AND FINDINGS FROM A COMMUNITY BASED OUTREACH PROGRAMME TO REDUCE THE SPREAD OF HIV/AIDS**

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### **ABSTRACT**

Recent shifts in patterns of drug use and trafficking indicate that a shift from smoking to injecting heroin is taking place in Kenya. In addition, recent estimates of HIV infection in Kenya indicate that the number of cases of HIV attributed to injection drug users is increasing with 4.8% of new infections attributed to injection drug use. Community-based outreach is an evidence-based model for delivering HIV prevention to difficult to access drug users in the United States and Europe. This paper reports on the development and implementation of a community outreach programme for HIV prevention with drug users in Mombasa and Nairobi and offers lessons learned for other countries with emerging epidemics of HIV among drug users.

**KEY WORDS:** heroin, community outreach, HIV/AIDS, Kenya

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### **INTRODUCTION**

The first case of HIV in Kenya was documented in 1984. Since then, the country has had a generalized epidemic with an estimated national prevalence in 2004 of about eight percent among adult women and four percent in adult men. About 1.2 million adults are infected, and there are 100,000 HIV positive children and 650,000 AIDS orphans (UNAIDS 2004). Prevalence in urban areas is almost twice as high as in rural areas and nearly two thirds of those infected are women. Rates are 10% or higher in 17 of 39 sentinel surveillance sites, including sites in Nairobi, Mombasa, Kisumu, and Kakamega. Nyanza Province, for example,

has a prevalence of 15% in adults. Even in some low prevalence regions, however, evidence exists of significant behavioural risk for HIV. While behavioural indicators from the Kenya Demographic and Health Survey (KDHS, 2004) indicate that risky sexual behaviour has declined, the majority of new infections occur among young men and women. (Kenya PEPFAR Five Year Strategy, 2005).

Recent estimates, however, indicate that modes and patterns of HIV transmission in Kenya, as in other countries, may be shifting. Estimates of new infections for 2005 indicate that while Kenya is still experiencing a generalized, heterosexual epidemic, there has been an increase in the number of cases attributed

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to injection drug use and men having sex with men. Kenya is estimated to have experienced 82,369 new cases in 2005, with most of these occurring in the general, low-risk population (30.1%), those having casual heterosexual sex (18.3%), and among partners of those involved in casual sex (27.7%). However, 3991 (4.8%) new infections are attributed to injection drug use and 3697 (4.5%) infections occurred among men having sex with men. While injection drug users are a relatively small part of the total population (about 0.3% of the total male population), incidence among injection drug users is extremely high (16.3 per 100 per year) (Gouws et al., 2006)

### **CHANGING PATTERNS OF DRUG USE AND TRAFFICKING IN KENYA**

According to the US Bureau for International Narcotics and Law Enforcement Affairs, in recent years Kenya has become a significant transit route for cocaine, heroin, and other drugs shipped from South America and Southwest Asia to US and European markets. In addition, there is a growing domestic market for heroin and to a lesser extent cocaine within Kenya, especially in the coastal cities and Nairobi (INL, 2006).

The increase in drug trafficking and transiting in Kenya is due in part to its extensive network of sea and airports, which provide the necessary infrastructure for moving drug shipments. In addition, a climate of weak regulatory and judicial controls, inadequate law enforcement resources, and endemic official corruption have enabled drug traffickers to operate "with near impunity." The seizure of more than a ton of cocaine in December 2004 indicates that international drug trafficking rings may be operating in Kenya; however cocaine seizures have declined

dramatically since that point. Commercial and family ties between Kenya and Southwest Asia have facilitated transit of heroin and hashish from that region, while cocaine shipments originating from South America also transit through the country on the way to the European market. Kenya is a minor producer of cannabis, with much of this product destined for the domestic market (INL2006).

In Mombasa, the second largest city in Kenya, heroin has been a street drug for over 25 years. During the 1980s, heroin in the form of 'brown sugar' quickly spread from Mombasa to smaller coastal towns such as Malindi and Watamu (Beckerleg, 1995). This type of heroin was mostly used through inhalation of the vapour, referred to as "chasing the dragon." A 1997 study of the social and economic effects of drug use in eight African countries identified Mombasa as a major entry point for heroin into Kenya (UNODCCP, 1999). In 1998, white crest, probably from Thailand, started to replace brown sugar. White crest cannot be chased, but is water soluble and therefore suitable for injecting. Hence, by the end of the 1990s users were shifting to injection of heroin in Mombasa and other coastal towns. There are fewer data charting the spread of heroin use in Nairobi. Nevertheless, it is probable that heroin use also began in the 1980s, and that injecting levels increased with the switch to 'white crest' in the late 1990s.

### **DRUG USE AND HIV RISK**

Beckerleg and colleagues (Beckerleg et al., 2004, Beckerleg 2004a) conducted qualitative interviews with 40 heroin users in Malindi, a coastal town with a lively tourist industry, and reported that injecting practices were similar to those reported in other parts of the world. High

status, or 'cool', among heroin users was associated with injecting alone and with personal autonomy. Sharing of injecting equipment also occurred. Most users were ill informed about the risk of HIV transmission through injecting equipment (Beckerleg, 2004b). Most injectors were using the same equipment to inject more than once, with some reporting use of needles that had become rusty from being stored in damp hiding places. Few IDU reported buying new equipment each time they used heroin, and instead concealed needles and syringes in locations where drugs are consumed.

A serological survey carried out in 2004 in Mombasa confirmed the close relationship between drug abuse, injecting drug abuse and HIV/AIDS with 49.5% of IDUs testing positive for HIV, although this is likely an underestimate. This was part of a larger study (Ndetei, 2004) which also documented risky sexual practices among drug users in Kenya.

These findings were supported by the results of a rapid situational assessment carried out in 2004 by the Omari Project, a Kenyan CBO that has been monitoring the heroin situation in Mombasa since 1997. Four hundred ninety-six heroin users were interviewed; 471 (94.9%) were men. Respondents represented a wide range of cultural/ethnic groups, the two largest being Mijikenda and Swahili who are indigenous to the Kenya coast. Overall, 14.9% (74/496) of respondents had 'ever injected' heroin, and 7.1% (35/496) were current injectors, although this is likely to be an underestimate. These data indicate a shift away from injecting but also reflect the death of many established injectors, either through overdose, AIDS, or hepatitis. Although syringes were available from a number of pharmacies, most injectors reported using a syringe for 1-3 days. The majority reported injecting in groups of three or

more and described risk behaviours for HIV transmission (Beckerleg et al, 2006).

A rapid assessment and response (RAR) of 103 heroin users in Nairobi, Kenya found that 59.2% (61/103) of this sample were injectors and that a majority (60.5%, 37/61) of the injecting drug users interviewed injected up to four times per day. Heroin users engaged in risky injecting behaviour, with 32% (33/103) sharing injecting equipment, and 42% (42/103) injecting in an unhygienic environment (Odek-Ogunde et al, 2003). A follow up study of 348 drug users carried out in Nairobi indicated that prevalence of HIV and HCV was high. Of 332 blood samples analyzed, the overall seroprevalence for drug users was 22.9% (76/332) for HIV and 21.1 (73/331) for HCV. Among IDUs, prevalence was 36.3% (53/146) for HIV and 42.2% (66/146) for HCV (Odek-Ogunde et al, 2004). The elevated HIV prevalence rates among IDUs coupled with very low utilization of health care services in this group means that this 'most at risk population' (MARF) of drug users has the potential to exacerbate the generalized heterosexual HIV epidemic in Kenya.

### **COMMUNITY BASED RESPONSES: DEVELOPING PROGRAMMES FOR DRUG USERS**

Drug users in Kenya are hidden and difficult to reach due to stigma, the illegal nature of drug use, the association of drugs with poverty and crime and the fact that the majority of drug users live in slums and other low income communities. Most substance abusers do not access medical services and if they do, they are likely to conceal their substance abuse from health care providers. In addition, drug and HIV/AIDS treatment services for drug users are extremely limited. The only public sector facility for the treatment of

addiction in Kenya is a fifteen bed inpatient facility located at the Mathare Psychiatric Hospital in Nairobi. All addiction treatment facilities in the country typically keep patients for four to six months as inpatients and offer very little aftercare or outpatient service. There are few personnel trained in drug abuse prevention or treatment, and treatment activities within facilities are minimal with patients sitting idle for most of the day. Due to high rates of unemployment, family and community stigma, and poor or no follow up care, relapse rates are high.

In spite of these challenges, a small but highly motivated treatment community of Kenyan professionals and “recovering alcoholics” and drug dependent persons has been working for many years to develop drug abuse prevention, care, and treatment services. Community based organizations (CBOs) have been instrumental in adapting international best practices for drug users in Coastal Kenya. For example, the Omari Project pioneered drug treatment and prevention work with drug users in Mombasa (Beckerleg et al., 1996; Beckerleg, 2001) and other CBOs have drawn upon and further developed the approach of the Omari Project. Three community based organizations (CBO) have been offering services to heroin users in Mombasa. Sinam, a Catholic organization, provides a drop-in advice service for drug users. The Muslim Education Welfare Association (MEWA) and Reachout Centre Trust primarily serve the Swahili community, running residential rehabilitation centres for male heroin and other drug users. Nairobi has a variety of services for substance abusers; most are private treatment centres and more recently established community based centres. An expanding AA (Alcoholics Anonymous) twelve-step community has existed in Nairobi since

the late 1970s and recently both AA and NA (Narcotics Anonymous) meetings have become available in Nairobi on a daily basis. Recently Narcotics Anonymous and an Islamic version of the 12-step process, “Milati Islami” have been introduced in Mombasa and in nearby coastal areas.

In 2004, an important meeting was held in Nairobi to sensitize key stakeholders in the Government of Kenya, donor and non-government organization (NGO) communities to growing concern about HIV/AIDS among IDUs. Before 2004, antiretrovirals (ARVs) were beyond the reach of most Kenyans due to prohibitive cost and a general lack of national commitment to AIDS treatment. During 2004 there were three million PLWHAs (persons living with HIV/AIDS) in Kenya with at least ten percent of them in urgent need of ARVs. Less than one third were able to access treatment. Since 2004, however, there has been rapid scale up of the HIV treatment infrastructure in Kenya with the assistance of the United States PEPFAR programme and other robust donor activities. Only recently has it become possible to begin to develop strategies for introducing ARVs to drug using and other marginalized populations (Sullivan et al, 2005).

Participants at the 2004 Nairobi meeting discussed the need to develop policy and programming for drug users. Follow up activities included field work with heroin dependent persons in Nairobi and Mombasa, meetings with Muslim leaders on the Kenyan Coast, presentations in Mombasa by U.S. drug abuse and HIV experts, and high level discussions with Kenyan Ministry of Health (MOH) and United States government (USG) policy makers on the feasibility of developing an initiative to provide programming in this area. In

2004, the United Nations office on Drugs and Crime (UNODC) received a PEPFAR-funded grant from USAID to implement a programme for the prevention and treatment of HIV/AIDS and addiction among drug using populations in Kenya. The funding included provisions for the development of two networks of NGO and MOH services. The core of the project is a community-based outreach programme for drug users designed to reach hidden populations of injection drug users and to refer them to VCT, drug abuse and HIV care and treatment services. The data presented in this paper are from the community outreach programmes administered by UNODC through a network of Kenyan NGOs, providing community-based outreach to drug users.

### **DESCRIPTION OF THE COMMUNITY OUTREACH PROGRAMME**

Community-based outreach is an evidence-based model with a documented history of success in reaching difficult to access drug users (Needle et al 2005). Community-based outreach developed in the United States and Europe prior to the emergence of HIV and was used primarily to encourage drug users to enter methadone maintenance treatment (MMT) programmes for their drug addiction. While community outreach programmes have changed since they were first introduced as a strategy for HIV prevention, the fundamental principles of community outreach remain the same; to reach active, out of treatment networks of drug users, especially IDUs, and begin a sustained process that will, over time, result in reduced risk behaviours, reduced HIV transmission and ultimately reduced HIV prevalence.

The primary function of the Kenyan community outreach programme is to provide street-based interventions to drug users, utilizing a risk reduction approach to reduce HIV transmission through needle sharing and unprotected sex. Outreach workers, who are often former drug users, contact active drug users in the community to deliver HIV risk reduction messages and behavioural skills, and to engage them in HIV/AIDS and addiction care and treatment services. Interventions with IDUs focus primarily on reducing needle sharing and unprotected sex, and promoting safe injection practices. Interventions with NIDUs concentrate on safe sex practices and avoiding future injecting use.

As of mid-2006, outreach programmes are established in Mombasa and Nairobi, cities with high concentrations of heroin users. A team of approximately 20 outreach workers, at each site, is comprised of both addicted and non-addicted persons who work in the community, primarily with street users, and are based in drop in centres at each of the two sites. They make daily contacts with drug users, engaging users in the community and providing one-on-one risk reduction education and referrals to VCT, HIV care and addiction treatment services. An assessment form is completed for each contact with a drug user. Data collected during these contacts include demographic information as well as information on drug and sexual risk behaviours. These data are then entered in a central database and routinely analyzed to understand trends in drug use, injecting behaviour and to develop outreach interventions to most effectively provide services to the drug users.

Outreach workers establish rapport within the community and become known as a source of information and

support for drug users who wish to change or reduce their drug using and HIV risk behaviours. Drug users are encouraged to reduce the frequency of injecting, to shift from injecting to smoking, and to consider addiction counselling in order to stop using drugs. Outreach workers help drug users develop risk reduction plans that target specific behaviours such as decreasing the number of times one injects during the day or week, avoiding venues where shooting drugs takes place, using clean needles for each injection, and cleaning needles and syringes with supplies provided by outreach workers. Other strategies include encouraging clients to secure needles so they are not accessible to other addicted persons and to purchase new needles.

Developing partnerships with voluntary counselling and testing (VCT) centres was a critical aspect of developing the Nairobi and Mombasa programmes. Outreach workers refer clients to voluntary counselling and testing and frequently accompany them to provide support. Voluntary counselling and testing services have been established at drop in centres, and also are delivered through mobile VCT, with teams of outreach workers and VCT counsellors visiting high density drug using venues to engage drug users. Outreach workers also refer HIV positive clients to HIV treatment facilities, and whenever possible, provide case management. Outreach workers facilitate getting drug users into HIV care and provide support during ARV treatment. The outreach programme also supports addiction treatment services, through referrals to community based inpatient and outpatient treatment facilities. All clients are encouraged to take part in addiction treatment and are referred for such services. Because addiction

treatment services in Kenya are limited, PEPFAR funding was also allocated to support the development of both inpatient and outpatient addiction treatment services in Mombasa and Nairobi. The introduction of outpatient addiction services is an important aspect of the programme because it provides easy access to addiction treatment services for those on the street. In addition, community-based, mobile outpatient addiction services are being developed.

### ***Outreach contacts with drug users***

The community outreach programme in Kenya became fully operational in March 2005. Over the first 15 months of the programme, over 10,000 contacts were made with drug users; and 5805 contacts were made with individual drug users. Contacts with NIDUs outnumber IDUs in both sites; 80.2% (4656/5805) of contacts with drug users were with NIDUs. However, because many IDUs deny their injection drug use and report their status as non-injectors, their numbers are likely to be under reported. IDUs conceal their drug use from others and are rejected by NIDUs, who fear being criminalized by association. Family members often view injecting behaviour with disapproval and rejection. As a result, many IDUs tend to live isolated from family and community and are more difficult for outreach workers to access and identify. Several strategies are being utilized to gain greater access to IDUs, including recruitment of recovering IDUs and incentivizing contacts with IDUs for outreach workers. Nevertheless, the data in Table 1 provide an indication of the distribution of NIDUs and IDUs. A size estimate and NIDU/IDU population mapping are currently being planned for both sites to better understand and document the numbers of NIDUs and IDUs.

**Table 1.** Outreach contacts with drug users

Contacts	Mombasa	Nairobi	Both Sites
Total individuals reached	3090	2715	5805
NIDU	N= 2262 (73.2%)	N=2394 (88.2%)	N=4656 (80.2%)
IDU	N=828 (26.8% )	N=321 (11.8%)	N=1149 (19.8%)

### ***Demographics***

The general age range of drug dependent persons reached by the programme is from mid teens to mid 50s, with a mean age of 27 years in Nairobi and 29 in Mombasa. Non-injecting heroin users are about 2.5 years younger than injecting drug users. The mean age for NIDU is 28 years compared to 30 years for IDUs. Eighty eight percent (5110/5805) of all drug users contacted were male, since male drug users greatly outnumber female drug users. There were more contacts made with female drug users in Nairobi (15.5%, 421/2715) than in Mombasa (8.9%, 274/3090).

Approximately sixty percent (3549/5754)<sup>i</sup> of drug users contacted through outreach reported being unemployed. Nearly one third of respondents (1843/5754) reported being self-employed while only 5% (304/5754) reported working for someone else. In many cases, there exists a fine line between being unemployed and self-employed, since most addicted individuals attempt to do odd jobs when there is opportunity. Theft, pick pocketing, and other forms of stealing are reported as one of the primary sources of income for unemployed drug dependent persons.

Most of them have little or no formal education. Seventy five percent

<sup>i</sup> Data were available for only 5754 of the 5805 drug users reached, 51 drug users did not respond to this question

(4305/5726)<sup>ii</sup> of them have not gone beyond primary school. One challenge for the programme has been to provide information about HIV risk and addiction to drug dependent persons who are homeless and have limited education (low literacy). Drug users with low levels of education/low literacy, often find it difficult to understand concepts such as the disease concept of addiction, craving and denial as presented by the outreach team. Most outreach and recovery materials have been translated into Swahili and are read to them in order to improve understanding and comprehension.

Over 80% (4684/5768)<sup>iii</sup> of those reached reported their marital status as single, divorced, or separated. Less than 20% report being married and not separated from their spouse. Many clients report a limited number of partner relationships and these relationships also tend to be of short duration.

### ***Drug Use Behaviours: IDU and NIDU***

Drug users in Nairobi and Mombasa have similar drug use patterns. Heroin, which can be smoked or injected, is the

<sup>ii</sup> Data were available for only 5726 of the 5805 drug users reached, 79 drug users did not respond to this question

<sup>iii</sup> Data is available for only 5768 of the 5805 drug users reached, since 37 drug users did not respond to this question or provided responses outside of single, divorced, separated, or married.

primary drug of choice for all IDUs and NIDUs. Of the 3090 drug users in Mombasa, 2,909 (94.1%) reported heroin as the primary drug used. In Nairobi, 84.9% (1253/1475) reported heroin as the primary drug used (See Table 2). Most non-injecting users smoke heroin. As mentioned earlier, the heroin currently available in this region is refined opium, soluble in water and easy to inject; dependent users on the street refer to it as “White Crest”. “White Crest” is easily accessible and relatively inexpensive in both sites. An

earlier type of less refined opium, “Brown Sugar”, is now much less available in both Nairobi and Mombasa. Cannabis, also inexpensive and easy to find, is the second most commonly used drug in the sample. Other substances reported are alcohol, khat (miraa) and to a lesser extent, benzodiazepines. Drugs are commonly used in combination; for example, heroin is used with cannabis or alcohol. Most non-injectors using heroin smoke it in “cocktail” form, which is a combination of heroin and cannabis.

**Table 2.** Primary substances used (drug users, N=4565)

Substances	Mombasa	Nairobi	Both Sites
Heroin	94.1% (N=2909)	84.9% (N=1253)	91.2% (N=4162)
Cannabis	5.4% (N=168)	13.5% (N=199)	8.0% (N=367)
Other	0.4% (N=13)	1.6% (N=23)	0.8% (N=36)

Note: N=4565 as 1240 drug users in Nairobi did not provide a response

Drug users reached by the outreach programme report having used drugs for an average of just over six years. IDUs have been using heroin longer than NIDUs by approximately 2 years; the average length of time a NIDU used heroin is 5.9 years while the average for IDUs is 7.8 years. Many drug users also report having used other substances such as cannabis and *miraa* prior to using heroin.

**Drug Risk Behaviours**

Needle sharing is a high risk behaviour associated with increased likelihood of HIV transmission and infection (reference?). Obtaining accurate data on needle sharing is difficult because drug users are often reluctant to admit that they are injectors and even more reluctant to report they share needles. This poses two challenges for community outreach workers. As mentioned above, the first challenge is to identify accurately if drug users are actually NIDUs

or IDUs. This is especially challenging during the initial contact with drug users before trust and rapport have been established. Outreach workers have noted a pattern in which IDUs do not disclose their IDU behaviours until after they have had several contacts with outreach workers. Upon initial contact with an outreach worker, a drug user may deny injection use and be classified as NIDU; however, through subsequent contacts, the drug user may become comfortable enough to disclose his status as an IDU. At this point drug users will often begin to report needle-sharing as well.

Data collected through outreach indicate that 89% (642/719)<sup>iv</sup> of IDUs in

<sup>iv</sup> Data were available for only 719 of the 828 IDUs in Mombasa reached since 109 clients who had been injecting users have switched from injecting to smoking

<sup>v</sup> Data were available for only 319 of the 321 IDUs in Nairobi reached since 2 clients who had been injecting users have switched from injecting to smoking

Mombasa and 81% (258/319)<sup>v</sup> of IDUs in Nairobi report injecting one or more times during the past week. Sharing needles is also common, with approximately 39% (278/719) of the injecting drug users in Mombasa sharing needles at least once during the previous week. Data from Nairobi were not available; however, the pattern and frequency of needle sharing in Nairobi, as reported by outreach workers, appears to be similar to that of Mombasa.

### ***Sexual Risk Behaviours***

Data on the sexual risk behaviours of drug users were only available from the Mombasa programme. Forty one percent (836/2059)<sup>vi</sup> of NIDUs reported having vaginal or anal intercourse at least once during the past week, compared to 24% (166/687)<sup>vii</sup> of IDUs. In general, IDUs are considered to be less sexually active because of higher levels of heroin use and its associated impact on sexual functioning. There is a higher proportion of occasional heroin users among NIDUs compared to IDUs and occasional heroin users tend to experience less impairment in libido than IDUs. Outreach workers collected data on the number of sexual partners drug users had within the last 30 days and the past 6 months. Drug users reported having an average of 1.8 sexual partners during the previous 30 days and 3.4 partners during the previous 6 months.

The outreach workers collect condom use information during outreach contacts as part of the outreach assessment. Drug users are asked how often they engaged in vaginal or anal sexual intercourse during the past week, as well as how often they

used condoms during these sexual acts. The total numbers of vaginal or anal sexual intercourse acts per week, reported by all drug users, were compared to the number of times these drug users used condoms during the same time period. Data were also analyzed based on an individual drug user's condom use frequency. The number of sex acts per week reported by an individual drug user was compared to how many times they reported using condoms during the same time period. A benchmark of 50% condom usage was used to determine sexual risk behaviour. Of the 7,464 instances of sexual intercourse reported in Mombasa, drug users reportedly used condoms 33% of the time (2437/7464). Of the 1178 drug users who reported having vaginal or anal intercourse in Mombasa, 372 (31.6%) reported using condoms 50% of the time or more.

### ***HIV Prevalence and Referral to Services***

Of the 5805 individual drug users reached during the first fifteen months of the programme, 43.7% {(2539/5805) estimate} received HIV testing and counselling. One hundred percent of HIV-positive drug users were referred to HIV care and 48 drug users are receiving antiretroviral treatment. In addition, 10% (604/5,805), of the drug users contacted through outreach engaged in formal addictions treatment services.

HIV prevalence for NIDU and IDU was available in Mombasa through tests carried out on 1000 drug users tested at the drop-in centre, through mobile HIV testing and through a clinical site that provides HIV care. Of 1000 drug users tested, 862 (86.2%) were NIDUs, and 138 (13.8%) were IDUs. Nearly one third (31.2%, 43/138) of IDUs and 6.3% (54/862) of NIDUs in Mombasa were HIV positive. Additional programme data from Mombasa indicated that 2508 drug users

<sup>vi</sup> Data were available for only 2059 of the 2262 NIDUs reached in Mombasa, 203 NIDUs did not respond to this question.

<sup>vii</sup> Data were available for only 687 of the 828 IDUs reached in Mombasa, 141 IDUs did not respond to this question.

were referred to HIV testing and counselling and that 1546 drug users received counselling and testing. Ninety

one percent (1408/1546) of those tested were men and 21.5% (332/1546) were IDUs.

**Table 3.** Drug and sexual risk behaviours

Risk behaviours	Mombasa	Nairobi	Both sites
IDU Needle Sharing ( $\geq 1$ time in past week)	38.7% (278/719)	N/A	N/A
IDU Injecting ( $\geq 1$ time in past week)	89.2% (642/719)	80.9% (258/319)	86.7% (900/1038)
<b>Frequency of Condom Use</b>			
Total Number of sex acts in past week	32.7% (2347/7464)	N/A	N/A
Number of individuals using condoms >50% of the time (past week)	31.6% (372/1178)		

*Note:* Data were available for only 719 of the 828 IDUs in Mombasa reached; 109 clients who had been injecting users have switched from injecting to smoking.

Data were available for only 319 of the 321 IDUs in Nairobi reached; 2 clients who had been injecting users have switched from injecting to smoking.

**Table 4.** Drug users referred to services

Referrals	Mombasa	Nairobi	Both Sites
Total referred to HIV testing and counselling	2508	N/A	N/A
Total receiving HIV testing and counselling	1546	~ 993 (est)	~ 2539 (est)
Percent of HIV positive referred to HIV care	100%	100%	100%
Total receiving HIV care	77	44	121
Total receiving ARV Treatment	16	32	48
Total receiving drug treatment (In or Out patient)	452	152	604

## CONCLUSION

Domestic heroin use in Kenya has become increasingly recognized as a public health problem, particularly in light of its association with needle sharing and high risk sexual behaviours. This recognition has grown at the same time that access to ARV treatment has rapidly expanded; thus it is now feasible to develop programmes to prevent and treat HIV in high risk drug using populations. The outreach programme described here

has provided a significant number of street based drug users with HIV risk reduction interventions and referral services. The programme has engaged them in HIV counselling and testing along with supporting and facilitating access to HIV and addiction treatment.

In the initial 15 months of the project more than 5800 drug users were contacted through the outreach programme. More than 2500 of these users were tested for HIV and known HIV-positive drug users received case management services to support them

in accessing necessary care and treatment for both their HIV and addictive disorders. Over 600 drug users received some form of outpatient or inpatient addiction treatment. Programme data confirm that HIV prevalence in IDUs is significantly elevated relative to the general population in Kenya at 31.2% while HIV prevalence in NIDUs is equivalent to the general population at 6.3%.

The data from drug user contacts reveal significant levels of drug and sexual risk behaviours. 43% of IDUs in Mombasa share needles and 88% of IDUs in both Nairobi and Mombasa inject heroin more than once weekly. This population of drug users had sex with an average of 3.4 partners during the six months prior to the outreach contact and condom use was low; only 32% used condoms more than 50% of the time and 33% of the total number of sexual acts involved condoms. The challenges in working with this population are considerable. Mechanisms to more effectively gather and report data at all levels are necessary to monitor programme outcomes in terms of HIV prevalence and behaviour change. Voluntary Counselling and Testing (VCT) partners have been effective in providing good quality community based HIV counselling and testing, but gaining access to HIV status information has been difficult. A shift from VCT to DTC (Diagnostic Counselling and Testing) is needed to obtain necessary information and feedback to provide follow-up.

Improvement in access to local HIV treatment services will help improve participation in services; only 121 clients were in HIV care after 15 months of programme operation. Accessibility to community based services is critical to engaging street-based drug users in treatment. Providing mobile services for VCT testing, addiction counselling, and medical detoxification can greatly improve client participation. These

programmes can follow the success of the outreach programme in providing highly accessible community based street level services.

Outpatient drug treatment services have received mixed responses by drug users. Participation in addiction treatment is limited; drug users request curative interventions for their addiction and are not always responsive to the concepts of addiction counselling. Raising community awareness about the nature of addiction as a health problem, educating drug users about the effectiveness of drug counselling and introducing medication assisted treatment for opiate addiction will be important next steps.

The outreach staff is the most critical resource to the success of the programme. Using former drug dependent persons as outreach workers poses challenges in regards to relapse and work performance, but they have enabled the outreach programme to penetrate drug using areas and networks. A combination of recovering dependent users and dedicated and well-trained community based workers can help to form a sustainable outreach programme. An added challenge is the limited number of female outreach workers who are ex-users.

As injecting and non injecting drug use in Kenya becomes more widespread there is a need to develop coherent multi-sectoral strategies for interdiction, prevention and treatment of drug related problems. In the health sector, as HIV care and treatment services ramp up for the general population, it will be important to continue to develop approaches to prevent and treat both HIV and addiction in drug users. There needs to be a coordinated effort by Ministry of Health, NGO and donor groups. Size estimates and IDU/NIDU mapping will be helpful to plan for services. HIV service providers will need to be trained to screen for substance abuse and how to effectively interact with drug

users to improve uptake of HIV+ substance abusers into HIV care and treatment. The outreach programme in Nairobi and Mombasa described here is an important first step in developing these services and raising awareness in the country to the magnitude and nature of the problem.

## REFERENCES

- Beckerleg S, M Telfer and A Sadiq (2006) A Rapid Assessment of Heroin use in Mombasa, Kenya. *Substance Use and Misuse*, 41(6-7): 1029-1044.
- Beckerleg S. (2006) What harm? Kenyan and Ugandan Perspectives on Khat. *African Affairs*, 105(419): 219-241.
- Beckerleg, S. and Lewando Hundt, G. (2004). The characteristics and recent growth of heroin injecting in a Kenyan coastal town.' *Addiction Research and Theory*, 12(1): 41-53.
- Beckerleg S. (2004). Living with heroin at the Kenya Coast." (2004) (a) In (Eds.) R. Coomber and N. South. *Drugs in the global context: comparative perspectives on cultures and controls*. London: Free Association Press.
- Beckerleg, S. (2004) (b) How 'cool' is heroin use at the Kenya Coast? *Drugs: Education, Policy, Practice*, 11(1): 67-77.
- Beckerleg, S. (2001) Counselling Kenyan Heroin Users: Cross Cultural Motivation? *Health Education*, 101(2): 69-73.
- Beckerleg, S., Telfer, M., and Kibwana Sizi, A. (1996) Private Struggles, Public Support: Rehabilitating Heroin Users in Kenya. *Drugs: Education, Prevention and Policy*, 3(2): 159-169.
- Beckerleg, S. (1995) Brown Sugar or Friday Prayers: Youth Choices and Community Building in Coastal Kenya. *African Affairs*, 94: 23-38.
- Gouws E., White P., Stover J., Brown T., (2006) Short term estimates of adult HIV incidence by mode of transmission: Kenya and Thailand as examples *Sexually Transmitted Infections*, 82 (Suppl 3): iii51-55.
- Bureau for International Narcotics and Law Enforcement Affairs. International Narcotics Control Strategy Report, March 2006
- Central Bureau of Statistics (CBS) [Kenya], Ministry of Health (MOH) [Kenya], and ORC Macro. 2004. *Kenya Demographic and Health Survey 2003*. Calverton, Maryland: CBS, MOH, and ORC Macro.
- Ndetei, D. M. (2004) Study of the assessment of the linkages between drug abuse, injecting drug abuse and HIV/AIDS in Kenya. A Rapid Situational Assessment (RSA), 2004. UNODC
- Needle, RH et al (2005) Effectiveness of Community Based Outreach in Preventing HIV/AIDS among Injecting Drug Users.
- Odek-Ogunde M, Lore, W., Owiti, F. R. (2003) Risky behaviours among injecting drug users in Kenya. Paper presented at 14<sup>th</sup> International Conference on the Reduction of Drug Related Harm, April 2003, Chiang Mai, Thailand.
- Odek-Ogunde, M., Okoth, F.A., Lore, W., Owiti, F.R. (2004, July, 2004) *Seroprevalence of HIV, HBC and HCV in injecting drug users in Nairobi, Kenya: World Health Organization Drug Injecting Study Phase II findings*. Presented at the XV International AIDS Conference, Bangkok
- Sullivan, L., Levine B., Chawarski, M., Schottenfeld, R., Fiellin, D., HIV and drug use in Kenya: Assessing HIV and substance abuse treatment services, College on Problems of Drug Dependence 67<sup>th</sup> Annual Scientific Meeting, June 20, 2005, Orlando, FL.
- UNDCP The Eastern African Drug Beat (2000) Importance of Data in Control of Illicit Drug Trafficking Vol2 No1, 13-14, January 2000.
- UNODCCP (1999) *The Drug Nexus in Africa*. UN Office for Drug Control & Crime Prevention Monographs, UNODCP: Vienna.
- United Nations Office on Drugs and Crime (UNODC): Data Base and Progress Reports of the project. *AD/KEN/04/I08 – Prevention of drug abuse and HIV/AIDS among drug users, injecting drug users and vulnerable populations in Kenya. (October 2004 – September 2007)*. Nairobi, Kenya
- United States Government Mission to Kenya. (2004). Five year strategy for the President's Emergency Plan for AIDS Relief: Strong networks for a sustained

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response. Nairobi, Kenya.