

# Clients of Female Sex Workers in Nyanza Province, Kenya

## A Core Group in STD/HIV Transmission

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**Background:** Commercial sex plays an important role in the spread of HIV and AIDS in Africa, especially in beginning epidemics.

**Goal:** The goal was to study the sociodemographic characteristics and sexual risk behavior of clients of female sex workers (FSWs) in Nyanza province, Kenya.

**Study Design:** In the town of Kisumu and the rural districts Siaya and Bondo, male clients of FSWs were identified in bars, nightclubs, and lodges. An informal conversation was held with 64 clients.

**Results:** The majority of clients were between 25 and 36 years old, were married, and had extramarital partners in addition to FSWs. Most clients had visited several (3–5) different FSWs in the previous year, of whom at least 2 were in long-term, steady client–FSW relationships. Clients visited FSWs an average of once or twice a week. Most clients were not consistently using condoms with FSWs; the main reason given was that they “trusted” their steady FSWs.

**Conclusion:** Commercial sex in Nyanza frequently involves multiple steady relationships instead of rapidly changing one-time contacts. Information, education, and communication (IEC) campaigns aimed at risk reduction in commercial sex should promote condom use in steady FSW–client relationships.

COMMERCIAL SEX plays an important role in the spread of HIV/AIDS in Africa, especially in beginning epidemics.<sup>1</sup> The focus of most studies on commercial sex has been on female sex workers (FSWs), considered a core group in the

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spread of sexually transmitted diseases (STDs) and HIV.<sup>2,3</sup> FSWs have often been identified as the main group at which preventive interventions should be targeted.<sup>4</sup> Promotion of condoms is the main intervention, but condoms have to be used by male clients. FSWs often do not have the power to negotiate safe sex without losing income or even risking physical abuse.<sup>5</sup> Several studies on FSWs have therefore stressed the importance of targeting condom promotion and other behavioral interventions at clients.<sup>6,7</sup>

In order to develop successful interventions for clients of sex workers, it is important to know their sociodemographic background, their risk behavior, and their underlying attitudes and norms, so that these can be taken into account. However, generally not much is known about clients, because they are difficult to identify and access. Some studies have focused explicitly on clients of FSWs, by addressing them in brothels just before or after they have sex with an FSW.<sup>8–11</sup> In such a setting, men are often open to discussing sexual issues. However, this method is feasible only when commercial sex is brothel-based. Other studies have focused on truck drivers (who are known to frequently visit FSWs), thereby leaving out other groups of clients.<sup>12–15</sup>

In this article we report the results of a cross-sectional study of clients of FSWs in Nyanza, a rural province in the west of Kenya. The aim was to study their sociodemographic characteristics and sexual risk behavior. Specific research questions were the following. How do clients' sociodemographic profiles and risk behaviors differ in urban and rural areas? Do clients have one-time contacts with different FSWs, or do they have steady FSWs? What is the level and consistency of condom use, and what are the attitudes and perceptions about safe sex?

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Because commercial sex in Nyanza is mostly not brothel-based,<sup>16</sup> we reached clients in the places where they normally meet FSWs, such as bars, nightclubs, lodges, and hotels, and discussed a set of standard questions through an informal conversation.

### Methods

Our study took place in Nyanza, a densely populated province bordering Lake Victoria in the west of Kenya. Within Nyanza, we selected the town of Kisumu (the third largest town in Kenya, with an estimated 380,000 inhabitants) to compare it with the rural districts of Siaya and Bondo (with a combined population of 640,000).<sup>17,18</sup> The Siaya and Bondo districts were selected because they are inhabited by the same ethnic group that also predominates in Kisumu, i.e., the Luo. The two rural districts are located in the northwest of the province, where Bondo borders Lake Victoria. The main highway that links Kenya with Uganda, Rwanda, and Zaire passes through Kisumu as well as Siaya. The high mobility of people in the region due to the highway and its location at Lake Victoria may have contributed to the fast spread of HIV in Nyanza: in the late 1990s, prevalences of HIV in Kisumu among adults aged 15 to 49 years were as high as 20% for men and 30% for women.<sup>19</sup>

In the Siaya and Bondo districts, we included the towns of Siaya and Bondo as well as villages where we expected commercial sex activities. In the Siaya district, these were Ugunja and Sega, where long-distance truckers often make an overnight stop. In the Bondo district this was Usenge, which is a fishing community on the shores of Lake Victoria. In all these sites, places where FSWs meet their male clients were identified, such as bars, night-clubs, hotels, restaurants, and lodges. An attempt was made to include small, low-class bars as well as large, high-class hotels (in Kisumu). Some of these places were identified with the assistance of FSWs who participated in a parallel study, which was part of the same research project. This FSW study was complementary to the client study and took place simultaneously, in the same venues.

Two male and two female research assistants were trained to have an informal conversation with potential clients in the identified locations. The conversation was to cover some standard open questions, but other topics were to be discussed further if the situation allowed it. The research assistants went into the identified places, often on Friday or Saturday nights, and started an informal conversation with a customer, often buying him a drink. Most of these men were selected by convenience sampling, whereas some were pointed out as being clients by the FSWs of the parallel study. After talking about general subjects, the research assistants slowly shifted the conversation toward the topic of commercial sex. The men were asked whether they ever had visited an FSW. It was left up to the respondent to consider whether a sex partner was a

sex worker (in Africa the distinction is often unclear because financial support plays an important role in every sexual relationship<sup>20</sup>).

When a man said he had ever visited an FSW, he was considered an eligible respondent. This meant that the informal conversation was continued, focusing on the standard open questions and topics that the research assistants had memorized. In the conversation, a distinction was made between (1) marital partners; (2) extramarital or nonmarital partners, defined as those in any ongoing noncommercial and nonspousal relationship, including steady as well as casual girlfriends; and (3) FSWs, defined according to the respondent's own definition as any contact based on commercial exchange, including one-time casual contacts as well as ongoing, steady FSW relationships.

Data collection took place between February and April 1999. Short notes were made as soon as possible after the informal conversations. These notes were transcribed into full reports of the whole conversation within 1 or 2 days and stored in computer files generated with Microsoft Word (Microsoft, Redmond, WA). Subsequently, relevant aspects of the stories were translated into numerical values by two independent investigators (H. V. and O. E.). Discrepancies were resolved by discussion and consensus; the final numerical data were recorded with Epi Info software, version 6.2 (Centers for Disease Control and Prevention, Atlanta).

Clients in rural and urban areas were compared by means of chi-square tests for categorical data, the Jonckheere–Terpstra test for ordinal data, and the Wilcoxon *W* test for continuous data that were not normally distributed, with use of SPSS, version 9.0 (SPSS, Chicago, IL), and SAS, version 6.12, TS level 0.060 (SAS Institute, Cary, NC). Multivariate logistic regression analysis was used to estimate determinants of consistent condom use. Qualitative information that could not be translated into numerical values was analyzed thematically.

### Results

In total, 64 clients were studied: 32 in Kisumu and 32 in Siaya and Bondo combined. Of these 64 clients, 15 (23%) were pointed out as clients by the sex workers of the parallel FSW study. The informal interviews with the clients were held in 38 different establishments (bars, hotels, clubs, lodges), of which 19 were in Kisumu, 10 in Siaya, and 9 in Bondo. In each establishment, between 1 and 3 clients were addressed, whereas the total number of customers present at the site varied from 1 to 10 in rural sites and 1 to 15 in urban sites. Although research assistants did not keep exact records of the number of noneligible men (i.e., men who never had visited an FSW), they retrospectively determined that about three quarters of all men whom they initially addressed reported to have ever been a client of an FSW.

The men were generally quite open to discussing sexual

TABLE 1. Sociodemographic Characteristics of Clients of Female Sex Workers in Nyanza Province, Kenya (n = 64)

Characteristic	All Clients (n = 64)	Town of Kisumu (n = 32)	Siaya/Bondo districts (n = 32)	P Value
Age (years)				0.40*
Median	31	31.5	30	
Range	20–58	20–58	20–50	
Marital status				0.64†
Married (polygamous)	75% (9%)	72% (9%)	78% (9%)	
Single	16%	19%	13%	
Divorced/separated	8%	6%	9%	
Widowed	2%	3%	0%	
Extramarital partners (of married men, n = 48)				0.04*
0	50%	65%	36%	
1	29%	22%	36%	
2, 3	15%	9%	20%	
4, 5	6%	4%	8%	
Nonmarital partners (of unmarried men, n = 16)				0.22*
0	56%	43%	67%	
1	19%	14%	22%	
2, 3	25%	43%	11%	
Residence				0.32†
Town where interviewed	83%	88%	78%	
Elsewhere	17%	13%	22%	
Education level				<0.01†
None or primary not completed	13%	6%	19%	
Primary	33%	16%	50%	
Secondary	30%	38%	22%	
Tertiary	25%	41%	9%	
Occupation				<0.01†
Qualified, professional	38%	59%	16%	
Truck driver	19%	9%	28%	
Fisherman	9%	0%	19%	
Bar/hotel/lodge worker	25%	19%	31%	
Other	9%	13%	6%	

\*Wilcoxon *W* test.

†Chi-square test.

‡Jonckheere–Terpstra test.

matters with the research assistant, especially after they informally discussed other, less private, topics. The offered drink facilitated this process. The research assistants managed to discuss the standard as well as the optional topics with all respondents. The conversations lasted an average of half an hour and were conducted in Dholuo, Kiswahili, and sometimes English.

#### Sociodemographic Characteristics

The age of clients ranged from 20 to 58 years, with a median of 31 years; half of the clients were between 25 and 36 years old (Table 1). Three quarters of the clients were married; half of these married men had one or more extramarital noncommercial partners (mean, 1.9), besides having relations with FSWs. More men in Siaya/Bondo had extramarital noncommercial partners than in Kisumu ( $P = 0.04$ ). Of the 16 unmarried men, more than half had no partner (girlfriend) at all. More than 80% of men lived in the town where they were interviewed, whereas 6% lived outside Kenya. The nonresidents mostly visited the town where they were interviewed because of their work (8 of 11; half of them were truck drivers).

Clients in Kisumu had more education than in Siaya/Bondo ( $P < 0.001$ ), but this reflects a predictable difference normally found between urban and rural areas. When clients in our study were compared with the general male population, the clients in Kisumu had a much higher educational level (84% of clients aged 25–34 years had a secondary or tertiary education, compared with 44% of the census males of the same age range;  $P < 0.001$ ).<sup>21</sup> For Siaya/Bondo there was no difference between clients and the general male population aged 25 to 34 years (33% versus 32% had a secondary or tertiary education;  $P = 0.9$ ).<sup>21</sup>

Clients' occupations could be categorized in four main groups. The first is the qualified professionals such as teachers, policemen, bank clerks, advocates, or engineers, who earn enough money to frequently visit FSWs. This group was much larger in Kisumu than in the rural areas ( $P < 0.01$ ), which is in accordance with clients' higher education in Kisumu. In Siaya and Bondo, truck drivers and fishermen are two large, mobile occupational groups who can also afford to visit FSWs: truck drivers have fairly high wages, which they sometimes double by selling products on the way, whereas fishermen have very high incomes (up to

TABLE 2. Sexual Risk Behavior of Clients of Female Sex Workers (FSWs) in Nyanza Province, Kenya

Variable	All Clients (n = 64)	Town of Kisumu (n = 32)	Siaya/Bondo Districts (n = 32)	P Value
Age (years) at first sexual contact with an FSW				0.27*
Median	24	24	23	
Range	17–38	18–38	17–35	
Last previous sexual contact with FSW was				0.16*
Last week (1–6 days ago)	52%	44%	59%	
Last month (1–3 weeks ago)	16%	13%	19%	
Last year (1–12 months ago)	33%	44%	22%	
Median no. of days ago	6	9	4	
Last previous sexual contact with an FSW				
Steady FSW	70%	66%	75%	0.41 <sup>†</sup>
Condom used	56%	69%	44%	0.04 <sup>‡</sup>
Total no. of different FSWs visited in previous year <sup>§</sup>				0.86 <sup>‡</sup>
1, 2	25%	26%	25%	
3–5 or several	51%	52%	50%	
6–10 or many	21%	19%	22%	
11+	3%	3%	3%	
Usual frequency (per week) of visiting an FSW <sup>  </sup>				0.06*
Less than once	34%	41%	28%	
Once or twice	32%	37%	28%	
More than twice	34%	22%	45%	
Median times	1.3	1.0	2.0	
No. of steady FSWs in previous year (simultaneously)				0.04 <sup>‡</sup>
0	16%	22%	9%	
1	16%	22%	9%	
2, 3, or several	52%	44%	59%	
4–6 or many	17%	13%	22%	
No. of casual/new FSW partners in previous year <sup>#</sup>				0.22 <sup>‡</sup>
0	48%	43%	53%	
1	18%	17%	20%	
2, 3, or several	23%	30%	17%	
4+ or many	10%	10%	10%	
Consistency of condom use with FSWs				0.04 <sup>‡</sup>
Always or usually	45%	56%	34%	
Sometimes (i.e., with some FSWs)	13%	13%	13%	
Rarely (i.e., only first time or with new FSW)	25%	22%	28%	
Never	17%	9%	25%	

\*Wilcoxon *W* test.<sup>†</sup>Chi-square test.<sup>‡</sup>Jonckheere–Terpstra test.<sup>§</sup>n = 63.<sup>||</sup>n = 56.<sup>#</sup>n = 60.

\$5,000 [U.S.] per month) during the main fishing season. These three groups of clients usually paid between \$5 and \$50 (U.S.) for a sexual encounter, besides buying drinks and, depending on the duration of the relationship, food, clothes, or rent for their steady FSW(s).

A fourth large group, mainly in Siaya and Bondo, were clients whose profession brings them into close contact with FSWs, such as bartenders, cooks, and cashiers in hotels and lodges and musicians in bands that play in bars. When their work is over, these men often leave with sex workers who “park” in their establishment but have not succeeded in hooking a client for the night. As one man related, “I meet a lot of sex workers through my work selling lipsticks, earrings, and other makeup articles at nights in bars. We finish work at the same time past midnight, and I meet the ones who did not get clients to go with. They are cheap,

especially when they have a house where I can sleep.” This group of clients usually paid as little as \$0.50 to \$2 (U.S.) per sexual encounter (besides paying for beers, a meal, or a room in a lodge).

#### Sexual Risk Behavior

The median age of first sexual contact with an FSW was 24 years (Table 2). This is, on average, approximately 8 years later than the clients’ sexual debut, which is around 16 years (n = 15). For the majority of respondents, their most recent sexual contact with an FSW was <1 week previously, and mostly this contact was with a steady or previously visited FSW. Condoms were used in 56% of the most recent sexual contacts with a sex worker; this proportion was higher in Kisumu than in Siaya/Bondo (69% versus 44%; *P* = 0.04).

More than half of the clients had had sex with three to five different FSWs in the previous year (some mentioned “several” without being able to give a more precise figure) (Table 2). When asked about the usual frequency of visiting a sex worker, the majority said once or twice a week. Clients in Siaya/Bondo more often visited an FSW than did clients in Kisumu (median, 2.0 versus 1.0 per week;  $P = 0.06$ ). This high frequency, combined with the relatively low number of FSWs visited in the previous year, suggests that most clients had steady FSWs with whom they had an ongoing relationship for at least a few months. Indeed, when clients were asked about whether they had any steady or previously visited FSWs as partners, more than two thirds said they had two or more steady FSWs in the previous year, mostly simultaneously. Clients in Siaya/Bondo had more steady FSWs in the previous year than clients in Kisumu ( $P = 0.04$ ). The duration of steady relationships with FSWs varied from several weeks or months to several years (the maximum was  $>5$  years).

Some clients financially maintained their steady FSWs on a regular basis, instead of paying them per sexual encounter. Four clients said that they paid the rent for their steady FSWs (each maintained three FSWs), and one client said that he paid his lady “between \$40 and \$60 [U.S.], *depending on the problem*,” thereby indicating that the financial support was based not so much on sexual services rendered but on the personal financial problems of the sex worker. Thus, some clients had relationships with steady FSWs that much resemble “normal,” noncommercial steady relationships (paying for rent, food, and financial obligations is common practice in a steady or spousal relationship). However, even in these cases, clients seemed to make a clear distinction between (extramarital) girlfriends and steady FSWs: “I do not like to call these ladies sex workers, but I agree that they have sex only for commercial benefits and are different from my two girlfriends who love me even without money.”

About half of the clients mentioned that they had had sex in the previous year with a casual or new FSW (Table 2). Not only were sex workers with whom the clients had a one-time contact regarded as “new FSWs,” but so were sex workers with whom they had a few sexual contacts. Clients generally believed that new FSWs become steady ones after three or four sexual contacts, usually over a period of approximately 2 to 4 weeks.

More than 40% of clients rarely or never used condoms with sex workers (Table 2). The clients who sometimes used a condom did so with some of their FSWs but not with others; the men who rarely used a condom did so only at the first encounter with a new sex worker. Clients in Kisumu more often used condoms than those in Siaya/Bondo ( $P = 0.04$ ), which is in accordance with clients’ reports on condom use during the most recent sexual contact with an FSW.

Who are the clients who use condoms consistently (i.e.,

always or most of the time)? Multivariate logistic regression analysis of all the variables mentioned in Tables 1 and 2 showed that consistent condom users have a higher level of education (odds ratio, 2.8; 95% CI, 1.4–5.3). The greater education of clients in Kisumu explains why they more often use condoms than clients in Siaya/Bondo. Furthermore, analysis shows that married men with no extramarital partner are more consistent condom users than married men who have at least one extramarital partner (odds ratio, 5.4; 95% CI, 1.4–21.3; unmarried men do not differ significantly from either group of married men). Clearly, the men with extramarital partners play an important role in HIV/STD transmission because their condom use is low with FSWs (and negligible with wives and girlfriends).

### *Reasons for Sexual Risk Behavior*

The main reason for inconsistent condom use with FSWs was the fact that clients “trust” their steady FSWs (other reasons are listed in Table 3). The meaning of the concept *trust* seemed to vary greatly. Only a minority believed that they were the only client (“I think she is faithful”), and maintaining an FSW financially was sometimes seen as a guarantee for faithfulness (“I maintain my two sex workers so that they cannot go with any [other] men”). For others, trusting their FSWs meant (1) believing they did not have an STD (“I trust them [and] think they are clean, without STDs”); (2) knowing each other for a while (“After the first time [having] sex with a sex worker, I do not use condoms anymore, because by then I have known the lady well and an element of trust is developed”); or (3) believing they are the only client with whom she does not use condoms (“My five steady sex workers treat me as a regular boyfriend, not a client; they assure me that they cannot sleep with a client without a condom, but they don’t want to use a condom with me because they love me and want to give me maximum satisfaction”). The fact that some clients recently had been infected with an STD by an FSW whom they trusted indicates that the women had unprotected sex with other men.

Prevention of STDs was more often mentioned than prevention of AIDS as a reason for condom use (Table 3). Of all clients, only 13 (20%) mentioned a fear of HIV/AIDS. Four clients did not fear AIDS because “people die anyway” or because they believed they were immune (being still alive after so many years of unsafe sex).

The conversations indicated that 69% of all clients performed some kind of safe-sex behavior. The most common risk-reduction strategy was using condoms (Table 3). Some clients mentioned that they have sex with only a limited number of FSWs or, in contrast, have safe sex with FSWs instead of unsafe sex with steady partners: “I am afraid to get steady with a lady because she will want to marry me, and she may be sick with HIV/AIDS. For this reason I try to dodge the ladies and prefer seeing sex workers with

TABLE 3. Main Reasons Given by Clients of Female Sex Workers (FSWs) in Nyanza Province, Kenya, for Not Using or Using Condoms With FSWs, and Safe-Sex Behavior Adopted by Clients

Variable	Percentage of Clients
Main reasons for not using condoms with FSWs (n = 40)* <sup>†</sup>	
Trusting steady FSW	68
Condoms reduce pleasure	15
Condom bursts	15
Women do not like it	15
Closely monitors behavior of steady FSW	15
Not necessary if woman looks healthy	13
Drunkenness	10
Belief that condoms do not protect against HIV	10
Main reasons for using condoms with FSWs (n = 30) <sup>††</sup>	
Does not trust FSW	27
FSW is a new (not a steady) partner	27
To prevent STDs	27
Does not want to infect wife	20
Has had an STD	17
To prevent AIDS	13
Safe sex behavior (n = 64) <sup>‡</sup>	
Effective strategies	69
Using condoms <sup>§</sup>	67
Limiting the number of FSWs	11
Having safe sex with an FSW instead of unsafe sex with steady girlfriend(s)	3
Ineffective strategies	13
Having sex only with steady FSWs (thinking they can be trusted)	9
Having sex only with FSWs who are new in town (assuming them to be uninfected)	3

\*These are all 64 clients minus 23 who always use condoms and minus 1 (missing data).

†These are all 64 clients minus 11 who never use condoms and minus 23 (missing data).

‡Some clients gave more than one reason or reported more than one behavior.

§All clients were included who always or usually used condoms with FSWs, even if they did not explicitly mention condoms as a risk-reduction strategy.

whom I can use condoms.” A few clients had misconceptions about safe-sex behavior and adopted ineffective or adverse behaviors, which actually increased their risk of infection (Table 3). Only five clients had really changed their behavior over time as a result of the perceived threat of HIV/AIDS. Some clients indicated that they often had the wish to decrease their visits with FSWs, but alcohol mostly interfered with these plans: “Sometimes I go to a bar to take two beers and leave, but later I end up taking more and the appetite for women falls on me. If I happen to have some money I have to go with a lady.”

We made a distinction between clients’ reasons for visiting FSWs (sex drive versus external circumstances; Table 4). The latter are more pertinent to the prevention of HIV/STDs, because they can be seen as risk factors to be addressed in interventions.

The most important external circumstance associated with having sex with FSWs, mentioned by 38% of clients, was making long or frequent journeys away from home. This mobility is closely linked to the clients’ occupation: 8 of the 24 mobile clients were truck drivers (or loaders), 5 were fishermen, 3 played in a band that travels, and the remaining 8 also had jobs involving travel (sales agent, consultant, engineer). Most mobile clients also regularly visited FSWs in other towns or countries. For instance, all

truck drivers indicated having FSWs along the routes they frequent: “It takes me 3 months to pick goods from Mombasa to deliver in Burundi. I cannot sincerely survive all this time without having a woman along the routes, so I have a sex worker in Mombasa, one in Kisumu, and one in Kampala. These are the points where I stop for one or sometimes even several weeks, while waiting for customs clearance.” Of all 64 clients, 44% indicated they also regularly have sex with FSWs in other places: 25% within Nyanza Province, 11% in other Kenyan provinces, and 8% in other countries such as Uganda, Tanzania, Zaire, Rwanda, Sudan, and Burundi. It is not surprising that mobility was mentioned more often by clients from Siaya/Bondo than from Kisumu as a reason for visiting sex workers ( $P = 0.02$ ), because truck-stops and fishing villages were selected as the rural areas for study.

Other important reasons for visiting FSWs were having an occupation that brings men into close contact with FSWs or having a lot of money (as described earlier). Fishermen also mentioned that life at the fishing beaches is an environment that stimulates commercial sex. Especially during peak season (when fishermen earn loads of cash), the beaches attract many ladies, and having spent 1 or 2 weeks on the high sea makes the men have a great urge for sex. Some fishermen had FSW partners throughout the landing

TABLE 4. Main Reasons Given by Clients of Female Sex Workers (FSWs) in Nyanza Province, Kenya, for Visiting FSWs (n = 64)

Reason	Percentage of Clients
Internal drive/reason	
Lust/excitement/fun; to conquer women	38
Wife is not enough for sexual satisfaction	22
FSWs perform better sexually	11
No obligations toward FSWs	11
Easy/convenient sex; always available	9
External circumstance/reason	
Making long journeys away from home; being mobile	38
Frequent contact with FSWs through job	17
Wife/girlfriend lives far away	16
Fishing/beach environment stimulates commercial sex	9
To get admiration from friends; peer pressure	9
Alcohol increases lust	8
Being single/separated	8
Having a lot of money	8
FSWs are less expensive than maintaining a steady girlfriend	5
Wife is pregnant	5

Some clients gave more than one reason.

beaches, and they were well aware of the risks: "Beach life is very hectic and risky, as the only two major things happening here are fishing and sex. I think that not one single lady of 12 years or older in this place is still a virgin; many teenagers here are already polluted, as they venture into sex for money at very young ages."

Another reason often mentioned for having sex with FSWs was not having other opportunities for sex, i.e., living far away from a wife or girlfriend, being single or separated, or having a wife who is pregnant (Table 4). Peer pressure (from colleagues and bar friends, for example) was also a trigger for visiting sex workers, as was alcohol use. Furthermore, three clients mentioned that they had sex with FSWs because it is less expensive than maintaining a steady girlfriend, indicating that there is a considerable exchange component involved in noncommercial relationships as well.

### Discussion

This study of 64 clients of female sex workers in Nyanza province in Kenya revealed that clients are mostly married men, often with extramarital relations, who have a mobile or highly paid job or are in close contact with FSWs in their working situation. They have very high-risk sexual behaviors, combining a high frequency of visiting steady FSWs and low condom use. The clients on average had had 6.2 sex partners in the previous year, including wives, extramarital partners, girlfriends, steady FSWs, and casual FSWs, in different towns, provinces, and even countries. Thus they

have large sexual networks, linking groups of women who otherwise are socially and spatially isolated. Therefore, clients in Nyanza province can be regarded as an important core group in the transmission of HIV/STDs<sup>3,22</sup> and not just as a bridge population that connects FSWs with the low-risk group of wives.<sup>23</sup> This is even more salient in Siaya/Bondo, where clients' behavior was higher-risk than in Kisumu (more extramarital relations, more FSWs, lower condom use, and higher mobility).

The most important reason for not using condoms was trusting their steady FSWs. This perception suggests that there is more risk of STD/HIV infection from steady versus one-time FSW-client relationships. This finding was confirmed by the parallel FSW study, which was part of the same research project. Sexual diary-keeping showed that FSWs (n = 63) in Kisumu and Siaya/Bondo had more unprotected contacts with regular partners or clients than with nonregular clients in a 14-day period (mean, 2.8 versus 1.1; *P* = 0.002). The FSW study also showed that sex workers had the same risk patterns and attitudes as their clients: besides one-time contacts, they mostly had several regular clients or partners with whom they did not use condoms because they trusted them. Thus, both clients and FSWs acknowledged their own unsafe sex but tried to justify it by assuming that their partners would have safe sex with others.

We know of only a few other studies in which (potential) clients were interviewed at bars or discos where FSWs worked.<sup>24,25</sup> Our study showed that the method of addressing men through an informal conversation in entertainment places is feasible. The informal setting of the bar, the initial conversation about any topic, and the offered drink were efficient means of building rapport. In fact, we were surprised to find that so many men (about three quarters of those addressed) were open about ever having visited a sex worker. This can be explained partly by the fact that FSWs pointed out 23% of the clients. These clients did not differ significantly in sexual behavior parameters from the other clients; thus, they did not introduce any selection bias in comparison with the clients who just happened to be present in the drinking establishments. However, research assistants may have been biased in addressing mainly those men who looked or behaved like potential clients.

Still, we believe it is likely that a considerable number of clients would have denied ever having visited an FSW if they had been addressed in a household survey. This could explain why a large survey in Kisumu showed that only 0.4% of men aged 15 to 49 years (n = 829) reported having had sex with a sex worker in the previous year using the local term for FSW.<sup>16</sup> Our study findings suggest that men in that survey underreported their involvement in commercial sex.

To what extent can the studied clients be seen as representative of the whole client population in Nyanza? Our

study sampled men in bars who happened to be clients, and we do not know how representative this group is of all clients of FSWs. We may have missed clients who visit an FSW at her house without passing through a bar or lodge, which sometimes happens in steady FSW–client relationships. This would mean that the frequency rate we noted for sex with steady FSWs underestimates that for the entire client population.

However, clients who often visit bars, clubs, or lodges had a greater chance of being included in our study than those who rarely visit these places (frequency-biased sampling). Because visiting such places is likely to correlate positively with visiting sex workers, the frequency of sex with FSWs that we noted would overestimate that in the entire client population. Furthermore, our findings cannot be generalized to client behavior throughout the Siaya and Bondo districts, because we selected semiurban sites and villages in which we expected commercial sex to occur (truck stop and fishing communities).

In comparison with those in some other studies of clients of FSWs in sub-Saharan Africa, clients in our study were slightly older, were more often married, and more frequently had extramarital partners.<sup>7,8,24,26</sup> The high frequency of visiting sex workers was comparable to that in Zimbabwe (mean, 7.4 times per month), where clients' most recent commercial sex visit was also usually with a steady FSW.<sup>24</sup> Condom use in the most recent act with an FSW in our study was comparable to that in Zimbabwe, Benin, and Gambia but lower than in Ivory Coast, where condom use with FSWs is legally compelled.<sup>7,8,24,26</sup> A study in Tanzania among truck-drivers also found that condom use with regular or steady FSWs is very low, because regular sex workers are treated as wives, with whom using a condom is unacceptable because it tends to signal a lack of trust.<sup>27</sup> This finding is confirmed by studies among sex workers: FSWs rarely use condoms with their boyfriends or regular partners.<sup>6,7,14,28,29</sup> When a distinction is made between regular and one-time clients, they use condoms less often with regular clients than with one-time clients, but more than with boyfriends.<sup>11,15,30</sup> The comparisons show that it is common in sub-Saharan Africa for clients to have steady FSWs and that this is often linked with low condom use.

The findings of our study have various implications. Because commercial sex in Nyanza is bar-based (instead of brothel-based), interventions focusing on clients should take place in bars, nightclubs, and lodges.<sup>31</sup> We found that a large proportion of clients are men who work in these places, such as bartenders, cashiers, and musicians. If they were to become involved in peer education programs, they not only could ensure the distribution of condoms and information to customers but also would become more aware of their own risk behavior.<sup>6,8,24</sup> Because clients are often truck-drivers or fishermen, successful peer education

programs among truck-drivers<sup>13,14,27,32</sup> should be copied and extended to fishermen or fish markets, especially during the peak fishing season.<sup>33,34</sup>

Educational materials and messages should be developed that stress the importance of condom use in steady and ongoing FSW–client relationships.<sup>35</sup> Clients (and sex workers) should be made aware of their risks and should be convinced to take the responsibility to use a condom, instead of relying on the faithfulness of their partner. Despite the fact that condoms named “Trust” have been developed in Kenya through a social marketing program, condoms are still widely associated with unfaithfulness and mistrust. Information, education, and communication (IEC) campaigns should therefore include advertising condom use as a sign of taking responsibility and protecting a partner (be it a wife, girlfriend, or FSW).

During our study, research assistants were often asked by clients to provide them with condoms, which indicates they are still not widely available. Bars, nightclubs, discos, hotels, and lodges should therefore have a sufficient supply of free condoms at all times. Another effective strategy might be to have free condoms in the rooms of lodges where FSWs take their clients to spend the night.<sup>36</sup>

In conclusion, this study in Nyanza province in Kenya revealed that clients of FSWs engage in high-risk behavior by maintaining several steady FSWs, with whom they often do not use condoms. Interventions therefore should target clients in bars, nightclubs, and lodges and should focus on convincing them to use condoms, with casual as well as steady FSW partners.

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