

## Sexual behaviour in a fishing community on Lake Victoria, Uganda



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### Abstract

This study describes the sexual behaviour of men and women in a fishing village on the shores of Lake Victoria in southwest Uganda. The village is near a well known trading town-truckstop on the main trans-Africa highway with a high recorded prevalence of HIV infection. Data were obtained on the daily travel and sexual activities of 26 women and 54 men with particular attention paid to the rate of partner change and the proportion of sexual contacts with people outside the village. During a total of 587 person-weeks the men made 1086 trips, mostly returning home the same day. They had a total of 1226 sexual contacts, most of which occurred either in their own village (83%) or a neighbouring fishing village (11%); 17 per cent of sexual contacts were with new partners. Fifteen of the women described themselves as married; 42 per cent of their sexual contacts were with casual, paying partners. Of the eleven women who were single, between 80 and 100 per cent of contacts were with paying partners. Most of the women's partners were resident in the village. These data show a very high rate of sexual mixing within the village but little contact with people from outside. This suggests that all sexually active men and women in the village are at high risk of STDs including HIV. There is currently no formal health care available in the village. Such communities should be targeted in future STD control programs.

HIV prevalence in Uganda as a whole ranges from about 30 per cent in some urban centres to less than five per cent in more remote areas (Uganda AIDS Commission 1994). A number of studies have reported significant differences in HIV prevalence between rural areas, roadside villages and urban centres within the same district (Killewo et al. 1990; Wawer et al. 1991; Barongo et al. 1992; Killewo, Dahlgren and Sandstrom 1994; Shao et al. 1994). There has been some debate on the extent and speed with which HIV infection is diffusing out from urban to rural areas (Anderson et al. 1992; Garnett and Anderson 1993; Pickering et al. 1996).

The first cases of AIDS in Uganda were identified in fishing villages on the shores of Lake Victoria in 1985 (Serwadda et al. 1985). Since this date there have been many glancing references in the media, conference abstracts and elsewhere to high rates of HIV infection in fishing communities in east Africa (Over and Piot 1993; Pool, Washila and Maswe 1995; Barongo, Senkoro and Boerma 1995; Ali et al. 1995), but there have been few published studies of sexual behaviour or HIV seroprevalence in these communities.

This paper reports on the sexual behaviour of both men and women in a fishing village and the extent to which they mixed sexually with people living in the town and further afield.

## **Location**

The study was located in a fishing village five kilometres from a trading town on the main trans-Africa highway which had an HIV prevalence of 40 per cent in 1991 (Nunn et al. 1996). The village is built on the edge of a swamp about one kilometre from the landing site. With an adult population of approximately 250 it is slightly larger than, but otherwise typical of the many fishing villages dotted along the shores of Lake Victoria from which men fish in small, one-man canoes.

The village consists of just over 100 wattle-and-mud houses with one or two rooms, ten bars of similar construction and a few small shops selling cigarettes and basic household goods. There are three carpentry shops making fishing boats and paddles and two tailors who live part of the week in the fishing village and the remainder in the trading town. There are no health facilities or pharmacies and no bicycle-repair shops or other urban facilities. As it is near the trading town many needs are served by regular visits from itinerant traders selling consumer goods such as traditional and modern medicines, hardware and secondhand clothes. Many residents make frequent visits to the town by foot or bicycle. There are no motor vehicles in the town.

## **Sampling and data collection**

Twenty-six women and 54 men were recruited into a longitudinal study of their sexual behaviour. Initially women who identified themselves as selling sex were recruited using a snowball technique. As the study progressed women whose status was observed to be rather more ambiguous were invited to join and during the final weeks those who were identified as spouses of men in the study became participants. The men were recruited using a snowball technique in the village and at the landing site. Recruitment of both men and women continued throughout the study producing a rolling sample with individuals dropping out after participating for around 12 weeks.

Data were collected over a six-month period by two field workers resident in the trading town. Following verbal agreement a short socio-demographic questionnaire was administered. Thereafter each participant was seen three or four times a week when data were recorded by the fieldworkers in a diary of their daily sexual activity and movements in and out of the village. Movement data included where they travelled during the day and slept each night. Data for each sexual contact included use of condoms; gifts or money exchanged; if the encounter was with someone from the village or an outsider; and whether with a regular or casual partner. The casual partners of men were further differentiated into new partners or ones with whom they had had previous sexual contact.

There have been many debates on the accuracy of self-reported behaviour. The advantage of using diaries rather than cross-sectional studies has been discussed elsewhere (Pickering et al. 1992). In this study the regular collection of data, the provision of comprehensive medical care within the research program, together with frequent informal observation of behaviour both by day and in the evenings, led to the formation of close relationships between the data-gatherers and the study participants which in many instances resulted in information being obtained from more than one source.

Condom use was encouraged and condoms distributed liberally on demand. Where necessary medical treatment was provided by the research program.

## **Results**

### ***Women***

Twenty-six women participated in the study for a total of 421 women-weeks, an average of 16 weeks each. Of the six who participated for less than ten weeks, one died, two moved to the trading town and three to rural villages. Two returned after several weeks' absence.

The mean age of the women was 27.8 years with a range of 17-40. All but one were Christian. Fifteen had some primary education while eight had no education and three secondary education. With the exception of one woman aged 17 years all had children living with them. Twelve women had no economic activity other than domestic work and the sale of sex, six farmed, three dried and sold fish, three worked in bars and two owned shops. Only one had been born in the village, 24 had come from rural areas and one from a small town. The mean length of time in the village for those born elsewhere was three and a half years with a range from two months to 15 years. Half of those born outside had lived in urban areas before coming to the village.

Fifteen of the women described themselves as 'married', one to a man who lived in Kampala. Definitions of a husband or regular partner were imprecise. They included a man with whom a woman shared a house, or had a longstanding economic relationship, children in common or a sexual relationship of more than a few weeks. All those who said they were married regularly had casual sexual partners; indeed 42 per cent of married women's sexual contacts were with a casual, paying client. Six of the eleven who described themselves as single had one-fifth of their sexual contacts with a 'regular partner'. The five remaining single women had only casual clients. In all cases the participant's own definition of casual or regular partner was used.

The 'husbands' in the study were mostly fishermen who worked four or five nights a week. A certain amount of casual sex with married women took place while their husbands were fishing, but brief encounters also occurred in places such as banana plantations or while collecting water. One husband was a tailor who lived three or four nights in the fishing village and the remainder in the trading town. His 'wife' ran a bar in the village and when he was away had paying sexual partners. Only the woman whose husband lived in Kampala frequently left the village for sex. She had a number of 'boyfriends' who collected her in a taxi and took her to the trading town for the evening.

A total of 1671 sexual contacts were recorded; 41 per cent with regular partners and the remainder with casual contacts. Overall nearly three-quarters of all contacts were with fishermen (72%), 13 per cent with businessmen and the remainder with unskilled men (6%), skilled men (6%), fishmongers (2%) and less than 1 per cent with drivers, farmers or beer sellers. With the exception of the one businessman from Kampala, with whom four per cent of all regular contacts occurred, regular contacts were with either fishermen (81%) or skilled workers (15%). All contacts with unskilled men (95), fishmongers (30), drivers (12), farmers (6) and beer sellers (3) were casual (Table 1).

Ninety per cent of all contacts were with men resident in the village, five per cent with men from the trading town and three per cent from other fishing villages. Very small numbers were with men from rural areas or other urban centres. Nearly all regular contacts were with men resident in the village (91%) the remainder included the husband from Kampala (4%) and one regular partner from another fishing village (5%) (Table 2).

Gifts or money were reportedly given for nearly all sexual contacts with both regular and casual partners. The majority of contacts with regular partners were remunerated with gifts (75%) whereas money was more commonly given for casual contacts (77%). Only ten (1%) casual and 35 (5%) regular contacts did not receive either cash or a gift in exchange for sex.

The most common gift was food, usually fish (82%), followed by beer (17%). Over Christmas ten of the married women received a wide variety of food, clothes and other consumer goods (Table 3). The mean cash payment was just over US\$1 with a range from 30 cents to \$5.

The women claimed to use condoms in 93 per cent of the 982 contacts with casual partners and never with the 689 regular contacts.

**Table 1**  
**Occupation of casual and regular partners of women**

Occupation	Regular		Type of partner Casual		Total	
	N	%	N	%	N	%
Beer seller			3		3	
Businessman	28	4	190	19	218	13
Driver			12	1	12	1
Farmer			6		6	
Fisherman	559	81	645	66	1204	72
Fishmonger			30	3	30	2
Skilled worker	102	15	1		103	6
Unskilled worker			95	10	95	6
Total	689		982		1671	

**Table 2**  
**Place of residence of casual and regular partners of women**

Residence	Regular		Type of partner Casual		Total	
	N	%	N	%	N	%
The village	630	91	866	88	1496	90
Trading town			77	8	77	5
Fishing village	33	5	16	2	49	3
Rural			17	2	17	1
Kampala	27	4	1		28	2
Urban			4		4	
Total	690		981		1671	

### **Men**

Fifty-four men participated in the study for a total of 587 man-weeks, an average of eleven weeks each. Thirty-seven were fishermen, eight fishmongers, three ran bicycle taxis between the village and the trading town and one a boat taxi. Two had occupations related to fishing; guarding and building boats. There was one tailor, a cattle herder and a farmer.

Thirty-eight men lived in the fishing village, twelve in the trading town, two in neighbouring fishing villages and two in rural villages. Only two of the men had been born in the village, the remainder having lived there for between one month and 30 years with an average of 6.4 years.

All the fishmongers lived outside the village; six in the trading town and two in rural villages. Those from rural areas cycled to the landing site early in the morning to buy fish which they sold in villages along the road on their way home. Those who lived in the trading town bought larger quantities of fish which they carried to the town on bicycles for transfer to vehicles and sale in more distant urban markets.

Twenty-four of the men were married, 14 to women in the study. Their average age was 30.7 years with a range of 18-52 years. Nearly two-thirds had some primary education while 15 had no education and six some secondary education. Forty-eight were Christian and six Muslim.

Cash payment was reportedly given for 1035 (84%) contacts with casual partners but only 35 (4%) of those with regular partners. The average payment was just over US\$1 with a range from 50 cents to \$3. One hundred and sixty-three casual and ten regular contacts were remunerated with a gift alone, usually fish or beer, while three regular and 26 casual contacts received both a gift and cash (Table 3).

**Table 3**  
**Gifts and/or cash reportedly given by men and received by women for regular and casual sexual contacts**

Type of partner Remuneration	Men				Women			
	Regular		Casual		Regular		Casual	
	N	%	N	%	N	%	N	%
Gift	10	1	163	13	515	75	112	11
Gift & cash	3		26	2	43	6	105	11
Cash	35	4	1035	84	96	14	755	77
Nothing	803	95	2		35	5	10	1
Total	851		1226		689		982	

Both men and women reported the exchange of cash in a high percentage of sexual contacts with casual partners (84% and 77% respectively). Women however reported a high proportion of regular contacts receiving a gift (75%) and/or payment (20%), while men reported paying cash or giving a gift in only five per cent of regular contacts. This discrepancy appeared to be in the interpretation that men and women put on the relationship between sex and material support. Men assumed that the provision of food and cash was part of a wider relationship with their regular partner while women associated sex much more directly with the acquisition of material goods. Fish was the gift most commonly given and this was usually cooked by the woman and shared between both partners. Other domestic services performed by women for regular partners included sweeping the house and caring for children. Laundry was often done by men themselves when they were at the lake. All activities concerned with fishing, such as repairing of nets, were performed by men. If study participants became seriously ill they either returned home to their natal families or were cared for by friends or neighbours of the same sex.

A total of 1086 trips were recorded, an average of 1.9 trips a week. The majority were made by the fishmongers who worked four or five days a week and the men who lived in the trading town and travelled to the village for work. The majority of trips made by men who lived in the village were to the trading town (56%) or other fishing villages (26%), a further 16 per cent were return trips after nights away, mainly in other fishing villages. Only four trips were made to a rural area and five to an urban centre. Men who lived in the trading town travelled mainly to the fishing village (71%) with a further 14 per cent of trips to rural areas, mainly selling fish. Rural fishmongers moved between the fishing village and rural villages; on two occasions a stop-off was made in the trading town (Table 4).

**Table 4**  
**Place of residence and destination of trips by men**

Destination	Residence
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	Fishing village		Trading town		Rural		Total	
	N	%	N	%	N	%	N	%
The village			422	71	34	37	456	42
Trading town	219	56			0		219	20
Other fishing village	103	26	20	3	0		123	11
Rural	4	1	81	14	59	63	144	13
Urban	5	3	43	7	0		48	4
Home	63	16	33	5	0		96	8
Total	398	36	599	55	93	7	1086	

Of the 4109 nights of the study only 186 (5%) were spent away from a man's place of residence. The majority of these (74%) were in other fishing villages or the trading town (20%). Only seven nights were spent in a rural area and five in other urban centres.

A total of 2077 sexual contacts were recorded over a period of 587 person-weeks, an average of 3.5 contacts a week. Of these 851 (41%) were with regular partners and 1226 with casual partners. Three hundred and fifty-three contacts (17%) were with new partners. These men were having an average of one new partner every 12 days or about 30 new partners a year. The acquisition of new partners was fairly evenly spread: all the men had at least one new partner during the study and only two had less than three over a minimum of a ten-week period. It was common for men to have one or two contacts a week with a regular partner and one or two with different casual partners.

In spite of the high rate of partner change there was little mixing between the fishing village and other locations; 83 per cent of all sexual contacts occurred in the man's home. Of the men who lived in the fishing village 85 per cent of contacts were in the village, eight per cent in fishing villages where they did not live, six per cent in the trading town and the remainder in rural or other urban areas. The men who lived in the trading town had 80 per cent of contacts in the town, 18 per cent in a fishing village and the remainder in rural or urban areas. The rural fishmongers had 83 per cent of contacts in their home village, 13 per cent in a neighbouring village and the remaining four per cent in the trading town or fishing village. Overall only one per cent of contacts were between a man from the fishing village or the trading town and a woman in a rural area (Fig. 1).

This group of men were very reluctant to use condoms. They nearly all believed that they were HIV-positive and saw no point in protecting themselves or others. Condom use was never reported with regular partners. As the study progressed and contact with the study team became routine there was an increase in reported condom use with casual partners and the frequency with which condoms were spontaneously requested suggests that their use had become more common. But a desire to please the data collectors almost certainly inflated their reports. In the first six weeks of the study reported condom use was less than 30 per cent with casual partners; this gradually increased to over 80 per cent in the last six weeks of the study. Overall condoms were said to have been used for 67 per cent of contacts with new partners and 61 per cent of other casual contacts.

## Discussion

Both men and women in this fishing community claimed to have a high number of both concurrent and sequential partners. Most men had three different partners a week, one of whom was usually a regular partner. All the women, even those who stated that they were married, regularly had sexual contact with casual, paying customers. This behaviour may not have been overtly condoned by the community but it was certainly tolerated. When one man became belligerent on returning home unexpectedly to find his wife with another man the

community sided with the woman; it was considered normal for women to have casual partners if their husbands were away for a few days.

As with a previous study describing sexual networks between the trading town and surrounding agricultural areas, there was very little sexual mixing between people resident in different areas (Pickering et al. 1996). This was in spite of a high level of daily communication between the trading town and the village.

Everyone in the study was familiar with AIDS and how it is transmitted. Indeed national education programs have been so efficient in transmitting the message that one contact with an infected individual can lead to AIDS that nearly all participants believed they were already infected. This led to a high level of fatalism and discouraged condom use. To some extent we think we were able to overcome this by persuading people of the disadvantages of contracting other sexually transmitted diseases. This was probably one reason for the increase in reported condom use during the period of the study. It was curious that, given the acknowledged high rate of partner change, both men and women claimed never to use a condom with a regular partner. The discrepancy between reported condom use with casual partners by men and women (over 90% by women compared to only 61% by men) may be due to the women trying harder to please the research team or to a higher level of bravado on the part of the men. It must be noted, however, that they were not necessarily referring to the same sexual acts; each participant had contacts with people who were not part of the study.

The high level of sexual mixing and relatively low level of condom use within this small community makes it very likely that STDs, including HIV, will spread rapidly to all sexually active adults. The small number of people who move out of the fishing community or have sexual contacts outside will facilitate the spread of HIV infection to other communities. Given the high rate of partner change it is fortunate that there is such a low level of mixing between such villages and other communities. This may help to largely contain sexually transmitted infections within small groups that are geographically demarcated. Villages such as these should perhaps be the focus of specific health interventions and should not be excluded from general population surveys. Perhaps future education messages should emphasize that in virtually all communities the majority of people are HIV-negative and that it is worth having a test and taking precautions in the future. As counselling and testing facilities become more widespread this recommendation is not unrealistic.

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