

file: Tulane 4051  
AIDS - Kinshasa  
Research Report

# Tulane - Subproj. # 8

Family Planning Operations Research Project  
PHO, USAID/Zaire  
Washington, D.C. 20523

Feb. 21, 1989

Dr. Jerry Bailey  
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Washington, DC 20523

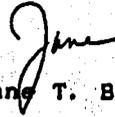
Dear Jerry and Carol:

Enclosed please find an updated copy of the report "Knowledge of AIDS, Sexual Behavior and Condom Use in the Context of AIDS Prevention." The changes from the "January 30th" version are that the current one includes an executive summary, data on household amenities, and the "n" for the unweighted rather than weighted samples. This can be considered the final version and can be distributed as such.

We are working on the French version, which will be available within a week and circulated widely in Kinshasa. We will also send copies of the French version to your office.

Again, thanks for your continuing support of our activities.

Sincerely,



Jane T. Bertrand

cc: Dr. Glen Post  
Mr. Bill Martin  
Ms. Beth Stanford  
Dr. Lois Bradshaw

Carol - I will forward 10 copies of this report to you via AID/Zaire this week. Do you want/need any more?  
call L Usden - 10 is fine.  
Jim Duff Sarah  
Covey  
Harris  
AIDSTECH Bob Wrin  
AIDSCOM Chloe  
Zaire desk

**KNOWLEDGE OF AIDS, SEXUAL BEHAVIOR AND CONDOM USE  
IN THE CONTEXT OF AIDS PREVENTION**

**Results of the 1988 Survey of  
Contraceptive Prevalence and K-A-P for AIDS  
in Kinshasa, Zaire**

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**Under the Tulane University Family Planning  
Operations Research Project in Zaire  
(Cooperative Agreement DPE-3030-A-00-4051-00)**

**February 20, 1989**

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Appendix A. List of Persons who Contributed to this Study

## A C K N O W L E D G E M E N T

The data presented herein were collected as part of the Contraceptive Prevalence and K-A-P for AIDS study, jointly financed by USAID/Washington (under Tulane University's Cooperative Agreement DPE-3030-A-4051-00) and by USAID/Zaire (under special contract, no. 660-0094-O-C-00-8111-00). The authors wish to thank Dr. Lois Bradshaw, Senior Population Officer, AID/Zaire, for her support of this research from its conception. We also thank Dr. Jerry Bailey and Ms. Carol Dabbs of AID/Washington for their backstopping efforts in connection with this effort.

The authors are grateful to the staff of the *Projet des Services des Naissances Désirables (PSND)* for their assistance throughout the data collection process; Cne. Chirvisa Chirhamolekwa, Cn. Ngoie Mbuys, and Mr. Brad Barker provided logistic and moral support throughout the survey. Other PSND staff who contributed directly to the success of this study are mentioned in Appendix A. We would also like to thank the supervisors (who were either full-time PSND staff or were hired specifically for this study) for their efforts in overseeing the data collection, verification and coding: Mbadu Muanda, Mukoka Makolo, Chigangu Munyerenkans, Mujimeri Chirenzi, and Makunsa Ntimansiemi. We also thank the interview team leaders, interviewers and data entry workers whose names are mentioned in Appendix A.

Dr. Nzila Nzilambi of *Projet SIDA* offered very helpful suggestions in the design of the AIDS module, and Dr. Susan Hassig (of Tulane University and *Projet SIDA*) has provided technical assistance with regard to the questionnaire design, data management, and analysis at various stages of the research.

## EXECUTIVE SUMMARY

AIDS represents a major public health problem in Zaire. Six to eight percent of the adult population of Kinshasa is estimated to be sero-positive for the HIV virus. Currently, the only weapon in the fight against AIDS is public education designed to bring about behavioral change. The current study was conducted from January to September 1988 to assess current levels of knowledge, attitudes and practices with respect to AIDS.

The study population consisted of 3140 men (aged 20-59 years) and 3485 women (aged 15-49 years). Respondents were randomly selected from all 24 administrative zones in Kinshasa. Interviewing was conducted in Lingala in the home of the respondent by an interviewer of the same sex.

The main findings from this survey are as follows:

- Almost all men and women of reproductive age in Kinshasa had heard of AIDS.
- Nine in ten respondents (that had heard of AIDS) knew the four main modes of transmission.
- There were some misconceptions about transmission by mosquitos and by casual contact among at least one-third of the population.
- Knowledge of the symptoms of AIDS was more limited. The majority of respondents recognized that prolonged diarrhea and extreme weight loss were symptoms, but less than half were aware that recurrent fever and intense, generalized fatigue were also symptoms.
- Over one-third of all respondents believed there is an AIDS vaccine.
- Forty percent of men and 21 percent of women believed that AIDS is curable.
- Over 88 percent believed that AIDS can be prevented; the main modes cited by respondents were to decrease the number of sexual partners, avoid prostitutes, and avoid injections with unsterile needles.
- Respondents were less likely to spontaneously mention condoms as a means of preventing AIDS, although 70 percent of men and 42 percent of women recognized this to be the case when the question was asked directly.

- Exposure to messages about AIDS was very high; over 90 percent of men had heard something on AIDS on the radio, as well as the song by Franco; over 80 percent of women had heard something by radio, as well as the Franco song. Television had reached 86 percent of men and 70 percent of women with AIDS messages.
- The median age for first sexual experience (age by which half the population has had sex) was 17.0 for males, 18.3 for females.
- Sixty-six percent of married men and 59 percent of married women reported having had sexual relations in the past month; the average number of days for sexual relations in the past week was 1.3 for men, 1.4 for women.
- Twenty-three (23) percent of married men and less than two percent of married women admitted having extra-marital relations in the past six months; these findings are believed to underestimate the actual prevalence of this practice.
- Over 90 percent of married and single men had heard of condoms; this was true of 77 percent of married women but only 61 percent of single women.
- However, 12 percent of married respondents had used condoms with their spouse. By contrast, about one-quarter of married men had used condoms with extra-marital partners and one-quarter of unmarried men had used them with their current partners.
- Less than two percent of married men and married women reported current use of condoms with their spouse; in these few cases, it was for the mainly for the purpose of avoiding pregnancy rather than preventing AIDS or other STDs.
- Condom use was higher in the case of extra-marital relations than in conjugal relations.
- At least half of the men interviewed felt condoms tear easily during sex, can stay in the vagina after sex, and diminish sexual pleasure. One-quarter to one-third of the female respondents voiced these complaints, whereas over one-third did not have an opinion about condoms (presumably reflecting their lack of familiarity with this product).
- Half the men and close to two-thirds of the women felt that they were at no risk of getting AIDS.

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-- Nine in ten men and women in Kinshasa would like to learn more about AIDS.

These findings have several implications for ongoing and future efforts to prevent the spread of AIDS in Kinshasa:

1. The population knows that AIDS exists and how it is transmitted, but greater efforts are needed to make people aware of the personal risk that AIDS poses to them. This is especially true for partners that are not mutually monogamous.
2. The adult population of Kinshasa has heard of condoms, but does not yet perceive their central role in the fight against AIDS. Further I-E-C efforts should reinforce the idea that the two main means of protection from AIDS are (1) total/mutual fidelity among spouses and (where that is not possible), (2) use of condoms.
3. Condom promotion should include messages directed at changing the negative attitudes toward condoms which were reflected by this study.
4. The information campaigns should stress the facts that there is no effective vaccine against AIDS and the disease is fatal; a significant minority of the population believes otherwise.
5. Education campaigns should be directed to teens as well as adults; by age 17, half of all males in Kinshasa have had sexual relations; by age 18, half of all females have done so.
6. Efforts should be made to combat the still prevalent misconceptions that AIDS can be transmitted by casual contact and by mosquitos. This may cause unnecessary worry among the population and lead to ostracism of AIDS victims.

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in Kinshasa, Zaire

I. INTRODUCTION

Zaire is among the countries in Africa in which AIDS (acquired immunodeficiency syndrome) constitutes a major public health problem. It is estimated that 6-8 percent of the adult population of Kinshasa, the capital city of Zaire, are sero-positive, based on sero-surveys of selected populations (1). Six percent of babies delivered in the two major hospitals in Kinshasa in 1987 were born to sero-positive mothers (2). As of 1986, 35 percent of the beds in the internal medicine ward of the major public hospital, Mama Yemo, were occupied by AIDS patients (3).

There are four main modes for the transmission of AIDS: through (a) sexual relations with an infected individual, (b) a blood transfusion with infected blood, (c) unsterile needles or syringes, and (d) fetal transmission by an infected mother. It is estimated that 80-90 percent of AIDS in Kinshasa is transmitted through sexual contact. Since homosexuality is rare in Kinshasa, heterosexual relations constitute the major means of AIDS transmission among this population.

To date, there is no vaccine or cure for AIDS. The only weapon in this fight against this fatal disease is public education leading to behavioral change. The experience of the gay community in San Francisco demonstrates the potential effectiveness of information and education in bringing about behavior change; the incidence rate (number of new cases per year) is decreasing in response to changes in sexual behavior among this population.

It can be argued that the San Francisco experience can hardly serve as a model for other countries. The gay population in San Francisco is generally well-educated, cohesively organized, and civic-minded. As members of this community began to die of AIDS, gay leaders took action to inform others of the risk which this disease posed to them as a sub-group.

By contrast, in most African countries where AIDS is widespread, the population at risk is less easily defined. Apart from sex workers, who have a high risk but represent a relatively small segment of the population, there is a second group whose

risk is lower but whose numbers are much greater; the population of men and women who are sexually active and in nonmonogamous unions.

Until a vaccine or cure is found, public information and education remain the single most important weapon against AIDS. In Kinshasa, there was some reluctance prior to late 1986 to widely discuss the AIDS problem in Zaire on public airways. However, in early 1987, this changed markedly. Doctors and other experts were invited to participate on talk shows. Brochures in comic book format circulated widely in Kinshasa. A popular singer, Franco, produced a widely broadcast song about AIDS in both French and the local language Lingala, to increase the reach and impact of this message. The local radio and television station constantly aired spots about AIDS. In short, throughout 1987 and 1988, AIDS has frequently been in the news, in an effort to alert the local population of the dangers of this disease and steps to take in reducing their risk of getting it.

The current study was conducted city-wide in 1988 to determine the extent to which the adult population of Kinshasa is aware of AIDS, how knowledgeable they are about the disease, and to what extent they practice behaviors which increase or reduce their risk of contacting AIDS. The survey also contained a number of questions regarding attitudes toward testing and informing patients of their status. The survey represents one of the first attempts to date to collect data on knowledge-attitudes-practice (K-A-P) concerning AIDS from a large, probabilistic sample of adults in an African setting. It was cited in the New York Times (October 10, 1988) as the "most exhaustive of its kind in Africa" (4).

This module on AIDS formed part of a larger survey on contraceptive prevalence in Kinshasa, conducted by the Projet des Services des Naissances Désirables (PSND), the national family planning services project. Findings on fertility and family planning will be presented in a separate publication.

## II. METHODOLOGY

### A. Sampling.

The sampling for this survey was designed to obtain an initial sample of 3000 completed interviews among the adult population of Kinshasa: 1500 among men (20-59 years) and 1500 among women (15-49 years). These respondents were randomly selected from the 24 administrative zones of Kinshasa, such that the number per zone would be proportional to its size in terms of the total population of Kinshasa (e.g. in such a way that the zone of Limete, which constitutes five percent of Kinshasa, would also constitute five percent of the study population).

In addition to this initial sample, another 1000 men and 1000 women were to be selected from four of these same zones: Makala, Kimbanseke (health zone of Kikimi), Selembao and Masina. These four zones form the basis of a controlled field experiment designed to measure the impact of an AIDS prevention strategy; the first two zones mentioned above are "experimental" (i.e. the program was initiated in them following the data collection for this survey), and latter two are "comparison areas" which will not benefit from this special intervention.

Two-staged sampling was used. The sampling unit at the first stage was the quartier (the largest subdivision within an administrative zone); at the second stage, the parcelle (a compound containing one or more households). It was hypothesized, based on previous surveys, that each parcelle would contain an average of 1.95 eligible male or eligible female respondents.

At the first stage of sampling, the 251 quartiers (excluding military camps) which make up the city of Kinshasa were listed by administrative zone, and within administrative zone by type of residence and population size. A total of 72 quartiers (approximately three per zone) were randomly selected.

All quartiers selected at the first stage were then mapped; this consisted of sending a team of interviewers into the field and listing all parcelles on a street-by-street basis within the zone. This list of all parcelles within each quartier served as the basis for the second-stage sampling.

During the second stage, a sampling fraction was calculated for each zone; systematic sampling (taking every nth case) was then used to select the parcelles to be included in this survey. The global sampling fraction (obtained by multiplying the sampling fractions for the first and second stage) was 1/298. In other words, approximately one in every 300 adults in Kinshasa was selected to be interviewed.

The parcelles chosen for the survey were numbered consecutively; men (only) were interviewed in even-numbered parcelles, women (only) in odd-numbered parcelles. As such, the male and female data do not represent husbands and wives, but rather two independent samples of the adult population of Kinshasa.

Once a parcelle was chosen, an attempt was made to interview all eligible respondents in the compound (i.e. in each of the households within the compound; if there were more than one). If an eligible respondent were not at home at the time of the interview, two additional visits were made before classifying the eligible respondent as "not at home."

As mentioned earlier, it was estimated that each parcelle would include an average of 1.95 men or 1.95 women eligible to be interviewed (eligibility was based entirely on age). In fact, the average number per parcelle actually found in the field was slightly higher than this, which resulted in a larger total number of cases: 3140 for men and 3485 for women.

The four zones included in the controlled field experiment for AIDS prevention were over-sampled by a factor of 2.6 (the number estimated to yield 1000 additional men and 1000 additional women respondents in the four zones). This oversampling would give disproportionate importance to these four zones. To adjust for this, the results from the four zones in question have been weighted (thus decreasing their importance by a factor of 2.6) and making the final results more representative of the population. (However, the full sample will prove useful in later analyses of these four zones.)

#### B. Questionnaire

The questionnaire was designed to include a number of the same questions used in the 1982-84 Contraceptive Prevalence Survey (5), to allow for maximum comparability between the two. The questions for the AIDS module were drawn up in collaboration with personnel from Projet SIDA. They were subsequently reviewed in collaboration with researchers from the Zaire School of Public Health who were conducting a similar K-A-P survey among health personnel. Again, efforts were made to make the two sets of questions comparable.

The questionnaire was translated to Lingala and pretested among 106 respondents of both sexes before the final version was established. The final questionnaire contained approximately 130 questions for men and 172 for women. (However, a given respondent would not be asked all questions; a number would be skipped, depending on his responses to earlier questions).

#### C. Data Collection

Data collection for the current study took place from January to September 1988 in all 24 administrative zones of Kinshasa, the capital city of Zaire. The survey team consisted of two supervisors, six team leaders, and 33 interviewers.

Although most of the survey personnel were experienced interviewers, all underwent a 20 day training course prior to beginning the fieldwork regarding the sampling and data collection procedures specific to this survey.

All respondents were interviewed in their homes by an interviewer of the same sex. The interview lasted an average of 30-40 minutes.

#### D. Verification, Coding and Data Processing

All questionnaires were verified for completeness and logical consistency; where necessary, interviewers were sent back to the field to verify or complete responses. The questionnaires were then coded. The data were entered onto microcomputer at the PSND offices, using the program IQ ("International Questionnaire"), which allows for error identification at the time of data entry. SPSS was used to generate the tables presented herein. The data processing was done entirely by the "Bureau Informatique" of the Operations Research Division, PSND, Kinshasa.

## II. RESULTS

### A. Profile of the Study Population

A total of 3,140 men aged 20-59 and 3,485 women aged 15-49 were interviewed in this survey, for a total sample size of 6,625 respondents. However, as explained above, the data from four zones were weighted to adjust for the oversampling of these four zones. In the tables in this report, the n shown at the top of each column indicates the number of unweighted cases (respondents to whom the question was asked). The percentages, however, are based on the weighted sample. It should be stressed that the weighted percentages provide a more representative picture of Kinshasa than would the unweighted results. (In fact, the findings from the weighted and unweighted samples are very similar).

The average age of male respondents was 33.4 years, compared to 26.6 years for female respondents (see Table 1); this difference results from the difference in the age criteria used in selecting respondents of each sex. Over half of all respondents had at least some level of secondary education; however, more men (20 percent) than women (3 percent) had gone beyond secondary school.

Sixty-three percent of men and 27 percent of women reported to be employed, whereas about 15-18 percent of each sex were students. Approximately half of all women reported their occupational status as housewives.

The predominant religion among both male and female respondents was Catholicism (56 percent among males and 51 percent among females). One fifth of each group reported to be

Protestant, while 3 percent were Kimbanguiste. The remainder were "other" or "no religion."

The distribution of the study population by zone of residence is shown in Table 1. (Note: the number in parentheses after each zone is the percentage it represents of the total population of Kinshasa.) As can be seen, the percentage distribution by zone for the study population closely approximates the actual population distribution by zone in Kinshasa.

Approximately two-thirds of the men and three-quarters of the women in this study grew up in an urban area (i.e. resided there during the first 15 years of their lives). Conversely, about 33 percent of the men and 23 percent of the women grew up in villages.

The majority of men (60 percent) and women (62 percent) were married or living in consensual union. Approximately 5 percent of men and 10 percent of women reported to be in polygamous unions (see Table 1). By contrast, 37 percent of the men and 30 percent of the women interviewed were single (never married).

Given the nature of the questions in the AIDS module, it was of interest to determine the age at first sexual experience. One percent of the males and 14 percent of the female respondents had not yet had sexual relations. This difference can be explained in part by the fact that all male respondents were at least 20 years old, whereas over one-fifth of the female respondents were 15 to 19 years old. As shown in Table 1, the median age at first sex was 17.0 years for men and 18.3 years for women.

Table 1 also shows the average (mean) number of children by age of the respondent. Among those who had completed their reproductive period, the mean number of children was for men and for women.

Respondents were asked a series of questions regarding household amenities. The percentages that had electricity, running water in the house, a toilet in the house, a working radio, a working television, a bicycle, or a car are shown in Table 1.

## B. Knowledge of AIDS

As an introduction to the subject of AIDS, the interviewer first asked the respondent if he/she had heard of five other diseases (listed in Table 2); and then asked about AIDS.

Awareness of AIDS is almost universal in Kinshasa: 99 percent of men and 96 percent of women had heard of the disease;

see Table 2. The rest of the data presented in this report are based on this group of 3099 men and 3351 women who had heard of AIDS.

The majority of men (76 percent) had known about AIDS for at least one year prior to the interview, whereas 63 percent of women had known of it for at least a year. In other words, the word about AIDS reached men before women.

The large majority of respondents had heard of AIDS from their friends or neighbors; the percentage citing this source was higher among women (74 percent) than men (55 percent). Men, by contrast, were more likely than women to have first heard of AIDS via the mass media, primarily radio. Relatively few cited newspapers or other media as their first source of information.

All respondents who had heard of AIDS were asked to describe the disease (i.e. "what is AIDS?"). The most common response among men was "a sexually transmitted disease that ends in death" (46 percent); 28 percent of women gave this answer. By contrast, the most common answer among women was a disease characterized by prolonged diarrhea, extreme wasting, or some other symptom (30 percent); this was the second most common answer given by men. Other responses are listed in Table 2.

Respondents were also asked if they had heard of the word "seropositive." Thirty-nine percent of the men and 16 percent of the women responded affirmatively. These respondents were then asked to define the word. Approximately two-thirds of those who claimed to know the word defined it as "a healthy (asymptomatic) carrier of AIDS" or "a person carrying the AIDS virus." These findings were of particular interest in that the researchers had almost decided to eliminate this question from the survey, since it was expected that so few respondents would have even heard of the word.

### C. Knowledge of the Modes of Transmission and Symptoms of AIDS

All respondents who had heard of AIDS were asked about modes of transmission; specifically, a list of "possible modes" (including four that were correct and five that were not) was read to each respondent, who was asked to indicate whether or not each was in fact a mode of AIDS transmission.

The adult population of Kinshasa is highly knowledgeable on the modes of transmission (see Table 3). Over 93 percent of men and over 89 percent of women (who had heard of AIDS) correctly identified the four major modes of transmission. Knowledge of transmission via sexual relations was the highest. (This is particularly important, since 80-90 percent of AIDS in Kinshasa is attributable to this mode of transmission.)

However, there were also some misconceptions about AIDS transmission via mosquitos; at least one-third of both groups believed this to be a mode of transmission. Similarly, one-quarter or more of both groups believed AIDS could be transmitted through casual contact.

Knowledge of the symptoms of AIDS was more limited. Again, the interviewer read to the respondent a list of eight "possible symptoms" (four of which were correct, four of which were not) and asked him/her which were in fact symptoms of AIDS. Respondents were much more likely to cite the four correct answers--prolonged diarrhea, extreme weight loss, recurrent fever, and generalized/prolonged fatigue--than the incorrect responses (listed in Table 3). However, the best known symptoms (diarrhea and weight loss) were mentioned by 69-82 percent only; and the two others (recurring fever and generalized fatigue) were known to less than half the respondents of either sex. These percentages are considerably lower than for knowledge of the modes of transmission.

#### D. Beliefs regarding AIDS

The primary weapon for fighting AIDS at present is public information and education. In this context, the current study included a series of questions regarding beliefs about AIDS. The percentage responding correctly varied markedly depending on the question.

The large majority--88 percent, men and 78 percent women--knew that a person can be infected without knowing it (see Table 4). Approximately the same percentage (85, men; 73, women) believed that a person could have AIDS without feeling sick. Similarly, 84 percent, men, and 72 percent, women, knew that an (infected) person can infect someone else with AIDS, even if he/she feels healthy.

The majority of respondents (79 percent, men; 72 percent, women) were also aware that a person with multiple sexual partners is at greater risk of getting AIDS than one who has only one partner; however, one-fifth of the men and one quarter of the women were misinformed on this question.

Perhaps the most dangerous misconceptions regarding AIDS are those regarding a vaccine and a cure. In Kinshasa, 36 percent of men and 45 percent of women reported that there is a vaccine against AIDS. This may be explained in part by periodic news stories about vaccine trials in Zaire. Some people may have confused the occurrence of these trials with the existence of a vaccine against AIDS.

Moreover, 40 percent of men and 21 percent of women believed that a person who has AIDS can be cured. These percentages are seemingly high for a city in which knowledge of AIDS is widespread, and people presumably learn about modes of transmission because of their fear of the disease. However, it is possible that these percentages reflect the publicity about the drug "MM1," which was presented to the Zairian public in November 1987 as a treatment for AIDS. The distinction between a treatment (which is not necessarily effective) and a cure (whereby the person recovers from the disease) may have escaped some of those who listened and watched the announcement of MM1. Further discussion of MM1 on the mass media has been limited, as the final results on MM1 are not yet available. And many Zairians apparently harbor the hope that AIDS is curable.

All persons who had heard of AIDS were also asked whether a person with the AIDS virus would eventually get the disease AIDS: 76 percent of men and 71 percent of women answered that they would. However, this finding should be interpreted with caution, since it is unclear that all respondents distinguish clearly between being infected with the AIDS virus (and asymptomatic) versus having the disease itself with its associated symptoms.

A very high percentage--over 97 percent for both groups--answered that it was not advisable for a women infected with AIDS to become pregnant. The current study did not, however, ask the hypothetical question as to whether the respondent would try to avoid pregnancy in such a circumstance. In fact, this question has been added to a subsequent study to be conducted in 10 sites in Zaire on the topic of AIDS.

It has been argued that the general population will take AIDS seriously only when they begin to know people who have or have died of AIDS. In this context, all respondents were asked if they knew someone with AIDS: 17 percent of men and 31 percent of women responded affirmatively.

A substantially higher percentage (50 among men, 60 among women) reported to have known at least one person who had died of AIDS. The average number of persons they had known who had died of AIDS was 2-3.

At first glance, it may seem illogical that twice as many people have known someone who died of AIDS than someone who has AIDS. There are two possible explanations. First, a person with AIDS may wish to hide the nature of his disease from others; the truth may only come out at the time of his death. Second, there may be a tendency to report "knowing someone" who has died of AIDS, when in fact the respondent has only heard that the person died of AIDS. For example, one might not know the man who lived in the house on the corner; however, if the news begins to

circulate that he died of AIDS, one might claim to "have known someone who died of this disease."

#### E. Modes of Prevention

Among those who have heard of AIDS, 94 percent of men and 88 percent of women believe it can be prevented (see Table 5).

The questions regarding how to prevent AIDS were asked in two ways. First, all respondents who stated that AIDS could be prevented were asked the open-ended question "How?" Second, all respondents who had heard of AIDS (even if they had stated that AIDS could not be prevented) were asked which (if any) of four specific actions could prevent AIDS; these included two correct items (avoid sexual relations with multiple partners and use condoms) and two incorrect items (takes antibiotics and go to a traditional healer). The results are presented in Table 5.

In response to the open-ended question, the two actions most frequently mentioned by both men and women were to reduce the number of sexual partners (72 percent, men; 82 percent, women) and to avoid sexual relations with prostitutes (63 percent, men and women). The third most frequently mentioned action was to avoid injections with unsterile needles. Use of condoms was mentioned in fourth place by men (only 35 percent) and in fifth place by women (only 19 percent). It is evident from these results that the adult population does not perceive condoms as one of the main means of preventing AIDS.

When all respondents who had heard of AIDS were asked about the four specific actions, "avoiding sexual relations with multiple partners" was by far the most frequently cited (among 94 percent, men; 85 percent, women). In response to the direct question, over two-thirds of the men but less than half of the women (42 percent) acknowledged that condoms were useful in preventing AIDS. Less than 14 percent of men or women gave any credence to taking antibiotics or seeing a traditional healer.

#### F. Exposure to AIDS Messages via the Mass Media and Inter-personal Channels

All respondents who had heard of AIDS were asked whether they had seen or heard something about AIDS via different communication channels. The data in Table 6 indicate the extent to which the population of Kinshasa has been reached by such messages. It should be stressed that this is only a crude indicator of exposure, since it measures the number of channels through which the respondent has heard of AIDS, but it does not reflect the frequency with which he/she has been exposed to such messages via a given channel.

More adults in Kinshasa have been reached via radio than any other medium; 96 percent of men and 83 percent of women had heard something on AIDS on the radio. Almost identical percentages of each group reported having heard the Franco song on AIDS. A slightly lower percentage (86, men; 70, women) had seen something on AIDS on television. The percentages who had seen brochures, newspaper articles, or posters on AIDS were much lower, as shown in Table 6. Relatively few had discussed AIDS with health personnel or attended a group meeting where it was discussed.

The vast majority of respondents--95 percent of men and 89 percent of women--would like to learn more about AIDS (table 6).

#### G. Sexual Behavior with Spouse or Partner

Questions regarding sexual behavior are highly pertinent to the transmission of AIDS, yet they are extremely sensitive (6). In this survey, the researchers asked a number of such questions in an effort to obtain a better understanding of certain practices.

As shown in Table 7, 66 percent of married men and 59 percent of married women reported having had sexual relations in the past month. (In the case of women, this coincides with data from previous surveys, which show a significant percent of women abstaining from relations for at least 4-6 months after the birth of a baby.)

All married respondents who reported having had sexual relations in the past month were also asked how many days during the past week they had had sex. One-third claimed not to have had relations in the past week, while half reported one or two days in the past week. This figure is lower than anecdotal evidence would suggest. The breakdown for coital frequency in the past week among married respondents is shown in Table 7.

Respondents were asked if they had sexual relations during the woman's menstrual period; 85 percent of both sexes reported "never." Less than six percent answered "often" or "sometimes."

#### H. Extra-marital Sexual Relations

The findings on extra-marital relations presented in this report should be interpreted with caution. This represents the first attempt to ask this type of question on a large, population-based survey in Zaire. Nonetheless, given the importance of this practice to the transmission of AIDS, it was decided to ask such questions on an experimental basis.

Note: in a subsequent study of sexual behavior involving focus groups, both male and female participants were asked whether married men and married women would be likely to answer truthfully to this question on a survey. The general consensus was that a lot depended on the interviewer's skill at putting the respondent at ease. It was felt that if this were done, then men would almost surely give truthful responses with regard to sexual behavior with their spouses, and most men would give truthful answers about their extramarital affairs (providing the interview was conducted in private). It was generally felt that most women would truthfully describe the frequency of sexual relations with their spouses. However, there was strong consensus that a married women could not risk revealing anything about extramarital affairs, lest this get back to her husband. (7).

All married respondents were asked how many extra-marital partners they had had in the past six months and in the past four weeks. Twenty-three percent of married men and less than 2 percent of married women reported having had extramarital partners in the past six months; the percentages reporting extramarital relations in the preceding four weeks were 12 percent for men and 1 percent for women. The number of partners in the past six months and in the past four weeks (among those having had extramarital relations) is reported in Table 8. Of the men having had extra-marital affairs in the past six months, half reported only one such partner; the other half reported two or more. Among the few women who admitted to extra-marital sex, almost all claimed that it was with a single partner.

The researchers have discussed these results with many colleagues in an effort to compare the results obtained with anecdotal impressions of Kinshasa residents. In general, these results are believed to underestimate the extent of extra-marital relations in Kinshasa. However, they are believed to correctly reflect the fact that this behavior is much more common among men than women; and some of our "informants" believed that the "low" percentage among men may in fact reflect changes in behavior which have taken place because of men's fear of AIDS.

#### I. Knowledge and Use of Condoms

The large majority of men and women in Kinshasa have heard of condoms; see Table 9. Over 90 percent of the men (with or without a spouse), 77 percent of the married women, though only 61 percent of women without spouses (a category which includes teens still in school) knew about condoms.

However, relatively few of the respondents in this survey had ever used condoms. Of interest, among married men, 12 percent reported ever using them with their wife, as shown in Table 9. By contrast, 28 percent of married men reported having used them

with current partners who were not their wives (data not shown). This percentage corresponds closely to the responses given to a similar question (in a different section of the questionnaire) on the use of condoms for extra-marital affairs. Among unmarried men, 27 percent reported having used condoms with their current partner.

Respondents were asked about current condom use in two separate sections of the questionnaire: in terms of contraceptive methods and in the context of AIDS. The findings presented in Table 9 correspond to the latter. Eight percent of married men and 7 percent of married women reported current condom use with their spouse. At first glance, these percentages look high by African standards. However, these respondents were then asked if they used the condom "always, most of the time, sometimes, or rarely." In fact, the percentage of married respondents reporting to use condoms with their spouse "always or most of the time" is less than two percent among men and women.

The predominant reason for using condoms with one's spouse or current partner was to prevent pregnancy. The second reason-- given by less than half of the respondents-- was to prevent other sexually-transmitted diseases, and the third was for AIDS prevention. Of interest, married respondents were more likely than singles to cite pregnancy prevention, while singles were more likely than married respondents to cite prevention of AIDS or STDS.

#### J. Use of Condoms for Extra-Marital Relations

The data presented in Table 10 are based on the 401 married men and 22 married women who reported having had extra-marital relations in the past six months. While the numbers are admittedly small, condom use was higher with extra-marital partners (24 percent among men, 12 percent among women) than was condom use with one's spouse. Also, users were more consistent in using this protection with extra-marital partners than with spouses; half the male users did so "always" or "most of the time."

#### K. Attitudes toward Condoms

In terms of family planning, the experience in Zaire has shown that the condom is not a widely used form of contraception (5). This may change in response to the threat of AIDS, as suggested by the promising results of the social marketing program in Zaire. However, the data from this study reflect a certain aversion to condoms among the general population of Kinshasa.

The findings reveal some of the reasons why men and women dislike condoms. At least half of all male respondents believed that (a) condoms tear easily during sexual relations, (b) they can stay in the vagina after sex, and (c) they diminish sexual pleasure; see Table 11.

Among the women, one-quarter to one-third believed that condoms had the above-mentioned disadvantages (Table 12). However, over one-third of both married and single women answered "don't know" to these questions, which may reflect their ignorance of the method, lack of experience with it, or embarrassment over the questions.

#### L. Experience with Injections

Because injections with unsterile needles represent one of the modes of AIDS transmission in Kinshasa (albeit considerably less important than sexual transmission), a series of questions was asked regarding injections.

Among the respondents who had heard of AIDS, 42 percent of the men and 32 percent of the women had received an injection in the past six months. The number of injections received is shown in Table 13.

Of those who had received an injection, 53 percent of men and 48 percent of women reported having taken their own syringe (the question was asked with respect to the last injection). This relatively high percentage can be attributed to one of two factors: (1) fear of AIDS or (2) lack of supplies at the health facility, which would oblige the client bring his own syringe.

Among those who did not bring their own syringe, 66 percent of men and 51 percent of women claimed to have asked if the needles used were sterilized. (However, it should be noted that this question may invite answers which would make the respondent look "responsible.")

#### M. Perceived Risk of Getting AIDS

All respondents who had heard of AIDS were asked if they perceived their own risk of getting this disease as "high, moderate, low, or none." Forty-seven percent of men and 63 percent of women believed that they were at no risk of getting AIDS.

Further analysis indicates that this perceived risk is associated with at least four factors: age, education, exposure to messages about AIDS and extra-marital sexual relations (data

not shown herein). The percentage perceiving that they are at some risk of AIDS is higher:

- among those 20-40 years of age (than among those younger or older)
- among those with a higher educational level
- among those who have had an extramarital partner in the past six months
- among those who have been exposed to messages about AIDS through multiple channels.

Factors (tested to date) which are not associated with perceived risk of AIDS include:

- religion
- knowledge of the specific facts regarding AIDS (as measured by a total of 32 knowledge questions asked in the questionnaire).

This latter finding is particularly interesting, in that it suggests that the "media hype" on AIDS is useful in making people more aware of their risk; yet knowing the exact facts does not alter their perceptions of this risk. Subsequent analysis will explore this issue further.

#### N. Attitudes toward Testing for the AIDS Virus

The issue of testing for HIV positivity is not as widely discussed in Zaire as it has been in the United States and Europe. However, the issue of testing is important in Zaire. Prior to 1988, it was not general practice to inform patients of their sero-status, even if they were seropositive. In early 1988, the National Committee on AIDS Prevention decided that thereafter patients should be informed of their status. However, at the time the questionnaire for this survey was being designed, the issue was still being debated, and the series of questions shown in Table 15 was designed to obtain data on the attitudes of Kinshasa residents toward testing and informing patients of the results.

As shown in Table 15, 78 percent of men and 57 percent of women reported that they would accept being tested for AIDS. Anecdotal reports from a pretest of a sero-prevalence survey recently conducted in Kinshasa suggest that the acceptance rate was slightly higher than that reported for men herein.

All respondents who had heard of AIDS were asked "if your wife or child were infected with the AIDS virus, would you want to know it?" Nine in ten responded affirmatively.

Respondents were also asked "if one day you became ill and the doctor discovered that you had AIDS, would you want to know?" A slightly lower percentage but still the strong majority (92 percent, men; 86 percent, women) reported that they would want to know.

However, when asked "if someone in your family had AIDS, who should be informed?", close to half cited "a member of the family" as opposed to the patient himself. This may reflect current practice in Zaire of informing a family member but not necessarily the patient himself in the case of patients who are severely ill and/or have a fatal disease. Only 2-3 percent felt that no one should be informed.

Finally, respondents were asked whether "before proceeding to test a patient's blood for AIDS, the doctor should inform the patient that he is going to do the test?" Only 38 percent of men and 31 percent of women felt that this was necessary. This suggests (1) that the issue of testing may not be as sensitive in Zaire in the Western world, and (2) patients' rights may be less of an issue.

#### IV. IMPLICATIONS

The results of this study provide the first available data on levels of knowledge, attitudes and practices with regard to AIDS among a random sample of the population of Kinshasa. While in fact awareness and knowledge may have increased since the study ended in September 1988, nonetheless the results constitute a useful basis for the planning and evaluation of future information-education-communication activities for AIDS.

These findings have several implications for ongoing and future efforts to prevent the spread of AIDS in Kinshasa:

1. The population knows that AIDS exists and how it is transmitted, but greater efforts are needed to make people aware of the personal risk that AIDS poses to them. This is especially true for partners that are not mutually monogamous.
2. The adult population of Kinshasa has heard of condoms, but does not yet perceive their central role in the fight against AIDS. Further I-E-C efforts should reinforce the idea that the two main means of protection from AIDS are (1)

total/mutual fidelity among spouses and (where that is not possible), (2) use of condoms.

3. Condom promotion should include messages directed at changing the negative attitudes toward condoms which were reflected by this study.
4. The information campaigns should stress the facts that there is no effective vaccine against AIDS and the disease is fatal; a significant minority of the population believes otherwise.
5. Education campaigns should be directed to teens as well as adults; by the age of 18, over half of males and females have experienced sexual relations. Moreover, the young people appear to underestimate their risk of AIDS.
6. Efforts should be made to combat the still prevalent misconceptions that AIDS can be transmitted by casual contact and by mosquitos. This may cause unnecessary worry among the population and lead to ostracism of AIDS victims.

This report describes the main findings from the AIDS module of the Contraceptive Prevalence Survey and K-A-P for AIDS, conducted in 1988 in Kinshasa. Further analysis will explore such issues as correlates of knowledge, extra-marital relations, perceived risk, and other variables, in an effort to further understand the relationships which have direct bearing on the transmission of this disease in the context of Zaire.

Table 1.

## Socio-demographic Characteristics of the Study Population (\*)

	Men	Women
	-----	-----
	n = 3140	n = 3485
<u>Age:</u>	%	%
15-19	--	23.0
20-24	23.5	23.2
25-29	36.2	20.0
30-34	12.8	14.6
35-39	9.8	10.2
40-44	9.6	5.6
45-49	4.8	3.2
50-59	3.3	--
Mean age:	33.4 years	26.6 years
<u>Highest educational level attained:</u>		
No formal schooling	2.4	10.9
Some level primary	16.7	25.5
Some level secondary	61.0	60.5
Beyond secondary	19.5	2.7
Night school	0.3	0.4
<u>Occupational status:</u>		
Employed (outside home)	62.6	27.2
Student	14.8	18.2
Housewife	--	49.2
Unemployed, inactive	3.2	5.1
Retired	19.3	0.0
Other	0.3	0.3
<u>Religion:</u>		
Catholic	56.4	50.9
Protestant	21.2	22.6
Kimbanguiste	2.6	3.0
Other	16.0	22.1
None	3.8	1.4

(\*) The "n" given in this and all subsequent tables is based on the unweighted sample (i.e. actual number of people who answered the question); the percentages are based on the weighted sample.

Table 1 (Continued)

	Men ----- n = 3140	Women ----- n = 3485
<u>Zone of Residence:</u>		
Bandalungwa (3.6%)	3.9	3.6
Barumbu (2.2%)	3.7	2.8
Bumbu (4.1%)	3.7	4.1
Gombe (0.4%)	0.9	1.1
Kalamu (5.4%)	2.8	3.6
Kasa-vubu (2.3%)	2.2	4.3
Kimbanseke (13.9%)	7.2	6.2
Kinshasa (0.8%)	1.8	1.8
Kintambo (2.3%)	1.2	1.5
Kinkenso (5.1%)	4.5	4.2
Lemba (5.7%)	8.5	8.3
Limete (5.0%)	7.1	5.7
Lingwala (1.5%)	1.9	1.6
Makala (3.5%)	3.7	3.6
Maluku (2.1%)	1.7	1.9
Masina (9.2%)	12.9	12.2
Matete (4.4%)	3.8	4.4
Mont Ngafula (1.6%)	1.5	1.6
N'djili (5.5%)	6.3	6.9
Ngaba (2.6%)	2.5	3.3
Ngaliema (10.6%)	9.5	9.2
Ngiri-ngiri (2.5%)	2.2	3.2
Nsele (1.3%)	1.1	0.7
Selembao (4.6%)	4.5	4.3
<u>Place of residence</u> <u>until age 15:</u>		
City	49.5	64.6
Other urban area	17.1	12.5
Village	33.0	22.5
Other	0.4	0.5
<u>Marital status:</u>		
Married (1 wife)	53.1	44.1
Married (2 wives)	3.9	7.3
Married (3+ wives)	0.4	1.0
Consensual union- one partner	1.8	7.9
Consensual union- 2+ partners	0.2	1.6
Separated, divorced, or widowed	3.5	8.5
Single, never married	37.1	29.5

Table 1 (continued)

	Men	Women
	-----	-----
	n = 3140	n = 3485
	%	%
<u>Age at first sexual relations:</u>		
12 or under	3.7	1.8
13	2.7	3.2
14	5.8	7.7
15	15.6	15.9
16	13.7	14.6
17	13.0	12.8
18	12.4	12.2
19	6.1	4.5
20	8.2	5.3
21 or over	8.8	4.8
No response	9.2	3.5
Has not yet had sex	1.0	13.7
Mean age at first sex	17.1	16.6
	years	years
Median age at first sex	17.0	18.3
	years	years
<u>Mean number of living children</u>		
<u>by age of the respondent:</u>		
	(mean)	(mean)
15-19	--	0.2
20-24	0.2	1.1
25-29	1.5	2.5
30-34	3.8	4.1
35-39	6.0	5.4
40-44	7.2	6.3
45-49	7.3	6.2
50-59	8.2	--
<u>Has following amenities in</u>		
<u>household:</u>		
Electricity	33.6	35.3
Running water in house	9.2	7.8
Toilet inside house	11.5	8.6
Working radio	51.8	49.3
Working television	35.1	35.2
Working refrigerator	17.9	19.8
Bicycle	2.1	1.1
Vehicle (car, truck)	9.4	7.0

Table 2.

Knowledge of AIDS and the First Source of Information (\*)

	Men	Women
	-----	-----
	n = 3140	n = 3485
	%	%
<u>Percentage that have heard of:</u>		
Malaria	100.0	99.6
Diarrhea	99.9	99.9
Tuberculosis	99.6	98.8
Sleeping sickness	98.6	93.8
Leprosy	96.8	85.6
AIDS	99.0	96.4
-----		
<u>(Among those who have heard of AIDS):</u>		
	n = 3099	n = 3351
-----		
<u>Number of months since first heard of AIDS:</u>		
0 - 6	3.4	8.5
7 - 12	20.4	28.9
13 - 18	12.6	14.4
19 - 24	21.4	20.7
25 - 36	22.7	14.0
37 or more	19.5	13.5
<u>Source of first information about AIDS:</u>		
Friends, neighbors	55.0	73.8
Radio	26.2	14.5
Television	4.1	5.6
Newspaper	8.3	1.6
Other	6.4	4.2
DK (don't know)	0.1	0.2

(\*) The n is from the unweighted sample; percentages are weighted.

Table 2 (continued)

	Men ----- n = 3099  %	Women ----- n = 3351  %
<u>"What is AIDS?":</u>		
--An STD that ends in death	45.8	27.7
--An illness characterized by diarrhea, weight loss, etc.	20.3	49.8
--An illness difficult to describe, that ends in death	8.7	9.2
--A disease that is contagious and fatal	4.8	3.0
--Curse of God	4.7	2.9
--An illness that destroys one's antibodies	4.3	0.9
--Other	6.4	2.9
--DK (don't know)	5.0	3.6
<u>Percentage that have heard the word "seropositive":</u>	39.1	15.6
	----- n = 1099	----- n = 444
<u>Definitions given:</u>		
"Healthy" (asymptomatic) carrier of AIDS	35.2	20.4
Persons carrying the AIDS virus	34.1	43.9
A person who has AIDS	12.2	9.9
Other	4.3	16.1
DK, can't explain	14.2	9.7

Table 3

Knowledge of Modes of Transmission and Symptoms of AIDS  
Among Those who Have Heard of AIDS (\*)

	Men ----- n = 3099  %	Women ----- n = 3351  %
<u>Percentage who believe that AIDS can be transmitted by:</u>		
--Sexual relations	98.7	96.4
--A transfusion with infected blood	96.8	92.7
--Unsterile needles	95.7	91.3
--Mother to fetus	94.0	89.2
--Mosquitos	40.4	33.4
--Living in the same house as someone with AIDS	26.0	29.9
--Working beside someone with AIDS	21.9	24.5
--Wearing used clothes	18.7	19.9
--Eating unclean food	7.3	6.4

-----  
(\*) The n is from the unweighted sample; percentages are weighted.

Table 3 (continued)

	Men ----- n = 3099 %	Women ----- n = 3351 %
<u>Percentage who believe each of the following to be a symptom of AIDS: (**)</u>		
--Prolonged diarrhea	81.6	81.7
--Extreme weight loss	78.2	68.7
--Recurrent fever	45.2	43.2
--Intense, generalized fatigue	43.4	28.8
--Pain in the joints	27.3	22.0
--Frequent vomiting	20.1	13.9
--Excessive bleeding for	15.6	10.7
--Deafness	9.2	6.1

-----  
 (\*\*) This list was read item by item to each respondent who had heard of AIDS, and he/she was asked to indicate if the item was or was not a symptom of AIDS.

Table 4

Beliefs about AIDS among Those who Have Heard of It (\*)

	Men ----- n = 3099 %	Women ----- n = 3351 %
<u>Percentage who believe that:</u>		
--A person can be infected without knowing it	87.9	77.5
--A person can be infected without feeling sick	84.5	73.1
--A person who feels healthy could transmit AIDS to another person	84.2	72.1
--A person who has sexual relations with multiple partners is at more risk of getting AIDS than someone with a single partner	78.5	71.8
--There is a vaccine against AIDS	36.4	40.7
--AIDS can be cured	39.9	21.4
--A person infected with the AIDS virus will eventually get the disease	76.0	71.2
--It is advisable for a woman infected with the virus to get pregnant.	2.3	1.2
<u>Percentage who know:</u>		
--A person infected with AIDS	16.8	30.8
--A person who died of AIDS	49.7	59.8
--Average number known who have died of AIDS (among those who know a least one case)	2.6 persons	2.4 persons

(\*) The n is unweighted; percentages are weighted.

Table 5

Beliefs concerning the Prevention of AIDS among those who Have Heard of AIDS (\*)

	Men	Women
	-----	-----
	n = 3099	n = 3351
	%	%
<u>Percentage who believe that AIDS can be prevented:</u>	93.7	88.0
-----		
(Among those who believe it can be prevented)	n = 2897	n = 2968
-----		
<u>"How can AIDS be prevented?"</u> (open-ended question, with multiple responses possible)		
--Reduce number of partners	72.2	81.8
--Avoid sex with prostitutes	63.4	63.4
--Avoid injections with unsterile needles	40.6	29.7
--Use condoms	34.5	19.2
--Avoid blood transfusions	27.4	25.8
--Other	43.9	57.1
-----		
(Among all respondents who have heard of AIDS):	n = 3099	n = 3351
-----		
<u>"Which of the following can help to prevent AIDS?"</u>		
--Avoid sexual relations with multiple partners	93.7	85.4
--Use condoms	70.1	41.6
--Take antibiotics	8.7	13.4
--Go to traditional healer	4.5	11.2

(\*) The n is unweighted; percentages are weighted.

Table 6

Exposure to AIDS Messages among Respondents who Have Heard of AIDS

	Men ----- n = 3099  %	Women ----- n = 3351  %
<u>Percentage of respondents who have seen or heard a message about AIDS via:</u>		
-- Radio	95.7	82.8
-- Song by Franco (**)	95.0	82.4
-- Television	85.5	69.8
-- Brochure	59.9	33.9
-- Newspaper article	56.8	22.9
-- Poster	37.5	21.8
 <u>Percentage of respondents who have:</u>		
-- Discussed AIDS with a doctor or nurse	21.2	7.6
-- Attended a group meeting where AIDS was discussed	16.6	7.2
 <u>Percentage who would like to have more information about AIDS:</u>		
	95.2	89.1

-----

(\*) The n is based on the unweighted sample; percentages are based on the weighted sample.

(\*\*) This question was not asked of 13 percent of men and 10 percent of women; the results herein are based on the remaining cases.

Table 7

**Sexual Behavior among Respondents in Union  
who Have Heard of AIDS (\*)**

	Men ----- n = 1885  %	Women ----- n = 2123  %
<u>Percentage who had sexual relations in the past month:</u>	65.7	59.4
(Among those who had relations last month)		
<u>Number of days the respondent had sexual relations in past week:</u>		
0	33.8	34.3
1	24.6	28.4
2	26.2	21.9
3	10.4	8.8
4	3.4	5.2
5	0.5	0.8
6	0.6	0.5
7	0.5	0.1
<u>Average number of days last week:</u>	1.3 days	1.4 days
<u>Percentage who report having sex with spouse during woman's periods:</u>		
--Often	0.9	2.3
--Sometimes	1.9	3.7
--Rarely	11.3	8.6
--Never	85.5	85.2
--DK (don't know)	0.4	0.2

-----

(\*) "In union" includes the first five categories of marital status shown in Table 1 (official or consensual, one or more wives). The n is unweighted; percentages are weighted.

Table 8

Frequency of Extra-marital Relations among Married Respondents  
who Have Heard about AIDS (\*)

	Men ----- n = 1885  %	Women ----- n = 2123  %
<u>Percentage of married respondents reporting to have had extra-marital relations in past 6 months:</u>	22.6	1.4
<u>Number of extra-marital partners in past six months:</u>		
0	77.4	98.6
1	11.7	1.3
2	5.6	0.1
3	2.9	0.0
4	1.0	0.0
5 or more	1.3	0.0
<u>Percentage of married respondents reporting extramarital relations in past four weeks:</u>	12.1	1.3
<u>Number of extra-marital partners in past four weeks:</u>		
0	87.9	98.7
1	9.1	1.1
2	2.0	0.2
3	0.4	0.0
4 or more	0.5	0.0

-----  
(\*) The n is unweighted; percentages based on weighted sample.

Table 9

Knowledge and Use of Condoms among Those who  
Have Heard of AIDS (\*)

	Men		Women	
	Married n= 1885	Single n= 1213	Married n= 2123	Single n=1228
Percent that have heard of condoms	91.7	96.2	76.8	61.1
Percent that have used condoms	11.5	27.4	12.0	7.0
Percent that currently use condoms with spouse (or partner)	8.0	17.1	7.1	6.9

(Among those who use condoms with spouse)

	n = 141	n = 188	n = 143	n = 54
--	---------	---------	---------	--------

Reason for using condoms:

--avoid pregnancy	82.1	77.7	95.9	79.0
--avoid other STDs	26.6	44.1	4.9	29.8
--avoid AIDS	13.0	24.8	1.5	11.6

Frequency of use:

--always	4.4	7.2	10.7	0.7
--most of the time	12.4	19.5	10.7	22.9
--sometimes	22.3	19.1	8.3	8.8
--rarely	61.0	54.1	67.8	67.6

(\*) "Married" includes the first five categories of marital status shown in Table 1 (official or consensual, one or more wives). "Single" includes separated, divorced, widowed and never married. The n is unweighted; the percentages are based on the weighted sample.

Table 10

Use of Condoms for Extra-marital Affairs among Those who were Married and had Extra-marital Relations in the Past Six Month (\*)

	Men	Women
	n = 401	n = 22
	%	%
<u>Percentage who use condoms with extra-marital partners:</u>	24.0	11.8
(Among these condom users):	n = 90	n = 4
<u>Frequency of use:</u>		
--Always	35.4	(n too small to report percentages)
--Most of the time	14.5	
--Sometimes	27.4	
--Never	22.7	

(\*) The n is based on the unweighted sample; the percentages on the weighted sample.

Table 11

Attitudes toward Condoms among Men who Have Heard of AIDS (\*)

	Married Men ----- n = 1885 %	Single Men ----- n = 1213 %
<u>Responses to the following attitudinal questions:</u>		
<u>Condoms tear easily during sexual relations:</u>		
-- Yes	63.3	57.7
-- No	18.0	30.5
-- DK (don't know)	18.7	11.7
<u>Condoms can remain in the vagina after sexual relations:</u>		
-- Yes	55.2	52.3
-- No	25.3	36.2
-- DK	19.5	11.5
<u>Condoms decrease sexual pleasure:</u>		
-- Yes	54.1	62.4
-- No	18.3	20.9
-- DK	27.5	16.7

(\*) "Married" includes the first five categories of marital status shown in Table 1 (official or consensual, one or more wives). "Single" includes separated, divorced, widowed and never married. The n is unweighted; percentages are based on the weighted sample.

Table 12

Attitudes toward Condoms among Women who Have Heard of AIDS (\*)

	Married Women	Single Women
	n = 2123	n = 899
	%	%
<u>Responses to the following attitudinal questions:</u>		
<u>Condoms tear easily during sexual relations:</u>		
-- Yes	38.4	34.4
-- No	24.0	24.0
-- DK (don't know)	37.7	41.6
<u>Condoms can remain in the vagina after sexual relations:</u>		
-- Yes	31.8	31.3
-- No	29.3	25.0
-- DK	38.9	43.6
<u>Condoms decrease sexual pleasure:</u>		
-- Yes	27.0	26.0
-- No	20.4	16.4
-- DK	52.6	57.7

(\*) "Married" includes the first five categories of marital status shown in Table 1 (official or consensual, one or more wives). "Single" includes separated, divorced, widowed and never married. Respondents who had never had sexual relations were excluded. The n is unweighted; the percentages are based on the weighted sample.

Table 13

Experience with Injections among Respondents who  
Have Heard of AIDS (\*)

	Men	Women
	-----	-----
	n = 3099	n = 3351
	%	%
<u>Percentage that have had an injection in the last six months:</u>	41.8	32.3
(Among those who have had an injection)	----- n = 1280	----- n = 1014
<u>Number of injections in the past six months:</u>		
-- 1 to 3	43.8	41.4
-- 4 to 6	33.4	28.4
-- 7 to 9	6.0	8.2
-- 10 or more	13.6	17.1
-- DK, no information	3.2	4.9
<u>Percentage who took own needle (the last time):</u>	53.4	47.9
Among those that did not bring their own needle	----- n = 623	----- n = 527
<u>Percentage who asked if the needle had been sterilized:</u>	66.1	50.8

(\*) The n is unweighted; percentages are based on the weighted sample.

Table 14

Perceived Risks of Getting AIDS among those who Have Heard of the Disease (\*)

	Men	Women
	n = 3099	n = 3351
	%	%
<u>Perceived risk of contacting AIDS:</u>		
-- Very high	10.6	10.2
-- Moderate	6.8	5.9
-- Low	21.0	9.3
-- None	46.8	62.9
-- DK	13.8	11.3

(\*) The n is unweighted; the percentages are based on the weighted sample.

Table 15

Attitudes toward Testing for the AIDS Virus among  
Those who Have Heard of the Disease (\*)

	Men ----- n = 3099  %	Women ----- n = 3351  %
<u>Attitudes:</u>		
<u>Percent of respondents that would accept being tested for AIDS:</u>	78.3	57.2
<u>Percent who would want to know if their spouse or child had AIDS:</u>	95.3	89.9
<u>Percent who would want to know if they were diagnosed to have AIDS:</u>	92.3	86.3
<u>If someone in your family had AIDS, who should be informed?</u>		
-- the patient himself	12.2	18.9
-- a member of the family	47.3	45.7
-- both the patient and a family member	38.3	32.0
-- no one should be informed	2.2	3.4
<u>Percent who believe that the doctor should inform the patient before testing his blood for the AIDS virus:</u>	37.7	30.8

(\*) The n is unweighted; the percentages are based on the weighted sample.

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## APPENDIX A

### PERSONS WHO CONTRIBUTED TO CPS/AIDS SURVEY

#### 1. SURVEY RESEARCH TEAM

##### A. Technical consultants

- Cn. BAKUTUVWIDI MAKANI
- Cn. KINAVWIDI LEWU NIWEMBO
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##### B. Supervisors

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##### C. Interview Team Leaders

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- Cn. YENGI NKOLO
- Cn. NLANDU NDONGALA
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- Cn. WAYA WAYA ETAL
- Cn. MPARANY NGABO
- Cn. WA NZOAME KAMOKO
- Cn. MUKOMA KASONGO
- Cn. MASUTA MANGUNZA
- Cn. MAKUMBI MPUTU
- Cn. LUTEKE TSHIMANGA
- Cn. KWILU NAPA
- Cne. DJALEMBONKEBI LETA
- Cn. KINGUNZA PEMBELE
- Cne. KINUNGA AMOSI
- Cn. KENGUNGUI NESE
- Cn. ELUMBA ITOSHI
- Cn. KASHANGI CHIRUBA
- Cne. MAWENE N'KIE

- Cne. PULULU ZITENDA
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- Cne. MBAKI YINDA
- Cne. MBALA NDOMBO
- Cne. MBALA KUNGA
- Cn. OYOWE LAMAH
- Cn. KATANGA MOKE
- Cne. NGITO EPONGA
- Cne. MUNDWA ILEMPWA
- Cne. MESONGOLO BUTANDU
- Cne. MBOMBO MUJANY
- Cne. LOSA MADJADI
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- Cne. INYAMANA N'TON'ABLODA
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- Cn. NGANIRWA LWANWA
- Cn. PHAKA MBUNGA
- Cne. MIBULUNUKINI MPONI

G. Secretaries

- Cn. AHUTA MOENGE
- Cn. KASELA KANYMBU

H. Drivers

- Cn. MAZUA LUNANGA
- Cn. MUKENDJI NZINGA
- Cn. LOFEMBA BAKALI
- Cn. MAHUNDA TUNGA
- Cn. MABIALA BODE
- Cn. LOETE BAYOKOLA

2. PSND STAFF WHO CONTRIBUTED TO THE SURVEY

- Cne. CHIRWISA CHIRHAMOLEKWA : Director PSND
- Cn. NGOIE MBUYA : Assistant Director  
in charge of  
administration
- Mr BRAD BARKER : (Former) Assistant  
Director in charge  
of administration
- Cn. BUHENDWA RUTEBA : Administrator
- Cn. NGBOKOLI KOLA GIGI : Admi

- Cne. KASHWANTALE CHIBALONZA	: Head, Applied Research
- Cn. LUNGONZO MBUYI CIBWABWA	: Accountant
- Cn. KIDIADI MAVUELA	: Accountant
- Cn. BITULU MONGA	: Cashier
- Cn. BAMBU BADIBANGA	: Cashier
- Cn. KADIMA MBALA	: Commodities
- Cne. MUSHIYA LUNGANGA	: Commodities