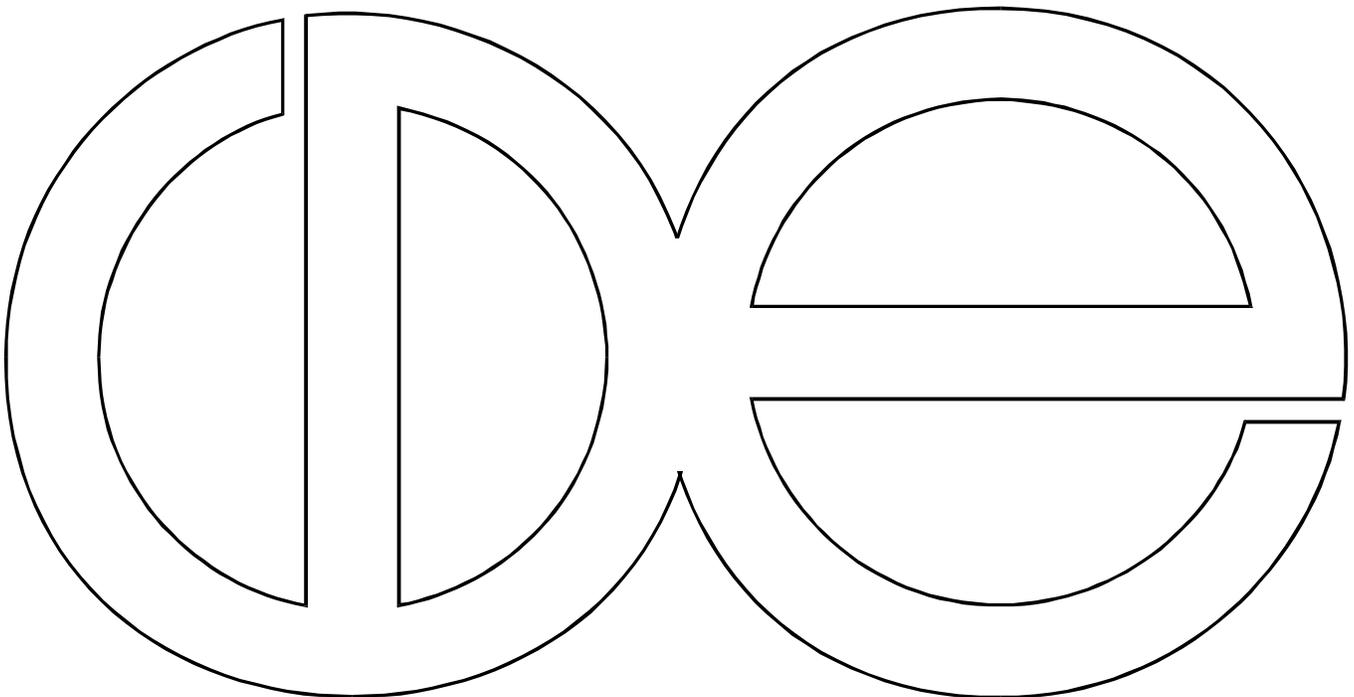


**Center for Demography and Ecology  
University of Wisconsin-Madison**

**The Sexual Networks of Migrant Serere Women  
and the Spread of HIV in Senegal**

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**THE SEXUAL NETWORKS OF MIGRANT SERERE WOMEN AND  
THE SPREAD OF HIV IN SENEGAL**

by

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## ABSTRACT

This study looks at the sexual networks of migrant women from the Serere ethnic group in Senegal, West Africa. These women were identified as likely to be at risk of high rates of sexual networking (having relations with multiple sex partners), a high risk practice for HIV infection, due to the social, economic and cultural conditions in which they live. These indicator conditions include economic vulnerability, high rates of migration to urban areas, and marriage patterns that include polygamy, one of the highest divorce rates in Africa and common widowhood. The migration patterns of Serere women also indicate that should they become infected with HIV, they could unintentionally create bridges from urban, high risk groups to rural, lower risk groups.

A field study was conducted among these women in 1997 to 1) assess the character and extent of the sexual networks of migrant Serere women in Dakar, the capital of Senegal, 2) determine whether they create links between high risk, urban and lower risk, rural populations, and 3) identify what factors shape these networks.

Statistical analysis shows that this sample of migrant Serere women have not adopted high risk sexual networking behavior. For the most part they maintain traditional Serere marriage and sexual practices with moderate risk for HIV infection. They also do not create an important link between high and low risk groups for the spread of HIV.

As far as the factors that shape these sexual networks, one hypothesis is that the solidarity between Serere migrant women might keep them from higher risk behavior - where support from fellow migrant women replaces the support women across Africa receive from

men through increased sexual networking. Another area for future research includes determining the effect of Islam on the sexual behavior of this and other groups, as Senegal is over 95% Muslim.

Logit regression was used to determine the characteristics of women that predict slightly higher risk behavior, so that women can be targeted for future interventions. These women include never married women aged 20-24, women with western education, women who have been migrating for more than 14 years, and Catholic women. Logit regression was also used to determine the characteristics of women and their partners that predict whether a couple uses condoms. The characteristics of the partners of the migrant Serere women in this sample were the most significant determining factors.

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Figure 1: Map of Africa



NOTE: This map, which has been prepared solely for the convenience of readers, does not purport to express political boundaries or relationships. The scale is a composite of several forms of projection.

(Cohen and Trussell, eds. 1996)

## 1. INTRODUCTION

The prevalence of HIV/AIDS in Africa is staggering. Of the 30.6 million people in the world infected with HIV, almost 21 million live in Africa - more than two thirds of the world's HIV cases. The rates of infection in most countries in Africa are increasing rapidly, and with a vaccine many years away, the spread of the virus on the continent will vanquish millions, many of who will not even know of what they died.

The distribution of HIV across Africa can be characterized by large variations in levels of infection between groups, from zero seroprevalence in some social groups to near total saturation within others (Palloni 1995). The pace and extent of the spread of HIV within an entire population can be determined by the shape of the sexual networks<sup>1</sup> that connect the groups within it, as well as connect it to the outside world (Morris 1997). It is the links between sub-populations that allow the virus entry into new groups, where it will then spread based on the patterns of sexual behavior within that group. If a sub-population has many links to other groups, the chance of the introduction of the virus is increased. Conversely, if there are few links (sub-populations are relatively isolated from one another), the sub-population is at lower risk for HIV infection.

Within population groups, HIV spreads in varying ways based on behaviors and trends within each group. Research points to the connections between the patterns of spread of HIV and social, economic, and cultural conditions (Palloni 1995). Through numerous studies that

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<sup>1</sup> A sexual network is a set of persons and the sexual links connecting them (Klovdahl 1985).

have tried to identify how the virus spreads and what determines who is at risk, we have begun to learn what conditions are associated with the risk of HIV infection.

Some of the riskier social, economic and cultural conditions identified include migration and economic vulnerability, both of which have been connected with increased chances of sexual networking.<sup>2</sup> Examples of connections between sexual networking and these two conditions have been found throughout Africa. For example, market women who migrate as part of their work in Benin State, Nigeria have been found to have very high levels of sexual networking (Omorodion 1993). Seventy percent of the market women studied had extramarital sexual relationships, and a high proportion had contracted sexually transmitted diseases (STDs) (Omorodion 1993). In Ghana, many women migrate in search of income; especially those who are less educated (Anarfi 1993). Job competition and discrimination against migrants narrows the choice of job options for migrant Ghanaians, according to Anarfi (1993), and because of their disadvantaged situation, many seek employment in easy-entry jobs. In addition, Anarfi (1993) found that “most of the already disadvantaged women, given their lower educational background, have been driven into the ‘sex trade’” (p. 62).

Similar conclusions come from Sierra Leone. Adegbola *et al.* (1995) describe the significant decline in indices of population welfare for urban dwellers in Freetown, and also report that over 50% of migrants to Freetown have been women in recent decades. The authors conclude that the harsh urban environment and poor economic infrastructural support there can put pressure on individuals, especially on unemployed women to enter into formal or clandestine sex working to survive (Adegbola *et al.* 1995).

Thus we have seen that economic vulnerability and migration are conditions that can act as indicators as to which sub-populations might be at increased risk for practices which could lead to HIV infection. However, the particular groups and circumstances where we find these conditions must be studied to identify who is really at risk and why. Only by studying particular sexual networks can we know whether links are being created between high risk and low risk groups, increasing risk of HIV transmission.

With resources to fight the spread of HIV in Africa limited, the ability to identify those people most at risk of infection due to their sexual networks, and the factors that put them at risk, has the potential to greatly enhance the effectiveness of resources spent on interventions. Likewise, by identifying the sexual networks of a group, and any links between sub-populations they might create, resources can be more efficiently targeted to try to block links, and reduce the spread of the virus to new sub-populations.

HIV prevalence in Senegal is not yet alarmingly high, but HIV is present. Recognizing that rates given for countries, and even cities, mask the variation in seroprevalence between sub-populations within those countries and cities, we can still get a general impression of the prevalence of the virus in Senegal by looking at the most current estimates. According to the U.S. Census Bureau, among the general low risk population in Senegal (including pregnant women, blood donors, or other persons with no known risk factors), the rates are still relatively low. In Dakar, the capital of Senegal, the estimated seroprevalence rate is 1.7%, and outside of Dakar, the rate for low risk groups is estimated to be around .6% (Stanecki 1998).

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<sup>2</sup> Having relations with multiple sex partners.  
(con't.)

However, the virus is present at higher rates among high risk groups in Senegal, including sex workers and their clients, STD patients, or other persons with known risk factors. Both within Dakar and outside, estimated seroprevalence rates among high risk groups are around 10% (Stanecki 1998). Senegal still has not seen the jarring seroprevalence rates experienced in southern and eastern Africa, but the virus is present and spreading.

This study attempts to use the knowledge we have of what puts people at risk of increased sexual networking and looks at a particular group in Senegal to determine the character and extent, and hence the risk, of their sexual networks. Migrant Serere women were chosen for this study because they experience some of the social, cultural, and economic conditions that are indicators of the risk of increased sexual networking. These women migrate and they also experience some of the most severe economic situations women face in Dakar, where most Serere women go. In addition, because they migrate from rural to urban areas and back, if their sexual networks include high risk men in Dakar, they could potentially link these high risk men to the lower risk rural population from which they come.

In Senegal, 70-80% of the population lives in rural areas. As the preceding seroprevalence rates indicate, the HIV has not significantly touched the rural areas thus far. The spread of the virus into rural areas is a major fear, as its spread there will be much more difficult to control due to lack of resources, illiteracy and prevalence of such traditional practices such as circumcision, polygamy and scarification.

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Garenne *et al.* (1992) characterized the sexual behavior of migrant Serere women from research they have done in Niakhar, a rural area of Senegal, populated mainly by Serere.

Their characterization was concise:

“A typical girl would go to Dakar for a few successive dry seasons, between the ages of 10 and 18. During her last years in the city, she will commonly have a relationship with one or several “fiancés” usually from the same ethnic group and from the same urban neighbourhood. She may have sexual intercourse with them, although not necessarily. She may become pregnant and return to the village to get married, although the most frequent pattern is to get married first. Some women stay longer in the cities. The oldest may indulge in sex with several partners, not necessarily for money; a few may practice commercial sex for a while, until marriage occurs or a need to change is felt. After marriage, women may have extramarital sex, but this is usually occasional.” (1992:272)

In 1997, Becker reported that marriage and sexual behaviors change slowly among this group of Serere people, even among those who migrate to the cities. However, he adds that the young adults who migrate to Dakar could be lured into adopting risk behaviors there.

Thus, Serere women are especially interesting. They migrate and are very poor. They are a potential link between high and low risk groups. However, anthropologists report from interviews conducted in the villages that out migrants engage in some sex but not much, and most of it with Serere men.

I hypothesized that Serere women who migrate would indeed be at risk for altering their traditional sexual and marriage behaviors in Dakar, especially due to the dire economic situations they experience there. I hypothesized that these women would be at risk of increased sexual networking in order to make ends meet.

In an attempt to obtain more data that would shed light on how people behave sexually in certain circumstances, this study examines the nature and pattern of sexual

behavior of migrant Serere women in Dakar. At the same time, it is possible to gain more insight into the conditions that put women at risk of HIV infection, and some of the factors that provide protection.

This research was designed, therefore, to try to enlighten us in three areas of inquiry. It was designed to 1) try to identify the character and extent of the sexual networks of migrant Serere women in Dakar, which I hypothesized would reflect both the patterns of the population from which they come and the realities, constraints and environment they find in their work and lives in Dakar; 2) try to determine if their networks might unwittingly create links between urban, high risk and rural, low risk populations; and 3) try to identify some of the factors that shape these networks, to better identify effective interventions. Through this research, it should be possible to determine whether these women have sexual networks as described above by Garenne *et al.* (1992) in their study of the Serere in rural Senegal, or whether Becker's (1997) fear has become a reality, that young adults in Dakar are drawn into higher risk sexual networking, much like the market women in Benin, Nigeria and migrants from Ghana and Sierra Leone.

## **2. OBJECTIVES**

The broad long-term objective of this research is to prevent or reduce the spread of HIV in Senegal by informing new strategies to protect women from being exposed to AIDS and HIV infection. More specifically, the immediate objectives are

1. To discover the character and extent of the sexual networks of migrant Serere women in Dakar;
2. To determine whether the networks of migrant Serere women create links between urban, high risk groups and rural, low risk groups;

3. To identify some of the factors which shape these networks;
4. To discover the characteristics that predict that migrant Serere women in this sample will practice higher risk behavior: Have one or more sex partner outside of marriage who is not likely to become a husband, or have concurrent partners; and
5. To determine what factors predict that migrant Serere women in this sample will use condoms with a sex partner.

### **3. JUSTIFICATION FOR THE STUDY**

Because of AIDS, it is urgently important to study sexual networking, especially in populations perceived as at risk and / or perceived as creating risks for larger populations. Studies such as these can clarify a number of issues including whether these groups really are at risk or put others at risk, what the mechanisms of those risks are, and why the risks exist.

Serere women who migrate from rural areas to Dakar were chosen for study based on a previous study conducted by the author in 1995 among market women in Dakar. Both theoretical and epidemiological reasons were identified which indicated that this group could be at risk for HIV infection themselves, and could possibly be a conduit for HIV to enter the rural areas.

#### **A. Indication of Risk - Economic Vulnerability**

It has been noted that girls and women in severe economic situations in Africa have been left little choice but to engage in sexual relationships as a means of survival - to obtain food and/or money to make ends meet and to feed their families (Akeroyd 1997; Niang 1995; Oppong 1995; Schoepf 1995; Omorodion 1993; Schoepf 1992). When Serere women migrate to Dakar, they typically take on one of four types of employment. They either work

as maids or work in marketplaces, where they pound millet for resale, do laundry, or sell raw agricultural products, such as peanuts, black eye peas, or dried flowers or leaves for teas and juices.

Their lives in Dakar are characterized by severely difficult economic situations. Of the women who work in marketplaces, the Serere migrants are often among the least well off. Women who do laundry might make 1500 CFA per day (approximately 3 dollars) on days when they can work, of which 500 CFA is for the materials of their trade (Gueye 1995). Women who pound millet are even worse off. On average, they earn 200 to 300 CFA per day, just about 50 cents (Gueye 1995). Maids usually fall somewhere in-between, although salaries for domestics can go as low as 2000 CFA (four dollars) per month for young girls (Diaw 1997). For experienced women, high pay might be 25,000 CFA per month (50 dollars) (Diaw 1997). With no vacations, no insurance, and a five and a half day week usually working more than eight hours per day, the best paid, experienced maids are paid about 1000 CFA per day, two dollars (Diaw 1997). Unfortunately, many people in Dakar would rather hire younger maids and pay them less money (Diaw 1997). Because of their economic situation, Serere women often have housing, nutrition, hygiene, health care, and transportation which is below acceptable levels (Diaw 1997; Gueye 1995).

## **B. Indication of Risk and Possible Risk to Others - Migration**

A second indication of risk is the fact that these women migrate from rural to urban areas, where HIV infection rates are generally higher (Pison *et al.* 1993), and back. In many places, migration has been identified as a significant risk factor in the transmission of HIV.

Several studies have shown that people who migrate are more likely to be infected with HIV than non-migrants (Lurie *et al.* 1997). The argument, according to Lurie *et al.* (1997), is based “on the assumption that migrants are more likely than non-migrants to have additional sexual partners” (p. 18). And we know that sexual relations with non-regular partners is a behavior that carries a risk of HIV infection (Caraël *et al.* 1994).

One explanation offered for why migrants have additional sexual partners is the separation of regular partners for long periods of time. Niang (1995) notes in Senegal that seasonal migration, which separates couples for extended periods, leaves each partner increased opportunities to have extra-marital sexual partners. Enel and Pison (1992), also doing research in Senegal, likewise suggest that long periods of separation of spouses may facilitate extra-marital sexual relations. They found that in a rural area of southern Senegal, HIV mainly spreads first to men who become infected during seasonal migration outside of their villages, and then to their rural partners when they return home (Enel and Pison 1992). Bond and Dover (1997), working with migrants in Zambia, also note that “(t)hroughout Southern Africa, migrant labour, ...has been a major reason for both husbands and wives to seek sex outside marriage and has been a leading factor in the spread of STDs” (p. 379).

Another possible factor is that migration often removes people from the cultural controls over sexuality that can curb some excesses, into a situation where sexual fulfillment can be enhanced (Anarfi 1993). Often this leads to increased sexual networking with others to whom migrants are exposed, according to Anarfi (1993).

Another explanation particularly relevant to female migrants is that women who migrate might find themselves in positions where they need help to make ends meet. Anarfi

(1993) notes that female migrants are usually young, unattached and lack basic skills needed to compete successfully for jobs in the new destination. Physical and psychological stress due to the move to a new destination (Anarfi 1993) can also lead to situations where a woman is unable to make enough money to survive. These conditions are circumstances that might lead to women engaging in sexual relationships for the means to take care of their basic needs.

The circular nature of migration and the maintenance of links with home through frequent visits puts people at both ends of the migratory system at risk, as this movement increases the risk of transmitting HIV from one site to the other (Anarfi 1993). This can accelerate the spread of any infectious disease, including HIV. Thus, migration puts migrants at risk of exposure to diseases at their destinations, and puts their home communities at risk of possible transmission of disease by those who return. Migration also puts people at the destination point at risk of possible disease transmission by those who move to the destination (Anarfi 1993). However, since Dakar has thus far had higher rates of HIV infection than most rural areas from which Serere migrants come (Becker 1997), these women seem to be entering a more dangerous environment, and the risk seems to be that they potentially could link urban Dakar to their rural villages.

### **C. An Exceptional Group**

The majority of migrants in Africa are males (Anarfi 1993). Perhaps because of this, very few groups of female migrants have been studied in the literature on sexual networking and the transmission of HIV. Those that have been studied are predominantly itinerant market women and migrant women who work in the sex trade. Very few studies, however, focus on

women who migrate to work in other capacities, such as services like doing laundry or working as maids.

Exceptionally, there are studies on the seasonal migration of the Diola of southern Senegal (Enel *et al.* 1994; Pison *et al.* 1993; Enel and Pison 1992) which mention the remarkably high rate of young Diola women who migrate to cities to work as maids - 80% of women between 15 and 24 years old (Pison *et al.* 1993). These studies note that Diola women who migrate have lower risks than male Diola migrants (Pison *et al.* 1993); however, the risks these women have for HIV infection from their work and migration have not been explored in nearly the depth the risks of male Diola migrants have.

There have also been studies conducted among the rural Serere of Senegal. These studies note the high rate of migration of Serere women to cities to work as maids, laundresses and pounders of millet (more than 80% of women aged 15-19) (Delaunay and Becker 1994). However, the sexual networking of these women in the urban areas, and the attendant risks for HIV infection, have not been explored.

While seasonal migration of women is not a common practice in Africa, there are two ethnic groups in Senegal in which large numbers of women migrate seasonally. While the practice is restricted mainly to these two groups, the Serere migration is unique even when compared to the Diola. While among the Diola, the majority of women between 15 and 24 years old migrate to major cities in Senegal and The Gambia to work as maids, according to Enel *et al.* (1994), once a Diola woman marries, she does not migrate any longer, unless she divorces.

Women of the Serere ethnic group, on the other hand, also migrate to cities, but

starting at an earlier age, around the ages of 8-12 (Garenne *et al.* 1992). According to Garenne *et al.* (1992), girls “go to large cities during the dry season for a number of years, to work and prepare for their marriage” (p. 272). Another of the differences is that although most young women eventually marry within the villages (Garenne *et al.* 1992), after marriage many continue to migrate to the cities to work. At later ages, they tend to take on different work, such as laundry, pounding millet, and selling, occupations in which migrant Diola women do not participate. In addition to being younger when they start migrating and continuing to migrate after marriage, Serere migrants also tend to be less well educated than Diola women are. Only recently have Diola girls less than 15 years old begun to migrate, mainly because they are pursuing their primary education before that point (Diaw 1997). On the other hand, only rarely are Serere girls educated (Diaw 1997; Delaunay and Becker 1994).

#### **D. Indication of Risk - Marriage Patterns**

Women of the Serere ethnic group who migrate were also identified as high risk by characteristics of their marriage patterns. People of the Serere ethnic group tend to marry endogenously within the ethnic group, and marriage is nearly universal for both men and women (Garenne and Van De Walle 1989). However, studies have shown that the divorce rate among the Serere Sine are among the highest in Africa (Becker 1997). Forty one percent of marriages in Niakhar, Senegal, which is almost entirely populated with people of the Serere Sine ethnicity, end in divorce (Lemardeley *et al.* 1995). Women of the Serere Sine group are probably the largest group of female Serere migrants in Dakar. They dominated our study, especially among the women who work as maids. Given the similarities between the Serere

ethnic groups, there is little reason to believe this divorce rate would be vastly different for the other Serere groups.

Garenne and Van De Walle (1989) also state that at least at the site of continuous study among the Serere Sine in Niakhar from 1962 to 1981, women marry very early (median age of 17.8 years) and remarry quickly after divorce, thus increasing their number of lifetime partners. In a study based on a nationally representative sample of adults in United States, Laumann and Youm (1996) found that the likelihood of a woman ever having an STD more than doubles from 5% to 13% when she increases her number of sex partners since age 18 from 1 to 2-4. When she moves from 2-4 sex partners to 5-10, the likelihood increases to 33% (Laumann and Youm 1996). Laumann and Youm (1996) note the extraordinary rate of increase in the likelihood of STD acquisition in the very low range of partner count, especially between 2 and 10 partners. Thus we can see that among the adult population in the United States, each additional lifetime sex partner increases a woman's risk of becoming infected with an STD. Thus, additional lifetime partners becomes an indicator of possible increased risk for infection by an STD or HIV.

Polygyny is another of the outstanding features of this ethnic group (Becker 1997), which is predominately Muslim, although with a sizable minority of Catholics. Although there is disagreement on the effects of polygamy as a risk factor for HIV, it does tend to increase the number of partners who are concurrently connected in a sexual network, which increases the risk of infection of all of them should any one of them become infected. Laumann and Youm (1996) show the intensifying impact of having concurrent partners on the likelihood of reporting more than two STDs in a lifetime among people with the same total number of

partners. Polygamy might well intensify this risk.

In order for polygamy to work in a society where marriage is nearly universal for both men and women, there must be marked differences in age between the spouses (Garenne and Van De Walle 1989). Among the Serere, older men marry women from the larger, younger cohorts. This pattern of age-matching is particularly important, as “the impact of age-matching on population transmission dynamics is critical” (Morris 1997:S211). According to Morris (1997), pairing older men with younger women virtually ensures the transmission of HIV between generations if other partnerships are with age-peers, who will also have partners in the traditional age-pattern. This promotes the spread of the virus from one age group to another, instead of isolating the virus in one age group. According to custom, Serere men are not allowed to take their first wife from their own age class, and are thus usually some ten years older (Garenne and Van De Walle 1989). The age gap widens for second and subsequent wives (Garenne and Van De Walle 1989).

In addition, the life expectancy among the Serere Sine from 1962 to 1981 was 34.5 years (Garenne and Van De Walle 1989). With the large age difference between spouses, women are also frequently widowed. Widows customarily remarry quickly, often to “a biological or classificatory brother of their late husband, according to the customary rules of the levirate” (Garenne and Van De Walle 1989:270). This practice has the frightening potential to decimate families should HIV enter the traditional marriage system.

In conclusion, migrant Serere women were identified as an important group to study due to the indicators of increased risk they have which suggest they would be vulnerable to HIV infection. These indicators include their vulnerable economic situations in Dakar, their

migration pattern, and their marriage customs. They were also identified due to the potential risk their infection might create for a large rural area that has thus far not been significantly affected by the HIV/AIDS pandemic (Becker 1997), but which could be primed for rapid diffusion should the virus enter. The situation of female Serere migrants in cities is unique in Senegal and seemingly in the rest of Africa. Their sexual networks in Dakar and their risks of HIV infection are not well understood. In addition, this group is an under-served group and a group whose voices have not been heard.

#### **4. METHODS**

This study is based on data collected during ten weeks of fieldwork in Dakar, Senegal during June-August, 1997.<sup>3</sup> Data collection included a formal quantitative survey, informal interviews, and a focus group interview.

#### **Figure 2: Focus Group Interview**

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Serere participants in the focus group interview where they wait daily to be hired as maids.

### **A. Dakar and Sample**

Dakar was chosen as the study site as it is the destination of choice for many Serere women who migrate. Dakar is located at the extreme western tip of Senegal, on the Atlantic Ocean. It is a city of more than 1 million in a country of about 8 million.

The study population, 246 migrant women, comes from eight of the different Serere ethnic groups, and ranges in age from 15-60. They are all participants in the fairly stable pattern of circular migration of Serere women from rural areas into cities such as Dakar. Most women come from villages within six hours of Dakar and tend to stay in the capital for several months to several years, visiting their home villages for holidays.

**Figure 3: Serere Women in the Rural Area**



Serere women are famous for their rice farming.

The sample of women interviewed is mainly comprised of women who work as maids. We found early in the interviewing process that the majority of women who work as vendors, laundresses, or pounders are married (75%) and over 30 years of age (mean age 34.1 years). Women who work as maids, however, tend to be more than ten years younger on average (mean age 23.18 years) and less likely to be married (less than 12% married). These younger women seemed (and indeed are!) much more likely to be at risk for sex outside of marriage and to have multiple partners outside of marriage. Because of these behaviors, we believed them to be more at risk of HIV infection from their own sexual behaviors than the other three groups, and therefore we focused most of our attention there.

Once the pattern of sexual behavior of migrant Serere women became clear, it was

obvious that there is little difference in the sexual behavior of women who work as maids and women who work as pounders, laundresses or vendors. Since there are demographic differences between the two groups, there does appear to be more sexual activity outside of marriage among the women who work as maids. However, the differences are due to the differences in age and marital status between the two groups, and not the work they do. When controlling for age and marital status, their sexual behaviors are the same. Overall, 60 (24.4%) of the 246 sample are non-maids, and 186 are maids.

Purposive convenience sampling was used to select informants. Women who work in marketplaces as pounders, vendors, or laundresses are fairly easy to locate, and we were able to interview them where they worked, finding places a slight distance away, where no one could overhear the interview, but where everyone could see what was going on.

The availability of Serere migrant maids to collaborate with us was restricted, as women who work as maids work in private homes, the majority for 9-12 hours per day (Diaw 1997). To deal with this, we sought women using several strategies. 1) Using contacts in the Serere community, we made appointments with women who lived in groups in neighborhoods where we would interview them in the evenings after work and before dinner. More than 75% of maids do not live with their employers (Diaw 1997), so this was one way to contact a large proportion of maids. Many maids live in groups of up to eight to 15 in one rented room. Usually several rooms in one building will be rented to groups of Serere migrants, so we were able to contact several groups at once. 2) We occasionally found women at home for lunch or between jobs at the group houses which they share with other Serere migrants who do laundry, sell or pound millet. 3) Finally, we were able to contact many maids who

were between jobs at three main roadside locations in Dakar where they sit and wait to be hired. These sites are quite well known.

There certainly could be under-representation of employed maids who spend the week at their employer's home and are only free from Saturday afternoon to Sunday night. So also might there be under-representation of women who presently are employed, because interviews in the evenings were very difficult, as the interviewers, who are Serere migrants themselves, were not comfortable out in Dakar after dark. However, we identified as many migrant Serere maids as we could find, using the networks we were tapped into, in the time period we had. We interviewed at 11 different sites, from roadside to a Lutheran home set up for young Serere girls working as maids.

## **B. Questionnaire**

The survey was designed by the author and was based, in part, on a study of local sexual network data in Uganda - *The Ugandan Sexual Network/Behaviors Study for HIV Prevention* (Wawer 1993). The present survey was written in English and translated into French by the author and Amadou Fofana, a Senegalese translator. The French version was then translated into Serere Sine, the most common Serere language spoken among Serere migrant women in Dakar, by Waly Faye, a Senegalese translator, in collaboration with the two interviewers, Amy Ngom, and Déguène Ly, and the author.

**Figure 4: Translation**



Waly Faye translates into Serere.

Many changes were made to the Serere version during translation and pre-testing, so that the final version used was solely written in Serere. Waly Faye back translated the final Serere version into English.

The survey consisted of two main sections: The first was information about the woman: Screening information, demographic information, migration history, and information on knowledge and behaviors regarding sexually transmitted diseases. The second section was a module of questions about the woman's most recent sex partner. This included a full list of attributes for each partner, including demographic information such as age, ethnic group, and occupation, migration information, and information on the man's sexual practices. However, the partners remained anonymous. The module also included specific questions about the

couple's relationship, such as sexual behavior and risk factors. The module was repeated for up to three sex partners. This structure provided information on patterns of sexual behavior and the relational context of sexual behavior (Morris 1997; Laumann and Youm 1996). Recognizing the sensitivity of this data, I worked very hard to maximize the sense of privacy and comfort of respondents. Protecting the anonymity of the partners reduced the intrusiveness of this research (Morris 1997).

The interviews were conducted very close to where the women were contacted, whether it be where they waited to be hired, their homes or elsewhere, but extreme care was taken to ensure that no one could hear what the women were saying. The survey consisted of approximately 90 questions, and took approximately 15 to 35 minutes, depending on the number of partners the woman had, using a face to face interview format. Each interview was conducted in Serere by one of the two interviewers. The author was usually within sight of the women, but never participated in the interviews. The respondents were introduced to the author, and usually knew that the author spoke Wolof, the dominant local language of Senegal spoken to some extent by nearly all respondents. They also knew that the author did not speak Serere, the language in which the interview was conducted.

**Figure 5: Interview Site**



Young Serere women wait to be hired as maids. The interviewers, Déguène (with blue bag) and Amy (with orange hat), talk with women after interviews.

While the use of Serere might have signaled that Serere norms were in effect, as opposed to “Dakar norms,” the author felt strongly that the women interviewed should be able to express information about the most intimate parts of their lives in their first language. Although most Serere migrants speak Wolof to some extent, the depth and subtlety of their ability to communicate in Wolof about their sexuality could in no way be guaranteed. Since most of these women live with other Serere women, even within Dakar, their exposure to Wolof is often only in the workplace or marketplace, which limits the vocabulary they would use easily. Since sexuality is a taboo subject, probably only discussed with intimates, if at all, and thus probably mainly in Serere, I wanted to be sure that the women would understand the questions that were asked and be able to express their responses clearly and precisely.

### **C. Interviewers**

The two interviewers who conducted all the interviews were both Serere women migrants themselves. Amy Ngom is a university student working on her master's degree in biology. Déguène Ly is a high school graduate who has experience working with non-governmental organizations on development issues among the Serere. She most recently worked as a trainer for Serere women's group for an AIDS education project.

Several candidates were interviewed for the positions. Amy and Déguène were chosen because they are both migrants themselves and thus speak excellent Serere. Both women are literate, and both speak very good French. They also both seemed committed to the objectives of the study. Amy is particularly well educated and bright and willing to work very hard. Déguène also works very hard and has had experience working with AIDS issues and thus has the ability to talk about sexuality, a difficult subject to discuss among Serere women. Déguène also knows the Serere women's groups of Dakar very well and is slightly older than Amy, thus lending a bit of credibility to the effort. However both women are relatively young and have never been married.

They worked together in identifying groups of women to approach, and explaining the purpose of the interviews, and although they conducted the interviews separately, the groups of women being interviewed met both of them and could see where each was sitting conducting the interviews.

The research was conducted as a team effort, each member bringing her experience and strengths to the process. While the author supervised the process, Amy and Déguène brought suggestions, ideas, and innovations to the process. For the first eight weeks, we

worked together, and the author would be in the vicinity of each interview. After several interviews, the interviewers would bring finished surveys to the author, who would review them for logical errors (missed skip patterns, skipped questions, *etc.*). Each morning the team would meet to discuss the previous day's surveys, make corrections, and discuss the plan for the day.

During the last two weeks, the interviewers would conduct the interviews themselves after the daily meeting, while the author conducted research in local libraries and organizations.

#### **D. Limitations**

By tradition, Serere women are taught that sex outside of marriage is not acceptable behavior. We also know from surveys on sexuality and sensitive issues around the world that women tend to underreport their number of sexual partners and frequency of sex (Smith 1992). Therefore, one might suspect that Serere women would underreport both partners and frequency of sex. Consequently, the author, Serere translator and the Serere interviewers took great pains to organize the survey in such a way as promote as much reporting as possible. On the whole, I think we were successful, as the amount of information that was collected on traditionally taboo practices was more than might have been expected. Even if there was underreporting, enough was revealed to indicate some of the risks that might be present for these women, and therefore the study is valuable in its own right, if not as an indicator that the situation might be worse.

Despite our best efforts, however, there were limitations to the study. The first

potential weakness is identifying the respondent's most recent sex partner. In an effort to be as culturally sensitive as possible, it is possible that the interviewers might not have always asked the question as written, "The last man with whom you had sex, what was your relationship to that man?" Instead, the interviewers may have used questions such as "Who is your present partner?" Or, if knowing the woman was married, simply asking about her husband. This has the possible effect of not capturing non-regular sex partners, and partners outside of marriage. It is possible that the other partners a woman might have would then be captured in the second or third partner module, but it is not possible to know. The effect of this would be to underestimate the number of sex partners outside of marriage, indicating that the situation to be described could potentially be worse.

A second limitation of the data is that for the most recent partner, second and third partners, the interviewers sometimes asked the questions as originally written, which asked for partners only within the last two years. However, many women have not had multiple, or even any partners in the last two years, so that more often the interviewers asked about most recent partners, previous partners, and partners before that, ever. We have the dates of first and last sex, so that this data can be used, but since not all women were asked about partners "ever," there again might be underreporting due to the way the questions were asked.

The third limitation of this study was selection bias in our sample beyond our purposive sampling among maids. Because the study was conducted during the rainy season, many of the women who migrate to Dakar only during the dry season were not present in Dakar during the study; therefore they are very much under-represented. Far more of our respondents are women who migrate on a different pattern. This is quite possibly a different

population of Serere migrant women, but one would guess that these women would be likely to spend more time in Dakar than the migrants who come only during the dry season. If that were the case, one would expect that changes in sexual behavior would be more extreme for this group of women than the seasonal migrants due to longer periods they are away from family and traditional village life, and to more exposure to urban life. However, it was not possible to discern how else this group might differ from the women who migrate only during the dry season.

A fourth limitation of this study is that although thorough local network data (Morris 1997) was collected from Serere migrant women, none was collected from the men who are their partners. Because the focus of the study was on the risks of HIV infection these women have and might create for others based on their own behavior, we focused mainly the sexual behavior of these women. Therefore, the risks they have for HIV infection from their partners could only be presumed based on the information these women provided about these men. Future research would have to focus more specifically on the sexual behaviors of the partners of these women to precisely determine these women's risks for becoming infected with HIV and / or becoming a bridge for HIV from high to low risk groups.

#### **E. Description of Variables**

To discern who in this sample might have higher risk for HIV infection, three logit regression models were estimated. The first model determines the characteristics that predict that a woman's most recent sex partner will be outside of marriage and not likely to become a husband. The second model determines characteristics that predict a higher level of risk,

whether a woman in this sample will have at least two partners outside of marriage who are not likely to become husbands. The third model determines the characteristics that predict whether a woman will have concurrent partners.

A fourth logit regression model was estimated to determine the characteristics of a woman and her partner that predict that a couple in this sample will use condoms.

### *1) Dependent Variables*

One practice that increases the risk of HIV infection for migrant Serere women is having sex outside of marriage, particularly if the partner is not likely to become a husband. This dependent variable measures whether the woman's most recent partner is outside of marriage and not likely to become her husband. This practice is risky in that as Caraël et al. (1994) find, consensual unions "exert fewer constraints on male sexual behavior than formal legal marriages" (p. 154). Also, since marriage is universal, it also suggests that the woman will have at least one more partner - her eventual husband, adding to her lifetime number of partners. I created this variable using the following criteria:

- The woman's partner is not Serere,
- The man and woman are not of the same religion,
- The woman does not call her partner "fiancé," but friend or acquaintance, and
- The woman reports that the relationship will not continue.

The questions used were

- "From what ethnic group is he?" in reference to the partner being discussed,
- "What is your religion?" and "What is his religion?"
- "The man with whom you last had sex, what was your relationship with him? I will read you a list and you can choose. Was he your husband, fiancé, a casual partner, a friend, an acquaintance, a stranger, someone who promised you money, or someone else?" and
- "Do you think that you will have sexual relations with him again?"

This dummy variable is coded 1 if the woman's most recent partner is outside marriage and not likely to become her husband, and 0 if not.

Having *multiple sex partners outside of marriage who will not likely become husbands* reflects a higher increased risk for HIV infection. The second dependent variable modeled is whether a woman has *two [or more] sex partners outside of marriage, neither of whom is likely to become a husband*. This variable was created to identify all women who have had more than two partners outside of marriage, and women who have had two partners outside of marriage, neither of whom she is likely to marry. I used the following criteria to determine whether a woman is likely to marry either man: For the first partner outside of marriage, I used the woman's report that the relationship with him would not continue. For the second partner outside of marriage, I used the woman's report that this relationship also will not continue, or that the man is not Serere.

The questions used to create this variable were in the context of discussing each partner. They were

- “Do you think that you will have sexual relations with him again?” and
- “From what ethnic group is he?”

This dummy variable is coded 1 if a woman has had two or more sex partners outside of marriage who are not likely to become husbands, and coded 0 if she has not.

Having *concurrent partners*, the third practice modeled, not only increases a woman's chance of becoming infected with HIV (Laumann and Youm 1996), but also increases the speed of transmission to others (Morris 1997). The questions used to create this variable were “How long has it been since you first had sexual relations with him?” and “When did

you last have sex with him?” By comparing the time-frames of each of a woman’s relationships, concurrency was determined. The concurrent partners dependent variable is measured as a dummy variable coded 0 if the time-frames of the woman’s sexual partnerships do not overlap, and coded 1 if any of her partnerships do overlap.

One way to reduce the risk of HIV infection is the use of condoms. Condom use is the fourth dependent variable modeled. In the context of a series of questions about their most recent partners, respondents were asked whether they did or do use condoms with that partner. This variable is measured as a dummy variable, 0 if a woman did not use condoms with her most recent partner and 1 if she did. I have only measured condom use as a variable with the most recent partner because only four women used condoms with a second partner.

## ***2) Independent Variables***

For the three models of higher risk behavior, I used five independent variables that I hypothesized would predict whether a woman would engage in higher risk behavior. I chose age, education level, amount of time since first migrating to Dakar, religion, and number of dependents other than children.

For the analysis of condom use, I used 12 independent variables that I hypothesized would predict whether a woman in a relationship would use a condom or not. I used characteristics of both the woman and her partner. I used the following variables based on characteristics of each woman: Age, education level, amount of time since first migrating to Dakar, religion, kind of Serere, whether she was a maid or one of the other occupations Serere women undertake, number of children, knowledge of sexually transmitted diseases, and

whether she was married to her most recent partner or not. The variables I used based on the characteristics of the partners were ethnicity, religion and education.

Here is a description of how each variable was created.

*Age.* For the question, “How old are you?” I used four ordinal categories of response:

- 1 - 15-19,
- 2 - 20-24,
- 3 - 25-30,
- 4 - 31-60.

One response was not ascertained so was recoded to the mean (response 3), and a flag variable was created.

*Education.* Two questions were used to determine education: Whether the woman has ever been to school or taken literacy classes, and if so, what kind of education she has had. I recoded these variables into a non-ordinal categorical variable with three possible responses: “No education,” coded 0, “Public or Catholic schooling,” coded 1, and “Literacy or Koranic education,” coded 2.

To approximate the *amount of time since first migrating to Dakar* I created a variable from the answers to one of two questions. If the interview was conducted during the woman’s first migration to Dakar, she was asked, “How long have you been here?” If it was not the woman’s first stay she was asked, “How long since you first came to Dakar?” The responses were coded in four ordinal categories.

- 1 - 0-48 months
- 2 - 49-96 months
- 3 - 97-168 months
- 4 - 169-432 months.

One response was not ascertained, so was recoded to the mean, and a flag variable was created.

*Religion.* I used the answers to the question “What is your religion?” to create this variable. Although many Serere have animist beliefs (Garenne and Van De Walle 1989), respondents answered using only Muslim or Catholic as responses. Their responses were coded 0 if Muslim and 1 if Catholic. Two women’s answers were not ascertained. The responses were recoded to the modal category (Muslim) and a flag variable was created.

*Kind of Serere.* There are at least nine different kinds of Serere people (Grimes, ed. 1992; *Enquête Sociolinguistique sur les Langues Cangin de la Région de Thiès au Sénégal, 2e. édition 1987*). This variable was based on the answer to the question, “To what Serere group do you belong?” It is a categorical, non-ordinal variable, with five possible responses. The response categories were created by combining some of the groups that were less frequently represented in the sample. The grouping was done by the regions from which the groups come. In total, eight responses were recoded and a flag variable was created. Three Sine-Jigem and four None women were grouped with the Safene women, and one Sine-Hirena woman was recoded with the Sine-Sine women.

- 1 - Sine-Nominka
- 2 - Sine-Bawol
- 3 - Sine-Sine; Sine-Hirena
- 4 - Sine-Ngoundiane
- 5 - Safene; Sine-Jigem; None

*Whether the woman is a maid or a laundress, vendor, or pounder.* This variable indicates whether the woman is a maid or one of the other three occupations most Serere migrant women undertake. It is a dummy variable, which is coded 1 if the woman is a maid

and 0 is she is not.

*Number of dependents other than children.* This variable was created from two separate questions, “How many people do you support with your income?” and “How many children do you have?” I subtracted the number of children from the number of total dependents to create this variable. Not all children are necessarily dependents, however children could be a result of a union and not a cause, so I did want to remove them from the analysis. Subtracting them, however, might underestimate the number of dependents a woman has. This variable is coded as an ordinal categorical variable with the following response categories:

- 0 - 0-2 dependents when children are subtracted,
- 1 - 3-4 dependents when children are subtracted,
- 2 - 5-6 dependents when children are subtracted,
- 3 - 7-25 dependents when children are subtracted.

Responses as to number of children were not ascertained from six women, and the number of dependents was not ascertained from two (one was also in the first six). Therefore, seven responses were recoded to the mean number of dependents other than children, 5.17, and a flag variable was created.

*Number of children.* This variable measures the number of children a woman has. The response categories are ordinal, with three possible categories. The codes are

- 0 - No children
- 1 - 1-2 children
- 2 - 3 or more children.

The answer to this question was not ascertained from six respondents, and thus their answers were recoded to the mean number of children (1.4 children) and a flag variable was

created.

*Knowledge of sexually transmitted diseases.* This variable was created from the question, “Can you name any symptoms of sexually transmitted diseases?” If a woman named at least one, the response was coded 1. If she did not, the response was coded 0. This seemed to reflect better knowledge of STDs than the question, “Can you name an STD?”

*Married to Partner.* This variable was created from the question, “The last man with whom you had sex, what was his relationship to you?” If the woman was married to the partner at the time they last had sex, the response to this variable was coded 1. If they were not married, the answer was coded 0.

The final three variables were based on demographic characteristics of the women’s partners.

While all of the women interviewed were Serere, their partners were not. The *ethnicity* of the woman’s partner was coded as a dichotomous variable based on the question, “From what ethnic group is he?” in a series of questions about her most recent partner. Ethnicities other than Serere were coded 0 and Serere was coded 1.

The *partner’s religion* variable was created from the question, “What is his religion?” in a series of questions about the woman’s most recent partner. The variable is coded as a dichotomous variable: Men of the Muslim religion are coded as 0 and men of the Catholic religion are coded 1. One man’s religion was not ascertained and one man follows a religion other than Catholicism or Islam. Both were recoded to the modal category, Muslim, and a flag variable was created.

The *partner’s education* variable was created from a question that asked, “What is his

education level? Has he been to school?" The responses were coded in five ordinal categories.

- 0 - No schooling
- 1 - Primary schooling
- 2 - Secondary schooling
- 3 - University
- 4 - Koranic schooling.

Six responses were recoded. One respondent said that her partner went to technical school. This was recoded as secondary school. Five respondents did not know if their partner had ever gone to school or what level of education they had attained. These responses were recoded as the modal category - primary schooling, and a flag variable was created.

## **F. Analysis**

Cross tabulations and descriptive statistics were used for many of the analyses, including background information, demographic characteristics, and the extent and character of migrant Serere women's sexual networks. Logit regression was used to determine the characteristics of the women in this sample which predict whether they have higher risk behaviors, namely: Having two sex partners outside of marriage who will likely not become husbands, the most recent sex partner being outside of marriage and not likely to become a spouse, and having concurrent partners. Logit regression was also used to determine what characteristics are most significant in determining condoms use.

Because this sample was purposive, the logit regressions cannot be used to make probabilistic inferences about the population of Serere migrant women as a whole, but do tell us whether differences found within the present sample are due to random error or chance, or

not. While these regressions cannot tell us about the whole population, they are a useful way to compare many variables at once without losing too many degrees of freedom to determine what is significant within this sample.

## **5. FINDINGS**

### **A. Background Information**

The Serere people are about 14.8% of the Senegalese population, and the third largest ethnic group in Senegal (*Delegation au Plan et aux Politiques Economiques* 1989).

Together, they were more than one million people in 1989 (*Delegation au Plan et aux Politiques Economiques* 1989). The majority of adults are Muslims or animists (Garenne and Van De Walle 1989), and a smaller number are Catholic. Less than 5% of the Senegalese population is non-Muslim, made up mainly of the minority of Serere people who are Catholic and Catholics of the much smaller Diola ethnic group.

#### **Figure 6: Religion Among the Serere**



Muslim Prayers over  
A Newborn



Serere Animist Foreseeing the Rains

The majority of the Serere people live in the regions of Fatick (28%), Thiès (28%), Diourbel (15%), and Kaolack (10%) (*Delegation au Plan et aux Politiques Economiques* 1989), found directly east and south of Dakar. There are also substantial numbers of Serere people in Dakar (16%) (*Delegation au Plan et aux Politiques Economiques* 1989). The rural areas that Serere people come from tend to be densely populated by African standards, with more than 140 inhabitants per square kilometer in Thiès and Diourbel in 1988, and with 60 inhabitants per square mile in Fatick (*Delegation au Plan et aux Politiques Economiques* 1989). Land is scarce and the average income is low (Garenne *et al.* 1992). This leads to huge migration flows of both men and women toward cities, especially Dakar, as well as toward less populated areas in the east of Senegal (Garenne *et al.* 1992). The study

population, all migrants, mainly comes from Fatick (42%), Thiès (29%), and Diourbel (24%).

**Figure 7: Map of Regions of Senegal**



(Map: *Delegation au Plan et aux Politiques Economiques* 1989).

Women of all ages and marital statuses migrate to Dakar, a very densely populated city. The main reason Serere women migrate, according to Diaw (1997), Gueye (1995) and Delaunay and Becker (1994) is the push from the rural area to the urban areas in search of remunerated employment to fulfill their own needs and the needs of their families. These authors cite the lack of income-generating employment opportunities available in the rural area, especially during the dry season.

Women begin migrating early, as young as eight years old. A study conducted in 1994 among Serere women in a rural area showed, as mentioned earlier, that 80% of the young women, aged 15 to 29 years, had experienced migration to an urban area (Delaunay and Becker 1994). Women tend to migrate for widely varying amounts of time - from a few days to several years, and many women migrate seasonally. However stints of migration for these

women seem to be becoming higher in frequency and longer (Delaunay and Becker 1994).

Most women who migrate are single women (Delaunay and Becker 1994); however there are also many married women who migrate on a rotational basis with their co-wives. They explain that the whole family cannot be supported in the rural area, so at least one wife will stay in the rural area to perform the gender-based household duties at the homestead, perhaps with her husband, while other wives migrate to Dakar with their young children. There they seek paid work to support themselves and their children, and often to send money back to the village. Young girls who accompany their mothers to Dakar often work as maids. After a given period, from months to years, the wives will rotate.

Older women, up to 60 and older, remain in Dakar for longer periods of time. This practice is perhaps possible once a woman's duties to her husband and family in the rural area are over, for example if her children are grown and married, and her children or co-wives are able to take care of her husband. If her husband has migrated to Dakar as well, she would also presumably be able to spend more time in Dakar.

The Serere women who migrate to Dakar have often not had western education, as mentioned earlier. Approximately 37.5% of the study population had ever had any western schooling, for an average of less than six years. This is about equal to the average amount of schooling for women in the regions from which these women come, a finding Diaw (1997) also notes.

In Dakar, migrant Serere women usually live with other Serere people, and most women live with migrant women from the same village. The places where they live vary, but almost universally, the conditions are sub-standard. For older women, who work as vendors,

pounders of millet or laundresses, many rent rooms together within the marketplace where they work or in the nearby neighborhoods. Most often, numerous women will share one room. Other groups live in shantytowns near the marketplaces, which simulate large villages (Gueye 1995).

Other migrant women have no housing. This is seen especially among some of the women who pound millet, as they tend to make less money than the other groups. These women will sleep either in the marketplaces after they close at night, or where they work on the side of the road, under makeshift roofs made of cardboard, ply wood, cloth or plastic. While women from several villages will work in the same area, within the seeming disarray of make-shift shelters and works spaces, there is an organization of women based on village. Women of the same village will put their money together to buy food or to help each other. At mealtimes, for example, each village group in Champ de Course in Tilène Market will buy common food to share. Breakfast often consists of day old bread and *kinkeliba*, a traditional hot drink made from the leaves of a plant which grows in rural Senegal. Dinner is often rice with fish and vegetables that could not be sold in the markets, and often a third meal is skipped (Gueye 1995).

**Figure 8: Markets in Dakar Where Serere Women Work and Sleep**



(Photo: M. Renaudeau)

Serere women sleep inside markets such as this one.



(Photo: Wakhatilene)

Serere women can often be found sitting on the ground, as they can't afford market stalls.

If these women have daughters with them, the daughters often work as maids during the day and return at night to sleep with their mothers. For other young women who are not with their mothers, the ideal is to live with some sort of family member. In the past, according to Diaw (1997), the preferred solution was to live with family members who had settled in Dakar. However, due to the recent economic crisis in Senegal, many families who had settled in Dakar have been forced to return to their villages, leaving more young Serere migrants to take care of themselves (Diaw 1997).

For these young women who do not have family members in Dakar, the most common

option is to create a home by renting a room with other young Serere women in a neighborhood. As mentioned, eight to 15 young women will rent one room and share the rent and utilities (Diaw 1997). For the maids in Dakar who live with the families who hire them (less than 25%), they usually take their day and a half off per week, or weekend per month, and spend it with fellow village mates in these common rooms (Diaw 1997). Sometimes younger girls and newly arrived migrants stay free in these rooms, in exchange for cleaning them and collecting water (Diaw 1997). Occupants of these rooms generally group their money and prepare a common dinner, if they are not provided dinner by their employers. This meal is shared with those who do not have employment (Diaw 1997).

These migrant women experience very difficult lives in Dakar. Many report being victims of theft both from their housing situations and on the streets (Gueye 1995). Gueye (1995) also reports that many women who do laundry are faced with clients who do not pay for their services, or who insist they will pay later. For women living so close to the margin, these situations are extremely difficult. Women who work as maids also face difficulties from employers who take advantage of them and demand they work long hours, often without a break. Women who work as maids are also isolated in the private homes where they work and are often treated with disrespect (Diaw 1997). In addition, maids can arrive at the end of the month and find that their employers will not pay them, either accusing them of theft or of damage or explaining that they have financial difficulties (Diaw 1997). Some women even face propositions for sex from their employers. Almost 11.5% (8/70) of the maids asked said that their boss had asked them to have sex with them.

## B. Demographic Characteristics

In this sample of migrant Serere women, the majority (more than 75%) are maids, due at least in part to purposive sampling (see Table 1, below).

Table 1: Employment of Migrant Serere Women in Dakar

| <b>Work</b>  | <b>N</b>   | <b>%</b>   |
|--------------|------------|------------|
| Maid         | 186        | 75.6       |
| Laundry      | 27         | 11         |
| Pounding     | 23         | 9.35       |
| Selling      | 8          | 3.25       |
| Other        | 2          | 0.8        |
| <b>Total</b> | <b>246</b> | <b>100</b> |

The age range is from 15 to 60 years old, with the mean age being 25.9 years. For maids the average age is 23.2 years, and for non maids it is more than 10 years older, at 34.1 years old. In general 44% (108/246) have ever had any type of schooling, and 37.4% (92/246) have had western schooling, most going no farther than primary school. Eight percent (20/246) of the sample are Catholic and 92% (224/246) are Muslim.

On average, these women have 6.5 people depending on their income: Only 1.4 of those dependents on average are children. For almost 96% (236/246) this was not the first time they had migrated to Dakar. On average, the women interviewed have been migrating for more than nine years. The range was from women just arriving for the first time to women who have been migrating for more than 30 years.

Only about one quarter of the sample is currently married (see Table 2, below). This is probably at least partially attributable to purposive sampling among maids, who are younger and less likely to be married. Ten and a half percent of the women are currently divorced or

widowed, and more than 62% have never been married.

Table 2: Migrant Serere Women's Most Recent Sex Partners by Marital Status

| <b>Current Marital Status</b> | <b>N</b>   | <b>%</b>     | <b>Most Recent Partner</b>                                 | <b>% Partners</b>  |
|-------------------------------|------------|--------------|--|--|
| Never Married                 | 153        | 62.2         | 75 No Partner<br>76 "Fiancé"<br>1 Friend<br>1 Acquaintance | 49% No Partner<br>49.7% "Fiancé"<br>.65% Friend<br>.65% Acquaintance |
| Currently Married             | 67         | 27.24        | 67 Husband   | 100% Husband   |
| Divorced                      | 23         | 9.35         | 19 Husband<br>4 "Fiancé"                                   | 82.6% Husband<br>17.4% "Fiancé"                                      |
| Widowed                       | 3          | 1.2          | 3 Husband  | 100% Husband   |
| <b>Total</b>                  | <b>246</b> | <b>99.99</b> |  |  |

All of the currently married women reported that their most recent sex partner was their husband. Of the never married women, about 51% have had a sex partner outside of marriage, and about 49% have not (at least in the last 2 years). Of the formerly married, 15.4% have had a sex partner since their former husband and 84.6% have not.

### **C. Extent and Character of Sexual Networks**

#### **1) Sexual Life Course**

The sexual life course of Serere women seems to have three somewhat distinct stages: premarital, marital, and widowed / divorced periods. Serere women move from the premarital to the marital stage at a fairly young age, 17.8 years, in one study among the Serere Sine of Niakhar, Senegal, and marriage is nearly universal (Garenne and Van De Walle 1989). However, the Serere have one of the highest divorce rates in Africa (Becker, 1997). Lemardeley *et al.* (1995) found that 41% of Serere marriages end in divorce in their study population. High levels of mortality also lead to widowhood for many women due to the

large age gap between spouses (Garenne and Van De Walle 1989). After divorce or widowhood, however, Serere women tend to remarry fairly quickly, according to custom (Garenne and Van De Walle 1989). Therefore, there is a reasonably quick entrance for Serere women, into a cycle of marriage, divorce and remarriage. In fact, 15% (14/93) of women who have ever been married in the present sample (average age of 32.5 years) have had more than one husband thus far. Nine percent have had two or more. This could be an underestimate, because, as was mentioned earlier, the data on partners could be truncated at two years for some of the sample.

## **2) *Premarital Sexual Relations***

Of never married women in this study, age is a significant predictor of whether a woman will have a sex partner. Fifty one percent (78/153) of never married women have had a premarital sex partner, and 49% (75/153) have not had a sex partner within the last two years, or ever (see Table 3, next page). The women who have not had a sex partner are on average three and a half years younger than the never married women who have had a partner, with average ages 20.07 and 23.52 respectively. Therefore, it appears for the majority of women who have never been married, they are more likely to become sexually

Table 3: Migrant Serere Women's Current Sexual Activity by Marital Status

| Current Sexual Activity  | Never Married                        | Currently Married                  | Divorced   | Widowed                      |
|--|--------------------------------------|------------------------------------|--|------------------------------|
| N  | 153                                  | 67                                 | 23   | 3                            |
| Average age  | 21.82                                | 32.85                              | 31.09  | 34.3                         |
| Sex outside marriage   | 51% (78/153)                         | 0% (0/67)                          | 17.4% (4/23)   | 0% (0/3)                     |
| Started formal marriage process                                | 13.25% (9/68)*                       | -                                  | 0% (0/4)   | -                            |
| Average length of relationship in years                        | >3                                   | >13                                | 7.23 - H<br>>3.8 - O   | 11.6 years                   |
| Average age gap in years                                       | 7.3                                  | 10.1                               | 9 - H<br>10 - O  | 12                           |
| Have children with most recent partner outside marriage        | 50% (39/78)                          | -                                  | 50% (2/4)  | -                            |
| Percent of relationships continuing                            | 76% (58/76)*                         | 100% (67/67)                       | 0% (0/19) - H<br>75% (3/4) - O   | 0% (0/3)                     |
| Partners Serere  | 79.5% (62/78)                        | 97% (65/67)                        | 100% (19/19)-H<br>50% (2/4) - O  | 100% (3/3)                   |
| Partners same religion   | 93% (73/78)                          | 98.5% (66/67)                      | 89% (17/19)- H<br>100% (4/4) - O                                       | 100% (3/3)                   |
| Partner from same village                                      | 40% (31/78)                          | 75% (51/67)                        | 52% (10/19) - H<br>0% (0/4) - O  | 66% (2/3)                    |
| Partner migrates   | 85% (66/78)                          | 62% (42/67)                        | 80% (15/19) - H  | 0% (0/3)                     |
| Partner migrates internationally                               | 12% (10/78)                          | 1.5% (1/67)                        | 16% (3/19) - H<br>50% (2/4) - O<br>0% (0/4) - O                        | 0% (0/3)                     |
| Meet Partner - Dakar   | 35% (28/78)                          | 9% (6/67)                          | 10% (2/19) - H   | 0% (0/3)                     |
| - Dakar and Village  | 41% (32/78)                          | 43% (29/67)                        | 47% (9/19) - H   | 33% (1/3)                    |
| - Village only   | 20% (15/78)                          | 48% (32/67)                        | 42% (8/19) - H   | 66% (2/3)                    |
| - Dakar  |                                      |                                    | 100% (4/4) - O   |                              |
| - Dakar and Village  |                                      |                                    | 0% (0/4) - O   |                              |
| - Village only   |                                      |                                    | 0% (0/4) - O   |                              |
| Man helps woman  | 72% (55/76)*                         | *                                  | 50% (2/4) - O  | *                            |
| Frequency of sex - sex in last mo. in continuing relationships | 38% (22/58)<br>25% (16/58)           | 70% (48/67)<br>9% (6/67)           | 33% (1/3) - O<br>50% (2/3) - O   | -                            |
| Partner has concurrent - wife                                  | 27.6% (21/76)*                       | 45% (30/66)*                       | 31.5% (6/19)- H  | 33% (1/3)                    |
| - girlfriend   | 10.5% (8/76)*                        | 6% (4/66)*                         | 5.25% (1/19)- H  | 0% (0/3)                     |
| - wife   |                                      |                                    | 25% (1/4) - O  |                              |
| - girlfriend   |                                      |                                    | 50% (2/4) - O  |                              |
| Previous partners outside of marriage                          | 19.2% - 1 (15/78)<br>2.6% - 2 (2/78) | 9% - 1 (6/67)                      | 0% (0/23)  | 0% (0/3)                     |
| Previous husband   | -                                    | 18% - 1 (12/67)<br>1.5% - 2 (1/67) | 10%-1 (2/19)-H<br>5% -2 (1/19) -H<br>100%-1 (4/4)-O<br>25% - 2 (2/4)-O | 33% - 1 (1/3)<br>0% -2 (0/3) |
| Concurrent partners  | 4% (3/78)                            | 7.5% (5/67)                        | 0% (0/19) - H<br>25% (1/4) - O   | 0% (0/3)                     |
| Used condoms   | 15% (12/78)                          | 4.5% (3/67)                        | 10% (2/19) - H<br>0% (0/4) - O   | 0% (0/3)                     |

\* Missing Cases; H-Former Husband; O-Partner Outside Of Marriage

active as they get older. Garenne *et al.* (1992) find that Serere women in Niakhar enter active sexual lives on average at the age of 16, and that by age 20, virtually all women have regular sex partners. The present study's sample is somewhat different, comprising women who have never had sex as well as never married women who might have initiated their sex lives, but who have been out of a sexual relationship for more than two years (thus their partners could have gone unreported). This is suspected due to the higher than expected age of some of the women who fall into the "no sex partner" category. This effect could be due instead to migration, however. We do find that by age 23.5, most never married women have somewhat current sex partners.

In general, most of these women call their partners "fiancés," although often the marriage process has not, and might not ever, be started. This term seems to placate the traditional taboo against sex before marriage, by suggesting that the partner will become a husband. Of the never married women asked, approximately 13.25% (9/68) of their current partnerships have been formally agreed upon by their families, the first step in the marriage process, and under normal circumstances, these couples will eventually be married. For the other almost 87%, their partner might become a husband, or the women might hope that he will, or the term "fiancé" could be a way to justify actions that culturally would not be acceptable otherwise. Only 2.6% (2/78) of the women said that their partners outside of marriage were not "fiancés;" one was called a friend, and the other an acquaintance.

By and large, though, these relationships are long term. Less than 10% (7/78) of the women had sex with her partner within the first month of meeting him, and the average length of the relationships discussed was more than three years. More than 90% (38/42) of the

relationships less than three years long are still continuing, thus this underestimates the length of these relationships. Of the completed relationships, the average length was more than five years.

Garenne *et al.* (1992) state that sometimes women in Dakar will become pregnant with their fiancé and then return to the village to get married; however most women marry first. Of the women in this sample, a full 50% (39/78) have had a child with their most recent sex partner outside of marriage. However, this seems to have a negative effect on many of these relationships. Whereas overall, the women report that about 24% (18/76) of these relationships will not continue or are questionable, among the women who have had a child with their most recent partner outside of marriage, more than 34% (13/38) said that the relationship with that man will not continue. Another 2.6% (1/38) do not know what will happen with the relationship. Of the women who have not had a child with this man, almost 90% (34/38) believe the relationship will continue. A chi-square test shows this difference is significant at the 0.025 significance level.

Seventy nine and a half percent (62/78) of these women's partners are Serere. These men would be culturally acceptable marriage partners. Twenty and a half percent (16/78) are from the Wolof, Toucouleur, Diola, and other ethnic groups. More than 93% (73/78) of the women have partners of the same religion, Muslim or Catholic. Again, these men would be culturally acceptable marriage partners. One approach to explaining the selection of sex partners in the US is that people select partners who are similar to themselves with respect to certain social characteristics (Laumann *et al.* 1994). One explanation for why this is is that people are aware of the expectations of friends and relatives to not become involved sexually

with someone dissimilar (Laumann *et al.* 1994). In the US, Laumann *et al.* (1994) show that similar ethnic background and religious affiliation are more pronounced among married couples than sexual partnerships outside of marriage. The same effect can be seen among Serere migrant women.

The men tend to be better educated than the women, as can be expected by national education rates, but one can clearly see that there is selection among couples by education. Women with education are more likely to have partners with secondary or university education and less likely to have partners with no education or Koranic education than women without education. This suggests that perhaps more of these partners are chosen based on standards of attraction than on standards used for traditional marriage arrangements. Laumann *et al.* (1994) have also shown that educational similarity between couples is higher for partnerships outside of marriage than for married couples.

The partners have a wide variety of jobs, but the most prevalent are public transportation driver or mechanic, factory worker or clerk, or trader / businessman. These occupations indicate that these men are more likely to be based in Dakar or a city, rather than in a rural village. According to the women's reports, almost 85% (66/78) of the men migrate, most to Dakar. In fact, more than 35% (28/78) of the women said that they see their partner only in Dakar, and 41% (32/78) said that they meet both in Dakar and the village, confirming the high migration rate. Less than 20% (15/78) of these couples meet only in the women's village, and only about 40% (31/78) of the men are from the same village as the woman is. More than 12% (10/78) of all partners migrate internationally.

More than 72% (55/76) of these men have given the woman money or help in kind.

For these women, living on the economic edge, this help is no doubt welcome. With so many people depending on the income these women make (6.5 on average), it is probably very helpful to have someone they can rely on for some sort of aid.

The frequency of sex with these partners does not seem to be very high. Of the women in currently continuing relationships, only about 38% (22/58) have had sex in the last month. More than 25% (16/58) of these women have not had sex with their current partner in the last six months or more. This could be due to the woman's migration, the man's migration, or both.

Although more than 19% (15/78) of the sexually active women who have never been married have had more than one "fiancé," and 2.6% (2/78) have had a third, usually these women do not have more than one partner at a time. In fact, slightly less than 4% (3/78) of these women have had concurrent sexual partners. On the other hand, almost 37% (28/76) of these women report that their partners have concurrent sex partners: 27.6% (21/76) report their partners have wives and 10.5% (8/76) report that their partners have other girlfriends with whom they have had sex concurrently. The married men could be seeking second (or higher order) wives among these women, as 95% (19/20) are Muslim, even though Islam dictates they should not have sex until they are married. But only 15% (3/20) of these men have begun the formal marriage process. None of the men who have other girlfriends have started the formal marriage process.

Only about 15% (12/78) of all of these women have used condoms with their partners. More than 10% (8/78) of them have used some form of traditional medicine to prevent STDs or pregnancy. The most often used forms are mixtures which are drunk made from roots or

tree bark, or amulets worn on the body. This low use of prevention is despite the fact that more than 70% (55/78) can name an STD and more than 45% (36/78) can name symptoms of STDs. This points to the fact that knowledge does not necessarily change practices, especially if someone retains the belief that a disease cannot or will not strike them. None (0/3) of the women who are continuing their relationships with men who they know have concurrent girlfriends have used condoms with them.

### 3) *Marital and Extramarital Sexual Relations*

While in the marital stage, it seems that most women do not engage in sexual networking - extramarital relations are not all that common among this group. Looking at the most recent sex partner of respondents, 100% (67/67) of the currently married women in the sample last had sex with their husband. Some (less than 7.5% or 5/67), however, have had a concurrent partner with their husband. There certainly could be under-reporting of extramarital sexual activity; however, the universality of this finding (see Garenne *et al.* 1992) suggests that at least the trend is accurate; there does not appear to be a lot of sexual activity outside of marriage among currently married migrant Serere women.

All husbands of these women are older than their wives, an average of 10.1 years. Ninety seven percent (65/67) are Serere, and all but one woman is married to a man of the same religion. One would presume that there is strong selection based on religion, but there is also the possibility that one of the partners could convert after marriage, or in preparation for marriage. These homophilous results are what we would expect based on Laumann *et al.*'s (1994) findings in the US, that people tend to marry people similar to themselves.

The married women are much less well educated than the never married women; interestingly, a finding not significantly related to the age of the women. The husbands of the married women are also less well educated than the partners of never married women. There appears to be some selection based on education, but not nearly as much as seen with the never married women. This suggests less selection of partners based on western ideals of attraction and perhaps more selection based on traditional marriage arrangements, where the man identifies the woman or the families arrange the marriage. The woman might or might not have say in whether she wishes to marry the man. In these arrangements, the ideal partners are those who come from the same or neighboring villages.

In support of the idea that these are more traditional marriages, more than 43% (29/67) of husbands are farmers or herders and almost 48% (32/67) of the couples meet only in the woman's village. Another 43% (29/67) meet both in her village and in Dakar, testimony to the amount of migration among these men as well. More than three quarters (51/67) of these men are from the woman's village, and none are from Dakar originally. Almost all of the others are from other Serere villages. More than 62% (42/67) of the partners migrate; almost three quarters (31/42) migrate to Dakar, and almost a quarter (10/42) to other points within Senegal. Only one man migrates internationally.

The average length of these relationships is 13 years, but since they are all current relationships, ranging from four months old to more than 35 years old, it is hard to say what the average length of these marriages will be. The frequency of sex seems to be much higher than among never married women. More than 50% (35/67) have had sex with their husband a week ago or less, almost 60% (40/67) within the present month, and more than 70% (48/67)

in the previous month. Only 9% (6/67) of the women last had sex with their husband more than six months ago.

While less than 7.5% (5/67) of these women have had a concurrent partner, the women report that they believe more than 50% (34/66) of their husbands have or have had concurrent partners. More than 45% (30/66) of these men are reported to have other wives, and 6% (4/66) to have a girlfriend or other non-marital partner. We can conclude then, that at least 44% (30/67) of these men are polygamously married. More than 25% (17/67) of these women have had a previous partner; almost 18% (12/67) have had at least one previous husband, and 9% (6/67) had a different man as a “fiancé” before marriage.

Less than 4.5% (3/67) of these women used condoms with their husbands. All of those who did are among those who believe that their husbands do not have other sex partners. Almost 18% (12/67) have used traditional medicine to protect themselves from STDs or pregnancy. About 62.5% (42/67) can name an STD and about 42% (28/67) can name a symptom.

#### ***4) Sexual Relations of the Divorced***

Of divorced women, 17.4% (4/23) have had a partner outside of marriage since last having sex with their former husbands. These women are on average about one year older than the divorced women who have not had other partners are (32 and 30.9 years on average respectively). While not quite statistically significant ( $p=.188$ ), the direction seems interesting. Women who have had partners since their former husbands also seem to have been divorced a shorter period of time. Sixty three percent (12/19) of those who have not had a new partner

have been divorced two years or more. None of the women who have had new partner have been divorced for two years.

The former husbands of these women resemble the husbands of the currently married women. The age gap was more than nine years. All of the men were Serere. All of the Catholic women were married to Catholic men, while a few of the Muslim women married Catholic men. Educational selection does not seem to happen at all with these women, indicating that perhaps traditional marriage criteria were used, as opposed to western criteria of attraction. In fact, most were arranged marriages.

The majority of former husbands were farmers or herders, and most were partners in the village or in the village and Dakar. Only about 10% (2/19) were partners only in Dakar. Almost 80% (15/19) of the husbands migrated also, and more than 42% (8/19) of them migrated to Dakar. About 21% (4/19) of former husbands migrated elsewhere within Senegal, and almost 16% (3/19) migrated internationally. The relationships were an average of 7.23 years long.

None of the divorced women who have not had new partners had a concurrent partner with her husband, while these women reported that almost 40% (7/18) of their husbands did. More than 31.5% (6/19) of the women report that their former husband had other wives, thus were polygamously married. About 5.25% (1/19) of the women report that their former husbands had a girlfriend. Ten and a half percent (2/19) of the women have had previous husbands. Five percent (1/19) have had two previous husbands.

A little more than 10.5% (2/19) used condoms with their husbands. Five percent (1/19) used traditional medicine to prevent pregnancy or STDs. Fifty eight percent (11/19)

could name an STD but only 21% (4/19) could name a symptom.

The partners outside of marriage of divorced women since their former husbands, on the other hand, seem to resemble partners of never married women in most ways, other than the fact that they were on average 10 years older and the selection on religion is exact. While there are only a few cases, it is interesting to note that they are in most respects like the partners of never married women. Only half (2/4) are Serere. The selection on education is strong - women with some education have partners with education, and the women without education have partners with and without western education. All the partners are Dakar based and none were born in the same village as the women, and only half (2/4) were born in Serere rural areas. Half (2/4) migrate to Dakar and half also provide some sort of support in money or kind to the woman.

The relationships are an average of 3.8 years long, but since three out of four of the relationships are continuing, this is certainly an underestimate. Half (2/4) have children with their partner. Sex does not seem to be very frequent among these women. Of the women who are in continuing relationships, two out of three have not had sex in at least six months. The remaining one (1/3) has had sex in the previous month.

While one of the four women had this partner concurrently with her former husband, three out of the four women report that their partners had partners concurrently with them. One of the four had a partner who was married, and he had sex with his wife concurrently with her. Half (2/4) of the men had other girlfriends. At least one (1/4) of the women has had two husbands before this partner.

None of the women used condoms with their partners. Three of the four women can

name an STD and a symptom.

### ***5) Sexual Relations of the Widowed***

Widows are rare in the sample (N=3), but all of them last had sex with their former husbands. All have been widowed within the last year. They are very similar to the married women, as are their former husbands. All partners were rural based farmers, all were Muslim, as are the women, and none of the men or women had any western education. The age gap between spouses was slightly larger than the age gap the married women had, at 12 years. This wider than average gap indicates that it is possible that these women were second or higher order wives. At least one of the three was in a polygamous marriage, as one of the three had a partner who had sex with another wife. One of the three women had been married before. But none of these women had concurrent partners with her husband. These relationships were on average 11.6 years long. These women are not old, however. Their average age is 34.3 years. None had used condoms with her husband, and one of the three had used traditional medicine to prevent STDs or pregnancy.

## **D. Implications Of Migrant Serere Women's Sexual Networks For The Spread Of HIV**

### ***1) Do These Patterns Put Women At Risk?***

From a sexual network point of view, the distinct sexual network patterns created by migrant Serere women at different stages of their sexual life courses have different implications for their risk of HIV infection. Women in the married stage do not seem to put

themselves at great risk due to their own behaviors. Of their risks, however, 25% have had a previous partner (husband or “fiancé”) which adds to their lifelong number of partners. But the turnover rate seems fairly long, on average more than 13 years, so that this does not seem to be high risk behavior. About 7.5% have had a concurrent partner with their husband - an extremely high risk behavior among a relatively high percentage of women. The fact that 62% of their husbands migrate might add to their risk, as experience tells us that migrants, especially male migrants, are more likely to be HIV positive than non-migrants (Lurie *et al.* 1997). Future research could look into the risks these women have from their husbands’ sexual practices, but from their own practices, overall they seem to have moderate risk.

The widows in this sample are very similar to currently married women, except that none reported concurrent partners. Widowhood is a stage a substantial number of women could go through, but it does not appear to last long, as reflected by the paucity of cases in our sample.

For never married women, the 51% who have had sex outside of marriage may be at risk, as relationships outside of marriage do not restrain men’s sexual behavior as much as formal marriages (Caraël *et al.* 1994). Therefore we can expect that these men might be more likely to have other partners outside of marriage as well. As it is, 9% percent of these partners are reported to have other partners outside of marriage, a very high risk behavior. We can see in contrast that among married women’s husbands, 4.5% of them reportedly have partners outside of marriage.

Many women use the term “fiancé” for these partners outside of marriage. However, almost 25% of these relationships are not continuing. We can see by the fact that more than

20% of the men are not Serere that many of these men are not really candidates for husbands. We also see evidence for this in the number of men who do not have the same religion as the woman. These are both indicators that these women are not all necessarily having sex with men they expect to marry eventually. The data on selection on education also supports this conclusion. Also, many of these men are Dakar based, which also might eliminate them from ever becoming husbands. There are also a very small number of women who have had sex with men they do not even call “fiancés.” The fact that the average length of relationships was more than three years indicates that turnover is not rapid and these relationships are not highly risky. However, about 19% of these women have had two or more partners thus far before marriage. The slightly less than 4% who have had concurrent sexual partners are at greater risk, but again their number is small.

As noted earlier, these women have 6.5 people who depend on their income. Evidence that women might seek partners to help them comes from the fact that more than 72% of these women receive some help in money or gifts from their partners outside of marriage. This help might well be incentive for a woman to have a sexual relationship with a man, given the economic difficulty these women face.

Fifty percent of the never married women who do have a partner also have had a child with him. The fact that at least 34% of these relationships are not continuing indicates that this behavior has created a situation where the woman is now in a more difficult position than she might otherwise be, with a dependent child. This could push her to find another person to help support her, inside or outside of marriage. This seems to create a risky situation. Interventions dealing with contraception directed at never married women might reduce the

number of women in this circumstance.

Eighty five percent of the partners of never married women are also migrants and as previously noted, migrants are more likely to be infected with HIV than non-migrants (Lurie *et al.* 1997). This means that these women could be in contact with a high risk group. Most of these men migrate to Dakar, however 12% migrate internationally. The latter might be an even riskier group, as international migrants have been shown to be more likely to report high numbers of partners than internal migrants (Anarfi 1993). Unfortunately, we do not know for sure, but experience tells us this would be an area of concern, and should be an area for future research.

A positive aspect of the sexual network of never married women is that frequency of sex is much lower than that of married women. Of the relationships that are continuing, only about 38% of the women have had sex in the last month. This certainly would reduce the risk of HIV being transmitted within the network. However, there is very low condom use, about 15%, which means that any amount of sex with high risk or moderate risk men is a risk for these women.

We know that many migrant Serere women will go through a period of time when they will be divorced. From a sexual network point of view, fortunately, divorced women do not seem likely to have partners outside of marriage. More than 82.5% of the divorced women in our sample did not. These women who did not have partners outside of marriage after their divorce have risks similar to currently married women. None of the women had concurrent partners. While 10.5% of the women have had one or more previous husbands, and this turnover does increase lifelong numbers of sexual partners, the number of women

involved is low and the rate of acquisition of new partners is slow - The average length of these marriages was 7.23 years.

Although we do not have the data to know, these women might have been at risk from their husbands' sexual behavior, as 80% of their husbands migrated, and almost 16% migrated internationally. In addition, only 10% of these women used condoms with their husbands. Also, even though none of these women had concurrent partners, almost 40% of their husbands did. At least 31.6% of husbands were polygamously married, which is of questionable risk, but a small number, 5.25%, did reportedly have other partners outside of marriage, which would increase risk for the woman. More research should be done on husbands' behavior, but overall, the sexual networks of these women do not seem to increase their risk of HIV infection from their own behaviors very much.

Of the women who do have sex outside of marriage after divorce, their sexual networking does seem to increase their risk of HIV infection. Many of their partners do not seem to be candidates for husbands, which indicates that these relationships could be of higher risk and could be followed with another partner. One quarter have already ended by the time of the interview. Fifty percent of the partners are not Serere, and all of the relationships are based in Dakar as opposed to the village, which indicates not only that they are less likely to become husbands, but also that urban norms might be operative, which could potentially increase risk.

In addition, 50% of these men also migrate, again an increased risk factor, and none of the women use a condom with their partners. One quarter of these women also had this partner concurrently with their former husband. This is an increased risk for all involved.

Seventy five percent of their partners outside of marriage have concurrent girlfriends; again a great increased risk. At least 25% of the men are polygamously married, which is not as much of a risk as the 50% who had other partners outside of marriage. In addition, one quarter of the women have had two husbands prior to this relationship, which means that overall numbers of accumulated partners begin to add up. These relationships are on average more than 3.8 years long, which does help reduce risk, as the longer the length of the relationship, the more it decreases the overall number of partners the women will accumulate.

Fifty percent of these men provide some type of help for these women, in either money or gifts. Because so many people depend on the income of these women, perhaps this aid is an incentive for these women to have these men as sex partners. While not statistically significant, it does appear that women with more dependents receive help from partners. It could be that men who see a woman struggling with many dependents help her, or that a woman who has a man to help her helps more dependents. However, it could also be that women with many dependents seek men who will help.

On the other hand, indicating that some of these relationships might lead to marriage, 50% of the women do have children with their partners, and all of these relationships are continuing. In addition, sex is not very frequent for these women. The low frequency of sex reduces exposure to HIV. However, since women are more likely to be infected with HIV from one sexual exposure than men (Laumann and Youm 1996), the low frequency of sex might slow down the spread of HIV on the whole, but individual women who have a high risk partner are at risk of becoming infected at some point if they do have sex.

## ***2) Do These Networks Link High Risk And Low Risk Groups?***

The second issue of concern from a sexual network point of view is whether the sexual networks of these women link high risk and low risk groups, thus creating a bridge for the virus to enter low risk groups. Looking at these networks from where the women are positioned, overall it does not seem that their relationships create many such bridges.

Married women, for example, do not seem to have much extramarital sexual activity while married. Less than 7.5% had a concurrent partner with their husband. Concurrency is very dangerous from a network point of view, because it simultaneously links people. Therefore, from a virus's point of view, it can move not only from the first partner to the woman (the link) to the second partner, but if the second partner is infected, the virus can move back to the first as well. The more links that are concurrently tied, the faster a virus can move, and the more people who can be infected (Morris 1997).

Of the women with concurrent partners, 60% started having sexual intercourse with their current husband before they stopped having sex with their previous husband. While in a polygamous society, this concurrent link could potentially simultaneously link up to nine people (the two men, three possible additional wives each, and the woman herself), the behavior does not seem to be as high risk as if one of the men were outside of the marriage process. However, 40% of the women with concurrent partners linked their husbands with men outside of marriage. As previously stated, men outside of marriage present more of a risk because of the increased chance of them having concurrent partners outside of the relationship. Thus, linking husbands with partners outside of marriage is a riskier situation. The frequency of sex for married women was also higher, which would facilitate the

transmission of HIV over these links, should it be present. Since condoms use is so low (less than 4.5%), if the virus is present, it is free to cross these links. Overall, however, only 3% of the married women created such high risk network patterns.

Lifelong numbers of partners are also linked in sexual networks, even if not concurrently. A total of more than 25% (17/67) of married women have had previous partners, and 3% (2/67) have had a third. Only 9% (6/67) of the women, however, have had previous partnerships outside of marriage. Thus while there is a moderate risk due to the numbers of people linked, most partners are within the Serere ethnicity and were married to the woman, thus the risk is reduced. The frequency of turnover of partners is not rapid, so while there certainly is a risk, it is not extreme.

There does not seem to be linking of generations through this sexual network, as the other partners of these women are on average 10 years older than they are. This prevents a risky intergenerational link.

Of never married women on the other hand, 51% have had sex outside of marriage. Some of these women will marry these men; thus they will not create a link with other men. However, 19.2% have already had more than one partner, and 2.6% have had more than two and 2.5% of these women have partners who are not even “fiancés.” In addition, we have already seen evidence that many of these men are not candidates for marriage, and since marriage is almost universal among the Serere, presumably at least one sexual partner will follow men who do not become spouses.

In addition, many of these men are what could be called high risk. Eighty five percent of the men migrate, most of them to Dakar, where HIV infection rate is higher than in the

rural areas, and 12% internationally. Migration is an identified risk factor for HIV transmission. Also, many of the men are Dakar based, as opposed to rural based. With the prevalence of HIV higher in Dakar than the rural area, these men could be higher risk. More than 10% of these men also have other partners outside of marriage, which indicates higher risk. While such partners put these women at risk, if these women do not marry these men, these women will also link these higher risk partners to the next men with whom they have sex.

Only slightly less than 4% of never married women have had concurrent partners, but these men were or are tied together, thus facilitating a quick transmission of any virus that might be present. Since only 15% of the women use condoms, there is little barrier for transmission across links. Frequency of sex is low among these women, which will slow transmission, but the risk remains.

The main risk posed by the sexual networks created by these women is the number of different groups with whom they are having sex. Many men are of the same age class as the woman - 25% are only 4 years older or less. Traditionally women have sex partners, or at least husbands, of an older age class. If women are having sex with men of two generations, they are creating a link between the two. Since men of the same age class as women will not become spouses, these women will link their age class mates who are sex partners now with the older age class whom they will marry. These women also have partners from many ethnic groups - 20% of their partners are not Serere. Once again, since they will probably not marry outside their ethnicity, they are tying Serere men with men from other ethnic groups. The danger here is that any one of the different groups these women have partners from could be

high risk. By creating that link, and then linking back to the Serere ethnicity, they could introduce the virus, which will then pass within the ethnicity, from where most sexual partners are chosen. Likewise, these women have partners from a wide variety of occupations. If any one of those occupations is high risk, such as public transport driver, business man, or university student, especially if they do not marry such men, the link created will allow the transmission of the virus from those men into the (rest of the) Serere ethnic group.

Widowhood and divorce, quite common in this population, serve to increase the number of lifelong partners of these women. The quick remarriage of women after divorce or widowhood creates links between the previous husband and the new husband. This is a worrisome custom in the context of AIDS, as should a husband die of AIDS, and should his wife not yet show signs of being infected, her new husband and any co-wives are immediately linked to the virus. The remarriage of widows to their husbands' biological or classificatory brothers (Garenne and Van De Walle 1989) could lead to decimation within families. Also, men who inherit their brother's wives are not necessarily looking for another wife, and therefore might already have several. In Garenne and Van De Walle's (1989) study among the Serere, the only men with more than 4 wives, the limit in Islam, were men who inherited wives from deceased brothers. The linking position this puts a Serere woman in could be potentially damaging to many people - her new husband, his wives, and any non-marital partners that could be attached to that network.

The sexual networks created by widows seem to be limited to remarriage. While this creates links between husbands, other than the worrisome scenario above, and the increased number of life partners created by widowhood, these women seem to have the same linking

effect as married women.

Divorced women on the other hand, seem to have linking effects similar to never married women, again, other than the increased number of life partners created by divorce. Like never married women, the divorced women who have partners outside of marriage create links that are sometimes worrisome. The divorced women who do not are similar to never married women who do not have partners, except that they have all had previous partners who they link to their next partner.

### **E. What Questions Remain**

From the above description of the sexual networks of migrant Serere women, we can see that there is not the level of sexual networking hypothesized before the study. Three important questions seem to emerge. 1) Given what we know about these women, what factors shape these networks to be less extensive than predicted? 2) Some women are involved in higher risk behavior than others. What predicts whether a woman will adopt higher risk behavior? 3) Condoms are the only barrier we know of that can stop the spread of the virus within a sexual network. What predicts that a woman will use a condom?

#### ***1) Factors That Shape These Networks***

It seems surprising that these migrant women do not have more sexual partners than they do. They do not fit the mold of impoverished women who migrate to make ends meet. What is it that allows them not to resort to sexual networking to the extent seen elsewhere?

One possible factor is the solidarity between Serere women. Sexual networking is often used by women in difficult economic situations to allow them access to money and

resources to survive. However, the close solidarity of this group of women seems to provide support, at least in part. As has been noted, women pool their resources and eat and sleep together. Maids who share rooms in neighborhoods will feed and house newly arrived women and women who do not have work. Women will also help each other find jobs (Diaw 1997). While resources are not plentiful, an individual Serere woman does have a close-knit group of women who will help support her during her most difficult times.

Since the women who group themselves tend to be from the same village, not just same ethnicity or area, there are also presumably social obligations to help each other. Since most women probably know each other's families intimately, have family ties, and will return and live together in their villages eventually, the obligation to make sure everyone is taken care of, at least minimally, is seemingly strong.

The close ties also seem to create social control, especially among married women. Since sex outside of marriage is such a taboo act in this culture, and most of the women work in close proximity to women from their own village, who might even be related to their own husbands, the women likely exercise social control over each other. While women probably could find a way to have a liaison with a man outside of marriage, being found out would probably damage their relationships with the social network that supports them, and their social status would fall. Social status is a very important aspect of life in Senegal and cannot be underestimated.

The social control of these women seems to wane when younger women, especially the unmarried, live in groups in rented rooms. While the solidarity between them remains, without the watchful eyes of elders, it seems the social control aspect lessens. In addition,

these women are isolated from each other during the working day. This allows for more freedom of movement, as well as could lessen the influence of their village family and friends. While a woman's social status is probably still affected by having sexual relationships outside of marriage, it appears that if women are discreet, having partnerships outside of marriage seems more possible in this situation and less likely to cause scorn from respected elders. The frequency with which these women have sex is low, however, which might be a function of the social control and taboo that remains.

Widowed women behave very similarly to married women in our sample. According to this interpretation, this would make sense, as they are in general older and living with older and more respected members of the community. Also, it appears that they are not necessarily in control of who will become their next husband which might erase or reduce their need to find a new husband, or obligate them not to be involved with other men before their next marriage is arranged. There might also be more stringent cultural controls on their behavior after the death of a spouse, especially immediately after.

Divorced women, on the other hand, occasionally act like never married women, but not very often. Less than 20% have a partner outside of marriage. This deviance from the norm, however, might be explained by the fact that being divorced is already a somewhat socially stigmatized status. Some might feel that the benefits of a partner outside marriage outweigh the undesirable attention they might draw. Since they do not have a husband or in-laws to whom fellow villagers might expose their actions, and they were previously married, so their parents also might not be informed, the hold that social control normally has might be loosened.

Some of the sex outside of marriage by divorced or never married women might be to license their marriage to their present partner. This certainly does not explain all of the sexual activity, as many of the men are not suitable as spouses.

Another possible reason for the lack of sexual networking is the influence of Islam. The mechanism is not clear, but thus far we know that HIV has spread far more quickly throughout southern and eastern Africa than it has in northern Africa. Some suggest that the difference is somehow connected to the predominance of Christianity in southern Africa and of Islam in northern Africa. What the potential mechanisms of Islam are is difficult to guess, but one idea might be that because of polygamy, sanctioned by Islam, men are not searching for sex partners outside of the pool of suitable wives as much as they might elsewhere.

This suggestion is difficult to test with the present data set, as the number of Catholics is very small, and all Catholics in this study are maids and much less likely to be married. Thus any difference in sexual practice could have more to do with the marital status of the women in the sample than religion. However, it does appear that among never married women, Catholics have the same likelihood of having a partner outside of marriage as Muslim women, and among divorced women a higher likelihood. However, there are only two divorced Catholic women in this sample, thus it would be hard to extrapolate. Because Senegal is over 95% Muslim, it might not be possible to conduct this comparative study here, as it might be that even Catholics are under the influence of the Muslim majority.

## ***2) Factors That Predict Higher Risk Behaviors***

Overall, migrant Serere women do not seem to practice many high risk behaviors.

Even sex outside of marriage is often with a man who will eventually become a husband.

However, some of their behaviors are higher risk. In order to try to determine who is most likely to practice higher risk behaviors, I identified three higher risk practices and estimated logit regression models to determine what characteristics would predict women in this sample engage in these behaviors.

The first behavior modeled is that the woman's most recent partner is outside of marriage and is not likely to become her husband. The second behavior is having more than one partner outside of marriage who is not likely a candidate for marriage. This indicates that a woman will at least have a third lifetime sex partner who will be her husband, since marriage is nearly universal. This incidence of lifetime partners increases her risk of HIV infection. The third behavior modeled is presently having or having had concurrent partners.

The findings of these models are reported in Table 4 (see next page). In the first model, predicting that the woman's most recent partner is outside of marriage and not likely to become a husband, five independent variables were used: Age, level of education, amount of time since first migrating to Dakar, religion and number of dependents other than children. In this model, women who have been migrating to Dakar for the longest period of time, more than 14 years, are significantly more likely to have a most recent partner who is outside of marriage and not likely to become a husband than women who have been migrating for 0-48 months. This seems to indicate that if anyone is going to adopt more high risk behaviors, it might be those who have lived in the capital longest.

This model also indicates that women with western schooling are more likely to have a partner who will not become a husband than women with no formal education. This supports

the descriptive statistics that suggested that there is educational selection for sex partners among the better-educated women, but that these men are not likely to become husbands. We also know from the literature that “educational attainment is positively related to the prevalence of non-marital sexual contacts” (Caraël 1994:153).

Table 4: Logit Regression Analysis of Higher Risk Behaviors

| Independent Variables                       | Model 1 (N=242)     | Model 2 (N=242) <sup>b</sup> | Model 3 (N=220)                               |
|---|---------------------|------------------------------|---|
| Western Education                           | 1.199 **<br>(0.468) | -0.014<br>(1.042)            | -0.725<br>(1.094)                             |
| Koranic or Literacy                         | 0.656<br>(0.790)    | 0.601<br>(1.273)             | dropped –<br>predicts<br>failure<br>perfectly |
| a 49-96 months in<br>Dakar                  | 0.603<br>(0.578)    | 0.228<br>(1.466)             | 0.582<br>(1.516)                              |
| a 97-168 months in<br>Dakar                 | 0.200<br>(0.636)    | 0.298<br>(1.514)             | 0.460<br>(1.511)                              |
| a 169-432 months<br>in Dakar                | 1.635 *<br>(0.717)  | 2.170<br>(1.412)             | 2.855 *<br>(1.318)                            |
| a Religion                                  | -0.797<br>(0.830)   | 0.895<br>(1.248)             | 3.184 **<br>(1.205)                           |
| a 3-4 Dependents<br>Other Than<br>Children  | 0.771<br>(0.729)    |                              | -1.533<br>(1.271)                             |
| a 5-6 Dependents<br>Other Than<br>Children  | 1.123<br>(0.725)    |                              | 0.602<br>(0.960)                              |
| a 7-25 Dependents<br>Other Than<br>Children | 1.076<br>(0.727)    |                              | -1.008<br>(1.310)                             |
| a Age: 20-24                                | 1.558 *<br>(0.628)  | 0.468<br>(1.314)             |   |
| a Age: 25-30                                | 0.507<br>(0.700)    | -0.402<br>(1.432)            |   |
| a Age: 31-60                                | -0.186<br>(0.849)   | -1.512<br>(1.697)            |   |
| Log Likelihood                              | -84.414             | -25.546                      | -27.732                                       |
| Chi2  | (13) 27.61          | (9) 5.12                     | (8) 19.70                                     |
| Prob > Chi2                                 | 0.0103              | 0.8234                       | 0.0115  |
| Pseudo R2                                   | 0.1406              | 0.0911                       | 0.2621  |

\* p<.05; \*\* p<.01; \*\*\* p<.001; <sup>b</sup> least robust, only 6 cases have value of 1

*Note: Unstandardized coefficients are presented with standard errors in parentheses. Where a variable is marked "a," missing values were replaced with means or the modal category, and an indicator variable was added to the model.*

Finally, women between the ages of 20-24 are more likely to have a recent partner they will not marry than the omitted category, women aged 15-19. This suggests that perhaps younger women have not yet begun to have such behaviors, and that older women are more likely to be married. Thus, if a woman is not married by 20-24 years of age, she could well be experimenting before marriage.

In the second model, which attempts to determine what characteristics predict whether a woman will have two or more partners not likely to be husbands, four independent variables were used: Age, education level, amount of time since first migrating to Dakar, and religion. This model is not significant, nor are any of the independent variables that were used. Having two or more partners outside of marriage who are not likely to be husbands is an uncommon practice among this group. Only six cases have a value of 1 for the dependent variable, and thus this model is the least robust. Because of the small number of cases, it is not clear what would predict this behavior in this sample.

In the third model, which attempts to determine what characteristics predict whether a woman will have concurrent partners, four independent variables were used. They were the woman's level of education, the amount of time since she first migrated to Dakar, her religion, and the number of dependents she has other than children. Two variables were significant in this model: Religion and amount of time since first migrating to Dakar. The religion variable was positive, indicating that if a woman is Catholic in this sample, she is more likely to have concurrent partners than if she is Muslim. More research is needed to determine whether this finding holds for the population of Serere migrant women, and if so, to determine the mechanisms at work.

Of the four levels of time since first migrating to Dakar, the longest period is the only significant one, as was the case in Model 1. It also has a positive coefficient, indicating that women who first migrated to Dakar more than 14 years ago are more likely than the omitted category, four years or less, to have concurrent partners. Once again, this suggests that women who have been migrating for the longest periods of time are the most likely to adopt higher risk behaviors, in this case, having concurrent partners. It appears that longer or more repeated periods away from the village, or perhaps more exposure to the norms of the capital city increase the likelihood of behavior change, that is, adopting higher risk behaviors.

From these models we can conclude that if we are to target interventions toward the women most at risk, we should consider women who have been migrating for the longest periods of time, unmarried women between ages 20 and 24, western educated women and Catholic women.

### ***3) Factors That Predict Condom Use***

Condoms are not very well accepted among the Serere people, yet some women have used them with their partners. Since they are the only barrier that can block the spread of HIV across network links, it is important to understand who uses them so that we can determine how to design interventions in the future regarding their use.

It is often difficult for women to negotiate condoms use due to their economic and ideological dependence on men (Bond and Dover 1997; Schoepf 1995). In fact, according to some research, men control condom use, and women are dependent on their cooperation and willingness to use them (Obbo 1995).

In the present study, a logit regression model (see Table 5, next page) was estimated to determine what factors significantly predict whether a woman will use a condom with her sex partner. Many models were compared, but the conclusion remains constant: The only three variables that significantly predict a woman will use a condom with a sex partner are the partner's ethnicity, his religion, and his education level. If only the women's characteristics are used, the woman's education level comes close to significance, but it loses all significance when men's characteristics are added to the model. The significance that women's education did hold might be explained by partner selection based on education among never married and divorced women - better educated women chose better educated men, who are likely to use condoms. Therefore, it seems as if Obbo (1995) was correct in asserting that women are dependent on men's cooperation to use condoms.

In the first model to determine the factors that predict condom use, only women's characteristics were used: Women's education, religion, age, marital status to the partner, work, kind of Serere, amount of time spent in Dakar, knowledge of STDs, and number of children. In the full model, the same variables were used, but the following were added: The man's ethnicity, religion, and education level. The dependent variable used is a dichotomous variable coded 1 if the couple used condoms and 0 if they did not.

In the first model, there are no variables that are significant at the .05 significance level, but woman's education comes close to significance at 0.091. The coefficient is positive, at 1.181, and therefore suggests that if a woman has any western schooling, she is

Table 5: Logit Regression Analysis of Condom Use Among Migrant Serere Women Who Have Had Sex

| Independent Variables               | Model 1 (N=164)   | Model 2 (N=158)     |
|-------------------------------------|-------------------|---------------------|
| <b>Women's Characteristics</b>      |                   |                     |
| a Age: 20-24                        | 1.315<br>(1.1688) | 2.891<br>(1.770)    |
| a Age: 25-30                        | 0.900<br>(1.065)  | 1.782<br>(1.436)    |
| a Age: 31-60                        | -0.245<br>(1.741) | -1.643<br>(2.856)   |
| a Religion                          | 0.989<br>(1.103)  | -0.811<br>(1.875)   |
| Western Education                   | 1.182<br>(0.699)  | 0.871<br>(0.973)    |
| Koranic or Literacy                 | -0.639<br>(1.401) | -0.743<br>(1.511)   |
| Knowledge of STDs                   | 1.005<br>(0.630)  | 1.031<br>(0.826)    |
| a 1-2 Children                      | -1.006<br>(0.789) | -2.509<br>(1.286)   |
| a 3 or more Children                | -0.818<br>(1.094) | -1.509<br>(1.388)   |
| a 49-96 months in Dakar             | 0.729<br>(0.859)  | 0.755<br>(1.041)    |
| a 97-168 months in Dakar            | 0.695<br>(0.925)  | 0.691<br>(1.103)    |
| a 169-432 months in Dakar           | -1.260<br>(1.458) | -1.241<br>(1.738)   |
| Married to Partner                  | 0.371<br>(0.771)  | -0.604<br>(1.249)   |
| Serere Bawol                        | -0.984<br>(1.866) | -3.525<br>(3.175)   |
| Serere Sine or Hirena               | -0.210<br>(1.489) | -2.100<br>(2.509)   |
| Serere Ngoundiane                   | 1.471<br>(2.745)  | 1.682<br>(3.703)    |
| Safene, None, Ndout or Serere Jigem | 0.483<br>(1.741)  | -2.670<br>(2.801)   |
| Works as Maid                       | 2.139<br>(2.152)  | 1.721<br>(2.750)    |
| <b>Man's Characteristics</b>        |                   |                     |
| Ethnicity                           |                   | -2.98 *<br>(1.246)  |
| a Religion                          |                   | 3.794 *<br>(1.784)  |
| a Koranic                           |                   | 3.575<br>(2.347)    |
| a Primary Schooling                 |                   | 0.021<br>(1.656)    |
| a Secondary Schooling               |                   | 4.229 **<br>(1.653) |
| a University                        |                   | -0.058<br>(1.875)   |
| Log Likelihood                      | -40.428           | -29.083             |
| Chi2                                | (18) 28.38        | (24) 49.74          |
| Prob > Chi2                         | 0.0564            | 0.0015              |
| Pseudo R2                           | 0.2598            | 0.4609              |

\* p&lt;.05; \*\* p&lt;.01; \*\*\* p&lt;.001

Note: Unstandardized coefficients are presented with standard errors in parentheses. Where a variable is marked "a," missing values were replaced with means or the modal category, and an indicator variable was added to the model.

more likely to use condoms. However, when the full model is run (with men's characteristics

included), women's education loses significance and men's education level is the most significant predictor of condom use. In the full model, if a man has attended secondary school, there is a very strong and significant effect on the use of condoms. Perhaps oddly, the other three levels of men's education - primary, university, and Koranic, are not significantly different from no schooling, the omitted category.

In the full model, men's ethnicity was the second most significant predictor. Being non-Serere is a significant predictor that the couple will use condoms. What this means is not apparent. It could be that non-Serere men use condoms more often than Serere men do. It could also be interpreted to mean that homogamous relationships are more likely to be relationships that one or both partners are hoping will lead to marriage. Therefore neither partners wants to jeopardize the relationship by negotiating condom use, which could suggest mistrust, undermine intimacy, acknowledge the possibility of other sexual partners, or reduce pleasure (Bond and Dover 1997). The heterogeneous relationships might be more clearly not leading to marriage, and therefore the risk of jeopardizing them by suggesting and using condoms might be less. A third interpretation could be that the Senegalese men are more likely to use a condom when they have sexual intercourse with someone from another ethnic group because there is more mistrust. The flip side of that could be that Serere men are unlikely to use condoms with Serere women, believing that Serere women would be unlikely to transmit an STD.

Finally in the full model, the man's religion was also a significant predictor of condom use. The coefficient is positive, indicating that if a man is Catholic, the couple is more likely to use condoms than if he is Muslim.

## 6. DISCUSSION

Based on what we know about what indicates increased risk for HIV infection, migrant Serere women seem to be a possible high risk group both for HIV infection themselves and for possibly creating links between high risk urban and low risk rural populations. However, this study shows that for the most part, these women have not adopted high risk practices. It seems that traditional sexual behavior and marriage patterns are still adhered to, which limit extramarital sexual activity within and outside marriage. Married women seem particularly unlikely to have extramarital sexual relations, and unmarried women who might have sex partners outside of marriage seem to engage in moderate, but not high risk behavior.

There are a few women who do have increased risk due to their behaviors, especially women who have partners outside of marriage who are not candidates for marriage and women with concurrent partners. Women with concurrent partners also create a greater risk of spreading the virus faster and to more people. The results of this study show that these two groups of women are not large. By targeting women who have been migrating for the longest periods, those who have western education and unmarried women between the ages of 20 and 24, we might have the best chance of reaching the most at risk women. These women might also be most likely to begin adopting more risky behavior, and future research might follow up on this possibility. Future research might also seek to determine whether Catholic women are at increased risk, as they do seem more likely in this sample to have concurrent partners than Muslim women.

Condom use is not widespread among this group. Results also indicate that men

control the use of condoms in the partnerships Serere migrant women have. We can use this knowledge to better design prevention interventions. Asking women to use condoms when they do not have control over their use is not helpful. Interventions would have to focus on how women can attain some control over condom use, how to convince more men to use them, or finding alternative solutions.

Although surprising, these results are on the whole quite positive in the face of the HIV/AIDS pandemic. The implications of these results seem to be that these women are not at high risk for HIV infection due to their own behavior, and do not seem to be in a position to transmit the virus to other populations. However, the surprise remains, and understanding why these women do not adopt high risk behaviors could lead us in new directions for preventing further spread of HIV.

The important question then becomes why aren't more of these women adopting high risk behaviors? While this study cannot answer this question, it can point us in directions for future study.

One such direction is to try to identify sources of power for women in African societies who have relatively less power than men do. Instead of having to trade sex for the resources and power of men, it seems that the migrant Serere women have found power in their ability to rely on each other. Thus their solidarity seems to protect them from the sexual

networking to which many other women on the African continent have been pushed. Other sources of power should also be investigated.

Another area of research could be into the differences between Islamic and Christian African societies. While the mechanisms remain unclear, it does appear that Islamic societies are experiencing lower levels of HIV than Christian ones. Comparative studies might help us identify whether this is true. Senegal is a predominately Islamic society, with over 95% of the population being Muslim. The Catholic population in this study was very small for comparison, but we do have as indications that Catholic women are more likely to have concurrent partners and that Catholic men are more likely to use condoms. Comparative studies with predominately Christian populations could potentially be quite interesting.

Some speculations about the mechanism at work could be that Islam creates more social control, so that women are not as able to engage in sexual partnerships outside of marriage as in Christian societies. Another possibility for future research might be that by sanctioning men to have more than one wife, the sexual networks of men might remain within the community as they seek other wives. Although men might have many partners and frequent sex, they might not have sex outside ethnic networks, thus populations remain isolated from the virus.

This study gives us a glimpse into the world of migrant Serere women, and what their sexual networking is like. We can be pleased to note that their networks are not as extensive or risky as hypothesized. However, new questions as to why that is should be investigated. There is also the possibility of behavior change in the future, and this group should not be overlooked for prevention interventions or future research.

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**APPENDIX A**  
**SURVEY**

Oxe laamitna: \_\_\_\_\_ Nro: \_\_\_\_\_

**Laamit Ndeer o Koor Fo Tew**

**Ne rew seereer we na njalaa no marse ke  
mbaqaqooritna fa SIDA**

**Oxe hebilna laamit ke refu Kristen A. Velyvis  
*Juillet 1997***

Interviewer's name \_\_\_\_\_ No. \_\_\_\_\_

**SEXUALITY SURVEY**

**Serere Market Women and the Spread of AIDS**

**By Kristen A. Velyvis  
*July 1997***

**SIMIN**

**GREETING**

**(EETI SIMIN OXE NAROONA LAAMIT. LAAMTI GON  
UM NDAA BA BINDIN NA KAYIT ALE).**

Mbaa leng jiree? Mi \_\_\_\_\_ ne-  
eem, oxeekene-el \_\_\_\_\_. Kaa I  
ngar me nuun ndax I and kaa jofna no seereer we na  
njalaa no marse ke. Xa kiid axe mbaafna, I mbia mayu  
ndeer rew we na njalaa no marse ke Ndakaaru fa  
Kawlax. Ndiiki koy kaa I nomtuwiid ndax I ndakoox o  
laamit ne I mbaagna mbi boo mo'j o mbaag o ndimle a  
nuun.

**Ndax I mbaaga laamit a nuun o ndik o ndutuuñ?**

**(INTRODUCE YOURSELF AND GREET THE WOMAN  
TO BE INTERVIEWED FIRST. ASK HER NAME BUT  
DO NOT WRITE IT ON THE SURVEY.)**

How are you? My name is \_\_\_\_\_ and  
my companion's name is \_\_\_\_\_. We  
come to you in order to learn about Serere women  
working in marketplaces. During the past few years  
we have worked a lot among market women in  
Kaolack and in Dakar. We are back so that we can  
have more information and gather knowlegde that will  
help us know better how to help you.

**Can we ask you a few questions?**

**1. Seereer refo?**

SEEREER.....1

LAKAS (DAPI) \_\_\_\_\_2 → PAANGI

**2. Mam gento took faa?**

SAATE FEE: \_\_\_\_\_ (BINDI)

**3. Departema fum oo?**

DEPARTEMA: \_\_\_\_\_ (BINDI)

**4. Resion fum oo?**

DAKAR:.....1

DIORBEL:.....2

KAOLACK.....3

THIES:.....4

FATICK:.....5

LAKAS \_\_\_\_\_6 (BINDI)

**1. Are you Serere?**

SERERE.....1

OTHER (SPECIFY) \_\_\_\_\_2 → END

**2. What village do you come from?**

VILLAGE \_\_\_\_\_ (SPECIFY)

**3. Which (administrative) department?**

DEPARTMENT \_\_\_\_\_ (SPECIFY)

**4. Which (administrative) region?**

DAKAR.....1

DIORBEL.....2

KAOLACK.....3

THIES.....4

FATICK.....5

OTHER \_\_\_\_\_6 (SPECIFY)

**5. Dakar geno ndi koo 'jiidiid rek, nar o riigik?**

DAKAR GENUM.....1 → PAANGI

KAAM JALIID REK.....2

**6. Ndax na marse nu njalaa?**

II:.....1 → LAAMIT KE

HA-AA.....0

**7. O mbindaan refo ndi...?**

II.....1 → LAAMIT KE

HA-AA.....0

**7.2 Koo dapaa?**

II.....1 → LAAMIT KE

HA-AA.....0 → PAANGI

**PAANGI**

In we njookaa nuun a njal. Waxtaan leeke xan a jeg o njiriin lool no calel ke.

**5. Do you live in Dakar or do you come just to work?**

I LIVE IN DAKAR.....1 → END

I ONLY COME TO WORK.....2

**6. Do you work in the market?**

YES.....1 → QUESTIONS

NO.....0

**7. Are you a maid or ...?**

YES.....1 → QUESTIONS

NO .....0

**7.2 Do you do laundry for work?**

YES.....1 → QUESTIONS

NO.....0 → END

**END**

We want to thank you. This discussion will have an important impact on our work.

## LAAMIT KE

### I NQOOLAND KE GARITNA LAAMIT KE

Kaa I njeg laamit no rew seereer we inoorna took faa, a njaliid meeke. Na xa kid axe mbaafna, kaa I ngebil'el, njal fo rew seereer we na njalaa marse Tilene fa marse Mbabas fa marse Kastoor fa marse Medina. I nomtooxiida ndax I mo'j o and kaa jofna no rew weene fo ke refna soxla den. O and oleene xan a tax cael in a mo'j o sa'tik.

Ke I mbugna refu and ne rew weene ñoowtaa. Nuun mo'ju and a in o ñoow nuun, ten taxu I ngar ndax nu ndimle a in. I 'cutangaa keeke I mbiaa, xan Mal mayu kaa Mbaqagooreerna no Maat ne (ONG) too a njalaa ndeer rew seereer ke a mo'j o and ne da mbaagna ndimleit rew weene fo 'pasil den.

Xan I laamit a nuun kaa jofna no gor nuun fo lakas we. Ke I laykaa meeke koy wetandooxkaand o mbiñ o lakas. Gon no leng bindkaand. Cael ke 'cutangaa, xan I mbokat o and in ndax I mbaag o and naa I ndimleitna nuun. Cinj waxtaan leeke xan I coox a nuun tig ngir o ndimle nge nuun.

Laamit ke koy a miñangaa baa miñ ngap genwal waxtu rek a mbi'kaa. I 'cutangaa, oxuu bugna laamit tig a waagaan o laamit.

Lay a in qoolu dimle a qoox nuun oo. Ke I laamitkaa xan a bindel, ndaa, ni I laytuuna, gon no leng bindkaand na kayit ale. Ndax nu mbuga ndimle a in no cael ke, I laamit a nuun?

## QUESTIONS

### INTRODUCTION

We want some information about the Serere women who migrate to work here in Dakar. In the past years we have worked with Serere women working in the market places of Tilene, Mbabas, Castor and Medina. Now we are back so that we can have more information about these women and their needs. Once gained, this knowledge will help us strengthen our work among the women

We would like to know about the lives of Serere women live. You know more than we about your way of life, that's why we need your help. Once the information is gathered, many NGOs will know much better how they can help Serere women and their families.

We will ask about your husband and others. No one else will know what we say here. We will not write your name down. And, once again, the information will be used to help Serere women more efficiently. After the questions we will give you a small gift in exchange for your help.

The questions will take a maximum of thirty minutes. At the end, you will be able to ask any questions you might have.

Your honesty will help us help Serere women. Your answers will be written, but, as mentioned earlier, your name will not be reported anywhere. Will you help us by answering these questions?

| LAAMIT O ÑOOW FA ÑOOWOO'T                      | DEMOGRAPHIC                         |
|--|-------------------------------------|
| <b>8. Calel nan' num o fiaa na marse fee?</b>  | <b>8. What work do you do?</b>      |
| KAAM DAPAA.....1 → <b>10</b>                   | LAUNDRY.....1 → 10                  |
| KAAM UNAA.....2 → <b>10</b>                    | POUNDING.....2 → 10                 |
| KAAM BINDAANWAA.....3 → <b>10</b>              | MAID.....3 → 10                     |
| LAKAS ( <b>BINDI, DAPI</b> ).....4 → <b>10</b> | OTHER.....4 ( <b>SPECIFY</b> ) → 10 |
| KAMM JIKWAA.....5                              | SELLING.....5                       |
| <b>9. Xar o jikwaa?</b>                        | <b>9. What do you sell?</b>         |
| FASAA'P.....1                                  | BISSAP.....1                        |
| A AAREER.....2                                 | PEANUTS.....2                       |
| KAAF.....3                                     | MILLET.....3                        |
| NDAG.....4                                     | KINKELIBA.....4                     |
| A ÑAAW.....5                                   | BEANS.....5                         |
| FOOFI.....6                                    | WATER.....6                         |
| LAKAS.....7 ( <b>BINDI</b> )                   | OTHER.....7 ( <b>SPECIFY</b> )      |

**10. O seereer tam refo?**

SINGANDUM\_\_\_\_\_1 (**BINDI**)

ÑOOMINKA.....1

OOL.....2

KUNJAAN.....3

KIREENA.....4

CIGEM.....5

SINGANDUM.....6

SEEREER NDUT: .....2

O NOON:.....3

O SAAFEEN:.....4

**11. Xar refo? Cedo, o paal, ndi o kawul?**

NO WE MOSNA MAADWAA.....1

O KAWUL.....2

O TIIRIW PAY.....3

O PAAL O TAFAX.....4

O UUDE.....5

LAKAS\_\_\_\_\_6 (**BINDI**)

**10. To what Serere group do you belong?**

SINE\_\_\_\_\_1 (**SPECIFY**)

NOMINKA.....1

BAWOL.....2

NGOUNDIANE.....3

HIRENA.....4

JIGEM.....5

SINE.....6

NDOUT.....2

NONE.....3

SAFENE.....4

**11. From what caste are you?**

NOBLE.....1

GRIOT.....2

WEAVER.....3

BLACKSMITH.....4

LEATHER WORKER.....5

OTHER\_\_\_\_\_6 (**SPECIFY**)

**12. Kerceen refo, ndi o siriin, ndi....?**

- O SIRIIN.....1
- KATOLIK.....2
- NA COSAAN.....3
- LAKAS.....4 (BINDER)

**13. Xa kiid xa podnum jego?**

- PODNE TA REFNA:..... (BINDER)
- ANDIIM.....0 (A LAYAN-GAA YEE ANDEE XA KIID XA PODNE TA JEGNA, FAT NU 'TOFIT TA TONTOOX LAAMIT NE FALAKANNA FOP)

**14. Mosaa rok ekol ndi a pind a seereer rek jango?**

- II.....1
- HA-AA.....2 → 17

**15. Ekol num ree'to?**

- EKOL MBIND NO MAAD.....1

**12. What is your religion?**

- MUSLIM.....1
- CATHOLIC.....2
- ANIMIST.....3
- OTHER.....4 (SPECIFY)

**13. How old are you?**

- AGE..... (SPECIFY)
- I DO NOT KNOW.....0 (IF SHE DOES NOT KNOW, ANSWER THE VERY LAST QUESTION)

**14. Have you ever been to school or followed Serere literacy courses?**

- YES.....1
- NO.....2 → 17

**15. What kind of school?**

- PUBLIC SCHOOL.....1

ALXURAAN.....2  
MBIND LABE.....3  
A CANGIN A SEEREER.....4  
LAKAS\_\_\_\_\_ 5 (BINDI)

**16. Xa kiid xa podnum fio ekol?**

PODNE TA REFNA\_\_\_\_\_ 1 (BINDI)  
EKOL PRIMEER.....2  
LIISE.....3  
UNIVERSITE.....4  
EKOL TEKNIK.....5  
LAKAS\_\_\_\_\_ 6 (BINDI)

**17. Wiin fodnum o dimle'aa no ke o jegtaa no calel of?**

PODNE TA REFNA\_\_\_\_\_ (BINDI)

**18. Xa 'piy xa podnum jego?**

PODNE TA REFNA\_\_\_\_\_ (BINDI)

KORANIC.....2  
CATHOLIC SCHOOL.....3  
SERERE LITERACY.....4  
OTHER\_\_\_\_\_ 5 (SPECIFY)

**16. How many years did you go to school?**

NUMBER OF YEARS\_\_\_\_\_ 1 (SPECIFY)  
PRIMARY SCHOOL.....2  
HIGH SCHOOL.....3  
UNIVERSITY.....4  
TECHNICAL SCHOOL.....5  
OTHER\_\_\_\_\_ 6 (SPECIFY)

**17. How many people do you support with your income?**

NUMBER\_\_\_\_\_ (SPECIFY)

**18. How many children do you have?**

NUMBER\_\_\_\_\_ (SPECIFY)

| A 'CIID   | MIGRATION   |
|---|---|
| <b>19. Ndax no jaf leeke eeto gar jaliid o Ndakaaru?</b>  | <b>19. Is this the first time you have come to Dakar to work?</b>                             |
| II.....1<br>HA-AA.....2 → 22  | YES.....1<br>NO.....2 → 22  |
| <b>20. A qool a podnum fio meeke, ndi xa kiid oo? (FAT NU 'TOFIT AND A QOOLU PODNE TA FI'NA)</b>    | <b>20. How long have you been here? (TRY TO DETERMINE EXACTLY HOW LONG SHE HAS BEEN HERE)</b> |
| PODNE TA REFNA_____ (BIDI)<br>ÑAAL.....1<br>A QOOL.....2<br>XA KIID.....3                           | DURATION_____ (SPECIFY)<br>DAYS.....1<br>MONTHS.....2<br>YEARS.....3                          |
| <b>21. Podnum naro moof meen?</b>   | <b>21. How long do you intend to stay here?</b>   |
| PODNE TA REFNA_____ (BIDI)<br>ÑAAL .....1 → 27<br>BES FA NDAKWIIDU.....2 → 27<br>A QOOL .....3 → 27 | DURATION_____ (SPECIFY)<br>DAYS.....1 → 27<br>A WEEK.....2 → 27<br>MONTHS.....3 → 27          |

XA KIID .....4 → 27

LAKAS .....5 (DAPI) →27

ANDIIM.....6 → 27

**22. No jaf leeke, a qool a podnum jago o Ndakaaru?**

PODNE TA REFNA..... (BINDI)

ÑAAL.....1

BES FA NDAKWIIDU.....2

A QOOL.....3

XA KIID.....4

**23. A qool a podnum fio saate faa soo nomtuwiid?**

PODNE REFNA..... (BINDI)

ÑAAL.....1

BES FA NDAKWIIDU.....2

A QOOL.....3

XA KIID.....4

YEARS.....4 → 27

OTHER.....5 (PROBE) → 27

I DO NOT KNOW.....6 → 27

**22. This time, how long have you been in Dakar?**

DURATION..... (SPECIFY)

DAYS.....1

WEEK(S).....2

MONTH.....3

YEARS.....4

**23. How long did you stay in your village before coming back?**

DURATION..... (SPECIFY)

DAYS.....1

WEEK(S).....2

MONTH.....3

YEARS.....4

**24. Jaf falakaand le, a qool a podnum fio Dakar?**

PODNE TA REFNA \_\_\_\_\_ (BINDER)

ÑAAL.....1

BES FA NDAKWIDU.....2

A QOOL.....3

XA KIID.....4

ANDIIM.....5

**25. Yaa eetoona gar Dakar bo ndiik podnum oo?**

PODNE TA REFNA \_\_\_\_\_ (DAPI, BINDER)

ÑAAL.....1 → 27

BES FA NDAKWIDU.....3 → 27

A QOOL.....2 → 27

XA KIID.....4

**26. Fagun-faak a caf a podnum jago saate faa?**

PODNE TA REFNA \_\_\_\_\_ (DAPI, BINDER)

**24. The last time, how long did you stay in Dakar?**

DURATION \_\_\_\_\_ (SPECIFY)

DAYS.....1

WEEK(S).....2

MONTH.....3

YEARS.....4

I DO NOT KNOW.....5

**25. How long ago did you first come to Dakar?**

DURATION \_\_\_\_\_ (PROBE, SPECIFY)

DAYS.....1 → 27

WEEK(S).....3 → 27

MONTH.....2 → 27

YEARS.....4

**26. Last year how many times did you visit your village?**

NUMBER OF TIMES \_\_\_\_\_ (PROBE, SPECIFY)

**27. Wo xe dolwaa ndi...?**

II, MEXE DOLWAA.....1 → 30

HA-AA.....2

**28. Ndax mosaa dolu?**

II.....1

HA-AA MOSIIM O DOLU.....2 → 35

**29. O kor of kaa ñak ndi kaa nu sambir?**

O KOR ES KAA ÑAK.....1 → 35

KAA I SAMBIR.....2 → 35

LAKAS\_\_\_\_\_3 (BIDI) → 35

**30. O kor of rew fodnum a jegu?**

PODNE TA REFNA\_\_\_\_\_ (BIDI)

**31. Ndax Dakar a refu?**

II.....1 → 35

HA-AA.....2

**27. Are you married?**

YES.....1 → 30

NO.....2

**28. Have you ever been married?**

YES.....1

NO.....2 → 35

**29. Are you a widow, or divorced?**

WIDOW.....1 → 35

DIVORCED.....2 → 35

OTHER\_\_\_\_\_3 (SPECIFY) → 35

**30. How many wives does your husband have?**

NUMBER OF WIVES\_\_\_\_\_ (SPECIFY)

**31. Does he live in Dakar?**

YES.....1 → 35

NO.....2

**32. Ndax o kor of a mosaang o 'deetiig o Ndakaaru?**

II.....1  
HA-AA.....2 → 35

**33. A caf a podnum a 'deetiidong neeke rend?**

PODNE TA REFNA\_\_\_\_\_ (BINDI)

**34. Mban a falakong o 'deetiid? (DAPI)**

PODNE TA REFNA\_\_\_\_\_ (BINDI)  
ÑAAL.....1  
PES TAKWIIDU.....2  
A QOOL.....3  
XA KIID.....4

**32. Has your husband ever visited you in Dakar?**

YES.....1  
NO.....2 → 35

**33. How many times has he visited you this year?**

NUMBER OF TIMES\_\_\_\_\_ (SPECIFY)

**34. When was the last time he visited you? (PROBE)**

DURATION\_\_\_\_\_ (SPECIFY)  
DAYS.....1  
WEEK(S).....2  
MONTH.....3  
YEARS.....4

## NDEER O KOOR FO TEW

35. Ne ta layteena no mberaand naa, kaa I laamtaa kaa jofna ndeer o koor fo tew, soxla o ndimle nuun ndax I mbaag o ndimle 'basil we, ndimle rew seereer we fo 'pasil den.

In fop I anda yee o Ndakaaru felee. Tikoorik ke fop seeru, o ñoow neaand. Ndaa fo nuu ta waagna waag o saxit, in fop kaa I mbar o yenaa inwaa. Ke taxna ta mo'j o 'dom refu ne andoona yee o pog o leng matee in too a ndef we mbar'ina mat a in, ndamit a in, a 'paataa a in a yiif. A jega waa andna keene, a ndegaa in xaaliis fo ñoow yaam kaa da ndaawna na in o feet olaa feet. Mi fene a dalaxam a caf a mayu.

Ndaa koy refee wiin nand neene soom na nqetteel. Nuu ta 'domitna 'domit itam I jega meen qaariit kaa na ndimleaa in na xaaliis fo no lakas fo lakas. A jega itam waa andoona yee kaa I nqetaa fa den, Oasaa fa den ndax I mbaag o mbeec coono ke no ñoow ole.

Fo kuu ta waagna waag o ref, wo fa xoox of, wo andu ke xettoona no ñoow of meeke. O layangaan a in xan a jeg o njiriin lool no calel ke. Ke I laamitkaa koy a ndeer in soom a refkaa.

Ndax bugaa dimle a in no calel ke, I laamtong kaa jofna no keene?

Ndiiki, oxe andoona yee ten falako yoontaa [woondoora], xar a ree'tu na wo? Xam liiranong, o jil oxe ta refna.

## SEXUALITY

35. As we have said, we are seeking information about relationships between men and women, and we need your help so that we can assist and help Serere women and their families.

We all know that life in Dakar is very difficult. It is expensive. But, we all struggle in order to make it through somehow. It's especially difficult for us, Serere women, because many of us are far from our relatives, far from those who should and could help us, support us and advise us financially, morally and otherwise. There are people who know our situation and offer us money and means for living, in order to get back other services later. This has happened to me many times.

But this is not the only type of people we meet. We have friends who help us for the sake of helping, people with whom we can speak and joke in order to forget the tough sides of life.

You know better than anyone else what you have lived here. If you are willing to share it, that will help us very much in our work. And or discussion will be kept just between you and us.

Would you help us in this work and give us permission to ask you some questions?

Now, think back to the last man with whom you had sexual intercourse. What was your relationship to this man at the time? I will read you a list and you can choose from it.

O kor es.....1

O fes es.....2 → Tak?  
 II.....1  
 HA-AA....2

Kaa i yoonoogu rek.....3

Xaariit es.....4

Kaa i andir.....5

I andree.....6

Oxaa regoonga xaaliis.....7

O kiin o lakas\_\_\_\_\_8 (TOFITYO  
 AND NDAX O KIIN OXE FOGA NO WE NE-  
 EENA TOOK. NU MBAAGAAN O LAAMIT  
 EE: «Ndax oxaa andoona yoo?», «Ndax kaa  
 nu mos'u nqet?», «Ndax oxaa andoona a  
 paax oo?») )

Husband.....1

Fiancé.....2 → Engaged?  
 YES.....1  
 NO.....2

A Companion.....3

A friend.....4

Acquaintance.....5

A Stranger.....6

Someone who promised you money.....7

Someone else\_\_\_\_\_8 (TRY TO  
 DETERMINE IF THE PERSON BELONGS TO  
 ONE OF THE GROUPS MENTIONED ABOVE.  
 YOU CAN ASK: “Was it someone you knew?” “Had  
 you met before?” “Do you know him very well?”)

**36. O kiin oxeeene, wo fo ten an maagu?**

TEN MAAGAXAM.....1

MI MAAGUN.....2

IN MAASU.....3 → 38

**36. Which one of you is older?**

HE IS OLDER.....1

I AM OLDER.....2

SAME AGE.....3 → 38

ANDIIM.....4 → 38

DO NOT KNOW.....4 → 38

**37. Ngap xa kiid xa podnum ndoku a ndeer nuun?**

**37. What is the age difference between you?**

PODNE TA REFNA\_\_\_\_\_ (**DAPI, BINDI**)

AGE DIFFERENCE\_\_\_\_\_ (**PROBE, SPECIFY**)

ANDIIM.....0

DON'T KNOW.....0

**38. O kiin oxeene, na xeet fum a fogu?**

**38. From what ethnic group is he?**

O SEEREER.....1

SERERE.....1

WOLOF.....2

WOLOF.....2

O TUKLOOR.....3

TOUCOULEUR.....3

O 'COOLAA.....4

DIOLA.....4

LAKAS\_\_\_\_\_ 5 (**BINDI**)

OTHER\_\_\_\_\_ 5 (**SPECIFY**)

ANDIIM.....6

DO NOT KNOW.....6

**39. O kiin oxeene, xar oo, cedo ndi...?**

**39. Is he noble or...?**

CEDO.....1

NOBLE.....1

O KAWUL.....2  
 O TIIRIW PAY.....3  
 O PAAL O TAFAX.....4  
 O UUDE.....5  
 JEGEE NJEKIT.....6  
 LAKAS\_\_\_\_\_7 (DAPI, BINDI)  
 ANDIIM.....8

GRIOT.....2  
 WEAVER.....3  
 BLACKSMITH.....4  
 LEATHER WORKER.....5  
 NO CASTE.....6  
 OTHER\_\_\_\_\_7 (PROBE, SPECIFY)  
 DO NOT KNOW.....8

**40. O kiin oxeene, xar refu o ngim um?**

O SIRIIN.....1  
 KATOLIK.....2  
 O NGIM COSAAN.....3  
 LAKAS\_\_\_\_\_4 (DAPI, BINDI)

**40. What is his religion?**

MUSLIM.....1  
 CATHOLIC.....2  
 ANIMIST.....3  
 OTHER\_\_\_\_\_4 (PROBE, SPECIFY)

**41. Mam a dayu na cang um? Ndax a mosa rok ekol?**

MOSEE ROK EKOL.....1  
 KALAAS EETAAND KE REK.....2 → 44

**41. What's his education level? Has he been to school?**

NEVER.....1  
 PRIMARY SCHOOL.....2 → 44

LIISE.....3 → 44

UNIVERSITE.....4 → 44

EKOL TEKNIK.....5 → 44

ALXURRAAN.....6

EKOL LAKAS.....7 (DAPI, BINDI)

ANDIIM.....8

HIGH SCHOOL.....3 → 44

UNIVERSITY.....4 → 44

TECHNICAL SCHOOL.....5 → 44

KORANIC SCHOOL.....6

OTHER.....7 (PROBE, SPECIFY)

DO NOT KNOW.....8

**42. O kiin oxene, ndax a waaga liir a parañse?**

II.....1

HA-AA.....2 → 44

ANDIIM.....3

**42. Can he read French?**

YES.....1

NO.....2 → 44

DO NOT KNOW.....3

**43. Ndax a waaga bind a parañse?**

II.....1

HA-AA.....2

ANDIIM.....3

**43. Can he write French?**

YES.....1

NO.....2

DO NOT KNOW.....3

**44. Xar a fiaa, xar refu calel um?**

KE TA FIAA \_\_\_\_\_ (**BINDI**)

**44. What does he do for a living?**

OCCUPATION \_\_\_\_\_ (**SPECIFY**)

**45. Dakar soom nu nqetaa, ndi saate faa itam, mbaat o mbiñ o lakas?**

DAKAR.....1

SAATE FAA.....2

DAKAR FA SAATE FAA.....3

O MBIÑ O LAKAS \_\_\_\_\_ 4 (**DAPI, BINDI**)

**45. Do you meet only in Dakar, in Dakar and in the village or somewhere else?**

DAKAR.....1

IN THE VILLAGE.....2

IN DAKAR AND IN THE VILLAGE.....3

SOMEWHERE ELSE \_\_\_\_\_ 4 (**PROBE, SPECIFY**)

**46. Mam a rime? Xam liiranong, o jil me ta genna:**

Dakar.....1

Saate in.....2

O mbiñ o lakas \_\_\_\_\_ 3 (**DAPI, BINDI**)

ANDIIM.....4

**46. Where was he born? I will read and you can choose:**

Dakar.....1

In your village.....2

Somewhere else \_\_\_\_\_ 3 (**PROBE, SPECIFY**)

DO NOT KNOW.....4

**47. Ndax ten fa xoox um kaa 'jiidlaanaa?**

II.....1

HA-AA.....2 → 49

**48. Mam a 'jiidaa?**

DAKAR.....1

O MBIÑ O LAKAS KAM SENEGAL\_\_\_\_\_2 **(BINDI)**

NAAGEE 'JIIDAA SENEGAL\_\_\_\_\_3 **(BINDI)**

ANDIIM.....4

**49. Ten mo'jong o jeg xaaliis ndi...?**

II.....1

HA-AA.....2

IN NANDU.....3

ANDIIM.....4

**47. Does he migrate to work?**

YES.....1

NO.....2 → 49

**48. Where does he migrate?**

DAKAR.....1

SOMEWHERE ELSE IN SENEGAL\_\_\_\_\_2 **(SPECIFY)**

OUTSIDE SENEGAL\_\_\_\_\_3 **(SPECIFY)**

DON'T KNOW.....4

**49. Does he earn more money than you do or...?**

YES.....1

NO.....2

EQUAL.....3

DO NOT KNOW.....4

**50. (A REFANGAA O KOR UM [35] → 52).  
Ndax a mosaang o dimle no ñoow, mbaat ta ciong  
xaaliis mbaat ta jiganong nen o 'jang mbaa ceen?**

II.....1  
HA-AA.....2  
ANDIIM.....3

**51. Nam nu andritu? (DAPI). (MEEKEE, WAAGAANO  
LAAMIT: «Ndax nuun nde'pandoongu o mbiñ o  
leng?», «Ndax o kiin axaa andoona taxu nu  
nqet?»)**

O MBIÑ O LENG I NDE'PANDOONGU.....1  
FOG ES MBOKATU IN.....2  
NA NJANGU I NQETU.....3  
EKOL I NQETU.....4  
MARSE I ANDRITU.....5  
NQET MBIND NO XAA ANDUUMA.....6  
NA XEW I NQET'U.....7  
XAARIIT IS FOKATU IN.....8

**50. (IF IT'S HER HUSBAND [35] → 52)  
Has he ever helped you with food or given you money?**

YES.....1  
NO.....2  
DON'T KNOW.....3

**51. Where did you meet each other? (PROBE) (HERE YOU  
CAN ASK HER: “Did you grow up in the same place?”  
“Did you meet through someone you know?”)**

GREW UP IN THE SAME PLACE.....1  
ARRANGED MARRIAGE.....2  
IN CHURCH.....3  
AT SCHOOL.....4  
IN THE MARKET.....5  
AT THE HOUSE OF SOMEONE I KNOW.....6  
AT A CEREMONY.....7  
A FRIEND INTRODUCED US.....8

LAKAS \_\_\_\_\_ 9 (BINDI)

OTHER \_\_\_\_\_ 9 (SPECIFY)

WETANDWIIN NE I NQETITNA.....10

DON'T REMEMBER.....10

**52. Yaa eetoona wondoox fo ten bo ndiik a qool a podnum oo, ndi a fia xa kiid?**

**52. How long has it been since you first had sexual relations with him?**

PODNE TA REFNA \_\_\_\_\_ (BINDI)

DURATION \_\_\_\_\_ (SPECIFY)

ÑAAL.....1

DAYS.....1

PES TAKWIIDU.....2

WEEKS.....2

A QOOL.....3

MONTHS.....3

XA KIID.....4

YEARS.....4

**53. Ngap ñaal podnum nu nqetu soo a bond a sogkaa jeg?**

**53. How long was it after you first met before you had sexual relations?**

A KOOM.....0

SAME DAY.....0

PODNE TA REFNA \_\_\_\_\_ (BINDI)

HOW MANY \_\_\_\_\_ (SPECIFY)

ÑAAL.....1

DAYS.....1

PES TAKWIIDU.....2

WEEKS.....2

A QOOL.....3

XA KIID.....4

MONTHS.....3

YEARS.....4

**54. (A REFANGAA O KOR UM [Q 35] → 56)**  
 (A SO’PANGAA YEE YE TA YOONAA FO KIIN OXE  
 BO NDIKI A HUPA A QOOL ‘BETAA NAHAK [Q  
 52], NU MBARA LAAMIT LAAMIT NEEKE):  
**Ndax jegaa fo ten o ‘piy?**

II.....1

HA-AA.....2

O FUD REFTUM.....3

**55. Ngap ñaal mbaat a qool a podnum oo ndeer jaf  
 eetaand le fo jaf falakaand le nu mbalakna  
 mbondwaa? (DAPI)**

PODNE TA REFNA\_\_\_\_\_ (BINDER)

ÑAAL.....1

PES FA NDAKWIIDU.....2

A QOOL.....3

XA KIID.....4

54. (IF IT’S HER HUSBAND [Q 35] → 56)  
 (IF THEY HAVE BEEN TOGETHER LONGER THAN 9  
 MONTHS [Q 52], ASK THIS QUESTION)

**Do you have children with him?**

YES.....1

NO.....2

I’M PREGNANT.....3

55. **How long has it been/was it, between the first time and  
 the last time you had sexual relations with him?  
 (PROBE)**

DURATION\_\_\_\_\_ (SPECIFY)

DAYS.....1

WEEKS.....2

MONTHS.....3

YEARS.....4

**56. Mban gijo wundu fo ten?**

- XAYE.....1
- FADAFULEE BES FA NDAKWIIDU .....2
- BES FA NDAKWIIDU.....3 → **58**
- NO NQOOL ONQENE.....4 → **58**
- NQOOL ONQE XONNA.....5 → **59**
- A HUPA O NQOOL.....6 → **59**
- FAGUN-FAAK.....7 → **60**
- A JEGA XA KIID XA 'TAQ.....8 → **60**
- A HUPA XA KIID XA 'TAQ.....9 → **60 ↓**  
**(BINDI)**

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- ANDIIM.....10
- BUGEE LAY.....11

**56. When was the last time you had sex with him?**

- TODAY.....1
- LESS THAN A WEEK.....2
- A WEEK.....3 → 58
- THIS MONTH.....4 → 58
- LAST MONTH.....5 → 59
- MORE THAN A MONTH.....6 → 59
- LAST YEAR.....7 → 60
- TWO YEARS.....8 → 60
- MORE THAN TWO YEARS.....9 → 60 ↓  
**(SPECIFY)**

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- DO NOT KNOW.....10
- DOES NOT WANT TO SAY.....11

**57. A caf a podnum wondwo fo ten semen feeke?**

PODNE TA REFNA \_\_\_\_\_ **(BINDI)**

**57. How many times did you have sex with him this week?**

NUMBER OF TIMES \_\_\_\_\_ **(SPECIFY)**

**58. (A SO'PANGAA YEE YE DA EETNA MBONDOOX FADAFULEE BES FA NDAKWIDU [Q 52] → 60)**  
**A caf a podnum wondwo fo ten no nqool onqeeke?**

PODNE TA REFNA \_\_\_\_\_ (BINDI)

**59. (A SO'PANGAA YEE YE DA EETNA MBONDOOX FADAFULEE O NQOOL [Q 52] → 60)**  
**A caf a podnum wondwo fo ten o hiid oleeke?**

PODNE TA REFNA \_\_\_\_\_ (BINDI)

**60. (A REFANGAA O KOR UM [Q35] → 61)**  
**Ndax yaakaaraa dak o yoon fo kiin oxeene?**

- II.....1
- HA-AA.....2
- ANDIIM.....3

**61. (YE DA MBALAKNA MBONDWAA A REFANGAA ÑAAL LENG [Q 55] → 64)**  
**Ndax a wooraang, ndi foogaa yee a mosa yoon fo rew lakas ndeer jaf eetaand le fo jaf falakaand le nu yonna? (DAPI)**

**58. (IF IT HAS BEEN LESS THAN ONE WEEK SINCE THE FIRST TIME THEY HAD SEX [Q 52] → 60)**

**How many times did you have sex with him this month?**

NUMBER OF TIMES \_\_\_\_\_ (SPECIFY)

**59. (IF IT HAS BEEN LESS THAN A MONTH SINCE THE FIRST TIME THEY HAD SEX [Q 52] → 60)**

**How many times have you has sex with him this year?**

NUMBER OF TIMES \_\_\_\_\_ (SPECIFY)

**60. (IF IT IS HER HUSBAND [Q 35] → 61)**  
**Do you think you will have sex with him again?**

- YES.....1
- NO.....2
- DO NOT KNOW.....3

**61. (IF IT WAS A ONE-NIGHT STAND [Q55] → 64)**  
**Are you sure or do you think that he had / has had sexual relations with other women between the first and the last time you had sex together / within the last year? (PROBE)**

KAA WOORAAM.....1  
 KAAM FOOGIN.....2  
 HA-AA, YOONEE FO LAKAS.....3 → **64**  
 ANDIIM.....4 → **64**

I AM SURE:.....1  
 I THINK.....2  
 NO HE HASN'T BEEN W/ SOMEONE ELSE..3 → 64  
 DO NOT KNOW.....4 → 64

**62. (MEEKE LAAMIT 'TIK OO. A SOPANGAA YEE YAA TA YOONAA FO KOOR OXE BO NDIK FADEE O HIID, LAAMIT 'TIKANDEER NE (2) [Q 52])**

**62. (THERE ARE TWO QUESTIONS HERE: IF THEIR SEXUAL RELATIONSHIP LASTED LESS THAN A YEAR [Q 52], ASK QUESTION (2))**

**1) No hiid ole nu mbalakna ndefaa, rew fodnum lakas fooganano mbaat andanano?**

**1) The last year you've been / were together, how many other women do you know or think he has had sexual relations with?**

PODNE TA REFNA\_\_\_\_\_ (BINDI) → **63**  
 ANDIIM..... 0 → **63**

NUMBER\_\_\_\_\_ (SPECIFY) → 63  
 DO NOT KNOW.....0 → 63

**2) Ye nu ndefaa, rew lakas fodnum fooganano mbaat andanano?**

**2) In the time you were / have been together, how many other women do you know or think he had / has had sexual relations with?**

PODNE TA REFNA\_\_\_\_\_ (BINDI)  
 ANDIIM.....0

NUMBER\_\_\_\_\_ (SPECIFY)  
 DO NOT KNOW.....0

**63. Nam a faqaqooru fo rew weene? Xam liiranong, o jil oxe ta refna:**

**63. What was his relationship with this/these women? I will read a list:**

- Reem mbaat o teem o lakas.....1
- O toog um.....2
- Oxaa ta andritna.....3
- O maasrum.....4
- O caga.....5
- Lakas \_\_\_\_\_ 6 (DAPI)
- ANDIIM.....7

**64. Ndiiki, I ndak o nomtooxiid ndeer of fo kiin  
 oxeene: Ndax nu saqooga xa kondom yaa nu  
 yonna?**

- II.....1
- HA-AA.....2 → 69
- ANDIIM.....3 → 69

- Wives.....1
- Mistresses.....2
- Acquaintance.....3
- Cousin.....4
- Prostitute.....5
- Other \_\_\_\_\_ 6 (PROBE)
- DO NOT KNOW.....7

**64. Let's come back to your relationship with this man.  
 Did or do you use condoms with him?**

- YES.....1
- NO.....2 → 69
- DO NOT KNOW.....3 → 69

**65. (YE DA MBALAKNA MBONDWAA A REFANGAA  
ÑAAL LENG [Q 55] → 67)  
Ndax jaf falakaand le nu yonna nu ndoku'a o  
kondom?**

- II.....1
- HA-AA.....2
- ANDIIM.....3
- WETANDWIIM.....4

**66. Ndax ke nu saqoogna xa kondom a maya? Xam  
liiranong, o jil teen leng.**

- Muk.....1 → 69**
- Leek-leek.....2**
- A maya lool.....3**
- Mbanuu I yonna.....4**
- Andiim.....5**
- Lakas.....6 (DAPI)**

**65. (IF THE LAST TIME THEY HAD SEX IS ONE DAY  
[Q55] → 67)**

**Did you use condoms the last time you had sex?**

- YES.....1
- NO.....2
- DO NOT KNOW.....3
- DO NOT REMEMBER.....4

**66. Did you use condoms a lot? I will read and you can  
choose:**

- Never.....1 → **69**
- Sometimes.....2
- Yes frequently.....3
- Every time we had sex.....4
- Do not know.....5
- Other.....6 (SPECIFY)

**67. An na nuun waa'toogu xa kondom yaa nu yoonna? (LIIRANEEN, TA JIL)**

Wo.....1

Ten.....2

Nuun 'dik .....3

**68. Mam nu nqottoogu kondom ke? (DAPI)**

ME NU NQOTTOOGUUNA.....1 (BIDI)

ANDIIM.....2

WETANDWINUM.....3

**69. Ndiiki, o xalaatanga a yoon of fo kiin oxeene, ndax 'doftooga kaa taxna nu ndaawkee na cir ake na ngataa ndeer o koor fo tew fa SIDA yaa nu ngelko fo mbondwaa mbaat yaa nu yoonna boo 'cut?**

HA-AA.....1 → 70

ANDIIM.....2 → 70

II.....3 ↓

**67. Who provided the condoms? (READ FOR HER AND LET HER CHOOSE)**

YOU.....1

HE.....2

BOTH.....3

**68. Where did he/you get them? (PROBE)**

WHERE.....1 (SPECIFY)

DO NOT KNOW.....2

DO NOT REMEMBER.....3

**69. If you think of this relationship, did you or your partner try to protect one or both of you from contracting a sexually transmitted disease after or before you had sex?**

NO.....1 → 70

DO NOT KNOW.....2 → 70

YES.....3 ↓

**69.2. Nam nu mbi"toogun? (A TONTAX AKE MAYA)**

(DAPI, BINDI) \_\_\_\_\_

**70. Kaa I mbug o and ke o fiyaa yaa nu mbonduna boo 'cut? (A SO'PANGAA YEE A LAYA TEEN LENG NA 69, KE TA NE'NA LAAMITKAAND MEEKE)**

**70.1.1. Ndax naagaa laa'bwaa?**

HA-AA.....1

II.....2 ↓

**70.1.2. Ndak fo ndak yaa nu 'cutna, ndi?**

NDAK FO NDAK.....1

LAKAS \_\_\_\_\_ 2 (BINDI)

**70.2.1. Ndax naagaa 'bogwaa?**

HA-AA.....1

II.....2 ↓

**70.2.2. Ndak fo ndak yaa nu 'cutna, ndi?**

**69.2 How? (MANY POSSIBLE ANSWERS)**

(PROBE, SPECIFY) \_\_\_\_\_

**70. We want to know what you do after having sex (IF SHE MENTIONED A METHOD, DO NOT ASK THE SAME THING HERE)**

**70.1.1 Do you wash?**

NO.....1

YES.....2 ↓

**70.1.2 Straight after having sex?**

STRAIGHT.....1

OTHER \_\_\_\_\_ 2 (SPECIFY)

**70.2.1 Do you take a shower?**

NO.....1

YES.....2 ↓

**70.2.2. Straight after having sex?**

NDAK FO NDAK.....1

LAKAS\_\_\_\_\_2 (BINDI)

**70.3.1. Ndax naagaa seedaa yaa nu 'mbonduna boo 'cut?**

HA-AA.....1

II.....2 ↓

**70.3.2. Ndak fo ndak yaa nu 'cutna, ndi?**

NDAK FO NDAK.....1

LAKAS\_\_\_\_\_2 (BINDI)

**70.4.1. Ndax naagaa jangaa teex?**

HA-AA.....1

II.....2 ↓

**70.4.2. Teex nand num?**

\_\_\_\_\_ (BINDI)

**70.4.3. Yaa nu 'cutna ndi yaa nu gelko mbondwaa?**

STRAIGHT.....1

OTHER\_\_\_\_\_2 (SPECIFY)

**70.3.1 Do you urinate after having sex?**

NO.....1

YES.....2 ↓

**70.3.2 Straight after having sex?**

STRAIGHT.....1

OTHER\_\_\_\_\_2 (SPECIFY)

**70.4.1 Do you use medicine?**

NO.....1

YES.....2 ↓

**70.4.2 What kind?**

\_\_\_\_\_ (SPECIFY)

**70.4.3 After or before having sex?**

YAA I 'CUTNA.....1

BO I NGELKO MBONDWAA .....2

LAKAS\_\_\_\_\_3 (BINDI)

**71. O xalaatanga o kiin oxe andoona yee ten falako yoontaa, oxaa refeerna oxe I neoogna xa toor, ndax a mosa jeg a refangaa jef leng sax? (DAPI)**

II.....1 → II

HA-AA.....2

**LA'PATIN**

**72. O xalaatanga rend koy, goor fodnum yoonto no hiid oleeke I ndefna? (DAPI)**

PODNE TA REFNA\_\_\_\_\_ (BINDI)

**NDEER O KOOR FO TEW**

**73. Ndax andaa a cir akaa na ngataa ndeer o koor fo tew fo ne da ne-eena?**

II\_\_\_\_\_1 (DAPI, BINDI)

AFTER.....1

BEFORE.....2

OTHER\_\_\_\_\_3 (SPECIFY)

**71. If you think of the past two years and think of the last man you've been with, who is not the same as the one we were just speaking of, is there such a person? (PROBE)**

YES.....1 → II

NO.....2

**SUMMARY**

**72. If you think about this year, with how many men have you been with? (PROBE)**

NUMBER\_\_\_\_\_ (SPECIFY)

**SEXUALITY**

**73. Can you name any STDs?**

YES\_\_\_\_\_1 (PROBE, SPECIFY)

HA-AA.....2

ANDIIM.....3

**74. Ndax waaga lay ne a cir ake na ngataa ndeer o koor fo tew a ndamtaa o kiin?**

II \_\_\_\_\_ 1 (DAPI, BINDI)

\_\_\_\_\_

HA-AA.....2

**75. Ndax jir laa na hataa ndeer o koor fo tew a mosaang o dam?**

II \_\_\_\_\_ 1 (DAPI, BINDI)

\_\_\_\_\_

HA-AA.....2 → **78**

ANDIIM.....3 → **78**

**76. Mam waadnoortik'o?**

SEN.....1

NO.....2

DO NOT KNOW.....3

**74. Can you name any STD symptoms?**

YES \_\_\_\_\_ 1 (PROBE, SPECIFY)

\_\_\_\_\_

NO.....2

**75. Have you ever had an STD?**

YES \_\_\_\_\_ 1 (PROBE, SPECIFY)

\_\_\_\_\_

NO.....2 → 78

DO NOT KNOW.....3 → 78

**76. Where did you get treated?**

NOWHERE.....1

NO PAN.....2  
MBIND DOGTOOR.....3  
LAKAS\_\_\_\_\_4 **(BINDI)**

TRADITIONAL HEALER.....2  
MEDICAL DOCTOR.....3  
OTHER\_\_\_\_\_4 **(SPECIFY)**

**77. Ndax jir laa na hataa ndeer o koor fo tew damaang rend?**

**77. Have you had an STD this year?**

II\_\_\_\_\_1 **(BINDI)**  
\_\_\_\_\_  
HA-AA.....2  
ANDIIM.....3

YES\_\_\_\_\_1 **(SPECIFY)**  
\_\_\_\_\_  
NO.....2  
DO NOT KNOW.....3

**78. Ndax bug o 'dax soxla mosa tax o yoon fo koor yaam xaaliis um?**

**78. Have you ever been with a man because of financial need?**

II.....1  
HA-AA.....2  
ANDIIM.....3

YES.....1  
NO.....2  
DO NOT KNOW.....3

**79.A. Est-ce que un patron ou quel qu'un comme ca a jamais te poussé pour avoir des rapports avec lui?**

HA-AA.....1

II.....2 ↓

**79.B. Est-ce que tu as jamais faire les rapports avec quelqu'un comme ça?**

HA-AA.....1

II.....2 → II

**MUUKI**

**Nu njook-a-njal a paax. Ke layoona in xan a dimle rew seereer we fo 'pasil den a paax.**

**Bo I ngelko fo ndetaa, ndax a jega kaa bugoona laamit?**

**(FI NE TA WARITNA, SOO PAANG FO TEN)**

**OXE NA LAAMTAA WARA TONTOOX LAAMIT KEEKE:**

**79.A. Has your employer or someone else like that ever pushed you to have sex with him?**

NO.....1

YES.....2 ↓

**79.B. Have you ever had sex with someone like that?**

NO.....1

YES.....2 → II

**END**

Thank you very much. Your information will help us better assist Serere women and their families.

Before closing, do you have anything to ask us?

(DO AS THE CUSTOM REQUIRES, THEN END)

**THE INTERVIEWER MUST ANSWER THE FOLLOWING QUESTIONS:**

**79. NA BES FUM NU LAAMTU O KIIN OXE?:** \_\_\_\_\_

**80. MARSE FEE TA JALAA:** \_\_\_\_\_

**81. NO WE NU LAAMITNA, O KIIN O PODNUMANDEER OO?:** \_\_\_\_\_

**82. GON NO XE FI'NA LAAMIT KE:** \_\_\_\_\_

**13.2 OXE NU LAAMITNA ANDANGEE XA KIID XA PODNE TA JEGNA, XA KIID XA PODNUM NU NGAPANUN?**

FAD'DEE XA KIID 15.....1

NDEER 16 FA 30.....2

NDEER 31 FA 50 .....3

A HUP'DA 50.....4

**79. Date of interview** \_\_\_\_\_

**80. Marketplace:** \_\_\_\_\_

**81. Survey number** \_\_\_\_\_

**82. Interviewer's name** \_\_\_\_\_

**13.2 IF THE ONE INTERVIEWED DOES NOT KNOW HER AGE, WHAT IS YOUR AGE APPROXIMATION FOR HER?**

UNDER 15.....1

BETWEEN 16 - 30.....2

BETWEEN 31 - 50.....3

OVER 50.....4

## APPENDIX B

### CODEBOOK

#### MIGRANT SERERE WOMEN AND THE SPREAD OF AIDS

Codes:

- 93 - not applicable
- 98 - respondent refused to answer
- 99 - interviewer did not ascertain information

Variable names were constructed as follows:

Each question was assigned a variable number. The prefixes used were

- S - Screening information
- D - Demographic information
- M - Migration information
- PF - First partner
- PS - Second partner
- PT - Third partner
- SX - Sexuality
- I - Interview information

The variable names also include the question number from the interview schedule.

Suffixes are a, b, c, *etc.* indicating parts of one question.

#### **PF81**

**Survey number** (1 - 246)

#### **SCREENING**

##### **S1**

##### **1. Are you Serere?**

|            |     |
|------------|-----|
| 1 - SERERE | 246 |
| 2 - OTHER  | 0   |

##### **S2**

##### **2. What village do you come from?**

|              |              |
|--------------|--------------|
| VILLAGE NAME | Can't Recode |
|--------------|--------------|

**S3****3. Which (administrative) department?**

|                      |    |
|----------------------|----|
| 1 - DAKAR            | 5  |
| 2 - DIOURBEL         | 9  |
| 3 - BAMBEY           | 45 |
| 4 - NDIAREME         | 1  |
| 5 - NDOULO           | 3  |
| 6 - NIAKHAR          | 1  |
| 7 - GOSSAS           | 4  |
| 8 - KAOLACK          | 4  |
| 9 - THIES            | 5  |
| 10 - MBOUR           | 32 |
| 11 - POUT            | 3  |
| 12 - TASSECK         | 1  |
| 13 - THIENABA        | 31 |
| 14 - FATICK          | 91 |
| 15 - DIAKHAO         | 1  |
| 16 - DJILOR          | 1  |
| 17 - FIMLA           | 3  |
| 18 - FOUNDIOUGNE     | 2  |
| 19 - TATAGUINE       | 2  |
| 20 - NDOLOR          | 1  |
| 99 - NOT ASCERTAINED | 1  |

**S4****4. Which (administrative) region?**

|              |     |
|--------------|-----|
| 1 - DAKAR    | 5   |
| 2 - DIOURBEL | 60  |
| 3 - KAOLACK  | 4   |
| 4 - THIES    | 72  |
| 5 - FATICK   | 104 |
| 6 - OTHER    | 1   |

**S5****5. Do you live in Dakar or did you come just to work?**

|                         |     |
|-------------------------|-----|
| 1 - I LIVE IN DAKAR     | 0   |
| 2 - I ONLY CAME TO WORK | 246 |

**S6****6. Do you work in the market?**

|         |     |
|---------|-----|
| 1 - YES | 39  |
| 0 - NO  | 207 |

**S7****7. Do you work as a maid or...?**

|                     |     |
|---------------------|-----|
| 1 - YES             | 186 |
| 0 - NO              | 21  |
| 93 - NOT APPLICABLE | 39  |

**S7B****7.2 Do you do laundry for work?**

|                     |     |
|---------------------|-----|
| 1 - YES             | 21  |
| 0 - NO              | 1   |
| 93 - NOT APPLICABLE | 224 |

**DEMOGRAPHIC****D8****8. What work do you do?**

|              |     |
|--------------|-----|
| 1 - LAUNDRY  | 27  |
| 2 - POUNDING | 23  |
| 3 - MAID     | 186 |
| 4 - OTHER    | 2   |
| 5 - SELLING  | 8   |

**D9****9. What do you sell?**

|                     |     |
|---------------------|-----|
| 1 - BISSAP          | 0   |
| 2 - PEANUTS         | 1   |
| 3 - MILLET          | 5   |
| 4 - KINKELIBA       | 0   |
| 5 - BEANS           | 0   |
| 6 - WATER           | 1   |
| 7 - OTHER           | 1   |
| 93 - NOT APPLICABLE | 238 |

**D10****10. To what Serere group do you belong?**

|                       |     |    |
|-----------------------|-----|----|
| 1 - SINE, NOMINKA     | 7   |    |
| 2 - SINE, BAWOL       | 60  |    |
| 3 - SINE, NGROUNDIANE |     | 29 |
| 4 - SINE, HIRENA      | 1   |    |
| 5 - SINE, JIGEM       | 3   |    |
| 6 - SINE, SINE        | 121 |    |
| 7 - NDOUT             | 0   |    |
| 8 - NONE              | 4   |    |
| 9 - SAFENE            | 21  |    |

**D11****11. From what caste are you?**

|                    |     |
|--------------------|-----|
| 1 - NOBLE          | 244 |
| 2 - GRIOT          | 2   |
| 3 - WEAVER         | 0   |
| 4 - BLACKSMITH     | 0   |
| 5 - LEATHER WORKER | 0   |
| 6 - OTHER          | 0   |

**D12****12. What is your religion?**

|                      |     |
|----------------------|-----|
| 1 - MUSLIM           | 224 |
| 2 - CATHOLIC         | 20  |
| 3 - ANIMIST          | 0   |
| 4 - OTHER            | 0   |
| 99 - NOT ASCERTAINED | 2   |

**D13****13. How old are you?**

|                      |     |           |
|----------------------|-----|-----------|
| AGE _____            | 245 | (15 - 60) |
| 0 - I DON'T KNOW     | 0   |           |
| 99 - NOT ASCERTAINED | 1   |           |

**D14****14. Have you ever been to school or followed Serere literacy courses?**

|         |     |
|---------|-----|
| 1 - YES | 108 |
| 2 - NO  | 138 |

**D15****15. What kind of school?**

|                              |     |
|------------------------------|-----|
| 1 - PUBLIC SCHOOL            | 70  |
| 2 - KORANIC                  | 10  |
| 3 - CATHOLIC SCHOOL          | 22  |
| 4 - SERERE OR OTHER LITERACY | 6   |
| 5 - OTHER                    | 0   |
| 93 - NOT APPLICABLE          | 138 |

**D16****16. How many years did you go to school?**

|                       |     |            |
|-----------------------|-----|------------|
| NUMBER OF YEARS _____ | 73  | (.25 - 12) |
| 93 - NOT APPLICABLE   | 169 |            |
| 99 - NOT ASCERTAINED  | 4   |            |

**D16B****16. [What level of school did you reach?]**

|                      |     |
|----------------------|-----|
| 2 - PRIMARY SCHOOL   | 60  |
| 3 - HIGH SCHOOL      | 29  |
| 4 - UNIVERSITY       | 1   |
| 5 - TECHNICAL SCHOOL | 0   |
| 93 - NOT APPLICABLE  | 152 |
| 99 - NOT ASCERTAINED | 4   |

**D17****17. How many people do you support with your income?**

|                      |     |          |
|----------------------|-----|----------|
| NUMBER_____          | 244 | (0 - 25) |
| 99 - NOT ASCERTAINED | 2   |          |

**D18****18. How many children do you have?**

|                      |     |         |   |         |
|----------------------|-----|---------|---|---------|
| NUMBER_____          | 240 | (0 - 9) | → | 0 - 122 |
| 93 - NOT APPLICABLE  | 5   |         |   | 1 - 37  |
| 99 - NOT ASCERTAINED | 1   |         |   | 2 - 27  |
|                      |     |         |   | 3 - 18  |
|                      |     |         |   | 4 - 11  |

**MIGRATION****M19****19. Is this the first time you have come to Dakar to work?**

|         |     |  |  |        |
|---------|-----|--|--|--------|
|         |     |  |  | 5 - 13 |
|         |     |  |  | 6 - 7  |
|         |     |  |  | 7 - 2  |
|         |     |  |  | 8 - 2  |
|         |     |  |  | 9 - 1  |
| 1 - YES | 10  |  |  |        |
| 2 - NO  | 236 |  |  |        |

**M20****20. How long have you been here? (TRY TO DETERMINE EXACTLY HOW LONG SHE HAS BEEN HERE)**

|                     |     |            |
|---------------------|-----|------------|
| DURATION_____       | 10  | (1.25 - 9) |
| 93 - NOT APPLICABLE | 236 |            |

**M20B**

|                     |     |
|---------------------|-----|
| 1 - DAYS            | 2   |
| 2 - MONTHS          | 7   |
| 3 - YEARS           | 1   |
| 93 - NOT APPLICABLE | 236 |

**M20C**

|                                |     |             |
|--------------------------------|-----|-------------|
| NUMBER OF MONTHS IN DAKAR ____ | 10  | (.131 - 15) |
| 93 - NOT APPLICABLE            | 236 |             |

**M21****21. How long do you intend to stay here?**

|                      |     |         |
|----------------------|-----|---------|
| DURATION_____        | 9   | (1 - 9) |
| 93 - NOT APPLICABLE  | 236 |         |
| 99 - NOT ASCERTAINED | 1   |         |

**M21B**

|                     |     |
|---------------------|-----|
| 1 - DAYS            | 0   |
| 2 - WEEKS           | 0   |
| 3 - MONTHS          | 3   |
| 4 - YEARS           | 7   |
| 93 - NOT APPLICABLE | 236 |

**M21C**

|                             |     |          |
|-----------------------------|-----|----------|
| MONTHS INTEND TO STAY _____ | 9   | (1 - 60) |
| 93 - NOT APPLICABLE         | 237 |          |

**M22****22. This time, how long have you been in Dakar?**

|                      |     |          |
|----------------------|-----|----------|
| DURATION _____       | 234 | (1 - 26) |
| 93 - NOT APPLICABLE  | 10  |          |
| 99 - NOT ASCERTAINED | 2   |          |

**M22B**

|                      |     |
|----------------------|-----|
| 1 - DAYS             | 26  |
| 2 - WEEKS            | 16  |
| 3 - MONTH            | 162 |
| 4 - YEARS            | 30  |
| 93 - NOT APPLICABLE  | 10  |
| 99 - NOT ASCERTAINED | 2   |

**M22C**

|                       |     |              |
|-----------------------|-----|--------------|
| MONTHS IN DAKAR _____ | 233 | (.033 - 192) |
| 93 - NOT APPLICABLE   | 12  |              |
| 99 - NOT ASCERTAINED  | 1   |              |

**M23****23. How long did you stay in your village before coming back?**

|                      |     |          |
|----------------------|-----|----------|
| DURATION _____       | 234 | (1 - 30) |
| 93 - NOT APPLICABLE  | 10  |          |
| 99 - NOT ASCERTAINED | 2   |          |

**M23B**

|                     |    |
|---------------------|----|
| 1 - DAYS            | 78 |
| 2 - WEEKS           | 35 |
| 3 - MONTH           | 88 |
| 4 - YEARS           | 35 |
| 93 - NOT APPLICABLE | 10 |

**M23C**

|                        |     |             |
|------------------------|-----|-------------|
| MONTHS IN VILLAGE_____ | 234 | (.03 - 360) |
| 93 - NOT APPLICABLE    | 11  |             |
| 99 - NOT ASCERTAINED   | 1   |             |

**M24****24. The last time, how long did you stay in Dakar?**

|                      |     |          |
|----------------------|-----|----------|
| DURATION_____        | 230 | (1 - 20) |
| 93 - NOT APPLICABLE  | 11  |          |
| 99 - NOT ASCERTAINED | 5   |          |

**M24B**

|                      |     |
|----------------------|-----|
| 1 - DAYS             | 5   |
| 2 - WEEKS            | 2   |
| 3 - MONTH            | 143 |
| 4 - YEARS            | 80  |
| 5 - I DON'T KNOW     | 1   |
| 93 - NOT APPLICABLE  | 10  |
| 99 - NOT ASCERTAINED | 5   |

**M24C**

|                      |     |             |
|----------------------|-----|-------------|
| MONTHS IN DAKAR_____ | 230 | (.25 - 120) |
| 93 - NOT APPLICABLE  | 16  |             |

**M25****25. How long ago did you first come to Dakar?**

|                      |     |          |
|----------------------|-----|----------|
| DURATION_____        | 235 | (1 - 36) |
| 93 - NOT APPLICABLE  | 10  |          |
| 99 - NOT ASCERTAINED | 1   |          |

**M25B**

|                      |     |
|----------------------|-----|
| 1 - DAYS             | 0   |
| 2 - WEEKS            | 4   |
| 3 - MONTH            | 0   |
| 4 - YEARS            | 231 |
| 93 - NOT APPLICABLE  | 10  |
| 99 - NOT ASCERTAINED | 1   |

**M25C**

|   |     |             |
|---|-----|-------------|
| MONTHS SINCE 1 <sup>ST</sup> CAME TO DAKAR_____ | 235 | (.75 - 432) |
| 93 - NOT APPLICABLE                             | 11  |             |

**M26****26. Last year how many times did you visit your village?**

|                       |     |          |  |        |
|-----------------------|-----|----------|--|--------|
| NUMBER OF TIMES _____ | 228 | (0 - 15) | →                                      | 0 - 35 |
| 93 - NOT APPLICABLE   | 18  | →        | 3 - b/c less than a yr. in Dakar       | 1 - 52 |
|                       |     |          | 10 - b/c 1 <sup>st</sup> time in Dakar | 2 - 50 |
|                       |     |          | 5 - b/c were in village last year      | 3 - 35 |

**M27****27. Are you married?**

|         |     |  |  |        |
|---------|-----|--|--|--------|
| 1 - YES | 67  |  |  | 4 - 19 |
| 2 - NO  | 179 |  |  | 5 - 20 |
|         |     |  |  | 6 - 8  |
|         |     |  |  | 7 - 2  |
|         |     |  |  | 8 - 1  |

**M28****28. Have you ever been married?**

|                     |     |  |  |        |
|---------------------|-----|--|--|--------|
| 1 - YES             | 26  |  |  | 10 - 1 |
| 2 - NO              | 153 |  |  | 11 - 3 |
| 93 - NOT APPLICABLE | 67  |  |  | 12 - 1 |
|                     |     |  |  | 15 - 1 |

**M29****29. Are you a widow, or divorced?**

|                     |     |  |  |
|---------------------|-----|--|--|
| 1 - WIDOW           | 3   |  |  |
| 2 - DIVORCED        | 23  |  |  |
| 3 - OTHER _____     | 0   |  |  |
| 93 - NOT APPLICABLE | 220 |  |  |

**M30****30. How many wives does your husband have?**

|                       |     |   |        |
|-----------------------|-----|---|--------|
| NUMBER OF WIVES _____ | 64  | → | 1 - 33 |
| 93 - NOT APPLICABLE   | 179 |   | 2 - 23 |
| 99 - NOT ASCERTAINED  | 3   |   | 3 - 5  |
|                       |     |   | 4 - 1  |
|                       |     |   | 5 - 1  |
|                       |     |   | 6 - 1  |

**M31****31. Does he live in Dakar?**

|                      |     |   |                                |
|----------------------|-----|---|--------------------------------|
| 1 - YES              | 22  |   |                                |
| 2 - NO               | 40  |   |                                |
| 93 - NOT APPLICABLE  | 181 | → | 2 b/c q. wasn't in survey then |
| 99 - NOT ASCERTAINED | 3   |   |                                |

**M32****32. Has your husband ever visited you in Dakar?**

|                      |     |
|----------------------|-----|
| 1 - YES              | 27  |
| 2 - NO               | 14  |
| 93 - NOT APPLICABLE  | 201 |
| 99 - NOT ASCERTAINED | 4   |

**M33****33. How many times has he visited you this year?**

|                      |     |                                  |       |
|----------------------|-----|----------------------------------|-------|
| NUMBER OF TIMES_____ | 24  | →                                | 0 - 8 |
| 93 - NOT APPLICABLE  | 216 | → 1 b/c q. wasn't in survey then | 1 - 4 |
| 99 - NOT ASCERTAINED | 6   |                                  | 2 - 6 |

**M34****34. When was the last time he visited you?**

|                      |     |          |        |
|----------------------|-----|----------|--------|
| DURATION_____        | 25  | (1 - 20) | 4 - 0  |
| 93 - NOT APPLICABLE  | 216 |          | 5 - 1  |
| 99 - NOT ASCERTAINED | 5   |          | 32 - 1 |
|                      |     |          | 52 - 1 |

**M34B**

|                      |     |
|----------------------|-----|
| 1 - DAYS             | 5   |
| 2 - WEEKS            | 4   |
| 3 - MONTH            | 10  |
| 4 - YEARS            | 6   |
| 93 - NOT APPLICABLE  | 216 |
| 99 - NOT ASCERTAINED | 5   |

**M34C**

|                                   |     |              |
|-----------------------------------|-----|--------------|
| MONTHS SINCE HUSBAND LAST VISITED | 25  | (.097 - 144) |
| 93 - NOT APPLICABLE               | 221 |              |

**SEXUALITY****PF35 PS35 PT35****35. Now, think back to the last man with whom you sexual intercourse. What was your relationship to this man at the time? I will read a list and you can choose from it.**

|                                |    |     |     |
|--------------------------------|----|-----|-----|
| 0 - NO SEX PARTNER             | 75 | 0   | 0   |
| 1 - HUSBAND                    | 89 | 18  | 3   |
| 2 - MY BOYFRIEND               | 80 | 19  | 3   |
| 3 - A COMPANION                | 0  | 0   | 0   |
| 4 - A FRIEND                   | 1  | 0   | 0   |
| 5 - ACQUAINTANCE               | 1  | 0   | 0   |
| 6 - STRANGER                   | 0  | 0   | 0   |
| 7 - SOMEONE WHO PROMISED MONEY | 0  | 0   | 0   |
| 8 - SOMEONE ELSE               | 0  | 0   | 0   |
| 93 - NOT APPLICABLE            | 0  | 209 | 240 |

**PF35B PS35B PT35B****(IF THE ANSWER TO QUESTION 35 WAS 2, ANSWER THIS QUESTION)****Are you engaged?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - YES              | 9   | 0   | 0   |
| 2 - NO               | 61  | 14  | 2   |
| 93 - NOT APPLICABLE  | 166 | 231 | 244 |
| 99 - NOT ASCERTAINED | 10  | 1   | 0   |

**PF36 PS36 PT36****36. Which one of you is older?**

|                     |     |     |     |
|---------------------|-----|-----|-----|
| 1 - HE IS OLDER     | 168 | 34  | 6   |
| 2 - I AM OLDER      | 0   | 0   | 0   |
| 3 - SAME AGE        | 3   | 2   | 0   |
| 4 - DON'T KNOW      | 0   | 1   | 0   |
| 93 - NOT APPLICABLE | 75  | 209 | 240 |

**PF37 PS37 PT37****37. What is the age difference between you? [YEARS]**

|                     |                |               |              |          |
|---------------------|----------------|---------------|--------------|----------|
| AGE DIFFERENCE_____ | 121 (5mo-40yr) | ↑ 28 (2 - 35) | → 5 (3 - 20) | ↓ 5m - 1 |
| 0 - DON'T KNOW      | 47             | 6             | 1            | 1 - 4    |
| 93 - NOT APPLICABLE | 78             | 212           | 240          | 2 - 8    |

**PF38 PS38 PT38****38. From what ethnic group is he?**

|                     |     |     |     |         |
|---------------------|-----|-----|-----|---------|
| 1 - SERERE          | 151 | 29  | 6   | 7 - 8   |
| 2 - WOLOF           | 8   | 3   | 0   | 8 - 4   |
| 3 - TOUCOULEUR      | 4   | 2   | 0   | 9 - 4   |
| 4 - DIOLA           | 2   | 0   | 0   | 10 - 30 |
| 5 - OTHER_____      | 6   | 3   | 0   | 11 - 2  |
| 93 - NOT APPLICABLE | 75  | 209 | 240 | 12 - 7  |

**PF39 PS39 PT39****39. Is he noble or...?**

|                     |     |     |     |        |
|---------------------|-----|-----|-----|--------|
| 1 - NOBLE           | 168 | 37  | 6   | 17 - 1 |
| 2 - GRIOT           | 2   | 0   | 0   | 18 - 1 |
| 3 - WEAVER          | 0   | 0   | 0   | 20 - 2 |
| 4 - BLACKSMITH      | 0   | 0   | 0   | 21 - 1 |
| 5 - LEATHER WORKER  | 0   | 0   | 0   | 22 - 2 |
| 6 - NO CASTE        | 0   | 0   | 0   | 30 - 1 |
| 7 - OTHER_____      | 0   | 0   | 0   | 40 - 1 |
| 8 - DON'T KNOW      | 1   | 0   | 0   |        |
| 93 - NOT APPLICABLE | 75  | 209 | 240 |        |

**PF40 PS40 PT40****40. What is his religion?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - MUSLIM           | 154 | 26  | 3   |
| 2 - CATHOLIC         | 15  | 9   | 2   |
| 3 - ANIMIST          | 0   | 0   | 1   |
| 4 - OTHER            | 1   | 0   | 0   |
| 93 - NOT APPLICABLE  | 75  | 209 | 240 |
| 99 - NOT ASCERTAINED | 1   | 2   | 0   |

**PF41 PS41 PT41****41. What's his education level? Has he been at school?**

|                      |   |     |     |
|----------------------|---|-----|-----|
| 1 - NEVER            | 46                                      | 12  | 1   |
| 2 - PRIMARY SCHOOL   | 54                                      | 10  | 2   |
| 3 - SECONDARY SCHOOL | 27                                      | 8   | 3   |
| 4 - UNIVERSITY       | 13                                      | 1   | 0   |
| 5 - TECHNICAL SCHOOL | 1                                       | 0   | 0   |
| 6 - KORANIC SCHOOL   | 25                                      | 5   | 0   |
| 8 - DON'T KNOW       | 5 - 1 b/c DK                            | 1   | 0   |
| 93 - NOT APPLICABLE  | 75 level, but he<br>did go to<br>school | 209 | 240 |

**PF42 PS42 PT42****42. Can he read French?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - YES              | 25  | 3   | 0   |
| 2 - NO               | 44  | 14  | 1   |
| 3 - DON'T KNOW       | 3   | 0   | 0   |
| 93 - NOT APPLICABLE  | 170 | 228 | 245 |
| 99 - NOT ASCERTAINED | 4   | 1   | 0   |

**PF43 PS43****43. Can he write French?**

|                      |     |     |  |
|----------------------|-----|-----|--|
| 1 - YES              | 18  | 3   |  |
| 2 - NO               | 7   | 0   |  |
| 3 - DON'T KNOW       | 2   | 0   |  |
| 93 - NOT APPLICABLE  | 214 | 242 |  |
| 99 - NOT ASCERTAINED | 5   | 1   |  |

**[PT43 was all NOT APPLICABLE. Missing columns are due to no responses ↓.]**

**PF44 PS44 PT44****44. What does he do for a living?**

|                            |    |     |     |
|----------------------------|----|-----|-----|
| 1 - EDUCATOR / EDUCATED    | 7  | 6   | 2   |
| 2 - MILITARY               | 3  | 2   | 0   |
| 3 - MIGRANT                | 3  | 0   | 0   |
| 4 - STUDENT                | 5  | 2   | 0   |
| 5 - DRIVER / MECHANIC      | 18 | 1   | 0   |
| 6 - TRADER / BUSINESS MAN  | 19 | 4   | 0   |
| 7 - SKILLED CRAFTSMAN      | 14 | 3   | 0   |
| 8 - FACTORY WORKER / CLERK | 25 | 3   | 1   |
| 9 - GARDENER               | 6  | 0   | 0   |
| 10 - GUARD                 | 10 | 0   | 0   |
| 11 - FARMER / HERDER       | 44 | 15  | 3   |
| 12 - FISHERMAN             | 11 | 1   | 0   |
| 13 - NOTHING               | 3  | 0   | 0   |
| 14 - DON'T KNOW            | 2  | 0   | 0   |
| 93 - NOT APPLICABLE        | 75 | 209 | 240 |
| 99 - NOT ASCERTAINED       | 1  | 0   | 0   |

**PF45 PS45 PT45****45. Do you meet him only in Dakar, in Dakar and in the village or somewhere else?**

|                              |    |     |     |
|------------------------------|----|-----|-----|
| 1 - DAKAR                    | 40 | 10  | 0   |
| 2 - IN THE VILLAGE           | 57 | 18  | 4   |
| 3 - IN DAKAR AND THE VILLAGE | 71 | 7   | 2   |
| 4 - SOMEWHERE ELSE_____      | 3  | 2   | 0   |
| 93 - NOT APPLICABLE          | 75 | 209 | 240 |

**PF46 PS46 PT46****46. Where was he born? I will read and you can choose:**

|                         |    |     |     |
|-------------------------|----|-----|-----|
| 1 - DAKAR               | 5  | 0   | 0   |
| 2 - IN OUR VILLAGE      | 94 | 18  | 2   |
| 3 - SOMEWHERE ELSE_____ | 70 | 19  | 4   |
| 4 - DON'T KNOW          | 2  | 0   | 0   |
| 93 - NOT APPLICABLE     | 75 | 209 | 240 |

**PF46B PS46B PT46B**

|                     |     |     |     |              |
|---------------------|-----|-----|-----|--------------|
| PLACE NAME_____     | 70  | 19  | 4   | Can't Recode |
| 93 - NOT APPLICABLE | 176 | 227 | 242 |              |

**PF47 PS47 PT47****47. Does he migrate to work?**

|                     |     |     |     |
|---------------------|-----|-----|-----|
| 1 - YES             | 125 | 24  | 3   |
| 2 - NO              | 46  | 13  | 3   |
| 93 - NOT APPLICABLE | 75  | 209 | 240 |

**PF48 PS48 PT48****48. Where does he migrate?**

|                                 |     |     |     |
|---------------------------------|-----|-----|-----|
| 1 - DAKAR                       | 84  | 18  | 2   |
| 2 - SOMEWHERE ELSE IN SENEGAL__ | 26  | 5   | 1   |
| 3 - NOT IN SENEGAL_____         | 14  | 1   | 0   |
| 4 - DON'T KNOW                  | 1   | 0   | 0   |
| 93 - NOT APPLICABLE             | 121 | 222 | 243 |

**PF48B PS48B PT48B**

|                     |     |     |     |              |
|---------------------|-----|-----|-----|--------------|
| PLACE NAME_____     | 40  | 6   | 1   | Can't Recode |
| 93 - NOT APPLICABLE | 206 | 240 | 245 |              |

**PF48C PS48C****48. Second answer to where he goes to migrate.**

|                                 |     |     |
|---------------------------------|-----|-----|
| 1 - DAKAR                       | 13  | 2   |
| 2 - SOMEWHERE ELSE IN SENEGAL__ | 0   | 0   |
| 3 - NOT IN SENEGAL_____         | 1   | 0   |
| 93 - NOT APPLICABLE             | 232 | 244 |

**PF48D**

|                     |     |              |  |
|---------------------|-----|--------------|--|
| PLACE NAME _____    | 1   |              |  |
| 93 - NOT APPLICABLE | 245 | Can't Recode |  |

**PF49 PS49 PT49****49. Does he earn more money than you do or...?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - YES              | 129 | 25  | 4   |
| 2 - NO               | 28  | 9   | 2   |
| 3 - EQUAL            | 13  | 3   | 0   |
| 93 - NOT APPLICABLE  | 75  | 209 | 240 |
| 99 - NOT ASCERTAINED | 1   | 0   | 0   |

**PF50 PS50 PT50****50. (IF IT'S HER HUSBAND [35] → 52)****Has he ever helped you with food or given you money?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - YES              | 63  | 13  | 2   |
| 2 - NO               | 26  | 6   | 1   |
| 93 - NOT APPLICABLE  | 155 | 226 | 243 |
| 99 - NOT ASCERTAINED | 2   | 1   | 0   |

**PF51 PS51 PT51****51. Where did you meet each other? (PROBE) (HERE YOU CAN ASK HER: "Did you grow in the same place?" "Did you meet because of someone you know?")**

|                                  |                  |     |     |
|----------------------------------|------------------|-----|-----|
| 1 - GREW UP / LIVE IN SAME PLACE | 22               | 7   | 2   |
| 2 - ARRANGED MARRIAGE            | 20               | 4   | 0   |
| 3 - IN CHURCH                    | 0                | 3   | 0   |
| 4 - AT SCHOOL                    | 1                | 0   | 1   |
| 5 - IN THE MARKET / WHERE I WORK | 4 - 2 worked for | 2   | 0   |
| 6 - AT SOMEONE I KNOW'S HOUSE    | 22 him / in his  | 1   | 0   |
| 7 - AT A CEREMONY                | 6 house          | 1   | 0   |
| 8 - A FRIEND INTRODUCED US       | 9                | 1   | 0   |
| 9 - OTHER _____                  | 1                | 0   | 0   |
| 11 - IN MY HOUSE                 | 5                | 1   | 0   |
| 93 - NOT APPLICABLE              | 155              | 226 | 243 |
| 99 - NOT ASCERTAINED             | 1                | 0   | 0   |

**PF52 PS52 PT52****52. How long has it been since you first had sexual relations with him?**

|                     |              |             |            |
|---------------------|--------------|-------------|------------|
| DURATION _____      | 171 (1 - 50) | 37 (1 - 37) | 6 (2 - 19) |
| 93 - NOT APPLICABLE | 75           | 209         | 240        |

**PF52B PS52B PT52B**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - DAYS             | 0   | 0   | 0   |
| 2 - WEEKS            | 1   | 0   | 0   |
| 3 - MONTHS           | 23  | 3   | 0   |
| 4 - YEARS            | 145 | 34  | 6   |
| 93 - NOT APPLICABLE  | 75  | 209 | 240 |
| 99 - NOT ASCERTAINED | 2   | 0   | 0   |

**PF52C PS52C PT52C**

|                              |                 |              |              |
|------------------------------|-----------------|--------------|--------------|
| MONTHS SINCE FIRST SEX _____ | 169 (.25 - 600) | 37 (3 - 348) | 6 (24 - 228) |
| 93 - NOT APPLICABLE          | 77              | 209          | 240          |

**PF53 PS53 PT53****53. How long was it after you first met before you had sexual relations?**

|                      |              |             |            |
|----------------------|--------------|-------------|------------|
| 0 - SAME DAY         | 1            | 0           | 0          |
| HOW MUCH TIME _____  | 169 (1 - 20) | 37 (1 - 15) | 6 (1 - 10) |
| 93 - NOT APPLICABLE  | 75           | 209         | 240        |
| 99 - NOT ASCERTAINED | 1            | 0           | 0          |

**PF53B PS53B PT53B**

|                      |    |     |     |
|----------------------|----|-----|-----|
| 1 - DAYS             | 2  | 2   | 1   |
| 2 - WEEKS            | 16 | 6   | 0   |
| 3 - MONTHS           | 65 | 17  | 2   |
| 4 - YEARS            | 86 | 12  | 3   |
| 93 - NOT APPLICABLE  | 76 | 209 | 240 |
| 99 - NOT ASCERTAINED | 1  | 0   | 0   |

**PF53C PS53C PT53C**

|                              |                 |                |              |
|------------------------------|-----------------|----------------|--------------|
| MONTHS KNEW HIM BEFORE SEX__ | 169 (.03 - 240) | 37 (.164 - 60) | 6 (.33 - 14) |
| 93 - NOT APPLICABLE          | 77              | 209            | 240          |

**PF54 PS54 PT54****54. (IF IT'S HER HUSBAND [35] → 56****IF THEY HAVE BEEN TOGETHER MORE THAN 9 MONTHS, ASK THIS QUESTION)****Do you have children with him?**

|                     |     |     |     |
|---------------------|-----|-----|-----|
| 1 - YES             | 49  | 14  | 2   |
| 2 - NO              | 42  | 6   | 1   |
| 3 - I'M PREGNANT    | 0   | 0   | 0   |
| 93 - NOT APPLICABLE | 155 | 226 | 243 |

**PF55 PS55 PT55**

**55. How long has it been/was it between the first time and the last time you had sexual relations with him?**

|                      |             |             |            |
|----------------------|-------------|-------------|------------|
| DURATION_____        | 89 (1 - 22) | 20 (1 - 12) | 3 (4 - 20) |
| 93 - NOT APPLICABLE  | 155         | 226         | 243        |
| 99 - NOT ASCERTAINED | 2           | 0           | 0          |

**PF55B PS55B PT55B**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - DAYS             | 3   | 2   | 0   |
| 2 - WEEKS            | 2   | 0   | 0   |
| 3 - MONTHS           | 17  | 0   | 0   |
| 4 - YEARS            | 67  | 18  | 3   |
| 93 - NOT APPLICABLE  | 155 | 226 | 243 |
| 99 - NOT ASCERTAINED | 2   | 0   | 0   |

**PF55C PS55C PT55C**

|   |                |                |              |
|---|----------------|----------------|--------------|
| MONTHS B/TWN 1 <sup>ST</sup> AND LAST SEX__ | 89 (.03 - 264) | 20 (.03 - 144) | 3 (48 - 240) |
| 93 - NOT APPLICABLE                         | 157            | 226            | 243          |

**PF56 PS56 PT56**

**56. When was the last time you have sex with him?**

|                         |    |     |     |   |
|-------------------------|----|-----|-----|---|
| 1 - TODAY               | 6  | 0   | 0   |   |
| 2 - LESS THAN A WEEK    | 26 | 0   | 0   |   |
| 3 - A WEEK              | 8  | 0   | 0   |   |
| 4 - THIS MONTH          | 11 | 0   | 0   |   |
| 5 - LAST MONTH          | 21 | 0   | 0   |   |
| 6 - MORE THAN A MONTH   | 43 | 3   | 0   |   |
| 7 - LAST YEAR           | 22 | 6   | 0   |   |
| 8 - TWO YEARS           |    | 11  | 3   | 0 |
| 9 - MORE THAN TWO YEARS | 23 | 25  | 6   |   |
| 93 - NOT APPLICABLE     | 75 | 209 | 240 |   |

**PF57**

**57. How many times did you have sex with him this week?**

|                      |            |
|----------------------|------------|
| NUMBER OF TIMES_____ | 31 (1 - 7) |
| 93 - NOT APPLICABLE  | 209        |
| 99 - NOT ASCERTAINED | 6          |

**PF58**

**58. (IF HAS BEEN LESS THAN ONE WEEK SINCE THE LAST SEXUAL RELATION [52] →  
60) How many times did you sleep with him this month?**

|                      |             |
|----------------------|-------------|
| NUMBER OF TIMES_____ | 36 (1 - 12) |
| 93 - NOT APPLICABLE  | 194         |
| 96 - NUMEROUS        | 15          |
| 99 - NOT ASCERTAINED | 1           |

**PF59 PS59****59. (IF IT IS LESS THAN A MONTH [52] → 59)**

How many times have you slept with him this year?

|                      |             |       |
|----------------------|-------------|-------|
| NUMBER_____          | 40 (1 - 18) | 1 (1) |
| 93 - NOT APPLICABLE  | 131         | 244   |
| 94 - NOT FREQUENT    | 1           | 0     |
| 95 - SOMETIMES       | 5           | 1     |
| 96 - NUMEROUS        | 61          | 0     |
| 99 - NOT ASCERTAINED | 8           | 0     |

**PF60 PS60 PT60****60. Do you think you will have sex with him again?**

|                      |     |     |                             |
|----------------------|-----|-----|-----------------------------|
| 1 - YES              | 63  | 1   | 0                           |
| 2 - NO               | 21  | 23  | 3                           |
| 3 - DON'T KNOW       | 1   | 0   | 0                           |
| 93 - NOT APPLICABLE  | 161 | 221 | 243 (If married skip to 61) |
| 99 - NOT ASCERTAINED | 0   | 1   | 0                           |

**PF61 PS61 PT61****61. (IF IT IS ONE DAY SINCE THEY HAD SEX [Q55] → 64)**

Are you sure, or do you think that he had / has had sexual relations with other women between the first and the last time you had sex together / within the last year? (PROBE)

|                                  |    |     |     |
|----------------------------------|----|-----|-----|
| 1 - I AM SURE                    | 71 | 21  | 6   |
| 2 - I THINK                      | 2  | 0   | 0   |
| 3 - NO HE HASN'T BEEN W/ ANOTHER | 83 | 15  | 0   |
| 4 - DON'T KNOW                   | 11 | 1   | 0   |
| 93 - NOT APPLICABLE              | 77 | 209 | 240 |
| 99 - NOT ASCERTAINED             | 2  | 0   | 0   |

**PF62A PS62A PT62A****62. (HERE YOU HAVE TWO QUESTIONS: IF THEIR SEXUAL RELATIONSHIP IS LESS THAN A YEAR LONG → QUESTION 2 [Q52])**

1) The last year you were / have been together, how many other women do you know or think he has had sexual relations with?

|                      |            |            |           |
|----------------------|------------|------------|-----------|
| NUMBER_____          | 67 (1 - 5) | 20 (1 - 4) | 6 (1 - 4) |
| 0 - DON'T KNOW       | 2          | 0          | 0         |
| 93 - NOT APPLICABLE  | 175        | 225        | 240       |
| 99 - NOT ASCERTAINED | 2          | 1          | 0         |

**PF62B PS62B**

2) In the time you were / have been together, how many other women do you know or think he had / has had sexual relations with?

|                      |           |     |
|----------------------|-----------|-----|
| NUMBER_____          | 4 (1 - 2) | 0   |
| 0 - DON'T KNOW       | 0         | 0   |
| 93 - NOT APPLICABLE  | 240       | 245 |
| 99 - NOT ASCERTAINED | 2         | 1   |

**PF63 PS63 PT63****63. What was his relationship with this / these women? I will read a list:**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - WIVES            | 59  | 15  | 5   |
| 2 - GIRLFRIENDS      | 13  | 5   | 1   |
| 3 - ACQUAINTANCE     | 0   | 0   | 0   |
| 4 - COUSIN           | 0   | 0   | 0   |
| 5 - PROSTITUTE       | 0   | 0   | 0   |
| 6 - OTHER _____      | 0   | 0   | 0   |
| 7 - DON'T KNOW       | 1   | 0   | 0   |
| 93 - NOT APPLICABLE  | 171 | 225 | 240 |
| 99 - NOT ASCERTAINED | 2   | 1   | 0   |

**PF63B****63. What was his relationship with this / these women? I will read a list:**

## SECOND ANSWER

|                      |     |
|----------------------|-----|
| 1 - WIVES            | 0   |
| 2 - GIRLFRIENDS      | 1   |
| 3 - ACQUAINTANCE     | 0   |
| 4 - COUSIN           | 0   |
| 5 - PROSTITUTE       | 0   |
| 6 - OTHER _____      | 0   |
| 93 - NOT APPLICABLE  | 245 |
| 99 - NOT ASCERTAINED | 0   |

**PF64 PS64 PT64****64. Let's come back to your relationship with this man. Did or do you use condoms with him?**

|                     |     |     |     |
|---------------------|-----|-----|-----|
| 1 - YES             | 17  | 4   | 0   |
| 2 - NO              | 154 | 33  | 6   |
| 93 - NOT APPLICABLE | 75  | 209 | 240 |

**PF65 PS65****65. (IF THE LAST TIME THEY HAD SEX IS ONE DAY [Q55] → 67)****Did you use condoms the last time you had sex?**

|                     |     |     |
|---------------------|-----|-----|
| 1 - YES             | 12  | 3   |
| 2 - NO              | 4   | 1   |
| 4 - DON'T REMEMBER  | 1   | 0   |
| 93 - NOT APPLICABLE | 229 | 242 |

**PF66 PS66****66. Did you use condoms a lot? I will read and you will choose:**

|                           |     |     |   |
|---------------------------|-----|-----|---|
| 1 - NEVER                 | 0   | 0   |   |
| 2 - SOMETIMES             |     | 8   | 2 |
| 3 - YES FREQUENTLY        | 3   | 0   |   |
| 4 - EVERY TIME WE HAD SEX | 6   | 2   |   |
| 93 - NOT APPLICABLE       | 229 | 242 |   |

**PF67 PS67****67. Who provided the condoms? (READ FOR HER AND LET HER CHOOSE)**

|                     |     |     |
|---------------------|-----|-----|
| 1 - YOU             | 1   | 0   |
| 2 - HE              | 16  | 4   |
| 3 - BOTH            | 0   | 0   |
| 93 - NOT APPLICABLE | 229 | 242 |

**PF68 PS68****68. Where did he / you get them? (PROBE)**

|                     |     |     |   |
|---------------------|-----|-----|---|
| 1 - PHARMACY        | 8   | 2   |   |
| 2 - DON'T KNOW      | 7   | 2   |   |
| 4 - CLINIC          | 1   | 0   |   |
| 5 - DISPENSAIRE     |     | 1   | 0 |
| 93 - NOT APPLICABLE | 229 | 242 |   |

**PF69 PS69 PT69****69. If you think of this relationship, did you or your partner try to protect one or both of you from contracting a sexually transmitted disease after or before you had sex?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - NO               | 162 | 34  | 6   |
| 2 - DON'T KNOW       | 1   | 0   | 0   |
| 3 - YES              | 6   | 3   | 0   |
| 93 - NOT APPLICABLE  | 75  | 209 | 240 |
| 99 - NOT ASCERTAINED | 2   | 0   | 0   |

**PF69B PS69B****69.2 How? (MANY POSSIBLE ANSWERS)**

|                          |     |     |
|--------------------------|-----|-----|
| 1 - CONDOM               | 4   | 2   |
| 2 - TRADITIONAL MEDICINE | 1   | 1   |
| 3 - MODERN MEDICINE      | 1   | 0   |
| 93 - NOT APPLICABLE      | 238 | 243 |
| 99 - NOT ASCERTAINED     | 2   | 0   |

**PF70A PS70A PT70A****70. We want to know what you do after having sex****(IF SHE MENTIONED A METHOD, DO NOT ASK THE SAME THING HERE)****70.1.1 Do you wash?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - NO               | 1   | 0   | 0   |
| 2 - YES              | 163 | 22  | 5   |
| 93 - NOT APPLICABLE  | 80  | 224 | 241 |
| 99 - NOT ASCERTAINED | 2   | 0   | 0   |

**PF70B PS70B PT70B****70.1.2 Straight after having sex?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - STRAIGHT AFTER   | 160 | 22  | 5   |
| 2 - LATER            | 1   | 0   | 0   |
| 93 - NOT APPLICABLE  | 80  | 224 | 241 |
| 99 - NOT ASCERTAINED | 5   | 0   | 0   |

**PF70C PS70C PT70C****70.2.1 Do you take a shower?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - NO               | 11  | 1   | 0   |
| 2 - YES              | 153 | 21  | 5   |
| 93 - NOT APPLICABLE  | 80  | 224 | 241 |
| 99 - NOT ASCERTAINED | 2   | 0   | 0   |

**PF70D PS70D PT70D****70.2.2. Straight after having sex?**

|                                 |    |     |     |
|---------------------------------|----|-----|-----|
| 1 - STRAIGHT                    | 80 | 9   | 2   |
| 3 - 1 HOUR LATER                | 9  | 0   | 0   |
| 4 - EARLY IN THE MORNING        | 53 | 10  | 3   |
| 5 - WHEN I WANT / HAVE THE TIME | 10 | 2   | 0   |
| 93 - NOT APPLICABLE             | 91 | 225 | 241 |
| 99 - NOT ASCERTAINED            | 3  | 0   | 0   |

**PF70E PS70E****70.2.2. Straight after having sex?**

## SECOND RESPONSE

|                                 |     |     |  |
|---------------------------------|-----|-----|--|
| 1 - STRAIGHT                    | 0   | 0   |  |
| 3 - 1 HOUR LATER                | 0   | 0   |  |
| 4 - EARLY IN THE MORNING        | 4   | 0   |  |
| 5 - WHEN I WANT / HAVE THE TIME | 0   | 1   |  |
| 93 - NOT APPLICABLE             | 242 | 245 |  |

**PF70F PS70F PT70F****70.3.1 Do you urinate after having sex?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - NO               | 119 | 20  | 5   |
| 2 - YES              | 44  | 2   | 0   |
| 93 - NOT APPLICABLE  | 80  | 224 | 241 |
| 99 - NOT ASCERTAINED | 3   | 0   | 0   |

**PF70G PS70G****70.3.2 Straight after having sex?**

|                                 |     |     |  |
|---------------------------------|-----|-----|--|
| 1 - STRAIGHT                    | 39  | 1   |  |
| 5 - WHEN I WANT / HAVE THE TIME | 2   | 0   |  |
| 6 - WHEN NEEDED / SOMETIMES     | 3   | 0   |  |
| 7 - SOME TIME LATER             | 0   | 1   |  |
| 93 - NOT APPLICABLE             | 198 | 244 |  |
| 99 - NOT ASCERTAINED            | 4   | 0   |  |

**PF70H PS70H PT70H****70.4.1 Do you use medicine?**

|                      |     |     |     |
|----------------------|-----|-----|-----|
| 1 - NO               | 137 | 19  | 5   |
| 2 - YES              | 25  | 2   | 0   |
| 93 - NOT APPLICABLE  | 80  | 224 | 241 |
| 99 - NOT ASCERTAINED | 4   | 1   | 0   |

**PF70I PS70I****70.4.2 What kind?**

|                          |     |     |  |
|--------------------------|-----|-----|--|
| 1 - TRADITIONAL MEDICINE | 22  | 1   |  |
| 2 - MODERN MEDICINE      | 2   | 1   |  |
| 3 - DON'T KNOW           | 1   | 0   |  |
| 93 - NOT APPLICABLE      | 217 | 243 |  |
| 99 - NOT ASCERTAINED     | 4   | 1   |  |

**PF70J PS70J****70.4.3 After of before having sex?**

|                                 |     |     |   |
|---------------------------------|-----|-----|---|
| 1 - AFTER                       | 1   | 1   |   |
| 2 - BEFORE                      | 2   | 0   |   |
| 3 - ALWAYS                      | 12  | 1   |   |
| 4 - SOMETIMES                   |     | 3   | 0 |
| 5 - DAILY FOR A SET NO. OF DAYS | 4   | 1   |   |
| 6 - ONCE PER WEEK               | 1   | 0   |   |
| 7 - 2 DAYS PER YEAR             | 1   | 0   |   |
| 93 - NOT APPLICABLE             | 217 | 243 |   |
| 99 - NOT ASCERTAINED            | 5   | 0   |   |

**PF71 PS71 PT71****71. If you think of the past two years and think of the last man you've been with, who is not the same as the one we were just speaking of, is there such a person? (PROBE)**

|                     |     |     |     |
|---------------------|-----|-----|-----|
| 1 - YES             | 37  | 3   | 0   |
| 2 - NO              | 134 | 27  | 4   |
| 93 - NOT APPLICABLE | 75  | 216 | 242 |

**PS71B PT71B**

|                     |  |     |     |
|---------------------|--|-----|-----|
| 1 - YES             |  | 1   | 0   |
| 2 - NO              |  | 6   | 2   |
| 93 - NOT APPLICABLE |  | 239 | 244 |

**SUMMARY****SX72****72. If you think about this year, with how many men have you been? (PROBE)**

|                      |     |   |         |
|----------------------|-----|---|---------|
| NUMBER_____          | 168 | → | 0 - 51  |
| 93 - NOT APPLICABLE  | 75  |   | 1 - 116 |
| 99 - NOT ASCERTAINED | 3   |   | 2 - 1   |

**SEXUALITY****SX73****73. Can you name any STDs?**

|                      |     |
|----------------------|-----|
| 1 - YES_____         |     |
| 2 - NO               | 90  |
| 4 - AIDS             | 129 |
| 5 - MBOOT            | 15  |
| 6 - SYPHILIS         | 2   |
| 7 - SOPIS            | 5   |
| 8 - SANKAR           | 0   |
| 9 - GONOCOCIE        | 1   |
| 10 - OTHER           | 1   |
| 99 - NOT ASCERTAINED | 3   |

**SX73B****73. Can you name any STDs?**

SECOND ANSWER

|                     |     |
|---------------------|-----|
| 1 - YES_____        |     |
| 2 - NO              | 0   |
| 4 - AIDS            | 4   |
| 5 - MBOOT           | 8   |
| 6 - SYPHILIS        | 7   |
| 7 - SOPIS           | 13  |
| 8 - SANKAR          | 1   |
| 9 - GONOCOCIE       | 2   |
| 10 - OTHER          | 4   |
| 93 - NOT APPLICABLE | 207 |

**SX73C****73. Can you name any STDs?**

THIRD ANSWER

|                     |     |
|---------------------|-----|
| 1 - YES_____        | 0   |
| 2 - NO              | 0   |
| 4 - AIDS            | 1   |
| 5 - MBOOT           | 0   |
| 6 - SYPHILIS        | 1   |
| 7 - SOPIS           | 1   |
| 8 - SANKAR          | 4   |
| 9 - GONOCOCIE       | 0   |
| 10 - OTHER          | 239 |
| 93 - NOT APPLICABLE |     |

**SX74****74. Can you name any STD symptoms?**

|  |     |
|--|-----|
| 2 - NO   | 145 |
| 3 - LOSE WEIGHT                                  | 67  |
| 4 - BURNING/DIFFICULT URINATION / BLOOD IN URINE | 2   |
| 5 - VOMITING                                     | 0   |
| 6 - WARTS/GROWTHS ON SKIN/GENITALS               | 10  |
| 7 - DIARRHEA                                     | 2   |
| 8 - FEVER AND SWEAT                              | 1   |
| 9 - STOMACH ACHE                                 | 2   |
| 10 - HEAD ACHE                                   | 1   |
| 11 - VAGINAL DISCHARGE                           | 4   |
| 12 - STERILITY                                   | 1   |
| 13 - ITCHINESS                                   | 1   |
| 14 - LESIONS                                     | 1   |
| 15 - DIZZINESS                                   | 2   |
| 16 - COUGH                                       | 1   |
| 17 - OTHER                                       | 2   |
| MENSTRUATION STOPS                               |     |
| TOTALLY WEAK                                     |     |
| LOSE APPETITE                                    |     |
| RED EYES   |     |
| LOSE HAIR AND IT TURNS RED                       |     |
| 99 - NOT ASCERTAINED                             | 4   |

**SX74B****74. Can you name any STD symptoms?**

|  |     |
|--|-----|
| 2 - NO   | 0   |
| 3 - LOSE WEIGHT                                  | 7   |
| 4 - BURNING/DIFFICULT URINATION / BLOOD IN URINE | 3   |
| 5 - VOMITING                                     | 1   |
| 6 - WARTS/GROWTHS ON SKIN/GENITALS               | 6   |
| 7 - DIARRHEA                                     | 2   |
| 8 - FEVER AND SWEAT                              | 2   |
| 9 - STOMACH ACHE                                 | 4   |
| 10 - HEAD ACHE                                   | 1   |
| 11 - VAGINAL DISCHARGE                           | 2   |
| 12 - STERILITY                                   | 1   |
| 13 - ITCHINESS                                   | 1   |
| 14 - LESIONS                                     | 1   |
| 15 - DIZZINESS                                   | 0   |
| 16 - COUGH                                       | 0   |
| 17 - OTHER                                       | 2   |
| MENSTRUATION STOPS                               |     |
| TOTALLY WEAK                                     |     |
| LOSE APPETITE                                    |     |
| RED EYES   |     |
| LOSE HAIR AND IT TURNS RED                       |     |
| 93 - NOT APPLICABLE                              | 213 |

**SX74C****74. Can you name any STD symptoms?**

|  |     |
|--|-----|
| 2 - NO   | 0   |
| 3 - LOSE WEIGHT                                  | 1   |
| 4 - BURNING/DIFFICULT URINATION / BLOOD IN URINE | 2   |
| 5 - VOMITING                                     | 0   |
| 6 - WARTS/GROWTHS ON SKIN/GENITALS               | 2   |
| 7 - DIARRHEA                                     | 1   |
| 8 - FEVER AND SWEAT                              | 0   |
| 9 - STOMACH ACHE                                 | 0   |
| 10 - HEAD ACHE                                   | 0   |
| 11 - VAGINAL DISCHARGE                           | 0   |
| 12 - STERILITY                                   | 0   |
| 13 - ITCHINESS                                   | 1   |
| 14 - LESIONS                                     | 0   |
| 15 - DIZZINESS                                   | 0   |
| 16 - COUGH                                       | 1   |
| 17 - OTHER                                       | 1   |
| MENSTRUATION STOPS                               |     |
| TOTALLY WEAK                                     |     |
| LOSE APPETITE                                    |     |
| RED EYES   |     |
| LOSE HAIR AND IT TURNS RED                       |     |
| 93 - NOT APPLICABLE                              | 237 |

**SX74D****74. Can you name any STD symptoms?**

|  |     |
|--|-----|
| 2 - NO   | 0   |
| 3 - LOSE WEIGHT                                  | 0   |
| 4 - BURNING/DIFFICULT URINATION / BLOOD IN URINE | 0   |
| 5 - VOMITING                                     | 1   |
| 6 - WARTS/GROWTHS ON SKIN/GENITALS               | 0   |
| 7 - DIARRHEA                                     | 1   |
| 8 - FEVER AND SWEAT                              | 0   |
| 9 - STOMACH ACHE                                 | 0   |
| 10 - HEAD ACHE                                   | 0   |
| 11 - VAGINAL DISCHARGE                           | 0   |
| 12 - STERILITY                                   | 0   |
| 13 - ITCHINESS                                   | 0   |
| 14 - LESIONS                                     | 0   |
| 15 - DIZZINESS                                   | 0   |
| 16 - COUGH                                       | 0   |
| 17 - OTHER                                       | 0   |
| MENSTRUATION STOPS                               |     |
| TOTALLY WEAK                                     |     |
| LOSE APPETITE                                    |     |
| RED EYES   |     |
| LOSE HAIR AND IT TURNS RED                       |     |
| 93 - NOT APPLICABLE                              | 244 |

**SX74E****74. Can you name any STD symptoms?**

|  |     |
|--|-----|
| 2 - NO   | 0   |
| 3 - LOSE WEIGHT                                  | 1   |
| 4 - BURNING/DIFFICULT URINATION / BLOOD IN URINE | 0   |
| 5 - VOMITING                                     | 0   |
| 6 - WARTS/GROWTHS ON SKIN/GENITALS               | 0   |
| 7 - DIARRHEA                                     | 0   |
| 8 - FEVER AND SWEAT                              | 0   |
| 9 - STOMACH ACHE                                 | 0   |
| 10 - HEAD ACHE                                   | 0   |
| 11 - VAGINAL DISCHARGE                           | 0   |
| 12 - STERILITY                                   | 0   |
| 13 - ITCHINESS                                   | 0   |
| 14 - LESIONS                                     | 0   |
| 15 - DIZZINESS                                   | 0   |
| 16 - COUGH                                       | 0   |
| 17 - OTHER                                       | 0   |
| MENSTRUATION STOPS                               |     |
| TOTALLY WEAK                                     |     |
| LOSE APPETITE                                    |     |
| RED EYES   |     |
| LOSE HAIR AND IT TURNS RED                       |     |
| 93 - NOT APPLICABLE                              | 245 |

**SX75****75. Have you ever had an STD?**

|                      |     |
|----------------------|-----|
| 1 - YES              | 1   |
| 2 - NO               | 190 |
| 3 - DON'T KNOW       | 0   |
| 93 - NOT APPLICABLE  | 50  |
| 99 - NOT ASCERTAINED | 5   |

**SX76****76. Where did you get treated?**

|                        |     |
|------------------------|-----|
| 1 - NOWHERE            | 0   |
| 2 - TRADITIONAL HEALER | 0   |
| 3 - MEDICAL DOCTOR     | 1   |
| 93 - NOT APPLICABLE    | 240 |
| 99 - NOT ASCERTAINED   | 5   |

**SX77****77. Have you had an STD this year?**

|                      |     |
|----------------------|-----|
| 1 - YES _____        | 1   |
| 2 - NO               | 0   |
| 3 - DON'T KNOW       | 0   |
| 93 - NOT APPLICABLE  | 240 |
| 99 - NOT ASCERTAINED | 5   |

**SX78****78. Have you ever been with a man because of financial need?**

|                      |     |
|----------------------|-----|
| 1 - YES              | 1   |
| 2 - NO               | 191 |
| 93 - NOT APPLICABLE  | 48  |
| 99 - NOT ASCERTAINED | 6   |

**SX78B****79A. Has your employer or someone else like that ever pushed you to have sex with him?**

|                      |     |
|----------------------|-----|
| 1 - NO               | 66  |
| 2 - YES              | 9   |
| 93 - NOT APPLICABLE  | 165 |
| 99 - NOT ASCERTAINED | 6   |

**SX78C****79B. Have you ever had sex with someone like that?**

|                      |     |
|----------------------|-----|
| 1 - NO               | 74  |
| 2 - YES              | 0   |
| 93 - NOT APPLICABLE  | 165 |
| 99 - NOT ASCERTAINED | 7   |

**END****I79****79. Date of interview****I80****80. Marketplace (Location of interview)**

|                                |               |     |      |
|--------------------------------|---------------|-----|------|
| 1 - TILÈNE                     | 27            | (5  | 1    |
| 2 - GUEULE TAPPE               | 17            | 2   | 0    |
| 3 - CHAMP DE COURSE            | 15            | 4   | 1    |
| 4 - LIBERTIE VI                | 34            | 5   | 1    |
| 5 - BEN TALLY                  | 20            | 7   | 1    |
| 6 - POINT E                    | 53            | 6   | 1    |
| 7 - CASTORS                    | 26            | 1   | 0    |
| 8 - RUE AMADOU ASSANE NDOYE    | 43            | 5   | 1    |
| 9 - MISSION LUTHERIENNE        | 4             | 1   | 0    |
| 10 - COLOBANE                  | 2             | 1   | 0    |
| 11 - FASS                      | 5             | 0   | 0    |
| 93 - NOT APPLICABLE            | 0             | 209 | 240) |
| <b>PF81 PS81 PT81</b>          |               |     |      |
| <b>81. Survey number</b> _____ | 246 (1 - 248) | 37  | 6    |
| 93 - NOT APPLICABLE            | 0             | 209 | 240  |

**I82****82. Interviewer's name**

|             |     |     |    |
|-------------|-----|-----|----|
| 1 - AMY     | 143 | (25 | 6  |
| 2 - DEGUENE | 103 | 12  | 0) |

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