Living Conditions in Migration and HIV-infection High-risk Behaviour among Internal Migrants in the River Senegal Valley

Abstract

Studies on the spread of AIDS were quick to point to geographical mobility as one of the factors perpetuating the spread of HIV (Hunt, 1989; Anarfi, 1993; Kane *et al*., 1993; Pison *et al*., 1993). In Sub-Saharan Africa, where HIV is mainly transmitted by sexual intercourse, it is generally postulated that migrants tend to adopt high-risk sexual behaviour at their place of destination, thereby exposing both the contact population and themselves to infection. It is also believed that migrants continue with such behaviour on their return, aided by the force of attraction they exert on women of their community, thanks to their income which is higher than that of non migrants (Anarfi, 1993; Chirwa, 1997). Migrants pose an additional threat to their communities of origin because of the risk of infecting their spouses, thereby spreading the disease within their extended families in situations where levirate and sororate are practiced[1]. One of the models mentioned in the literature explains the greater propensity of migrants to adopt high-risk sexual behaviour through their low perception of the risks and consequences inherent in their behaviour. This low perception, it would appear, results from pre-migration factors which make them more daring (age, sex, marital status, education, etc.), factors resulting from migration (separation from spouse or regular partner) and, finally, from the contact with a new environment considered stressful and more sexually permissive (Brockerhoff and Biddlecom, 1998). This paper seeks to test this model using the case of migrants from the River Senegal Valley, one of the high-mobility regions of the country and one of the hardest-hit by the epidemic. In this regard, we will be looking at migration trends inside Senegal during the 1985 – 2000 period, that is, since the first cases of HIV/AIDS were reported in the country[2]. The paper rounds off by examining the implications of the findings for research and prevention strategies.

Macoumba Thiam
Demography Departement
University of Montreal
Montreal, Canada

Literature Review on Migration and High-Risk Sexual Behaviour

A good number of surveys on the correlation between mobility and AIDS in Sub-Saharan Africa have brought out the tendency for migrants to have riskier sexual habits than non migrants – multiple sexual partners, recourse to prostitution or casual partners and failure to use a condom on a regular basis during sexual intercourse (Hunt, 1989; Packard and Epstein, 1992; Anarfi, 1993; Prison *et al*., 1993; Lalou and Piché, 1994; Chirwa, 1997; Lurie *et al*. 1997; Lydié and Robinson, 1998). Among the theoretical models that attempt to explain such risk taking is that of Brockerhoff and Biddlecom (1998) which draws from theories on behavioural change and the correlation between geographical mobility and adoption of new habits. These authors identify three types of factors accounting for the relationship between migration and AIDS which explain the high-risk sexual behaviour of migrants. First, there are the inherent characteristics of the migrants which have nothing to do with migration and which make them prone to riskier sexual behaviour, even if they did not migrate. Such characteristics include youthfulness, celibacy and the fact that one is male. The second type of factor has to do with characteristics that migrants acquire with migration, the most common being separation from the spouse or the regular partner. Finally, factors relating to the environment of destination also account for high-risk sexual behaviour. In their new environment, migrants have to adapt to different standards and to the existence of new sexual opportunities and constraints. These three types of factors influence the behaviour of migrants. Weakening their perception of the risks inherent in such behaviour (Brockerhoff and Biddlecom, 1998).

This approach is more relevant to migrant workers who have been a major vector in the spread of the virus in Southern, Eastern and Central Africa. (Lalou and Piché, 1994). Faced with difficult working conditions, acute emotional and psychological isolation, due to separation from their spouses and regular partners, migrant workers, generally men, fall back on prostitutes in their host environment as these are directly accessible partners who do not require any proper integration in the host environment (Packard and Epstein, 1992; Anarfi, 1993).

With respect to migration in West Africa, the social and emotional isolation of the migrant is less pronounced than elsewhere on the Continent. Here, the migrant worker is often accompanied by the rest of the family, or they join him subsequently (Lalou and Piché, 1994). In addition, integration assistance networks made up of people from the same village, members of the same ethnic group, etc., provide a kind of cushion the newly-arrived migrant can recline on to cope with loneliness and stress, even though such a cushioning effect diminishes with subsequent migrations (Anarfi, 1993). Besides, these networks exercise the same societal control which exists in the place of origin, thereby reducing the stimulating effect which anonymity at the place of migration has on the high-risk sexual behaviour of migrants (Lalou et Piché, 1994). More specifically with regard to the "Vallée" region, Saez (2002), for example, found that societal control and influence of elders were present in the city (Richard-Toll). He, however, observed that such control and influence were counterbalanced by peer pressure in favour of multiple partners and the existence of enclosed houses where prostitution was practised with a certain degree of confidentiality. Frequent trips to the village also give West African migrant workers the opportunity to meet their spouses and regular partners, thereby alleviating the loneliness and isolation (Saez, 2002).

Internal migration from the River Senegal Valley thus offers an opportunity to explore all these aspects of migration in West Africa with a view to testing a theoretical model which integrates several types of traits in the same conceptual framework.

Data and Methods of Analysis

The data used in this paper is gleaned from the survey "*Mobilité IST/ SIDA au Sénégal*" [STI/AIDS Mobility in Senegal] (MISS). The data collection phase of the survey took place in January and February 2000 in two contrasting parts of the River Senegal Valley: the town of Richard-Toll and the Matam area. The following section gives a more detailed presentation of these sites. The MISS survey had a qualitative component and a quantitative one. The quantitative component involved a sample of 1,320 men and women, with ages ranging from 15 to 50 years, chosen on the basis of a sampling technique which was representative of each of the two areas under survey and the returnee migrants.

During this phase, detailed information was gathered on households, socio-demographic characteristics of the sample population as well as norms, beliefs, attitudes and knowledge on sexuality. All the instances of migration, both internal and international, from birth were documented. The survey also explored in an in-depth manner, living and integration conditions and sexual habits during the last internal and international migrations over the last fifteen years before the survey as well as short trips made during the last three months.

In this paper, we are going to limit our analysis to the last internal migration which took place within the last 15 years before the survey, that is, since 1985. This date corresponds, more or less, to the time when the first cases of AIDS were reported in Senegal. Internal migration is defined as a stay of at least six months in a part of Senegal other than the province of residence at the time of the survey. Although the survey covers the last 15 years, the last waves of internal migration are not the less recent for that. More than a third of them took place during the last five years and about 70% during the last years. Besides, we will be examining only internal migration of men, that is, 123 migrants in all, because of the low number of women who admitted to having indulged in high-risk sexual behaviour during their last migration[3]. A migrant is considered to have had high-risk sexual behaviour if he had sexual intercourse with a casual partner or a prostitute at any time during his last internal migration. Because the use of a condom during these encounters was not taken into consideration, the risk assessed here is more potential than real. As such, we will henceforth use the expression "*comportement sexuel potentiellement à risque*" [potentially high-risk sexual behaviour] borrowed from Piché *et al*. (2002).

A logistic regression will be made on potentially high-risk behaviour with independent variables relating to migrants before departure and to their living and integration conditions during migration. The model does not include awareness of the danger of AIDS at the time of migration since date on such awareness was not gathered during the survey. Finally, because of the low number of persons interviewed, we will limit the independent variables to be included in the model to the most significant in terms of the theoretical model to be tested. All these variables are discussed in the "Results" section.

Presentation of Study Sites

The MISS survey concerned two sites of the River Senegal Valley: the town of Richard-Toll and the Matam region made up of the town of Ourossogui and the villages of Bokidiawe and Doumga Ouro Thierno. The choice of these two sites was based on the following criteria:

1) the longevity and intensity of geographical mobility in this area;

2) the peculiarity of their epidemiological status with regard to sexually transmitted infections (STI) and AIDS;

3) the contrast between the two sites which allows for a comparative study (Piché *et al.,* 2002).

Geographical mobility of population is an age-old and intense phenomenon in the River Senegal region (Bâ, 1996). The findings of the MISS survey reveal, *inter alia*, that 56% of interviewees of both regions have made at least an international or an internal migration during the last fifteen years or made a short trip during the last three months before the survey. As many as 70% of men in Matam migrate. Migrants from Matam, more often than not, move to countries with high HIV-prevalence rates (Côte d'Ivoire and Central African countries) and major Senegalese towns (Dakar, Saint-Louis, Thiès, etc.). Inhabitants of Richard-Toll also migrate to other towns in Senegal, but international migration is mostly to neighbouring Mauritania. As opposed to Matam, Richard-Toll is a centre of attraction for migrants from the rest of the country and even from neigbouring countries, all attracted by its agro-industrial complex. Moreover, Richard-Toll is more urban, has higher school attendance rates and is more heterogeneous in terms of ethnicity than Matam. But the two regions share the same norms with regard to marriage and sexuality and have Islam as religion for almost all their inhabitants. In principle, sexual intercourse is acceptable only in marriage, but the findings of the MISS survey show that a significant proportion of persons interviewed confessed to pre-marital sex (40%) and extra-marital (10% of men). Finally, levirate and sororate practices are accepted in the region (Piché *et al*., 2002).

With regard to epidemiology, the scanty statistics available on AIDS in the River Senegal Valley suggest that HIV prevalence here is higher than the 1.77% national prevalence rate recorded at the end of 1999 (UNAIDS, 2000). Migrants are some of the hardest-hit in the area. A study carried out in 1989 in the Matam area by Kane et al. (1993) found that the HIV-prevalence rate was eleven times higher among international migrant workers (5.4%) than among non migrants (0.5%) in a sample population representative of the whole area. In another sample comprising only returnee international migrants and wives of international migrants, the prevalence rates were 27% for men and 11.3% for women.

Results

The results presented concern a sample of 123 men who made an internal migration during the last fifteen years before the survey. An internal migration is defined as a stay of six or more months inside Senegal in a province other than the province of residence of the interviewee.

Description of the Sample of Internal Migrants

Table 1 classifies internal migrants according to some socio-demographic criteria and according to the area under survey. The table shows significant disparities between Richard-Toll and Matam. On the whole, migrants from Richard-Toll appear to be older, more educated and fewer in married numbers than those from Matam. Internal migrants of both regions also differ in terms of ethnicity (Pulaar majority in Matam and Wolof majority in Richard-Toll) and level of participation in economic life. Almost all the returnee migrants of Richard-Toll and 85% of those of Matam were working at the time of the survey.

For purposes of a better grasp of the acquisition of new characteristics as a result of migration along with the living and integration conditions at the place of destination, we have defined a number of variables aimed at operationalizing the concepts of social environment, social isolation, emotional isolation and economic insecurity.

The migration environment is operationalized by the region of destination with three variables: "Dakar" (national capital), "Saint-Louis" (administrative capital of the region in which the two sites of the survey are located[4]) and "other regions". Emotional isolation is assessed in terms of whether or not the migrant lives with a regular partner at the place of migration (spouse or fiancée/ girlfriend). Social isolation is assessed in terms of whether or not the migrant was accompanied by a relative, a friend or someone from the same area or whether or not the migrant was assisted by one of these persons in the search for accommodation and/or work. Economic uncertainty is judged on the basis of occupation during migration. Table 2 presents a classification of these variables as well as that of the "potentially high-risk sexual behaviour" dependent variable according to area of residence.

All these variables will be built into a logistic regression model determined by the age at the time of migration, the level of education and the region of origin of migrants. Because of the low numbers interviewed, we will not present separate models for Richard-Toll and Matam, even though the two regions are quite distinct socio-economic and, to a certain extent, cultural entities. The inclusion of the "area of residence" variable (Richard-Toll and Matam) in the model should, however, address any possible problems arising from this choice.

Distribution of Sample According to Migration-based Variables

Table 2 presents the distribution of characteristics of the last internal migration as well as that of the "potentially high-risk sexual behaviour" dependent variable according to area of residence. Like Table 1, this table shows some disparities between the two areas under survey for most of the variables.

Table 2 shows a more or less even distribution of migrants from Richard-Toll in terms of destination whereas Dakar is the principal destination for migrants from Matam. In both areas, the majority of migrants are young people (less than 25 years old) and single persons (single men and women, divorcees, widows/ widowers). The majority of migrants lived in emotional isolation (absence of a regular partner at place of migration), particularly those of Richard-Toll. Conversely, the vast majority of migrants (more than eight out of ten) received assistance from networks of friends and people from the same area of origin and in matters of accommodation and / or economic integration. Finally, the majority of migrants were employed during the period of migration although a significant proportion of them was unemployed.

Results of Multi-variables Test

Table 3 presents the results of the logistic regression of potentially high-risk sexual behaviour on living conditions during migration as tempered by education, age at the time of migration and area of origin of migrants. Of all the variables considered, only marital status at the time of migration and emotional isolation at the migration destination (living without a regular partner) significantly influence "*potentially high-risk sexual behaviour*."

All things being equal, men who migrated as bachelors, divorcees or widowers are 20 times more likely to indulge in potentially high-risk sexual behaviour than married migrants[5]. Similarly, a migrant who does not live with a regular partner (spouse, fiancée, girlfriend) at the place of migration is 16 times more likely to see prostitutes or have sex with casual partners than migrants living with a regular partner. Contrary to expectation, area of destination does not influence the propensity to indulge in high-risk sexual behaviour even though the way migrants perceive sexual freedom at the place of destination varies significantly from the way it is perceived at the place of residence. Similarly, none of the other variables turned out to be significant.

Discussion and Recommendations

Literature on the correlation between geographical mobility and AIDS considers migration as a process that goes hand-in-glove with high-risk sexual behaviour as a result of a number of factors relating to the migrants, some independent of migration and others arising from situations created by migration. It is, however, important that any attempt to design and implement effective AIDS prevention schemes should identify some of the numerous factors which contribute in the most significant manner to risk taking and which are the most relevant to be addressed. The case of internal migrants of the River Senegal Valley studied in this paper thus reveals that out of all the factors advanced in the theoretical model tested, only marital status at the time of migration and emotional isolation during migration explain risk taking. None of the other factors, in the final analysis, actually influences the high-risk sexual behaviour of migrants.

Surely, these findings show that the economic uncertainty and the physical and psychological stress at the place of migration which are so often cited in literature do not necessarily or automatically lead to high-risk sexual behaviour. The recourse to prostitutes or casual partners seems, first and foremost, to be a reaction to the lack of an alternative in a context where the migrant is separated from his regular partner. This hypothesis is further vindicated in that the mere fact of being married at the time of migration reduces significantly the likelihood of indulging in sexual escapades. This difference can probably be explained by the reunion with the spouse during the frequent trips home which Saez (2002) talked about, which trips break the emotional isolation.

This conclusion has two implications both at the level of research and at the level of action. First, it goes to confirm further that the hypotheses which depict migrants as necessarily risk-prone are to be taken with a pinch of salt. The said hypotheses throw light on a situation which arises from migration, namely, emotional isolation, as the main reason why migrants take risks. Second, there is a need for further data, particularly qualitative data, to understand the context in which separation of spouses takes place in order to put migrants from the River Seneral Valley region on their guard against risks relating to their sex life. With regard to programmes, this equally implies that action, beyond mere messages aimed at prevention and improving the living conditions of migrants, is necessary to achieve change of behaviour.

1. The correlation between some cultural practices such as levirate and sororate and the spread of AIDS in Africa is increasingly being questioned, *inter alia*, by ethnologists (see, for example, Taverne, 1996).

2. Subsequent papers will examine the other aspects of geographical mobility in relation to sexual behaviour in the River Senegal valley.