

COMITÉ PERMANENT INTER- ÉTATS DE LUTTE
CONTRE LA SÉCHERESSE DANS LE SAHEL



PERMANENT INTERSTATES COMMITTEE
FOR DROUGHT CONTROL IN THE SAHEL

INSTITUT DU SAHEL

**PROGRAMME MAJEUR POPULATION/DEVELOPPEMENT
(CERPOD)**

**POPULATION AND DEVELOPMENT PROGRAMME
(CERPOD)**

Mobility and HIV/AIDS in West Africa: Beyond the theoretical relation

**Paper presented at the CICRED/UNDP seminar on mobility and HIV/AIDS, Paris
1-3 September 2004**

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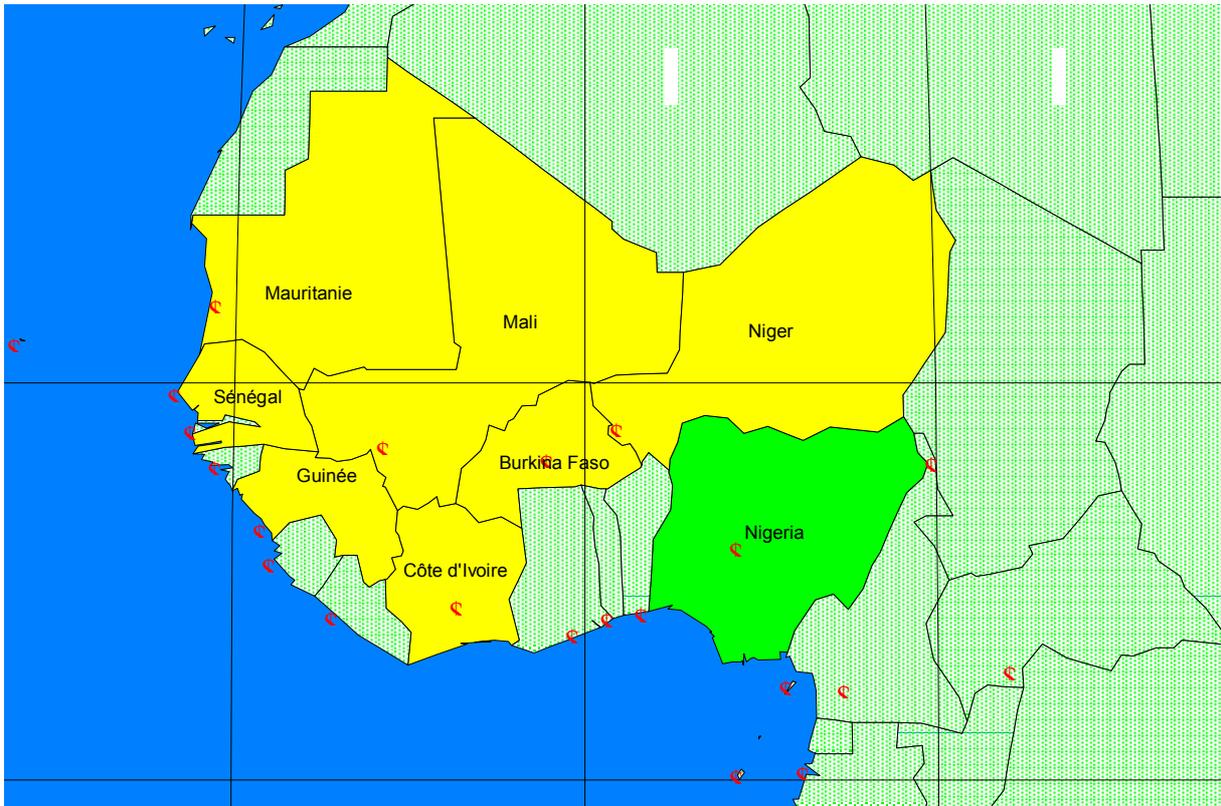
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Map of REMUAO countries



NB: the surveys of the seven countries (in yellow) are conducted following the same methodology, namely of representative samples at a national level and a gathering of migration histories of people aged 15 and over since birth until the date of the survey. The survey on Nigeria is a purposive sample. Only the five last migrations of individuals aged 15 and over are included. The data analysed here concern the seven French-speaking countries of REMUAO (Migration and Urbanisation in West Africa Network).

Introduction

The AIDS pandemic has become a concern internationally because of its catastrophic effects. The commitment of governments and civil society to fight the disease is becoming increasingly evident. At the United Nations Millennium summit in 2000 forty-three heads of State and government leaders identified AIDS as one of the most pressing problems in the world. In the same way in June 2001, during the special session of the United Nations on HIV/AIDS, the strong presence of non-governmental organisations was remarkable¹. Although efforts were agreed to they have proved to be insufficient given the huge scale of the problem.

Insufficient understanding of the determinants and of the consequences of the disease, the strong mobility of populations and especially trans-border migration, the vulnerability of women to the HIV/AIDS infection linked to socio-cultural factors and to poverty, have influenced and continue to influence the development of the epidemic and the solutions required to fight it. These factors have been aggravated by the absence of a favourable political and social environment, the insufficient implication of NGOs, of community-based organisations and especially of the people living with HIV.

The scale of the pandemic requires renewed determination worldwide and new approaches in the way of considering the epidemic. Among these new approaches is the search for a regional answer based on the assumption of a strong link between mobility and the expansion of HIV/AIDS. Historically, studies have revealed the expansion of infectious diseases through mobility according to two main assumptions².

The first one considers mobility as an important factor which, by putting people in contact, favours the transmission of diseases. The second considers mobility as a factor in the growth of urban areas where population density and promiscuity favour the expansion of epidemics.

We believe that mobility is a characteristic of changes in contemporary African societies operating through their integration within the dominant global economic system. It is a part of the global strategy of reproduction (biological reproduction and production) of these societies in which the rarity of resources is combined with intense dynamics of competition between groups. From this point of view, mobility constitutes an important factor in the propagation of HIV/AIDS.

In the current context of globalisation in which borders between groups, nations and regions are falling, migrants pass from one culture to another by confronting different sexual norms which expose them, as much as the receiving populations, to high risks, namely of HIV/AIDS. The link between the expansion of HIV/AIDS and mobility can be explained more clearly following a main characteristic of mobility: social distantiation. Outside his socio-cultural context in which the family and the community plays an important controlling role. The migrant finds himself within new social networks and in a situation of vulnerability which may be more or less pronounced.

The objective of this article is to describe the situation in terms of risk and vulnerability to HIV/AIDS in West Africa based on the results of REMUAO surveys of 1993. A theoretical analysis of the link between mobility and HIV/AIDS is initially

¹ Onusida, 2002

² Caldwell et al., *Sexual cultures and migration the era of AIDS*, Clarendon Press, Oxford, 1997

outlined. Then, this link is presented in the light of REMUAO survey data. It is true that the data of 1993 are a little old compared with the present situation, but these data are the most recent in the sub-region. Moreover, no notable facts likely to radically modify observed migration trends seem to have intervened in the sub-region. From this point of view, such an interrelation is obviously interesting.

The article focuses on the effort made during several years by the Population and Development Programme of the *Institut du Sahel* (CERPOD) for a better understanding of the expansion of the pandemic. As a conclusion, several proposals are put forward in terms of socio-demographic and behavioural analyses as a prerequisite for establishing a database and indispensable indicators consistent with the performances of the programmes which are currently tending towards regionalisation.

I. Context of the propagation of HIV/AIDS in West Africa:

I.1 Strong migration dynamics

Migrations today are a manifestation of a process of very rapid socio-economic change in African populations. As a component of population dynamics, migration characterises by its selectivity, which produces an impact on social change through its structural effects, population composition and regimes. Much more than that, in the context of the AIDS pandemic, migration constitutes one of the probable factors for its rapid propagation.

International migrants in sub-Saharan Africa were estimated at close to 35 million at the end of the 1980s out of a total number of 80 million for the whole world, approximately 44% (Stalker, 1995). West Africa is one of the regions in sub-Saharan Africa with the highest concentration of migrant populations. Out of close to 5 million intra-African migrants more than one third resides in West Africa, with a high proportion of migrants from the Sahel (Sally at al., 1995).

Two factors may explain the importance of migration in West Africa: its historical roots and the economic opportunities offered by the sub-region: an economic combination which favours exchanges of goods and services and the mobility of people. The scale of West African migration, according to REMUAO data, is described in the following table:

Table 1: Volume of migrations (in thousands) by populations of persons aged 15 and over (period 1988-92)

In-migrations			International migrations	Total
• Between rural areas	753	18.2		
• Between cities	297	7.2		
• Between rural and urban areas	3 090	74.6		
• Total	4 140	100.0	2 274	6 414
		64.5	35.5	100.0

The volume of migration during the period from 1988 to 1992 in the seven countries studied was 6.4 million migrations. These migrations concerned an average population of close to 27 million inhabitants aged 15 and over. Close to 2/3 of these migrations were in-migrations, 4.1 million. Close to 75% of the in-migrations were between urban and rural areas.

1.2 Increasing numbers of young people are migrating

African migration is increasing among younger generations, namely due to strong population growth resulting from a mortality decline and constant fertility.

West African population went from 63.2 millions inhabitants in 1950 to 209.5 million in 1995 (UN, 1997), an annual growth of close to 2.7%. During the same period the urban population grew from 6.4 million to 76 million, whilst the rural population went from 56.7 million to 133.5 million inhabitants. The annual growth rate from 1950 to 1995 was 5.6% for urban areas and 1.9% for rural areas. Among the factors accelerating African migration are the degradation of the environment in rural areas and population growth which have generated needs in farmland and resulted in an impoverishment of rural populations.

According to REMUAO data, mean age at first migration has decreased by half from 26 to 13. Mean age has declined by close to 9 years from 23 years for the generations aged 50 and over to 14 years for the 15-19 year-olds. To the factors explaining this decline in age at first migration, beyond the deterioration of socio-economic conditions, should be added the regional investment policies which have given rise to substantial unbalances in terms of infrastructures, namely school infrastructures which have greatly influenced school migrations.

1.3 Increasing numbers of women are migrating

Historically and due to the social division of labour which made them the first economic actors, men dominated African migration. Female migration is essentially perceived as an accompanying migration which had to be strictly controlled to ensure the cohesion of the social group. Male migration was more circular and did not result in long periods of absence. Within this context, accompanying migration was less justified. It was difficult for group leaders (clans, lineages, etc.) to authorise it. Currently male migrations concern not only at greater distances but they lead to long periods of absence and are sometimes definitive.

In this new context accompanying migrations are tolerated under the apparent pretext of procreation and of the survival of the partner relationship and (beyond that) of the group. But female migrations are mainly the fruit of deep changes in West African societies stemming from a deep-rooted aspiration among women to greater autonomy through work and of the increasing importance of the economic role of migrants. The power of decision traditionally held by the elders, as well as the relations of dependence within families and/or households seem to be evolving towards a more concerted management of the migration phenomenon.

According to REMUAO data, female migration represents 46% of all migrations, or 33% of international migrations and 53% of in-migrations. In three countries: Côte d'Ivoire, Senegal and Burkina Faso, female migrations represent at least half of the

in-migrations. The balance of in-migrations indicates that women contribute much more than men to recent urbanisation in West Africa.

1.4 Migration of an individual nature

Because of its scale West African migration is a migration of an individual nature that the migrant often carries out alone. From the decline in the answers provided by migrants during the last five years, the REMUAO surveys reveal that most migrants migrate alone (56%). The men more often migrate alone than the women (57% compared with 30%). According to the generations, the young migrate more often alone, compared with the old generations.

II. The context of vulnerability and the risk of HIV/AIDS

These different characteristics of West-African migration include risks in terms of the propagation of HIV/AIDS. Indeed, HIV prevalence rates are still higher as a whole but most of the countries are emigration countries and this trend does not seem to be reversing given the poor economic performances. The free circulation of people, introduced by the ECOWAS (Economic Community of West African States) treaty and the amplification of movements, favour a greater propagation of the epidemic.

The advent of female migrations at younger and younger ages constitutes another dimension of the risk given that these fringes of the population are the most vulnerable to the transmission of HIV/AIDS. In most of the countries HIV prevalence rates among women and young people are the highest.

Lastly migration, by taking individuals away from their usual family circle, places them in an anonymous context in the receiving country. This new environment may incite the migrant to become involved in sexual relations which increase risks of vulnerability to STD/HIV/AIDS. These risks and vulnerability are even greater when migrants migrate alone.

III. Other mobile populations and areas of interaction

The migration movements mentioned earlier are defined as changes in residence of a duration exceeding or equal to six months. Other, so called, temporary movements are made in a lapse of time inferior to six months and involve several individuals. These movements range from the daily commuting to work or to major markets, which is widespread in urban agglomerations, to visits of relations and parents whether these are rural/rural, rural/urban, or urban/urban movements. Meeting places such as major urban markets, stations, and weekly itinerant markets in rural areas constitute places of interaction which, in addition to commercial exchanges, play a role in terms of social interaction. Some people come to let steam off or to relax and therefore engage in all sorts of behaviours, namely sexual relations. Most of these actors adopt risk behaviours concerning HIV/AIDS.

IV. The status of research concerning mobility and HIV/AIDS in the sub-region

Concerning research on the HIV/AIDS pandemic in West Africa, namely in the countries of the Sahel, the main efforts have been made in recent years in terms of a

better knowledge of the trends of the epidemic including its epidemiological and behavioural profile. This should help to identify specific needs for data so as to improve epidemiological monitoring and projections.

There are very few large scale statistically solid studies clearly establishing the links between the mobility of populations and the expansion of HIV/AIDS. From a theoretical point of view, two books may be quoted as references. The first one published by Gilbert Herdt (1997) which followed the Bangkok Conference in 1994, looked at the relations between migration, sexual behaviours and HIV/AIDS in developing countries. It reports on the emergence of three processes in the perspective of human mobility and sexual transition:

- characteristic mobility dynamics in the current multicultural context
- the emergence of cultures and sub-cultures which create new sexual behaviours and practices
- the emergence of new sexually transmitted diseases such as HIV/AIDS, which lead to major risks for migrants as well as non-migrants.

The second book is a joint publication by UNAIDS and IOM from 1998. This special publication on Migration and HIV/AIDS is a reference in terms of changes in the perception of the links between migration and the transmission of HIV/AIDS. From the stigmatisation of immigrants (foreign populations: to a region, to a country, etc.), the change has now been made towards admitting that migrant populations may be more vulnerable than local populations.

This evolution of the perception of relations between mobility and transmission of HIV/AIDS is therefore more favourable to qualitative or quantitative research which will make it possible to gain a better understanding of the dynamics of HIV/AIDS, its mode and speed of transmission or even of its impact, as well as socio-behavioural aspects favouring its propagation.

V. The contribution of CERPOD through the project “Mobility and HIV/AIDS in the Sahel”

This project studies the relations between HIV/AIDS prevalence rates and migration based on migration survey data of REMUAO and of demographic and health surveys (DHS). Initially the objective was to conduct an exploratory study of data from Mali to replicate the methodology in the other REMUAO³ countries.

V.1 Empirically established links

The demographic and health survey of 2002 in Mali for the first time gathered data on HIV prevalence in the eight administrative regions of the country. Therefore Mali appears as an interesting case for empirically testing the relations between migration and HIV/AIDS. Two approaches are possible. The first consists of calculating the migration indicators at the regional level and to test their relations with the observed HIV prevalence rates. The second approach consists of, for the other countries for which there are no HIV prevalence rates, determining a proxy of HIV prevalence. Two variables were tested as proxies: the variables “knowledge of a person who has

³ These are Burkina Faso, Côte d’Ivoire, Guinea, Mauritania, Niger, Nigeria and Senegal.

died of AIDS or is living with AIDS” and “the number of sexual partners during the last 12 months”. The test of these two variables did not provide conclusive results. We are therefore limited to the correlation of migration indicators with HIV prevalence rates.

Based on information provided by the respondents we have determined different migration statuses from which we have chosen the most recent immigrants and return migrants, that is to say from the 1988-92 period (5 last years before the survey).

An immigrant is an individual who is not a native of the place of the survey and who arrived within a given period. A return migrant is an individual who is a native of the locality who has migrated elsewhere and who returned during a given period. Return immigrants and migrants were first distinguished as return in-migrants or external return migrants (from abroad). In addition, among the return in-migrants or migrants, we made the distinction between those from an urban area and those from a rural area. In all, ten variables were selected and distributed in four groups of sub-populations based on age and matrimonial status. These groups are: men aged from 15 to 34; women aged 15 to 34; unmarried men aged from 15 to 59; unmarried women from 15 to 59.

Our basic premise is that contamination by HIV/AIDS will greatly depend on interactions between sedentary populations and moving populations; thus the importance of a phenomenon such as migration. We formulate four hypotheses:

a) populations from regions with higher migration rates are likely to have high HIV prevalence rates. As a sub-hypothesis, the regions which have more exchanges with foreign countries with a high prevalence are the ones where prevalence will be highest.

b) the second hypothesis takes into account the involvement differential between men and women in the migration process which is a characteristic of the sub-region, in particular concerning international migration. This involvement differential favours a higher HIV prevalence rate for regions with higher male international migration.

c) the third hypothesis refers to risk factors (unprotected sex, drugs, precarious living conditions, etc.). These risks being supposedly greater in urban areas than in rural areas, one may assume that the regions with the highest return migration from urban areas are those where HIV prevalence rates are highest.

d) Lastly, taking into account the mode of HIV/AIDS transmission which is essentially heterosexual and the fact that unmarried people have relatively more partners than married people, one may assume that the rates of HIV prevalence will be higher among unmarried people. In the same way young adults being relatively more sexually active, even if they have been less exposed than the eldest, may have higher HIV prevalence rates.

After having tested the correlation between each of these variables and HIV prevalence rates we presented the level of “significance” and the direction of the correlation in Table 1. Let’s first take immigration. On the whole, the immigration rate is significantly correlated with HIV prevalence irrespective of the type of population. This correlation seems stronger for unmarried women. By distinguishing in-migrants from foreign immigrants, the correlation remains significant in both cases and

particularly in the case of foreign immigrants among unmarried men. When in the case of in-migrants one takes into account the place of provenance, the correlation with HIV prevalence is noted for immigrants from rural areas, irrespective of the sub-population, especially for men. In-migration from urban areas is only significantly correlated with HIV prevalence for women aged 15-59.

Since they concern return migrations, most of the rates do not seem significantly correlated to HIV prevalence. The only exception is the rate of return migrants from abroad and that of men aged between 15 and 59.

In the light of these findings, most of our hypotheses seem to be confirmed under the condition of being a little more balanced as in the case of the first hypothesis. More than anything else it is immigration that explains the reason for the rate of HIV prevalence, rather than return migration. But the fact that the international component of this migration is more strongly correlated with HIV prevalence somewhat confirms this first hypothesis.

Concerning the second hypothesis, the greater involvement of men in international migration is reflected by the stronger correlation between the rates of external immigration and HIV prevalence among them.

As for the third hypothesis, it does not seem to be confirmed since it is more in the regions with high immigration of rural origin that one observes the highest rates of HIV prevalence. The migration flow from rural to urban areas being highest inside the country one might, in a tautological manner, think that urban areas generally have the highest rates of HIV prevalence in the country. But if there are rural areas with high rates of immigration of rural origin, the explanation is to be found elsewhere.

For the last hypothesis, the aim is not to compare HIV prevalence of these sub-populations but rather to know if the migration rates of unmarried populations or of young people are more strongly correlated with HIV prevalence. No conclusion may be drawn since the same degree of "significance" is observed of correlation among different sub-populations.

V.2 Contribution of socio-demographic and behavioural research in the fight against HIV/AIDS:

a) The need to develop socio-demographic and behavioural research

The theoretical links formulated between the expansion of HIV/AIDS and migration seem to be confirmed empirically. Insofar as these links are established, it remains to be seen whether socio-demographic and behavioural research can contribute efficiently to the fight against the expansion of HIV/AIDS. Concerning this, determining levels and trends and the analysis of determining factors are necessary contributions. However, research in this area is only beginning. It is confronted with the problem of a lack of data. The epidemiological data available are most often collected from among certain sub-populations more at risk (prostitutes, pregnant women, truck drivers, etc.). They are not representative of the national level and do not therefore allow to conduct more global systematic analyses. The recent initiative conducted within the framework of the DHS surveys is salutary but remains very limited. As for censuses, they are more difficultly financed which makes it more difficult to include in them questions specifically targeting issues such as STDs and HIV/AIDS.

It is therefore with incomplete data that models are resorted to in an effort to measure rates and trends in the epidemic. This constraint explains why projections beyond 5 years are not very reliable.

Concerning the analysis of the determinants and of the social factors for the propagation of the disease, the situation is worse. It is therefore indispensable to make efforts towards collecting more complete data concerning the sentinel sites and national survey data more focused on the behaviours and attitudes of populations, including data on sexual behaviour.

The analysis of this type of data will make it possible to identify more precisely the causes and the determining socio-economic factors and to measure the implications on the different sectors of the economy.

b) The need to develop a regional response

Mobility, whether of short or long duration, increases the occasions for sexual relations with different partners, an important factor in the propagation of HIV/AIDS. Whereas the analysis of the situation regarding the epidemic as well as the scale of the responses provided are defined in terms of national contexts, the history of the pandemic suggests that contamination is also, if not principally, due to international interactions. However, few actions have been undertaken in Africa to implement a regional response. The project for the prevention of STD/HIV/AIDS on the Abidjan-Lagos immigration route which is being implemented with the support of the World Bank, is a premier in the sub-region. The UNAIDS Inter-Country team for West and Central Africa which initiated it is actively working at duplicating such an initiative on routes which are just as important, such as the Dakar-Bamako and Bamako-Ouagadougou-Abidjan routes.

One of the shortcomings observed at the level of the programmes in the fight against HIV/AIDS is the almost general absence of follow-up for performance evaluation. Due to the urgent implementation of programmes these are rarely preceded by the constitution of a database and of socio-economic indicators making it possible to measure performances at the end of the programme. Thus, for future regional programmes to be able to fully meet their objectives it is indispensable to build a regional database which would come from the systematic analyses of the living conditions of the populations, attitudes and behaviours concerning HIV/AIDS, without forgetting the analysis of matrimonial and sexual behaviours. It is based on such data that relevant indicators may be selected.

Conclusion

HIV/AIDS prevalence rates in West Africa are among the lowest on the continent. Except for Côte d'Ivoire with 9.7% and Burkina Faso with 6.5%⁴, most of the countries have rates which hardly reach 3%. In spite of these relatively low rates compared with certain South African countries, it is very likely they are undergoing an increase due to certain aggravating factors such as migration, of which the link with the expansion of the AIDS pandemic is increasingly being acknowledged. However, West Africa is a region where migration dynamics are intensifying, with as a main

⁴ The rate for Côte d'Ivoire are for 2002 and concerns adults aged 15-49; the rate for Burkina Faso is for 2001 and concerns the population as a whole.

characteristic the increased involvement of women and young people who are most vulnerable to HIV/AIDS.

With the REMUAO survey data the relation between HIV prevalence and mobility has been established empirically. We have thus noted the strong correlation between immigration rates and HIV prevalence. But beyond the confirmation of this link between mobility and HIV/AIDS, many efforts remain to be made so that socio-demographic and behavioural research can help effectively in the fight against the pandemic. The analysis of the relations between the expansion of the AIDS pandemic and mobility requires data at a larger scale on the living conditions of these populations, the migration and marriage histories, etc. In addition to the analyses these types of data allow, a better knowledge of behaviours, and more specifically sexual behaviours, will play a crucial role in a context of globalisation characterised by important migration dynamics in which the emergence of sub-cultures creates new contexts for behaviours and sexual relations.

Lastly, it is important that initiatives being implemented against HIV/AIDS should include the regional dimension. These initiatives will have a greater impact if the programmes move towards an institutionalisation of research and the gathering of data so as to either develop evaluation units within them or to strengthen existing evaluation units.

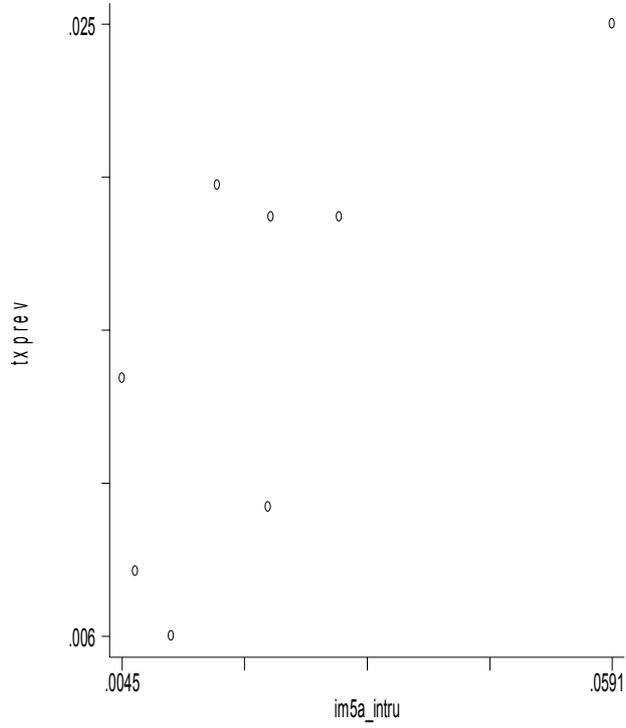
Table 2: Migration variables correlated with HIV prevalence by region, significant regression factors.

Variables	Men				Women			
	Total		Unmarried		Total		Unmarried	
	15-34	15-59	15-34	15-59	15-34	15-59	15-34	15-59
Immigrants aged < 5	10 p	10 p	10 p	10 p	10 p	10 p	5 p	5 p
Return migrant aged < 5	ns	ns	ns	ns	Ns	ns	ns	ns
In-migrants aged < 5	10 p	10 p	10 p	10 p	10 p	10 p	10 p	10 p
Immigrants from abroad aged < 5	10 p	10 p	5 p	5 p	10 p	10 p	ns	10 p
Return migrants aged < 5	ns	ns	ns	ns	Ns	ns	ns	ns
Return migrants from abroad aged < 5	ns	5 p	ns	ns	Ns	ns	ns	ns
In-migrants from urban areas aged < 5	ns	ns	ns	ns	10 p	10 p	ns	ns
In-migrants from rural areas aged < 5	5 p	5 p	5 p	5 p	10 p	10 p	10p	10 p
Return migrants from urban areas aged < 5	ns	ns	ns	ns	Ns	ns	ns	ns
Return in-migrants from rural areas aged < 5	ns	ns	ns	ns	Ns	ns	ns	ns

Notes: the figures in the cells indicate the level of significance (at 10 or 5%; ns: non-significant); the letter indicates the direction of the correlation (p for positive).

Men aged 15-34

Men aged 15-59



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ANNEX: Relations of some migration variables with HIV prevalence rates

(Total number of men aged 15-34)

. regress txprev im5a

Source	SS	df	MS	Number of obs =
Model	.000144851	1	.000144851	8
Residual	.000168024	6	.000028004	F(1, 6) = 5.17
Total	.000312875	7	.000044696	Prob > F = 0.0633
				R-squared = 0.4630
				Adj R-squared = 0.3735
				Root MSE = .00529

txprev	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
im5a	.0885396	.0389303	2.27	0.063	-.0067193 .1837986
_cons	.0089449	.0032992	2.71	0.035	.0008722 .0170177

. regress txprev im5a_int

Source	SS	df	MS	Number of obs =
Model	.000137854	1	.000137854	8
Residual	.000175021	6	.00002917	F(1, 6) = 4.73
Total	.000312875	7	.000044696	Prob > F = 0.0727
				R-squared = 0.4406
				Adj R-squared = 0.3474
				Root MSE = .0054

txprev	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
im5a_int	.1044549	.0480494	2.17	0.073	-.0131176 .2220274
_cons	.0089256	.003432	2.60	0.041	.0005278 .0173234

. regress txprev im5a_etr

Source	SS	df	MS	Number of obs =
Model	.000125386	1	.000125386	8
Residual	.000187489	6	.000031248	F(1, 6) = 4.01
Total	.000312875	7	.000044696	Prob > F = 0.0920
				R-squared = 0.4008
				Adj R-squared = 0.3009
				Root MSE = .00559

txprev	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
im5a_etr	.504522	.2518645	2.00	0.092	-.1117682 1.120812
_cons	.009487	.0034392	2.76	0.033	.0010716 .0179023

. regress txprev im5a_intru

Source	SS	df	MS	Number of obs =
Model	.000173013	1	.000173013	8
Residual	.000139862	6	.00002331	F(1, 6) = 7.42
Total	.000312875	7	.000044696	Prob > F = 0.0344
				R-squared = 0.5530
				Adj R-squared = 0.4785
				Root MSE = .00483

txprev	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
im5a_intru	.2170355	.0796649	2.72	0.034	.0221026 .4119684
_cons	.0103421	.0024487	4.22	0.006	.0043504 .0163338