

## Short Communication

# Sexually transmitted infections in an African migrant population in Portugal: a base-line study

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### Abstract

**Background:** For geographical and recent historic reasons, Portugal is a gateway and home for immigration from sub-Saharan countries. Misconceptions related to these populations often lead to consider them as high-frequency clusters for dissemination of sexually transmitted infections (STIs). Epidemiological evidence-based data is needed to elucidate these issues and baseline prevalence studies are the starting point for this.

**Methodology:** A prospective study was conducted in 220 African migrants (171 men and 49 women), recently arrived in Portugal, at the time of their first consultation. The presence of STIs was evaluated using a clinical syndromic approach and biological confirmation for gonorrhoea, *Chlamydia trachomatis* genital infection, syphilis, Hepatitis B and Human Immunodeficiency Virus (HIV) infection.

**Results:** Global prevalence of the targeted infections were 1.8% for gonorrhoea, 0 % for Chlamydia infection, 4.1% for Syphilis, 5.9% for HBsAg presence and 7.3% for HIV infection. Globally, 16.4% of the studied persons had at least one sexually transmitted infection.

**Conclusions:** We concluded that prevalence rates encountered in this population is similar to that of non-migrant Portuguese populations with a high risk for sexually transmitted diseases. Therefore migration from sub-Saharan Africa doesn't seem to constitute a particularly critical isolated factor for public health risk of STIs in the community.

**Key Words:** STIs, Migrants, African, Prevalence, Portugal.

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### Introduction

Due to geographical and recent historic reasons, Portugal is a gateway and home for immigration from sub-Saharan countries. In fact, after a recent decolonization process, a constant migratory flux to Portugal was maintained from sub-Saharan Portuguese-speaking countries, as well as from surrounding African countries that share the same migratory routes. These migratory phenomena are generally based on economical and conflict-generated factors, and do not have distinctive features when compared to other southern European countries.

Misconceptions related to these populations often lead to consider them as high-frequency clusters for dissemination of sexually transmitted infections (STIs). Rather than to the migrant status, higher prevalence rates of STIs in some previous studies including these populations seem

to be more associated with economical status and social factors (sex workers, gender issues). Furthermore, comparative studies on STI prevalence in migrants including other geographical origins do not show a higher prevalence of these infections in African migrants. Nevertheless, it is still often assumed that migration is associated with a higher transmission risk of STIs, especially in African migrants.

For several reasons, data on STI prevalence in Portugal is scarce, and recognized as such by health authorities. In order to correct eventually biased views that influence health strategies and policies, evidence-based data is needed. Baseline prevalence studies are the starting point for this. The aim of our study was to evaluate, using clinical diagnosis and biological confirmation, the prevalence of STIs in recently arrived African migrants.

**Materials and Methods**

*Population*

Two hundred and twenty African migrants were voluntarily enrolled in the study. After signing an informed consent formulary, they were submitted to medical consultation and examination, following a standardized questionnaire that was developed for the study. Specific questions were included in the questionnaire to document past history of sexually transmitted infections, sexual partners, gynaecological and obstetric background in women, and substance use. Included persons were recently arrived in Portugal (mean = 1.2 months), being 171 men and 49 women with a mean age of 33.1 years. The most frequent countries of origin were Sierra Leone (n=65, 30.1%), Angola (47/21.7%), Guinea-Bissau (21/9.7%), Nigeria (14/6.5%), and Liberia (12/5.6%).

*Methods*

From each individual, blood samples were taken for serologic tests and genital swabs (urethral from men and cervical and vaginal from women) were obtained and processed for biological research of infection by STI agents, as described before [1,2]. For blood samples, serum was obtained by centrifugation and stored at -20°C until batch testing was performed. Swabs were processed and microscopy, IFD and cultures were made on a same-day basis, according to standard routine methodology. In short, for syphilis serology we used R.P.R. (rapid plasma reagin test) from Melotec® as a screening test, followed by T.P.H.A. (Treponema pallidum Haemagglutination Assay) PHASYL 210 from Diagast Laboratories® for confirmation of positive cases. For Hepatitis B surface antigen detection we used an E.L.I.S.A. Melotest HbsAg from Melotec Biotechnology®. For HIV infection, anti HIV I and II antibodies were detected with ELAVIA Ac (Diagnostics Pasteur®), with confirmation of positive cases by Western blot, using New Lav Blot II (Sanofi Pasteur®). Neisseria gonorrhoea infection was detected by Gram stain of urethral/cervical swabs followed by culture in NYCM (New York City Medium) and identified using biochemistry classical tests and API NH ®. Chlamydia trachomatis infection was detected by IFD kit from BioMerieux®.

Data analysis was carried out from a protected Access® database, using SPSS® from SPSS Inc.

**Results**

Our results showed that 16.36% of the migrants had at least one of the considered sexually transmitted infections, with the frequencies described in Table 1. There were no significant differences or correlations between infection and considered risk factors, including sex, age, education, country of origin, and number of sexual partners in the previous 6 months.

**Table 1.** Population characteristics and detected STIs by sex.

Parameters	Men n=171		Women N=49		Global N=220	
	mean	s.d.	mean	s.d.	mean	s.d.
Age	28.25	9.74	32.73	12.05	29.25	10.15
Months after arrival	5.67	12.9	9.32	16.60	6.21	13.60
School years	7.62	5.18	7.67	3.62	7.63	5.02
Sexual partners in the last 6 months	1.93	2.48	0.86	0.36	1.82	2.37
	N	%	n	%	n	%
Married	37	21.6	7	14.3	44	20
Employed	13	7.6	5	10.2	18	8.2
Attended National Health Service	1	0.6	0	0.0	1	0.5
Regular use of condoms	1	2.0	2	1.2	3	1.4
Reports family separation/rupture	90	52.6	10	24.0	100	45.5
Reports STI before	47	27.5	3	6.1	50	22.7
STI detected	30	17.5	6	12.2	36	16.4
Gonorrhoea	4	2.3	0	0	4	1.8
Chlamydia infection	0	0	0	0	0	0
Syphilis	8	4.7	1	2.0	9	4.1
Hepatitis B	12	7.0	1	2.0	13	5.9
HIV infection	12	7.0	4	8.2	16	7.3

**Discussion**

Our study population constituted young and sexually active sub-Saharan persons. The global prevalence of the considered STIs and their distribution agree with the known general prevalence rates of those of the countries of origin of the study participants and similar studies on migrants. Although the surveillance system of STIs is a recent acquisition in Portugal, making projections and comparative studies difficult, the

detected infections in this population seems to match that of high-risk European groups [3].

The STI detection levels were lower than expected for classical curable infections (gonorrhoea and *Chlamydia* infection) and slightly higher than expected for serological detectable infections (syphilis, hepatitis B and HIV infection). Infections were likely acquired at the country of origin, rather than during migration, since acute infection was only present in a few detected cases of gonorrhoea. Higher prevalences verified in men can reflect higher sexual activity and partner rates, cultural factors, and mirror gender differences encountered in non sex workers migrant studies.

The prevalence of STIs in our study's population equals that of non-migrant risk populations in Portugal, as are the cases of jail populations and sex workers, although they are all significantly higher than that of the general population [4].

Migration, as an isolated factor, does not seem to influence the prevalence of STIs; however, even in the absence of national data that enables comparisons, high levels of HIV and Hepatitis B virus carriers match data from high-risk populations described before in Europe.

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**Conflict of interests:** The authors declare that they have no conflict of interests.