TOGETHER PROJECT

Action Research with sub-Saharan African Migrants to improve HIV prevention through a better understanding of the HIV epidemic

FINAL REPORT





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TOGETHER Project Action research with sub-Saharan African migrants (SAM) to improve HIV prevention through a better understanding of the HIV epidemic

Final report

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List of abbreviations

Acquired Immunodeficiency Syndrome
Community Advisory Board
Community based participatory research approach
Community Researchers
Greater involvement of people living with HIV AIDS
Human Immunodeficiency Virus
Men having sex with men
Prioritising local AIDS control efforts
sub-Saharan African migrants
Time location sampling

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1. Introduction

"Know your epidemic, know your response", has become UNAIDS' guidance for intensifying HIV-prevention [1]. Sub-Saharan African Migrants (SAM) are the second largest group affected by HIV/AIDS in Belgium [2,3], yet knowledge on the population's HIV-prevalence and the underlying factors that shape the HIV-epidemic in the SAM communities are scarce. This limits the development of targeted primary prevention interventions. Such interventions have gained in importance, since recent evidence shows that increasing proportions of SAM acquire HIV in their European host countries [4-8]. To address this knowledge gap and improve primary prevention for SAM, we developed and implemented the TOGETHER Project. This project was supported by the Fund for Scientific Research on AIDS (call 2011) which is managed by the King Baudouin Foundation. This final report presents the proceedings of the project and its main findings. First we will give some background- and context description to frame this action research project (labelled as 'TOGETHER Project') and clarify its rationale. Next, the project's methodologies and different study components (or sub-studies) will be described. For each sub-study we will firstly outline the methods, and discuss the findings. We will finish with recommendations for future HIV-prevention based on the project's findings and community actions already undertaken during the course of the last three years.

1.1. HIV in Belgium's African communities: "What do we know?"

In Belgium, 27% (N:230) of the newly reported HIV-diagnoses in 2013 were of sub-Saharan African origin [9]. Since in 24% of all reported cases data on country of origin was missing, it is assumed that the overall number of new HIV diagnosis among SAM might be underestimated. Yet, it is clear that as communities of SAM are small, 1.6% of the Belgian population, HIV disproportionately affects them.

Reported characteristics of newly diagnosed SAM in Belgium are in line with the generalised epidemic in sub-Sahara Africa. In 2013, the majority (64%) were women, heterosexual contact was the main transmission mode (89%) and most (78%) were diagnosed between 20 and 45 years. Patients stemmed from 31 different countries, the largest groups coming from Cameroon (18%), DRCongo (12%) and Guinee (9%) [personal communication Sasse, 2015]. As in other European countries [2], HIV infections among SAM were usually diagnosed late. Of newly diagnosed SAM, 50% were late presenters, i.e. their CD4 cell count was < 350/ml

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at the time of first diagnosis in Belgium [9]. According to CD4 cell decline simulations this means that they are diagnosed in Belgium at least 4 years after their infection [10]. Yet, prior diagnosis in the country of origin or other European country cannot be excluded. A study in Brussels and Northern France, also showed that early HIV-diagnosis does not automatically translate into direct linkage to care among SAM: nearly 17% of patients with advanced HIV disease where diagnosed earlier but delayed initiation to care [11]. Late diagnosis and delayed initiation of care do not only affect disease prognosis [12], life expectancy [13] and health care costs [14-16], they also bear an increased risk for onwards HIV-transmission due to the prolonged period of unawareness of HIV-status [17,18].

Belgian surveillance data show that 10.4% of all SAM diagnosed in 2013 report having acquired HIV in Belgium. Yet, this is based on the physicians' assessment at diagnosis and data are missing for 30% of cases [9]. Evidence from other EU countries suggests that this might be an underestimation. An Italian study among newly arrived immigrants first suggested that HIV-infection is more often acquired in the host country than previously estimated [6]. A study among newly diagnosed Africans in London specified that a quarter to a third of all HIV-positive Africans residing in the UK, and nearly half of HIV positive African men who have sex with men (MSM), were likely to have acquired HIV in the UK [5]. Mathematical modeling on UK's national HIV-diagnosis data of heterosexuals born abroad suggests an increasing trend. While in 2004 an estimated 24% had acquired HIV after migration in the UK, this rose to 46% in 2010 [4], which accounts for an absolute increase of 16.5%. Preliminary results from applying the same mathematical model on Belgium's national HIV surveillance data suggest that among the patients newly diagnosed in 2011 28% (IQR 24%-33%) of the non-Belgium born heterosexuals and 39% (IQR 32%-47%) of non-Belgian born MSM could have acquired HIV in Belgium [7]. The closely knitted sexual networks of SAM [19] combined with structural vulnerability related to migration context [20,21], may contribute to increased risk for HIV-infection among SAM residing in Belgium.

1.2. Knowledge gaps for effective HIV prevention: "What we lack in our understanding of the HIV epidemic among SAM?"

HIV-prevention comprises of the continuum of positive prevention, promotion of HIVtesting and primary prevention. Yet in Belgium [22] and our neighbouring countries [23], in the last decade the preventive focus at the community level mostly has been on the the promotion of HIV-testing and early linkage to care. Deepened understanding of SAM's increased risk of being diagnosed late and the barriers and facilitators towards HIV-testing uptake [2,24-26] led to the development of multiple HIV-testing promotion strategies [14-16].

Preventing new HIV-infections or primary prevention among SAM has received less priority because traditionally the HIV-epidemic in the African diaspora in Europe was understood to be an imported epidemic [27]. Evidence of SAM acquiring HIV after migration put the need for tailored primary prevention interventions back on the agenda [4,5]. However, a number of gaps in in-depth understanding of transmission dynamics still exist. First, HIV-prevalence estimations for a representative sample of the SAM communities in Europe are lacking, complicating HIV-risk assessment and awareness raising in the communities. SAM have mostly been sub-groups in studies on HIV-prevalence among other target groups, like immigrant female sex workers [28], MSM [29], recently arrived migrants [6] and immigrants [30-34] . Only one study conducted in 2004 among 1359 black Africans in London, Luton and the West-Midlands (MAYISHA II), provided HIV-prevalence estimates of 14% [35]. Yet, the MAYISHA II study did not include a representative sample: a convenience sample of recruitment sites was used and over-sampling of HIV-positives could not be excluded [4,5]. Secondly, estimates on the proportions of SAM with undiagnosed HIV are lacking. In Europe, one third of persons living with HIV are assumed to be unaware of their HIV-status [21]. Some of the above mentioned HIV-prevalence studies provided indications that this might be higher among SAM e.g.: the MAYISHA II study found that 66% of positives did not report their HIV-status on the questionnaire [35].

Thirdly, previous research has mainly focused on SAM's individual knowledge, attitudes and practices related to sexuality and HIV-preventive behaviour, thus underestimating the social, cultural, religious and migration related contexts which increase vulnerability with respect to HIV [36]. Studies from the UK and the Netherlands have underlined SAM's preference for the heterosexual, monogamous standard [35]; yet high number of partners

(lifetime [37] and past year [30,35]), concurrent relationships and sex when travelling to home countries [30,34,37] are frequently reported, especially among men. This increased individual sexual risk behaviour has been linked to higher rates of STIs among SAM [34,37-39]. Several studies have shown that SAM's condom use is relatively high in comparison with the West-European population, yet low considering their potential risk [40]. Africans' belief that risk can be avoided by carefully choosing one's partner [40], that condoms are associated with infidelity and reduced sexual pleasure have contributed to perceiving condoms as inappropriate for long-term relationships [39,41-43]. Although these studies have been useful to identify sexual risk patterns, they paid little attention to diversity among sub-groups [36], and contextual factors influencing sexual behaviour and thus may be of limited use to develop and implement effective campaigns aiming to reduce HIV-infection risk [44,45].

1.3. SAM communities in Antwerp city

Although small in numbers, SAM communities are characterised by a high degree of heterogeneity due to for instance diverse ethnic and cultural backgrounds, different migration patterns and residence statuses, educational and socio-economic backgrounds, and religious beliefs [22, 45]. Of the 175.000 SAM officially living in Belgium, about 17.400 (10%) are residing in Antwerp city [City of Antwerp, Studiedienst Stadsobservation, e-mail communication of 23 May 2012]. These numbers include SAM who obtained the Belgian nationality, second generation Belgian-born children with SAM parents, registered migrants and SAM, whose residence procedure is pending. SAM of undocumented legal status are absent from these statistics. Almost half (47%) of SAM in Antwerp city originate from three countries: the DR Congo (18.8%), Ghana (17.5%) and Nigeria (10.7%). Apart from these three main nationalities, 43 other nationalities are living in this area. In spite of their heterogeneity, SAM communities are fairly homogeneously organised. For many SAM their nationality and/or ethnicity shape their social life. As new migrants they depend on the social support of their compatriots to get settled [47]. As established migrants they engage in social and cultural networks and use them to look for marriage- and sex partners [30]. Although these ethnic networks can be described as tight, they are not ethnically segregated. Different ethnic groups mingle at commercial and social venues and events. To

reach the different communities with HIV-prevention activities, partnerships with leaders (i.e. of socio-cultural or spiritual organisations and owners of the commercial settings) are essential [22,48,49].

Many SAM are living in socio-economic vulnerable and legally unstable conditions. Together with the prevalent HIV-related stigma and the culturally grounded taboo on sexuality, this translates in little demand for HIV-prevention [49,50] yet it may increase their risk for HIV-acquisition [48].

2. TOGETHER Project

2.1. Objectives

The TOGETHER study's overall aim was to increase the communities', researchers' and policymakers' in-depth understanding of the dynamics of the HIV-epidemic among SAM to improve primary prevention interventions. This translated into the following objectives:

- 1. To assess the HIV prevalence and the proportion of undiagnosed HIV-infections among SAM socialising in community settings in Antwerp city.
- 2. To identify individual, community level and structural risk factors for HIV-infection among SAM.
- 3. To identify priority settings and groups for future primary HIV prevention interventions.
- 4. Increase community ownership, -involvement and –mobilization for HIV prevention.
- 5. Develop policy recommendations to improve HIV prevention for the target group of SAM.
- To assess the feasibility and acceptability of community based participatory research on HIV prevalence in the SAM communities and the adopted research tools.

2.2. Overall study design

To meet these objectives the TOGETHER Project applied mixed methods and a community based participatory research approach (CBPR) [51]. The main study was a cross-sectional community-based bio-behavioural survey on HIV-prevalence and HIV risk factors among SAM visiting community settings in Antwerp city (referred to as the 'HIV-prevalence study' in this article). To inform its design, three formative sub-studies were conducted. First, a social map of SAM community settings in Antwerp city was developed applying an adaptation of the PLACE Method [52,53]. Second, factors that increase SAM's risk of HIV infection were assessed using a multiple case study design. The third sub-study assessed the acceptability and feasibility of using oral fluid collection devices in community venues through participatory observations including informal interviews.

TOGETHER Project **Developing collaborative partnerships** Consultation round Community based participatory approach: CAB and CRs team \rightarrow Objective 4 and 6 **Formative research** 1. Social map of SAM 3. Acceptability of oral fluid 2. Factors community venues sampling in SAM settings increasing HIV risk \rightarrow Objective 3, 4 and 6 \rightarrow Objective 2, 3 and 6 \rightarrow Objective 6 **HIV-prevalence study** Cross-sectional study Two-stage time location sampling Behavioural data: electronic questionnaire Biological data: oral fluid samples \rightarrow Objectives 1, 2, 3 and 6 **Improve primary HIV prevention** Objectives 4 and 5

2.3. Developing collaborative partnerships

2.3.1. Methods

To account for the heterogeneity of the Antwerp's SAM and ensure that the study methods and tools are acceptable for all sub-groups (objective 6), we chose a community based participatory approach [51]. This was also in line with the KBS call 2011 on Action Research. This methodology allows for increasing community ownership, -involvement and mobilisation for HIV-prevention (objective 4) throughout the research process. In practice, community members were involved in all steps of the project, from conceptualisation over data collection to development of new interventions and policy recommendations. We established collaborative partnerships both with research experts and the communities [54], by engaging a team of Community Researchers (CRs) and setting up a Community Advisory Board (CAB). The CAB hosted both leaders of African organisations and a multidisciplinary group of professionals. The CRs were nine lay community members, who were trained at the start of the project and continuously coached throughout the whole process. To reflect the communities' diversity, the CR team was diverse in its' composition, i.e. an appropriate mix of men and women, different ages, different origins, long term residents and newcomers, employed and unemployed, and of different HIV-statuses. In line with the GIPA (Greater Involvement of People living with HIV/ AIDS) principles [55], we actively recruited SAM living with HIV for the CRs' team.

2.3.2. Project proceedings

In January 2012, we started the project with a *consultation round*. In total, we conducted 17 key informant interviews with different stakeholders: Leaders of African social-cultural organisations involved in HIV-prevention volunteers, patients of a support group for African migrants, health professionals of the AIDS reference centre and the low-threshold HIV-testing center, collaborators of Sensoa (i.e. the Flemish expert centre for sexual health), Gh@pro (health centre for sex workers) and the City of Antwerp, namely the service sexual and preventive health and *"levensbeschouwingen"* (philosophies of life). Their insights led to the refinement of the study objectives and outline. Another source that was used to refine the study objectives was a literature review, which was conducted at the start of the project.

Following the consultation round, a **CAB** was established, which consisted of community members (see below) and a multidisciplinary group of professionals (academics and service providers). Throughout the project the CAB met five times, the first time in June 2012 and the last time in October 2014.

Parallel to the consultation round we launched a call for volunteer **CRs** in the communities and the AIDS Reference centre. In a first phase, between February and May 2012 we interviewed 13 applicants, of whom six were retained. As two people moved (to Canada and East-Flanders) during the course of the project, and the HIV-prevalence study was more labour intensive than expected, additional CRs had to be recruited. In the end, the team consisted of 8 CRs and 2 study assistants (of which one as internship via OCMW art. 60). The groups' diversity was essential for the cultural appropriateness of the project, in particular to gain access to hidden and hard-to-reach sub-populations of the SAM communities. The CRs had their own team-meetings and participated also in the meetings of the CAB. Through these channels they gave input into the study methods and tools of formative study 1 (social mapping of community settings) and the HIV-prevalence study. Based on these, standard operations procedures (SOP) were developed and the CRs were trained in carrying out the research according to these SOPs. Training was an essential and labour-intensive part of the project to assure its quality: For formative study 1 the CRs received 18.5 hours of training, for the HIV-prevalence study (when they had acquired interviewing skills already) 12 hours. Where necessary, separate training moments were organized for French and English speaking CRs. Whenever necessary, additional training moments were conducted to respond to the needs of the CRs as well as to the standard of scientific rigour. In total, 50 hours of training were given. In addition to the trainings, the CRs were individually coached and supervised to address their personal skills building needs and discuss problems with data rigour, if any.

2.4. Formative research

Motivations for investing in extensive formative research were threefold: due to the existing knowledge gaps, the formative research was essential to enable us to take evidence-based decisions on how to best design the sampling frame and assess the feasibility of the sampling methods and some data collection tools. Since the TOGETHER Project aimed to improve future primary HIV-prevention, the results of the formative studies contributed not only to the development of future interventions but also to their implementation through newly established community contacts and networks created through the study. In addition, the formative studies enabled us to contextualise and triangulate the quantitative results of the HIV-prevalence study.

2.4.1. Formative study 1: Social mapping of sub-Saharan African community venues in Antwerp city

2.4.1.1. Methods

This study ran from June 2012 until June 2013 and had the triple objective of (1) determining the sampling frame for the HIV-prevalence study, (2) identifying priority settings for future HIV-prevention and (3) increasing communities' ownership for it.

To account for the heterogeneity of the SAM communities and ensure inclusion of hidden sub-populations, like for example SAM of undocumented status or MSM, we chose for the systematic approach of the PLACE Method (Prioritising Local AIDS Control Efforts). Guided by epidemiological theories, the PLACE Method has been developed and widely used to monitor and improve AIDS prevention program coverage in areas where HIV-transmission is most likely to occur, e.g. by identifying venues where people meet sexual partners. It is a five-step method adopted for surveillance studies, intervention design, programmatic upscaling and community mobilization [52,53,56-58]. We also adapted the method contingent to our objectives. We adopted step 1 to 3, step 4 and 5 were replaced by the HIV-prevalence study (see below).

In step 1, "identifying a priority prevention area", Antwerp city was selected based on demographic and epidemiological aspects: 22% of all SAM in Flanders live in Antwerp city [59] and, according to data available at the time, in 2010 43% of all newly diagnosed SAM in Flanders lived in Antwerp province. In step 2, "community informants", i.e. adults who are knowledgeable about the community, were being interviewed. Participants were asked

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where SAM socialise, and where they meet new sexual partners. We collected the names and addresses or directions to of all kind of publicly accessible meeting places, such as bars, churches, shops, hair salons, parks, streets, squares, events, festivities of African organisations, etc. A convenience sample of community informants with different behavioural- and socio-demographic characteristics, of different professions and community leaders of different origin, residing in different city districts, were interviewed to assure representativeness. After reaching saturation, duplications were removed from the compiled inventory of places and a consolidated list was generated. In step 3, all venues, areas and events on the list were visited for a verification interview. Structured questionnaires were used to assesses the settings' activities, public, the busiest days and hours, existing HIV-prevention programs and collect information on additional settings. The study protocol of this first formative study was submitted to the Institutional Research

Board of the Institute of Tropical Medicine for ethical approval and received a positive advice (ITM- IRB protocol 12 221 826). The protocol is available upon request.

2.4.1.2. Findings

For step 2 of this first formative study, 223 "community informants" were interviewed about their knowledge of community settings in Antwerp city. Between June 2012 and December 2012 we interviewed people with different profiles considering occupation, socio-demographic characteristics and leadership. The tables in annex 1 demonstrate that the study participants are representative for the SAM communities residing in the city of Antwerp, in terms of their origin, gender and age. To ensure the geographical spread of the settings over the city, we conducted interviews in the different districts of Antwerp city. In total, the community informants mentioned 762 public settings. Often the community informants mentioned as for) private gatherings such as weddings, funerals or family gatherings. Such events were not included in the list.

After removing duplications, this resulted into a consolidated list of 175 venues, 31 areas and 33 events. We were able to conduct verification interviews with representatives of 167 settings of this total universe of venues. Some of the places on the consolidated list were closed down, had moved outside the research area, were double entries (i.e. under different names) or persons responsible for such settings (e.g. managers or owner) refused to be interviewed. At few instances, interviewees pointed out new places which were also included. Altogether, we conducted verification interviews with 45 bars 28 churches, 42 African organisations, 29 public places (like public squares, parks, street corners and other public places),11 hairdressing salons, 5 shops and 9 other settings. These settings were concentrated in Antwerp North around the 'De Coninckplein'. Most were relatively new businesses and organisations with a limited number of clients at the busiest moments, mostly at weekends, around Christmas and Summer time (table 7, annex 2). Most venues were not exclusively visited by SAM but by other migrants and Belgians as well. Just a few venues were visited by only one community (e.g. the Congolese or Cameronese people). Most owners/responsible people reported their clients/members to be living in Antwerp city. Women are attending church, while men can be found more frequently in bars. 43% of the venues the interviewee mentioned that SAM would come with the purpose to find casual partners, 24% said sex workers are soliciting clients in their setting. See table 8 of annex 2 for more detailed descriptions of the study settings.

This formative study also delivered valuable lessons about the data collection methodology, i.e. conducting interviews in the SAM communities through community members (i.e. the CRs) and the data collection device, i.e. using tablet computers. While we chose the latter to assure data quality (e.g. confidentiality of data collection, automatic export to data base without having to enter data manually, validity of the data), it revealed a high level of distrust in the community. This distrust originated from a.o. migration issues and changed policies affecting migrants. Previous problems with the Belgian administration appeared not to be uncommon and led to concerns about providing data and the data handling. *"Why don't you go to the OCMW to ask my info, they already know everything about me"*, was a typical reaction. SAM with a pending asylum procedure were particularly cautious.

Some SAM had the feeling that the current city administration was targeting them; the following quote may illustrate that: *"Is the new mayor sending out researchers for his new term of office?"*¹ The Antwerp *"war on drugs"* was perceived as negatively affecting bars, the increased controls of church buildings forced churches to close down or move. Furthermore, an increasing number of stories about SAM losing their tentative residence permits was causing unease. Trust towards Belgians and institutions was therefore not

¹ At the start of the verification interviews, a new governmental team had just entered office in Antwerp city (January 1st, 2013)

always evident during recruitment of potential study participants. This distrust seemed also to affect the relationships between community members. Sometimes this may also have been rooted in African politics: *"people think you are a spy of the government. Many people are political refugees, they are afraid of the regimes back home"*. Quotes like this one illustrate the pressure on the community. Due to individual coaching of the CRs and regular CRs' team meetings, the CRs have gained experience in addressing this caution by clearly identifying themselves as working with ITM (well-known and respected in the community), clarifying a neutral position with no link to whichever governmental institution, explaining the study's potential benefits for the community (i.e. helping the community by improving HIV prevention), explaining the objectives of the study and why it was sometimes necessary to ask sensitive questions, while at the same time emphasising the study participants' rights to refuse to answer any questions they felt uncomfortable with, addressing questions and comments, investing in building "rapport" before conducting the actual interview and thus assuring confidentiality and anonymity.

To reduce missing data and simplify data entry, we used electronic questionnaires (www.dooblo.com) on tablets in the second step of the study. The use of this software improved data rigour, due to built-in skip-patterns and validity checks. Among some interviewees the use of tablets also increased trust in the scientific nature of the study, mainly due to the ITM logo on the screen saver. Yet, amongst others it led to questions about the anonymity and destination of the information (as explained above): *"Is it sent directly to the City?"*.

The experiences gained during the first formative study with regard to CRs' coaching, helped to refine the system of training, coaching and supervision. We learned that the combination of preparatory meetings (discussing and refining all details of the study methods and tools), multiple days trainings (with role-plays and home practicing), individual follow-up and group feedback was appreciated and successful. It allowed the PI to individually monitor and coach the CRs and ensure data quality. Especially the CRs' team meetings, set out to share experiences and develop solutions to possible barriers, were evaluated as inspiring and encouraging by the CRs. The study also equipped the CRs with increased interview skills and experiences, beneficial for the following HIV-prevalence study (see section 2.5).

2.4.2. Formative study 2: Factors that increase sub-Saharan African Migrants' risk of HIV infection: a multiple case study

2.4.2.1. Methods

Between April 2013 and December 2013 a first phase of a second formative study was conducted. Its' objectives are threefold: (1) informing the development of a structured questionnaire for the HIV-prevalence study, (2) qualitatively contextualising the findings of the HIV-prevalence study and (3) informing the development of future HIV-prevention interventions. To meet these objectives, a multiple case study was conducted, to assess the individual-, community level- and structural risk factors for HIV-infection among SAM (objective 2 TOGETHER Project). SAM living with HIV are unique cases to identify these factors. Their life histories embedded in their social, political, cultural and historical contexts enables the identification of specific factors that increase the risk for HIV.

Yin (1984) defines the case study research method as an empirical inquiry investigating a phenomenon within its real-life context, using multiple sources of evidence [60]. In our study, individual HIV-positive SAM are the single object of a case. For each case we triangulated findings of three data collection methods: life history interviews, timelines and patient files. Per case at least two life history interviews were conducted. Since chronology, sequencing of events and context [61] are important to understand the context in which HIV-infection occurred, timelines were developed during these interviews. Timelines are visual depictions of an individual's life events in chronological order that may include interpretations of these events [61]. The timeline approach as described by Adrianson (2012) was followed, in this the drawing of the timeline is a collaborative effort, shared by the interviewer and the interviewee and the drawing forms the basis of the interview [62]. All interviews are conducted by a single interviewer (the first author) who adopted an unstructured interview approach. This informal, open ended, flexible and free flowing way of interviewing enabled the participants to define the properties of the interview and direct the interview into areas, which they saw relevant [63]. The interview themes were: life story and events, migration (e.g. pull and push factors, trajectory, legalisation procedure, etc.), sexual and partner relationships, health seeking behaviour and medical coping, emotional life (e.g. effect of events, psychological wellbeing, coping with HIV, stigma and discrimination), social embeddedness (eg. social network, family structure and support, social exclusion) and livelihood (e.g. financial situation, housing, etc.). When the natural flow

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of the first interview did not generate sufficient data on these themes spontaneously, a more directive approach was taken in the second and follow-up interviews. Data from the life history interviews were triangulated with data from the patient files. This reduced possible limitations of the life history interviews (eg. distortion), enriched the findings and constructed internal validity within the cases.

In a first phase, a convenience sample of SAM living with HIV was recruited through physicians and nurses of the HIV-clinic and facilitators of an HIV-support group for SAM. To arrive at a representative sample of the patient population of sub-Saharan African origin, will switch to purposive sampling in a second phase which will start in September 2015. All participants were consenting adults who received their HIV-diagnoses between 6 months and 10 year ago, who were assessed by health care providers as being psychologically stable and were followed-up by a social nurse at the time. The latter is to assure linkage to psychosocial care in case the interviews evoke emotional upheaval. In the same rationale, significant attention was paid to the informed consent procedure. Prior to the first interview the study's rational, objectives, procedure, confidentiality measures, participants rights, benefits and disadvantages were discussed with the participant, before signing the informed consent form. During the process we asked for explicit approval to consult the participants' patient files. For follow-up interviews the procedure was repeated and verbal informed consent was obtained. As token of appreciation, the participants received an incentive of 25 euros for each interview.

To ensure the participants' anonymity and confidentially, all data were coded and stored in a pass-word protected folder. All data was uploaded in N-VIVO 10 and a first within-case analysis was conducted. Data analysis adopted an inductive approach [64], triangulating the different data sources, the specific study questions were answered for each single case. Secondly, a cross-case analysis will conducted at the end of the second study phase, to identify general factors which increased SAM's vulnerability for HIV infection and facilitators and barriers to behaviour change.

The study protocol was submitted to the Institutional Research Board of the Institute of Tropical Medicine and the Ethical committee of the University hospital Antwerp for ethical approval. We obtained a positive advice from both (ITM IRB 12 30 4 830, UZA EC 12/33/259).

2.4.2.2. Findings

The first phase of this second formative study ran from the end of April 2013 to the beginning of December 2013. It included 16 SAM living with HIV, 9 women and 7 men from 14 different countries of origin. A first tentative analysis informed the development of a structured questionnaire for the HIV-prevalence study.

The first analysis showed that individual sexual risk behaviour should not be overestimated, but that assessing the context in which HIV infection may have occurred is relevant. Only three participants got infected while having multiple casual partners, one voluntary engaged in sex work and one other engaged in transactional relationships. The others mentioned concurrency of previous partners, a stable relationship and forced sex work. Two women got infected while being forced into sex work following human trafficking, one additional woman potentially may have got infected through this transmission route. Reports of emotional and physical violence, including forced sex, in sexual and partners relationships in the period of HIV-infection were common. This was more common among women, yet also one man reported being infected in an abusive relationship.

In the period when HIV infection potentially may have occurred, many participants felt socially disrupted due to war situations, disrupted family situations, partner violence and social exclusion, or migration to Europe and Africa. Many were detached from family, and sometimes their social networks in general. Thus, the migration context must not be neglected as a vulnerability factor for HIV-infection: two study participants acquired HIV after having fled from war situations in Africa, one after economic migration in Africa, five certainly after migration to Europe and one potentially after migration. The other seven participants were certainly infected in their home country. The economic situation and financial dependency (e.g. of a partner, friends or human traffickers) were also identified as additional factors adding to vulnerability for HIV-infection. However, some participants were economically privileged at the period of their HIV acquisition.

This interview study also assessed the health seeking behaviour prior to HIV diagnosis. Nine study participants were diagnosed with HIV in Belgium for the first time, two in another European country and five in Africa, of whom three in another African country than their country of birth. In four of the nine cases who received their HIV diagnosis in Belgium, multiple diagnostic opportunities had been missed.

Since their arrival in Belgium, many of the participants described high levels of dependency for basic needs, housing and nutrition. Due to uncertain legal situations, they had been dependent on compatriots and were sometimes forced into illegal circuits. Alcohol abuse was reported in some cases, as well as mental health problems such as depression. We also received reports of partner and sexual violence after infection. One female participant had been a victim of a group rape and forced sex work after HIV infection, for another woman this could have been the case potentially (since her time of infection is uncertain). These socially, financially, legally, psychologically and physically vulnerable situations could have affected the risk for onward HIV transmission prior to entering HIV-care.

Under the current project frame-work, as outlined in this report, it has not been possible to complete the qualitative interviews up to the point of covering the heterogeneity relevant to the research question. Thus, a certain number of interviews still have to be conducted until a maximum variation sample can be reached through purposive sampling (see methods above). The additional recruitment phase will start in Autumn 2015. Upon reaching the necessary number of interviews (i.e. an estimated number of n=5 additional interviews), the data will be analysed. We aim for publication in a peer-reviewed journal (see annex 4) during the first semester of 2016.

2.4.3. Formative study 3: Acceptability and feasibility of outreach HIV testing using oral fluid collection devices

2.4.3.1. Methods

For the HIV-prevalence study we opted for collecting oral fluid samples to determine the HIV-status, since reluctance to blood taking is known to limit HIV-testing uptake among SAM [65]. Although oral fluid collection devices have been used for comparable studies [30,35], no experiences existed for Belgium. Their acceptability in SAM community settings is unknown. Therefor an acceptability study was conducted between December 2012 and June 2013 in the framework of another intervention project, "swab2know".

This intervention offered free oral fluid HIV-tests (Oracol[®] device Malvern Medical Developments, Worcester, UK) in community settings of two target groups, MSM and SAM. The HIV-testing sessions were organised in collaboration with community leaders and included group counselling and a testimony of an HIV-positive community member. If participants decided to test, they could chose to collect their result a week later via a

secured website or face-to-face consultation at a low threshold HIV-testing center. To assess the feasibility and acceptability of this intervention, including the specific sampling method for SAM, two social scientists (the first and forth author) conducted participant observations [66] at ten HIV-testing sessions. Besides observation, informal interviews were conducted with testers, non-testers and the intervention team. The field notes were coded using N-VIVO-10 using a data-driven code-book and analysed following inductive analysis principles [64].

The formative study's methods were part of the larger study protocol of the "swab2know" intervention. It was submitted to the Institutional Research Board of the Institute of Tropical Medicine and the Ethical Committee of the University Hospital Antwerp for ethical approval. We obtained approval from both (ITM IRB 829/12, EC UZA 829/12). More information on this low-threshold outreach HIV-testing project targeting MSM and SAM can be found at: www.swab2know.be.

2.4.3.2. Findings

Between World AIDS Day 2012 and June 2013, two social scientists, the PI and research assistant, attended a total of ten "swab2know" sessions. Venues included one café, two churches and seven community events, all organised by socio-cultural organisations, of which four diaspora organisations, one African Lesbian-Gay-Bisexual and Transgender (LGBT) group, one youth- and one women's organisation. About 800 SAM were present in the settings, 142 tested and with 43 we conducted an informal interview. We also talked to 67 non-testers and the intervention team after each session (11 notes). In addition we collected 22 descriptive notes of observations. Thematic analysis of the descriptive notes revealed that acceptance of outreach HIV-testing was linked with prior HIV-awareness raising and community ownership. In communities acquainted with HIV-prevention activities, e.g. the Congolese- and LGBT-communities, and when leaders had sensitised their members while preparing the event, the intervention was positively appreciated and testing uptake was high. In other settings, interviews revealed certain barriers. Some questioned the appropriateness of HIV-testing at cultural celebrations or leisure time events such as dance parties, others feared social control by the present community or doubted whether the present audience qualified as a target group for HIV-testing. However, it should be emphasised that all five cases that were found indicative for a positive HIV-result were identified at settings with lower acceptance.

Study participants expressed their motivation for testing often through general statements like "it is good to know". Participants said the team's presence reminded them of the need to test and they felt encouraged by the testimonies given by a community-member to introduce and promote the testing. Many participants wanted to benefit from the opportunity to get a free HIV-test without having to visit a physician. In a few cases, however, peer-, community- or partner pressure were at play. Participants who decided not to test often referred to a previous HIV-test they had undergone in the past, however, sometimes only assuming they had already been tested: "...my doctor never mentioned anything". Low perceived personal sexual risk was also given a reason for refusal, for instance men would give risk assessments of their girlfriends, women would mention consistent condom use with their sexual partners. The oral fluid testing devices were perceived as lowering thresholds compared to undesirable "blood draining" as performed with the regular HIV-test. The oral fluid test kits were found easy in use and painless. The method raised some questions about possible HIV-transmission via saliva. Seventy-seven participants (54%) chose to collect their results from the website, mostly because it was found more convenient than consulting the HIV-testing centre. Some added "the website is okay, because I don't have anything". It also enabled participation of SAM living abroad. Participants, who chose the testing centre had no e-mail address or internet access, or preferred professional support.

This formative study served as an acceptability study for the outreach oral fluid HIV-testing methodology. It informed the conceptualisation of the HIV-prevalence study. The findings assured that the self-collection of oral fluid collection devices by SAM in community settings was feasible and acceptable. It also underlined the need for informing the community leaders prior to starting the HIV-prevalence study, to establish good collaborative relationships with the owners, managers, pastors and leaders of the selected settings and events. We observed that a considerable number of people asked for assistance in filling out the questionnaires indicating insufficient reading- and writing skills. This was often expressed indirectly: *"I don't have my glasses with me"*. Therefore, for the main study (i.e. the HIV-prevalence study) we decided to include assisted interviewing as an option and trained the CRs sufficiently in offering this assistance.

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The study findings were presented as an oral presentation during the XI. AIDS Impact Conference (Barcelona, September 30th, 2013) and in a workshop on the national congress STI*HIV*sex of the Netherlands (Amsterdam, December 1st, 2014). A manuscript with the findings has been submitted for publication to AIDS and Behavior (see annex 4). Both presentations are available upon request.

2.5. Community based survey on seroprevalence and HIV risk factors among sub-Saharan African Migrants visiting community venues in Antwerp city

2.5.1. Methods

The primary objective of this cross sectional study, which ran from December 2013 to August 2014 was to determine HIV-prevalence among SAM socialising in community settings in Antwerp city (objective 1 of the TOGETHER Project). Secondary objectives were: (1) Identifying the individual, community level and structural risk factors for HIV-infection among SAM and (2) Identifying priority settings for future HIV prevention interventions (project objectives 2 and 3 respectively).

2.5.1.1. Sample size

HIV-prevalence was the primary outcome of interest. The sample size was calculated using a anticipated HIV-prevalence of 4%, a required precision of 2% for the 95% confidence intervals and a cluster sampling design effect of 2. This resulted into a sample size of 714 SAM to be included in the study.

2.5.1.2. Sampling

A two-stage time location sampling (TLS) was adopted. TLS takes advantage of the fact that some hard-to-reach populations tend to gather or congregate at certain types of locations [67]. The list of settings established in formative study 1 was the sampling frame, from which a probability sample, a two-stage cluster sample, was selected. At a first level of sampling 51 clusters, or sites, were selected from the list with probability proportion-to-size. When a selected site was not available (e.g. refusal of the bar owner, closure of the site, site moved out of study area), this is notified and the next site on the list is taken. The second level of sampling included the random selection of 14 study participants at each cluster.

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To be eligible, potential study participants had to self-identify as belonging to the SAM communities, be 18 years or above, accept to answer the behavioural questionnaire, donate an oral fluid sample and be willing and able to provide written informed consent. People who participated in the study earlier, were excluded.

2.5.1.3. Data collection procedures

Detailed study procedures were described in Standard Operating Procedures developed in collaboration with the CRs, CAB, AIDS reference laboratory and refined after two pilots. At pre-arranged moments a study team visited the selected sites and made a random selection of 14 SAM present. Approaching eligible participants, the CRs identified themselves and introduced the study's objectives and methodology, stressing anonymity and the voluntary nature of participation. To avoid self-exclusion of HIV-positive people, they explicitly mentioned that everybody is invited to participate, regardless of HIV-status. People interested were invited to a more quiet place in the setting, if available. After discussing and signing the informed consent form, the participant was asked to fill out an anonymous electronic questionnaire on a tablet. To build confidence and ensure data rigour, the participant first received a short tutorial in how to handle the tablet. Here special attention was given to anonymising aspects. The preferred interview method was self-completion, however, to include people with low or no illiteracy, discrete assistance was offered if needed. The CRs were trained to help participants with sensitivity and respect for confidentiality.

The behavioural questionnaire was developed based on the findings of formative study 2, consultation of available questionnaires of comparable studies [39,42] and the CRs and CABs input. It was refined after a cognitive piloting with 12 participants and the pilot sessions (see above). The final questionnaire included questions on socio-demographic and economic background, migration and mobility background, health seeking behaviour, HIV testing behaviour, sexual and relational history (last year and lifetime), attitudes towards condom-use, actual condom-use and level of assistance completing the questionnaire.

After completing the questionnaire, the CR demonstrated the procedure of oral fluid collection using the collection device. Next, participants were asked to self-collect the sample. The sample was then linked with the informed consent form, questionnaire and

result recollection letter through a unique code (no personal identifying information was asked). If they wished, participants could collect their HIV-test result by calling the study nurse and providing their unique code, age and country of origin. When a participation called for a HIV-positive result, he/she was invited to the HIV-testing centre for confirmation testing, counselling and linkage to care.

Finally, participants were asked for information on their frequency of attending the study settings and comparable settings. This allowed for calculating a weighing factor (see further). As a token of appreciation participants received free condoms, an information brochure on HIV-testing and 5 euros. Those who refused participation received condoms and the information brochure, but no financial compensation. Data on the characteristics and reasons of those who refused were also collected as well as the overall number of people present during the data collection onsite.

2.5.1.4. Laboratory procedures

Within seven days of collecting the sample, the AIDS reference laboratory performed the analysis according to a validated algorithm using oral fluid specimens [68]. First, samples were tested with a Genscreen HIV ½ v2[®] (BioRad). If reactive, a second HIV ELISA test, Vironostika HIV Ag/Ab (BioMérieux), was performed. Only participants with two reactive test results were considered as HIV-infected. For all negative samples the quality of the oral fluid samples were measured using an IgG ELISA quantification kit (Human Total IgG ELISA, Immunology Consultants Laboratory, Inc., cat. No: E-80G). Samples were considered valid for analysis and results of the HIV-test were only reported only when sufficient IgG was present in the sample. All other samples were considered non-valid and excluded from analysis.

2.5.1.5. Data analysis

Data from the questionnaires, attendance forms, laboratory data (HIV-status) and HIV-test result collection were linked via the unique code, merged and stored in an SPSS Statistics 22 (IBM) database. After data cleaning, statistical analysis was carried out. Population estimates were calculated taking into account cluster sampling and unequal probability of selection of individual participants. An analysis plan to take into account cluster sampling

and a weighing factor was develop using IBM SPSS Complex samples 22 software. SAM who visit sites more frequently have a higher probability of selection in the study. Adjustment for this unequal selection probability was done by calculating individual weights, based on the attendance information provided by the participant (see above). In a first step, a univariate descriptive analysis, stratified by gender was performed on all outcome variables, including HIV-prevalence. Categorical variables are summarised by proportions and 95% confidence intervals. Non-normally distributed quantitative data were described by median and interquartile ranges. During a second step, bivariate analysis was done by exploring potential determinants of HIV-infection and HIV-risk taking behaviour. Odds Ratios were calculated to measure the association and statistical significance testing was done using a chi-square or t-test. Finally, a multivariate analyses will be performed using a logistic regression model constructed with all variables independently associated with HIV-infection, sexual risk behaviour, condom use and testing behaviour. This analysis is currently ongoing.

2.5.2. Findings

Between December 13th, 2013 and August 31st, 2014 we visited 51 bars, churches, events, information meetings, shops, hairdressing salons, public parks and squares spread over Antwerp city which allowed for approaching a total of N=1149 people. 65.4% or n=753 accepted to participate. People were more likely to decline participation at events, public places or bars. Mostly they gave no time or already tested for HIV as a reason not to participate. Public support of community leaders (e.g. pastor, bar owners, presidents of socio-cultural organisations) for our study was crucial for the study's acceptance.

For the weighted descriptive analysis, of the 753 cases, n=28 had to be excluded because they did not belong to the target group (n=9), did not provide an oral fluid sample (n=10), the sample was invalid (e.g. not enough IgG; n=7) and/ or attendance data is missing (n=19). In what is to follow, we will present the weighted data of the remaining 725 cases. The unweighted data of 744 cases (here the 19 cases with missing attendance data have not been excluded) can be found in annex 3.

2.5.2.1. Socio-demographic characteristics

More men (57%; n= 414) than women (43%; n=300) participated in the study. They gathered at particular places: males were more likely to be included at events and public places, females in churches and information meetings. Almost an equal percentage of women and men were recruited from bars, hairdressing salons and shops.

Participants were between 18 and 82 years old, with a mean age of 33.6 years. The majority (95%) of them was living in Belgium at the time of the data collection, most (77%) in Antwerp city. They originated from 35 different sub-Saharan African countries, of which the largest groups were from Nigeria (17%), DRCongo (16%), Ghana (16%) and Cameroon (14%). This is in line with the largest communities residing in Antwerp city. The majority (46%) had a secondary school degree, yet 19% had a low educational level (only completed primary school or less). Women were significantly more likely to be low educated (25% vs 15%; p= 0.015).

SAM, socialising in Antwerp city, were diverse in their migration status and vulnerability. 30% were recent migrants (having lived less than 2 years in Belgium), another 32% were established migrants, having resided already 10 or more years in Belgium. Many have had a migration trajectory before arriving in Belgium: 24%, significantly more men (p=0.015), had lived longer than six months in another African country than their country of birth and 29% in another European country. About one third, i.e. 34% were currently living in a vulnerable situation. This was operationalised by one of the following indicators: they had had financial difficulties most of the time in the last year before data collection, they were in an unstable housing situation (being homeless or living with friends) and/or did not have a health insurance (the latter was seen as a proxy for having un undocumented status). More specificities can be found in table 11, annex 3.

2.5.2.2. Sexual behaviour

85% of SAM, socialising in Antwerp city, were sexually active in the last year and 93% indicated their sexual preference was for heterosexual partners. 59% were currently married or in a relationship. Only 68% of them, or 38% of the population, are currently co-habiting. 17% of those in a relationship but not cohabiting (the partner lives in Africa), 15% in another European country. Our data clearly showed that SAM had a preference for sexual partners from their own community, as 76% reported that their last partner was of sub-

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Saharan African origin. Although the median number of sexual partners in the last year was one, 32% of those in a relationship had concurrent sexual partners. 20% of those not being in a stable relationship reported three or more different sexual partners in the last year. Both were significantly more common among men (p= 0.004 and p= 0.017 respectively).

39% of SAM engaged in some kind of sexual risk behaviour in the last year, especially men (p=0.010). This included being forced to have sex (2% of the total population), engaging in transactional sex (7.1%), concurrency (32%), multiple sexual partners (20%), and risky sexual behaviour during African and European travels (respectively 8.6% of those who ever travelled back to Africa and 2.3% of those who ever travelled to another European country). Sexual risk behaviour in the last year was significantly linked with partner violence (p= 0.000), substance use at last sex (p= 0.011), assuming their partner is unfaithful (p=0.000) and paying for sex (p=0.000).

Among men, paying for sex is common: 13% paid for sex in the last year, 27% had done so in their lifetime. Emotional and physical partner violence is prevalent: 7.2% encountered partner violence in the last year, 14.2% in their lifetime. There was no significant difference between males and females (8.8% of women encountered partner violence in the last year vs. 6% of men).

Their vulnerable living situation influences SAM's sexual behaviour. There is a significant link between currently being in a vulnerable living situation and being forced to have sex (p= 0.044), partner violence (p=0.004) and assuming unfaithfulness by their partner (p= 0.038), engaging in transactional sex (p= 0.003), paying for sex (p=0.000) and having three or more casual sexual partners (p=0.001) in the last year. More specificities can be found in table 12 of annex 3.

2.5.2.3. Health seeking and sexual health

SAM, socialising in Antwerp city, attend medical services regularly, mostly primary care. 66% visited a medical service less than 6 months ago and 69% visited a general practitioner last, 8% the emergency service of a hospital. Many (71%) reported life-time HIV-testing. 40% even tested within the last year. Majority (75%) of them did their last test in Belgium, 13% in Africa, 12% in another EU country. 4% self-reported they were diagnosed with an STI in the

last year, 12% has had an STI in their lifetime. More specificities can be found in table 13 of annex 3.

2.5.2.4. HIV-prevalence and associations

Based on the oral fluid samples the HIV-prevalence could be determined. 717 study participants provided a valid oral fluid sample and had complete questionnaire and attendance data to be included. 32 oral fluid samples were reactive both for the Genscreen as the Vironostika. This resulted into the HIV-prevalence estimation for SAM socialising in Antwerp city of 6.1% (IQR: 3.3%-11%) among women and 3% (IQR: 1.6%- 5.7%) among men. The difference between males and females is not significant (p= 0.096). 53% (IQR: 30%-74%) of those with a reactive oral fluid sample did not report knowledge of their HIV status on their questionnaire (see table 14, annex 3). We may thus conclude that it was likely that they were not aware of their positive HIV-status. Yet, underreporting on the questionnaire cannot be excluded: regardless of anonymity measures, participants who knew that they were HIV-positive might not have been willing to report their HIV-status on the questionnaire due to various reasons, such as the high stigma in the SAM communities. Furthermore, people could have been in denial of their HIV-status and therefore not report it. From clinical experience it is known that it is not uncommon for SAM to receive their HIVdiagnoses, disappear for medical follow-up for many years to return only when they are really sick. Difficulties in coping with their HIV diagnosis and to internalise their HIV-status could have contributed to underreporting. The high proportion of people with an unknown HIV diagnosis should be investigated in further research to assess in-depth the reasons for potential underreporting.

Only few associations could be confirmed between HIV-status outcome and behavioural determinants. This is probably due to the small numbers of HIV positive study participants (n=32) and the diversity of the sample. SAM with a positive oral fluid sample included people who are living with HIV for many years as well as people who are most likely unaware of their HIV-status. They obviously reported different behaviours. HIV-status was associated with having been diagnosed with an STI in the last year (p= 0.030), lifetime sexual risk behaviour when travelling to other European countries (p=0.002), high condom use intentions (p=0.027) and being unaware of the HIV-status of their last sexual partner (p=

0.000). To understand the elevated HIV-prevalence among SAM, next to individual sexual risk behaviour structural vulnerability factors such as socio-economic and legal factors of the population as a whole contribute to a better understanding of the elevated HIV-prevalence in the community-level. Individual sexual risk behaviour is common in the overall sample, especially among men. However, as described above, vulnerable living situations impact on risk behaviour and decrease agency for self-protection. The influence of the generalised HIV-epidemic in many sub-Sahara African countries on the African diaspora can also not be neglected: by assortive sexual mixing (i.e. preferring African partners) and risk behaviour when travelling back to home or to other European countries, the African HIV epidemic also influences the spread of HIV among SAM in Western- Europe.

2.5.2.5. **Priority groups for HIV-prevention**

Our research has shown that an array of diverse risk and vulnerability factors are at play in the different sub-groups of SAM increasing their risk for HIV infection. They call for targeted prevention adapted to the prevention needs of the specific sub-groups. We identified following priority groups for HIV prevention:

- SAM adopting sexual risk behaviours: these are mostly men (p=0.010) who are in a relationship but not cohabiting (p= 0.010) and have a migration history in Africa (p= 0.047). Although they have high condom intentions (p=0.001) there is no significant link with actual condom use at the last sexual encounter. They also have low preventive testing behaviours (p=0.023). SAM who adopt such patterns of risk behaviours can be reached in bars and at events.
- SAM currently living in a vulnerable situation: These are mostly unemployed (p=0.000) singles (p=0.010) who are less than 2 years in Belgium (p= 0.000) and have migrated before in Africa (p=0.025) or Europe (p=0.000). Although these groups were more likely to report condom use at the last sexual encounter (p=0.039) they also reported substance use at last sex (p= 0.000). They can be reached in bars and shops.
- SAM with low preventive HIV-testing behaviour: we define testing behaviour to be preventive when a person tested less than 1 year ago, being aware of the HIV status of their last sexual partner. 27% of SAM reported such preventive testing behaviour.

The ones who did not adopt preventive testing behaviour (73%) were more likely to be younger than 30 years (p=0.018), single (p=0.032) with an unstable housing situation (p=0.001). Low preventive testing behaviour is associated with low medical attendance (e.g. consulted a medical service longer than 6 months ago, p= 0.004) and high sexual risk behaviour (see above for definition, p= 0.023). People who showed this low preventive testing behaviour can be reached in bars, information meetings and church.

SAM with low preventive condom behaviour: We differentiated between high preventive condom use behaviour and low preventive condom use behaviour. People in the first group reported having used a condom the last time they had sex and having the intention to use a condom with a future new sexual partner. 27% of SAM reported high preventive condom behaviour. People who did not report these two indicators, were categorised as having low preventive condom behaviour. Low preventive condom behaviour was linked to being female (p=0.018), 30 years or older (p=0.000), being in a relationship but not cohabiting (p=0.006) and not currently living in a vulnerable living situation (p=0.043). Low condom preventive behaviour was also linked to the assumption of being save: it is significantly associated with: last sexual partner being a stable relationship (p= 0.000) and African partner (p=0.003), no assumptions of unfaithfulness by the partner (p=0.007), not engaging in transactional sex (p=0.005) or paying for sex (p=0.026). These groups report they know the HIV-status of their last sexual partner (p=0.000), yet they themselves tested longer than 1 year ago (p=0.001). These groups can be found in church, shops and hairdressing salons.

To summarise the different strategies adopted, we may conclude that SAM do not combine HIVpreventive strategies such as using condoms and HIV-testing. They primarily either use condoms to protect themselves from HIV or go for HIV-testing. Both strategies attract different groups: those who perceive their sexual risk to be higher tend to use condoms, while those who assume to be safe, test for HIV.

2.6. Recommendations for future HIV-prevention

Based on the HIV-prevalence studies' results we the following recommendations:

- A combination of HIV testing and condom use as preventive strategies against HIV should be promoted.
- The study showed that there are different priority groups for HIV prevention and that these groups can be reached in different settings. HIV prevention should therefore take a "priority setting approach".
- Although condom use is relatively high amongst groups with higher sexual risk behaviour, condom use is mainly reported by men. Condom promotion should therefore not only be sustained, but should also focus on women's condom-use negotiations skills and assertiveness. This needs a renewed focus on traditional gender roles relationship dynamics. Alternatively, HIV-prevention methods which are controlled by women, should be promoted, such as the female condom.
- Reported STI diagnosis is relatively high among SAM. Prevention of HIV should therefore be embedded in the overall context of sexual health promotion and be focused on in the prevention of STI other than HIV.
- Reports of partner violence and forced sex are high. HIV prevention should therefore have attention for the broader context of gender dynamics and relationship contexts and equip SAM with skills to negotiate their sexual health.
- SAM live in a socio-economic difficult environment that significantly increases their vulnerability for HIV infection. Socio-economic and legal factors were significantly linked with an elevated risk for acquiring HIV and lower sexual agency (e.g. SAM's ability to take informed sexual decisions and demand preventive behaviour from their sexual partners). Therefore structural interventions adopting an inter-sectoral approach should address vulnerability in an effort to increase sexual agency.
- The CBPA of the study showed that working with CRs enables access to hidden populations, ensures acceptability and contributes to the stigmatisation of HIV. HIVprevention should therefore always be developed and implemented in close collaboration with the sub-groups involved.
- The time-location sampling approach entitled the study team and HIV- problem were very visual in the community. Outreach has therefore to be underlined as a viable strategy for HIV prevention.

- Acceptance rates were higher in settings were leaders openly showed support for the study. This underlined the role of religious, cultural and social leaders in HIVprevention and the need to create ownership for sexual health promotion and HIVprevention in the different communities.
- Due to the high structural vulnerability of the affected SAM communities, HIV prevention needs to go hand in hand with structural support, i.e. policies ensuring access to HIV-prevention, HIV-testing and medical care for everybody regardless of their legal status, as well as continued investment in the reduction of discrimination against migrants and stigmatisation of HIV.

These recommendations were complemented by recommendations of the *SAM communities* themselves, formulated during the World AIDS day symposium (see below):

- The high level of SAM being unaware of their positive HIV-status calls for a continued investment in the promotion of HIV-testing. These should include encouragement of physicians to suggest an HIV-test to their patients (i.e. promotion of providerinitiated testing) without prejudice, offers of home tests and outreach testing by means of a testing bus.
- SAM are not aware enough of their health care and sexual health rights. Integration classes should equip SAM with knowledge on health care and offer sexual education.
- Women are more affected by HIV, they should be encouraged to adopt a special role in prevention. They are in the unique position to educate their children, influence their husbands and boyfriends as well as protect themselves.
- HIV prevention should ensure that information messages are accessible to everybody. This can be achieved by different communication strategies: besides low threshold informational brochures: mouth to mouth information, songs, drama, television, radio etc.
- Ensure good support, coaching and training of volunteers in HIV-prevention and give them a continued role in sexual health promotion and HIV-prevention in the communities.
There is a need for better collaboration with policy makers, especially as the multiple problems that SAM face (e.g. migration issues, economic problems, racial discrimination, HIV-related stigma) increase their risk to acquire HIV.

2.7. Community action: increase HIV-prevention

2.7.1. HIV prevention activities in the SAM communities

As described above, the development of a social map - and in particular the HIV-prevalence study - created a "preventive boost" in Antwerp' SAM communities. Apart from the willingness of a large number of people to participate in the study, fill out the questionnaire and provide an oral fluid sample, the study brought interest in the projects' overall results and increased the demand for preventive actions. To nurture this increased mobilisation for HIV-prevention we actively fed back the study results to the community in a workshop. On May 30th 2014 leaders/people responsible of the venues included as study settings, as well as individuals who showed interested, were invited for a presentation of the midterm study results. 26 people attended the meeting and it was decided collectively to organise a series of follow-up meetings to brainstorm about new HIV-prevention activities. In June, July, August and October four consecutive meetings, attended by 11 to 19 people, were organised, which resulted in one common theme for new HIV prevention activities and concrete plans for activities around World AIDS day. According to the community members the study's most prominent finding was the level of HIV-prevalence, demonstrating the presence of HIV in their communities and the need for reactive community action. The

brainstorming process resulted in a new prevention slogan, addressing three key topics:

"HIV is real, let us break the barriers:

Let us accept people living with HIV Let us test for HIV at least once a year Let us use condoms"

The community members found it important that these messages came from the community members themselves. Therefore we created posters with the slogans featuring community members (with their portrait on the posters):



bar owners, hairdressers, pastors, community leaders and volunteers. To accompany a poster campaign, a leaflet was developed with more information (see annex 7).

During a 15 hours training, community volunteers were trained on the content of the leaflet and how to sensitise other community members. During group discussions and role-plays they learned to communicate in one-on-one situations and in group settings about the leaflet, gained insight in the context in which HIV-prevention takes place (background on HIV-related stigma and discrimination, talking about sexuality, lack of knowledge and access to services, etc.). The training took a "frequently asked questions approach", which meant they learned to anticipate common questions and remarks of community members, and how to respond to them. The skills acquired during these training were applied during three events, organised in the community around World AIDS Day. Currently, the group of trained volunteers is undertaking weekly outreach sessions to the identified priority settings for HIV prevention within the scope of the HIV-SAM Project commissioned by the Flemish Ministry of Welfare, Public Health and Family. To accompany the new interventions, the community members developed the idea for a song with the same prevention content. We organised a contest and selected two songs which were professionally produced. "VIH est réel" is a Congolese rumba from Boeing Kinanga and "Let's fight it" is an African pop music song from Jay Wisely. Both reach very different audiences and generations and are complementary to supporting the new intervention. They were already used during World Aids day events in the communities (see above) and at ITM (see below) and will continuously be used during activities supported by the HIV-SAM Project.

During the brainstorm meetings the community members expressed the need to better understand the meaning of having to live with HIV. *"So many Africans are living with HIV, yet we never meet them, we don't know anything about them"*, was commonly heard. This created the idea for a video with an interview between an HIV-positive and an HIV-negative person, which was put into practice. During the brainstorm meetings common questions people suggested to be of interest were gathered and used during the interview.

Finally, the idea of a radio show was brought up. We contacted radio Aseda, an internet radio broadcasting among English speakers, and were invited for a talk show. During the show listeners could ask questions about HIV, sexuality and living with HIV to dr. Lazare Manirankunda (prevention coordinator at the HIV-SAM project). The collaboration was well appreciated and we will be invited to host this more often in the future.

2.7.2. World AIDS Day symposium: "HIV is real, let us break the barriers"

On Monday December 1st, 2014, a World Aids Day symposium was organised again with the theme "HIV is real, let us break the barriers". The main objective was to share the findings of the HIV-prevalence study results with the SAM communities and interested professionals. Owners/managers/people responsible of all settings, where the study took place were personally invited. In the morning plenary session (see annex 6 for the program), attended by 110 people, the study findings were presented and the audience received also information about the larger Belgian and European HIV-epidemic by Jessika Deblonde of the Scientific Institute for Public Health. She highlighted new research, based on mathematical modeling indicating that a larger number of SAM than previously estimated, are acquiring HIV after migration in their host country. Colleagues from Wallonia and France, inspired the audience with their experiences in organising HIV-prevention for SAM. Joëlle Defourny of SIDASol in Liege reported about recent experiences with an HIV-testing bus in reaching hard-to reach groups. She paid special attention to the difficulties of linking newlydiagnosed SAM effectively to care. Intensive counseling and guidance are essential to ensure vulnerable groups overcome the practical and psychosocial barriers to access specialised HIV-care. Joséphine Ngah Ngono of AIDES outlined the French approach and gave an excellent example of how tailored HIV prevention for SAM can be organised on a large scale. Dr. Lazare Manirankunda of the HIV-SAM Project and Levis Kadia, of the Congolese socio-cultural organisation Bilenge and member of the CAB, completed the experience by illustrating the HIV-SAM Project's current prevention activities. They highlighted success factors and pitfalls for ensuring community participation and ownership, for them essential factors to effective HIV-prevention. To enable large participation and welcome all feedback of people present, we asked all speakers to adopt lay-language. This equipped community members and leaders with additional background for the bilingual workshops which were held in the afternoon on the "way forward in HIV-prevention". The workshops were officially opened by the Flemish Minister of Welfare, Public Health and Family, Jo Vandeurzen, with a speech on Flanders' policy on HIV-prevention and sexual health promotion. He also addressed the communities' most pressing concerns during a question and answer session. He promised to place the issues of ensured access to HIV-care for everyone, regardless of their migration status on the agenda of the intergovernmental meeting of all health ministers to further promote the Belgian HIV plan. It should be said

that the presence of the Minister was highly appreciated both by the communities and by ITM as a sign of the importance given to HIV prevention in general and the communitybased approach in particular.

During the facilitated workshops in the afternoon, attended by 60 community-members, they discussed their own responsibilities in HIV-prevention, made concrete commitments that they would take on and gave suggestions on what support they needed for prevention organisations and policies. Their recommendations can be found above (detailed workshop minutes are also available on request).

Community members, who could not be present at the symposium, were still inspired by the theme of the day: "HIV is real, let us break the barriers". All over the city, posters with the theme were placed in community spots and leaflets were distributed (see front page and annex 7).

While the TOGETHER project has been completed, the HIV-SAM project is following-up on the implementation of the commitments made both on the community- as well as at policy level. The HIV-SAM project will work closely with community-members and their organisations on the implementation of the new prevention activities. The HIV-SAM project has set up a structure of community-based prevention organisations, that will be continuously coached and supervised during 2015 and beyond, to work with the new prevention tools and to implement the prevention activities; this has been inscribed in the HIV-SAM project's year-plan for 2015. This way, we will contribute to the sustainability of the activities initiated by the TOGETHER project.

2.7.3. Scientific dissemination of study results: Increasing awareness among health professionals and scientific output

To share the first results of the TOGETHER Project with health professionals, we accepted the invitation of the Belgian Resarch on AIDS and HIV Consortium (BREACH) to present the first findings during their yearly symposium. This attracted quite some media attention: a.o. the study received attention during the national television news broadcast at 13.00 hrs and the evening news at 19.00 hrs ("Journaal op één") and in several newspapers, like De Standaard, De Gazet van Antwerpen, De Morgen, Le Soir, La Dernière Heure, La Libre Belgique, etc. (see annex 6).

An additional presentation was given at the yearly seminar of STIs in Belgium which focused on STI prevalence and associated risk factors.

Next steps are to deepen the statistical analysis, for instance conducting a multivariate analysis to define significantly and independently associated risk factors with sexual risk behaviour, and also to publish on the methodological aspects of community-based participatory action research. Upon availability of these results, we aim to submit abstracts to international conferences in order to present and disseminate the study findings.

Currently an article on the study methods has been submitted to "BMC Public Health Study Protocol" and an article with the results of the acceptability of oral fluid sampling in community settings to "AIDS and Behavior". Both are A1 peer-reviewed journals. Articles on the other formative studies and the results of the HIV-prevalence study will follow, contingent on the specific analysis as described above.

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Annexes

Annex 1: Formative study 1: Social mapping of sub-Saharan African community venues in Antwerp city. Step 2: Characteristics "community informants"

Profile	N	%
Occupation	127	57,0%
Bar/ restaurant owner/worker	14	6,3%
Store owner/worker	30	13,5%
Hair dresser/barber	60	26,9%
Taxi driver	9	4,0%
Hotel worker	3	1,5%
Health worker	2	0,9%
Community/social worker	4	1,8%
Sex worker	5	2,2%
Community leader	9	4,0%
Religious leader	2	0,9%
Non-profit organisation leaders	7	3,1%
Behavioural/ socio-demographic	87	39,0%
Less than 2 years in Belgium	15	6,7%
Young person (18 to 24)	7	3,1%
Young Adult (25 to 45)	29	13,0%
Socialising in bars/ restaurants	7	3,1%
Socialising in public places	20	9.0%
Attending community services	8	3,6%
Other	1	0,5%
TOTAL	223	100%

Table 1 : Profile of study participants (eg. community informants)

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Table 2: Comparison of study participants' country of origin compared to place of birth residents of sub-Saharan African origin in Antwerp city in 2012

Country of origin	Study pa	rticipants	SAM in Antwerp city					
	Ν	%	N	%				
West Africa	128	57,4%	10538	60,6%				
Burkina Faso	2	0,9%	88	0,5%				
Cape Verde	4	1,8%	356	2,0%				
Gambia	3	1,3%	232	1,3%				
Ghana	34	15,2%	3049	17,5%				
Guinea	8	3,6%	938	5,4%				
Ivory Coast	6	2,7%	354	2,0%				
Cameroon	23	10,3%	1002	5,8%				
Liberia	2	0,9%	363	2,1%				
Mali	1	0,4%	234	1,3%				
Nigeria	25	11,2%	1858	10,7%				
Senegal	13	5,8%	878	5,0%				
Sierra Leone	4	1,8%	492	2,8%				
Тодо	3	1,3%	295	1,7%				
Other			399	2,3%				
Central Africa	63	28,3%	5203	29,9%				
Angola	5	2,2%	909	5,2%				
Burundi	17	7,6%	412	2,4%				
Congo	33	14,8%	3270	18,8%				
Rwanda	8	3,6%	572	3,3%				
Other			40	0,2%				
East Africa	26	11,7%	1412	8,1%				
Eritrea	3	1,3%	16	0,1%				
Ethiopia	2	0,9%	391	2,2%				
Kenya	6	2,7%	178	1,0%				
Somalia	5	2,2%	500	2,9%				
Tanzania	6	2,7%	78	0,4%				
Uganda	2	0,9%	83	0,5%				
Zambia	2	0,9%	39	0,2%				
Other			127	0,7%				
Southern Africa	1	0,4%	236	1,4%				
South Africa	1	0,4%	223	1,3%				
Other			13	0,1%				
Non- SAM	5	2,2%						
Suriname	1	0,4%						
Sudan	1	0,4%						
Missing data	3	1,3%						
TOTAL	223	100,0%	17.389	100,0%				

Gender	Study par	ticipants	SAM in An	itwerp city				
	N	%	N	%				
Female	107	48,0%	8471	48,7%				
Male	108	48,4%	8918	51,3%				
Missing data	8	3,6%						
TOTAL	223	100,0%	17.389	100,0%				

Table 3: Comparison of study participants' gender to gender distribution among residents of sub-Saharan African origin in Antwerp city in 2012

Table 4: Comparison of study participants' age at time of interview to age distributionamong residents of sub-Saharan African origin 18 years or above in Antwerp city in 2012

Age	Study part	ticipants	SAM in Antwerp city					
	N	%	N	%				
18 or 19 years	4	1,8%	475	4,3%				
20 to 24 years	44	19,7%	1345	12,2%				
25 to 29 years	38	17,0%	1865	16,9%				
30 to 34 years	54	24,2%	1885	17,0%				
35 to 39 years	28	12,6%	1774	16,0%				
40 to 44 years	33	14,8%	1635	14,8%				
45 years or more	16	7,2%	2078	18,8%				
Missing data	6	2,7%						
TOTAL	223	100,0%	11.057	100,0%				

Table 5: Comparison place of interviewing with geographical distribution of sub-SaharanAfrican origin in Antwerp city in 2012

District/ quarter	Place interv participant	view study s	Place of residence SAM in Antwerp city				
	N	%	N	%			
District Antwerpen	171	76,7%	9738	56,0%			
Antwerpen Noord	57						
Centraal Station	33						
Luchtbal	25						
Dam	11						
Linkeroever	9						
Kiel	7						
Stadspark	6						
Brederode	2						
Historisch Centrum	3						
Harmonie	4						
Schipperskwartier	2						
Sint Andries	4						
Universiteit buurt	2						
Tentoonstellingswijk	1						
Zurenborg	1						
Missing data	4						
District Borgerhout	12	5,4%	2152	12,4%			
District Berchem	5	2,2%	1086	6,2%			
District Deurne	11	4,9%	2113	12,2%			
District Hoboken	2	0,9%	551	3,2%			
District Merksem	12	5,4%	933	5,4%			
District Wilrijk	10	4,5%	503	2,9%			
Districts Berendrecht-Zandvliet-							
Lillo, Ekeren and unknown			313	1,8%			
TOTAL	223	100,0%	17.389	100,0%			

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Annex 2: Formative study 1: Social mapping of sub-Saharan African community venues in Antwerp city. Step 3: Venue verification interviews

	VZW		Public Place		Bar		Church		Other		Total		
	N= 42	%	N=29	%	N=45	%	N=28	%	N=25	%	N=169	%	P-value
Gender													
Female	7	16,7%	7	24,1%	24	53,3%	6	21,4%	10	40,0%	54	32,0%	0,002
Male	35	83,3%	22	75,9%	21	46,7%	22	78,6%	15	60,0%	115	68,0%	
Position													
Owner/ president	4	9,5%	0	0,0%	10	22,2%	0	0,0%	11	44,0%	26	15,4%	
Manager/Pastor/													
Member committee	25	59,5%	1	3,4%	4	8,9%	9	32,1%	5	20,0%	43	25,4%	
Staff/Assistant	4	9,5%	3	10,3%	22	48,9%	10	35,7%	6	24,0%	45	26,6%	
Client/ Member	3	7,1%	6	20,7%	8	17,8%	6	21,4%	3	12,0%	26	15,4%	
Other	6	14,3%	19	65,5%	1	2,2%	3	10,7%	0	0,0%	29	17,2%	

Table 6: Characteristics respondents, stratified by venue type

Table 7: Venue characteristics, stratified by venue type

	\/7\\/		Public		Bar		Church		Othor		Total		
	N= 42	%	N=29	%	N=45	%	N=28	%	N=25	%	N=169	%	P-value
District													
Antwerpen	30	71,4%	27	93,1%	34	75,5%	21	75,0%	23	92,0%	135	79,9%	
A'pen Noord	7	16,7%	10	34,5%	25	55,6%	11	39,3%	16	64,0%	69	40,8%	
Luchtbal	8	19,0%	3	10,3%	1	2,2%	0	0,0%	0	0,0%	12	7,1%	
Centraal station	0	0,0%	4	13,8%	1	2,2%	1	3,6%	3	12,0%	9	5,3%	
Other	15	35,7%	10	34,5%	7	15,6%	9	32,1%	4	16,0%	45	26,6%	
Berchem	0	0,0%	0	0,0%	5	11,1%	5	17,9%	0	0,0%	10	5,9%	
Borgerhout	3	7,1%	0	0,0%	3	6,7%	1	3,6%	1	4,0%	8	4,7%	
Other	9	21,4%	2	6,9%	3	6,7%	1	3,6%	1	4,0%	16	9,5%	
Time in operation													
Less than 2 years	2	4,8%	1	3,4%	15	33,3%	2	7,1%	9	36,0%	29	17,2%	
Between 2 and 4 years	7	16,7%	5	17,2%	12	26,7%	13	46,4%	7	28,0%	44	26,0%	
Above 5 years	33	78,6%	23	79,3%	18	40,0%	13	46,4%	9	36,0%	96	56,8%	
Busiest day													
Friday	5	11,9%	3	10,3%	18	40,0%	1	3,6%	8	32,0%	35	20,7%	
Saturday	30	71,4%	23	79,3%	22	48,9%	4	14,3%	12	48,0%	91	53,9%	
Sunday	6	14,3%	1	3,4%	0	0,0%	21	75,0%	0	0,0%	28	16,6%	
Other	1	2,4%	2	6,9%	5	11,1%	2	7,1%	5	20,0%	15	8,9%	

Table 8: Client characteristics, stratified by type of venue

			Public										P-value
	VZW	%	Place	%	Bar N=45	%	Church	%	Other	%	Total	%	
General	11-42	70	11-25	/0	11-43	/0	N-20	/0	11-23	70	11-105	70	
N°clients busiest moment													
Less than 20	4	9,5%	1	3,4%	2	4,4%	1	3,6%	15	60,0%	23	13,6%	
Between 20 and 49	15	35,7%	20	69,0%	36	80,0%	9	32,1%	6	24,0%	86	50,9%	
Between 50 and 99	13	23,8%	5	17,2%	3	6,7%	12	42,9%	4	16,0%	37	21,9%	
More than 100	10	23,8%	3	10,3%	4	8,9%	6	24,4%	0	0,0%	23	13,6%	
Communities (N=157)													
SAM only	21	50,0%	1	37,0%	6	16,2%	14	51,9%	6	25,0%	48	30,6%	
SAM + other communities	21	50,0%	26	96,3%	31	83,8%	13	48,1%	18	75,5%	109	69,4%	
SAM clients													
N of SAM clients at the busie	st mome	nt											
Median	50		20		20		60		12		25		
Rang	(6-400)		(5-50)		(0-200)		(0-200)		(3-30)		(0-400)		
SAM communities													
West Africa	38	90,5%	27	93,1%	37	82,2%	22	78,6%	22	88,0%	146	86,4%	
Central africa	28	66,7%	20	69,0%	22	48,9%	11	39,3%	10	40,0%	91	53,8%	
East Africa	21	50,0%	19	65,5%	15	33,3%	13	46,4%	11	44,0%	79	46,7%	
South Africa	1	2,4%	1	3,4%	1	2,2%	0	0,0%	0	0,0%	3	1,8%	
Gender distribution													
Female = Male	3	7,1%	5	17,2%	9	20,0%	3	10,7%	2	8,0%	22	13,0%	
Female > Male	12	28,6%	9	31,0%	11	24,4%	24	85,7%	16	64,0%	72	42,6%	
Female < Male	27	64,3%	15	51,7%	15	33,3%	1	3,6%	7	28,0%	75	44,4%	
Residence													
Antwerp city	39	92,9%	26	89,7%	34	75,6%	23	82,1%	18	72,0%	140	82,8%	
Province of Antwerp	1	2,4%	0	0,0%	4	8,9%	2	7,1%	2	8,0%	9	5,3%	
Other	1	2,4%	1	3,4%	0	0,0%	1	3,6%	1	4,0%	4	2,4%	
Don't know	1	2,4%	2	6,9%	7	15,6%	2	7,1%	4	16,0%	16	9,5%	

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			Public										P-value
	VZW		Place		Bar		Church		Other		Total		
	N= 42	%	N=29	%	N=45	%	N=28	%	N=25	%	N=169	%	
Age													
Below 24 years													
Less than half	34	81,0%	21	72,4%	34	75,6%	21	75,0%	18	72,0%	128	75,7%	
Half	6	14,3%	2	6,9%	7	15,6%	3	10,7%	4	16,0%	22	13,0%	
More than half	2	4,8%	6	20,7%	4	8,9%	4	14,3%	3	12,0%	19	11,2%	
Between 25 and 39 years													
Less than half	17	40,5%	7	24,1%	11	24,4%	9	32,1%	3	12,0%	47	27,8%	0,034
Half	11	26,2%	13	44,8%	10	22,2%	12	42,9%	7	28,0%	53	31,4%	
More than half	14	33,3%	9	31,0%	24	53,3%	7	25,0%	15	60,0%	69	40,8%	
Above 40 years													
Less than half	15	35,7%	18	62,1%	37	82,2%	20	71,4%	17	68,0%	107	63,3%	
Half	11	26,2%	5	17,2%	8	17,8%	5	17,9%	5	20,0%	34	20,1%	
More than half	16	38,1%	6	20,7%	0	0,0%	3	10,7%	3	12,0%	28	16,6%	
Newcomers													
Less than half	40	95,3%	14	48,3%	36	80,0%	28	100,0%	21	84,0%	139	82,2%	
Half	2	4,8%	0	0,0%	3	6,7%	0	0,0%	1	4,0%	6	3,6%	
More than half	0	0,0%	15	51,7%	6	13,3%	0	0,0%	3	12,0%	24	14,2%	
Alcohol use (N=141)													
Less than half	12	28,6%	15	51,7%	2	4,4%	Not a	asked	21	84,0%	50	35,5%	
Half	4	9,5%	3	10,3%	3	6,7%			2	8,0%	12	8,5%	
More than half	26	61,9%	11	37,9%	40	88,9%			2	8,0%	79	56,0%	
Looking for a stable relations	ship												
Less than half	37	88,1%	26	89,7%	31	68,9%	25	89,3%	24	0,0%	143	84,6%	
Half	1	2,4%	1	3,4%	3	6,7%	2	7,1%	0	96,0%	7	4,1%	
More than half	4	9,5%	2	69,0%	11	24,4%	1	3,6%	1	4,0%	19	11,2%	

			Public										P-value
	VZW		Place		Bar		Church		Other		Total		
	N= 42	%	N=29	%	N=45	%	N=28	%	N=25	%	N=169	%	
Looking for a casual partner	(N=141)												
Less than half	33	78,6%	18	62,1%	24	53,3%	Not a	asked	22	88,0%	97	68,8%	0,004
Half	0	0,0%	3	10,3%	5	11,1%			1	4,0%	9	6,4%	
More than half	9	21,4%	8	27,6%	16	36,6%			2	8,0%	35	24,8%	
Find casual partner (N=141)													
Yes	18	42,9%	17	58,6%	22	48,9%	Not a	asked	3	12,0%	60	42,6%	
No	24	57,1%	12	41,4%	23	51,1%			22	88,0%	81	57,4%	
Sex work (N:141)													
Yes	6	14,3%	14	48,3%	14	31,1%	Not a	asked	0	0,0%	34	24,1%	
Only women	2	4,8%	2	6,9%	2	4,4%					6	3,6%	
Only men	0	0,0%	1	3,4%	1	2,2%					2	1,4%	
Women and men	4	9,5%	11	37,9%	11	24,4%					26	18,4%	
No	36	85,7%	15	17,2%	31	68,9%			25	100,0%	107	75,9%	

Table 9: Prevention coverage and interest, stratified by venue type

	VZW		Public Place		Bar		Church		Other		Total		
	N= 42	%	N=29	%	N=45	%	N=28	%	N=25	%	N=169	%	P-value
Current prevention coverage	9												
HIV-posters or leaflets													
Yes	23	54,8%	3	10,3%	12	26,7%	2	7,1%	10	40,0%	50	29,6%	0,000
No	19	45,2%	26	89,7%	33	73,3%	26	92,9%	15	60,0%	119	70,4%	
Informational talk on HIV													
Yes	22	52,4%	2	6,9%	12	26,7%	7	25,0%	8	32,0%	51	30,2%	0,001
No	20	47,6%	27	93,1%	33	73,3%	21	75,0%	17	68,0%	118	69,8%	
Free condoms (N=141)													
Yes	21	50,0%	3	10,3%	10	22,2%	Not a	sked	6	24,0%	40	28,4%	
No	21	50,0%	26	89,7%	35	77,8%			19	76,0%	101	71,6%	
Organization offering HIV-pr	evention	-											
ITM- HIV-SAM Project	22	52,4%	0	0,0%	6	13,3%	2	7,1%	7	28,0%	37	21,9%	
Sensoa	0	0,0%	0	0,0%	1	2,2%	0	0,0%	1	4,0%	2	1,2%	
Other	2	4,8%	1	3,4%	0	0,0%	1	3,6%	0	0,0%	4	2,4%	
Unknown by respondent	0	0,0%	5	17,2%	7	15,6%	3	10,7%	3	12,0%	6	3,6%	
Interested in future HIV prev	vention												
Yes	38	90,5%	11	37,9%	27	60,0%	18	64,3%	16	64,0%	110	65,1%	0,000
No	4	9,5%	18	62,1%	18	40,0%	10	35,7%	9	36,0%	59	34,9%	

Annex 3: Results of a community based survey on seroprevalence and HIV risk factors among sub-Saharan African migrants visiting community venues in Antwerp city

Table 10: Characteristics of the interviews of the sample (unweighted) and population estimates of SAM socialising in Antwerp city (weighted), stratified by gender

	FEMALE					Μ	ALE			тс	TAL			
	Unwe	ighted	Weigh	nthed	Unwe	eighted	Weig	hted	Unwe	ighted	Weig	hted		p-value
	N		N		Ν		N		Ν		N		OR	unweighted/
Variable	(314)	%	(300,3)	%	(410)	%	(413,7)	%	(753)	%	(714,0)	%	(CI 95%)	weighted
COMMUNITY RESEARCHER'S CH	ARACTE	RISTICS												
Gender														
Female CR	174	55,4%	172,4	57,4%	210	48,8%	207,0	50,0%	384	51,6%	379,4	53,1%		
Male CR	140	44,6%	128,0	42,6%	220	51,2%	206,7	50,0%	360	48,4%	334,6	46,9%		
Origin														
African CR	217	69,1%	210,0	69,9%	315	73,3%	300,1	72,5%	532	71,5%	510,1	71,4%		
Belgian CR	97	30,9%	90,4	30,1%	115	26,7%	113,6	27,5%	212	28,5%	204,0	28,6%		
TYPE OF SETTING														
Bar	49	15,6%	45,5	15,2%	73	17,0%	80,5	19,5%	122	16,4%	126,0	17,6%		0,000/
Church	94	29,9%	95,2	31,7%	79	18,4%	72,8	17,6%	173	23,3%	168,0	23,5%		0,012
Event/ meeting non-profit org.	60	19,1%	55 <i>,</i> 0	18,3%	116	27,0%	114,0	27,6%	176	23,7%	169,1	23,7%		
Info meeting	41	13,1%	40,3	13,4%	31	7,2%	28,6	6,9%	72	9,7%	68,9	9,9%		
Hair salon	12	3,8%	12,5	4,2%	20	4,7%	15,5	3,7%	32	4,3%	28,0	3,9%		
Public place	33	10,5%	30,5	10,1%	75	17,4%	67,5	16,3%	108	14,5%	98,0	13,7%		
Shop	15	4,8%	11,2	3,7%	16	3,7%	16,8	4,1%	31	4,2%	28,0	3,9%		
Asylumcentre	9	2,9%	9,0	3,0%	5	1,2%	5,0	1,2%	14	1,9%	14,0	2,0%		
Permeke	1	0,3%	1,1	0,4%	15	3,5%	13,0	3,1%	16	2,2%	14,0	2,0%		
INTERVIEW STYLE														
Self-reported	147	46,8%	144,5	48,1%	235	54,7%	226,8	54,8%	382	51,3%	371,3	52,0%		
Assisted	91	29,0%	86,5	28,8%	99	23,0%	85,1	20,6%	190	25,5%	171,6	24,0%		
Semi- assisted	76	24,2%	69,2	23,1%	96	22,3%	101,7	24,6%	172	23,1%	171,0	24,0%		

Table 11: Socio- demographic characteristics of the sample (unweighted) and population estimates of SAM socialising in Antwerp city (weighted), stratified by gender.

		FEI	VIALE			Μ	ALE			то	TAL			
	Unwe	ighted	Weigh	nthed	Unwe	ighted	Weig	hted	Unwe	ighted	Weig	hted		p-value
	N	-	N		N		N		N		N		OR	unweighted/
Variable	(314)	%	(300,3)	%	(430)	%	(413,7)	%	(744)	%	(714)	%	(CI95%)	weighted
AGE														
Category														
18 - 29 years	136	43,3%	125,9	41,9%	138	32,1%	142,3	34,4%	274	36,8%	268,2	37,6%		0,000/ -
30 - 39 years	116	36,9%	115,6	38,5%	150	34,9%	147,2	35,6%	266	35,8%	262,8	36,8%		
40 - 49 years	43	13,7%	43,6	14,5%	103	24,0%	90,4	21,9%	146	19,6%	90,4	18,8%		
50 years or older	19	6,1%	15,3	5,1%	39	9,1%	33,7	8,2%	58	7,8%	33,7	6,9%		
Rang	(18	- 66)			(18	-82)			(18	-82)				
Mean	32,1		32,2		35,3		34,6		34,0		33,6			
RESIDENCE														
Country of residence														
Belgium	296	94,3%	283,6	94,4%	415	96,5%	397,3	96,1%	711	95,6%	681,0	95,4%		
Abroad (N=33/33,1)	18	5,7%	16,7	5,6%	15	3,5%	16,3	3,9%	33	4,4%	33,0	4,6%		
Europe	13	72,2%	11,8	70,4%	13	86,7%	14,3	87,4%	26	78,8%	26,0	78,8%		
Africa	5	27,8%	5,0	29,6%	2	13,3%	2,1	12,6%	7	21,2%	7,0	21,2%		
Reason visiting (N = 33/ n=33,	1)													
Visiting family/friends	14	77,8%	14,5	86,6%	8	53,3%	10,5	64,2%	22	66,7%	25,0	75,5%		
Visiting partner	1	5,6%	0,2	1,4%	1	6,7%	0,4	2,3%	2	6,1%	0,6	1,8%		
Considering to move	0	0,0%	0	0,0%	3	20,0%	2,6	15,9%	3	9,1%	2,6	7,8%		
Visiting family and														
considering to move	0	0,0%	0	0,0%	1	6,7%	0,8	5,0%	1	3,0%	0,8	2,5%		
Attend event	1	5,6%	0,8	4,9%	2	13,3%	2,0	12,5%	3	9,1%	2,9	8,7%		
Prefer not to answer	2	11,1%	1,2	7,1%	0	0,0%	0,0	0,0%	2	6,1%	1,2	3,6%		

		FFI	MAIF			М	ΔIF			то	ται			
	Unwe	ighted	Weigh	nthed	Unwe	vighted	Weig	hted	Unwe	ighted	Weig	phted		n-value
	N	Bitted	N		N		N		N	.5	N		OR	unweighted/
Variable	(314)	%	(300,3)	%	(430)	%	(413,7)	%	(744)	%	(714)	%	(CI95%)	weighted
City of residence (N= 708/n=6	79,0)													
City of Antwerp	231	78,6%	218,2	77,2%	320	77,3%	303,3	76,5%	551	77,8%	521,5	76,8%		
Elsewhere in Belgium	63	21,4%	64,5	22,8%	94	22,7%	93,0	23,5%	157	22,2%	157,5	23,2%		
HOUSING TYPE (N= 559/n=593	5)													
Stable housing (apartment/														
house or asylum centre)	204	87,2%	192,3	87,6%	295	90,8%	281,3	84,5%	499	89,3%	473,6	90,8%		
Unstable housing (staying														
with friends or homeless)	30	12,8%	27,3	12,4%	30	9,2%	20,6	15,5%	60	10,7%	47,9	9,2%		
RELATIONSHIP STATUS														
Status (N= 715/ n=682,2)														
In a relationship (married														
or in a relationship)	174	58,0%	173,4	60,3%	245	59,0%	228,8	58,0%	419	58,6%	402,2	59,0%		
Single (previously married														
or never married)	126	42,0%	114,2	39,7%	170	41,0%	165,7	42,0%	296	41,4%	280,0	41,0%		
Cohabiting (N=419/n=402,2)														
Yes	107	61,5%	112,6	64,9%	173	70,6%	161,6	70,7%	280	66,8%	274,2	68,2%		
No	67	38,5%	60,9	35,1%	72	29,4%	67,1	29,3%	139	33,2%	128,0	31,8%		
EDUCATION LEVEL														
Highest level completed (N= 7	26/n=6	93,5)												
Primary school or less	71	23,1%	73,4	25,1%	57	13,6%	61,1	15,2%	128	17,6%	134,5	19,4%		
Completed secondary	149	48,5%	136,8	46,8%	196	46,8%	181,1	45,2%	345	47,5%	318,0	45,8%		0,000/ 0,015
Continued education														
(vocational training or uni)	87	28,3%	82,2	28,1%	166	39,6%	158,8	39,6%	253	34,8%	241,0	34,8%		

		FEN	ЛАLE			Μ	ALE			то	TAL			
	Unwe	eighted	Weigł	nthed	Unwe	ighted	Weig	hted	Unwe	ighted	Wei	ghted		p-value
	N		N		N		N		N		N		OR	unweighted/
Variable	(314)	%	(300,3)	%	(430)	%	(413,7)	%	(744)	%	(714)	%	(CI95%)	weighted
OCCUPATIONAL LEVEL (N=708	/n= 672	,8)												
Working	122	40,4%	119,4	41,9%	203	50,0%	195,3	50,3%	325	45,9%	314,7	46,8%		
Unemployed	136	45,0%	127,7	44,9%	172	42,4%	158,1	40,7%	308	43,5%	285,8	42,5%		
Full time student	44	14,6%	37,6	13,2%	31	7,6%	34,7	8,9%	75	10,6%	72,3	10,7%		
FINANCIAL SITUATION														
Financial difficulties in the last	t 12 mo	nths (N=7	707/n=67	0,9)										
Most of the time	64	21,6%	54,8	19,6%	109	26,5%	106,5	27,2%	173	24,5%	161,2	24,0%		
Sometimes	117	39,5%	114,3	40,9%	157	38,2%	147,8	37,8%	274	38,8%	262,1	39,1%		
No	115	38,9%	110,4	39,5%	145	35,3%	137,2	35,1%	260	36,8%	247,6	36,9%		
RELIGION														
Туре														
Protestant/pentecoastal														
Evangelic	160	51,0%	150	49,8%	167	38,8%	164,8	39,8%	327	44,0%	314,3	44,0%		
Roman catholic	98	31,2%	92,8	30,9%	162	37,7%	157,5	38,1%	260	34,9%	250,3	35,1%		
Muslim	31	9,9%	34,5	11,5%	71	16,5%	59,3	14,3%	102	13,7%	93,8	13,1%		
Kibanguist	9	2,9%	9,6	3,2%	11	2,6%	10,1	2,4%	20	2,7%	19,7	2,8%		
Jehovah witness	4	1,3%	3,4	1,1%	2	0,5%	3,8	0,9%	6	0,8%	7,2	1,0%		
No religion	12	3,8%	10,5	3,5%	17	4,0%	18,2	4,4%	29	3,9%	28,7	4,0%		
Attendance religious service (N=705/	n=676,3)												
Weekly or more	201	67,2%	188,3	65,7%	239	58,9%	228,5	58,7%	440	62,4%	416,9	61,6%		
Monthly or more	29	9,7%	30,6	10,7%	49	12,1%	46,8	12,0%	78	11,1%	77,4	11,4%		
Few times a year,														
practically never or never	69	23,1%	67 <i>,</i> 8	23,6%	118	29,1%	114,3	29,3%	187	26,5%	182,0	26,9%		

		FEN	MALE			Μ	ALE			то	TAL			
	Unwe	ighted	Weigh	thed	Unwe	ighted	Weig	hted	Unwe	ighted	Weig	hted		p-value
	N		N		N		N		N		N		OR	unweighted/
Variable	(314)	%	(300,3)	%	(430)	%	(413,7)	%	(744)	%	(714)	%	(CI95%)	weighted
COUNTRY OF ORIGIN														
West Africa	232	73,9%	210,6	70,1%	264	61,4%	255,8	61,8%	496	66,7%	466,2	65,3%		
Benin	0	0,0%	0	0,0%	1	0,2%	1,1	0,3%	1	0,1%	1,1	0,2%		
Burkina Faso	6	1,9%	5,2	1,7%	6	1,4%	5,0	1,2%	12	1,6%	10,2	1,4%		
Cameroon	46	14,6%	40,5	13,5%	62	14,4%	60,1	14,5%	108	14,5%	100,5	14,1%		
Cape Verde	12	3,8%	8,7	2,9%	9	2,1%	8,4	2,0%	21	2,8%	17,1	2,4%		
Gabon	0	0,0%	0	0,0%	1	0,2%	1,0	0,2%	1	0,1%	1,0	0,1%		
Gambia	4	1,3%	2,6	0,9%	3	0,7%	3,7	0,9%	7	0,9%	6,3	0,9%		
Ghana	61	19,4%	57,9	19,3%	58	13,5%	55,1	13,3%	119	16,0%	112,9	15,8%		
Guinea-Conackry	12	3,8%	14,1	4,7%	5	1,2%	5,2	1,3%	17	2,3%	19,4	2,7%		
Guinea-Equatorial	2	0,6%	2,6	0,9%	0	0,0%	0,0	0,0%	2	0,3%	2,6	0,4%		
Ivory Coast	4	1,3%	3,7	1,2%	13	3,0%	15,1	3,6%	17	2,3%	18,8	2,6%		
Liberia	6	1,9%	6,6	2,2%	9	2,1%	12,4	3,0%	15	2,0%	18,9	2,6%		
Mali	3	1,0%	2,9	1,0%	2	0,5%	1,5	0,4%	5	0,7%	4,4	0,6%		
Mauritania	0	0,0%	0	0,0%	2	0,5%	0,4	0,1%	2	0,3%	0,4	0,1%		
Niger	2	0,6%	1,4	0,5%	0	0,0%	0,0	0,0%	2	0,3%	1,4	0,2%		
Nigeria	69	22,0%	60,2	20,0%	65	15,1%	61,4	14,8%	134	18,0%	121,6	17,0%		
Senegal	1	0,3%	0,9	0,3%	19	4,4%	17,6	4,3%	20	2,7%	18,5	2,6%		
Sierra Leone	3	1,0%	2,9	1,0%	6	1,4%	5,0	1,2%	9	1,2%	7,9	1,1%		
Тодо	1	0,3%	0,4	0,1%	3	0,7%	2,8	0,7%	4	0,5%	3,2	0,4%		
Central Africa	66	21,0%	67,7	22,5%	130	30,2%	131,6	31,8%	196	26,3%	199,4	27,9%		
Angola	9	2,9%	11,2	3,7%	22	5,1%	23,9	5,8%	31	4,2%	35,1	4,9%		
Burundi	8	2,5%	8,4	2,8%	33	7,7%	35,1	8,5%	41	5,5%	43,5	6,1%		
Central African Republic	0	0,0%	0	0,0%	1	0,2%	1,0	0,2%	1	0,1%	1,0	0,1%		
Congo- Kinshasa	48	15,3%	47,3	15,8%	72	16,7%	69,9	16,9%	120	16,1%	117,2	16,4%		
Congo- Brazzaville	1	0,3%	0,8	0,3%	1	0,2%	1,2	0,3%	2	0,3%	2,1	0,3%		
Tjaad	0	0,0%	0	0,0%	1	0,2%	0,5	0,1%	1	0,1%	0,5	0,1%		

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		FEI	MALE			М	ALE			то	TAL			
	Unwe	ighted	Weigl	nthed	Unwe	ighted	Weig	hted	Unwe	ighted	Weig	ghted		p-value
Variable	N (314)	%	N (300,3)	%	N (430)	%	N (413,7)	%	N (744)	%	N (714)	%	OR (CI95%)	unweighted/ weighted
East Africa	13	4,1%	19,4	6,5%	35	8,1%	25,8	6,2%	48	6,5%	45,2	6,3%		
Djibouti	1	0,3%	1,6	0,5%	1	0,2%	1,0	0,2%	2	0,3%	2,6	0,4%		
Eritrea	0	0,0%	0	0,0%	1	0,2%	1,0	0,2%	1	0,1%	1,0	0,1%		
Ethiopia	0	0,0%	0	0,0%	1	0,2%	0,7	0,2%	1	0,1%	0,7	0,1%		
Kenya	5	1,6%	7,1	2,4%	7	1,6%	6,8	1,6%	12	1,6%	13,9	1,9%		
Rwanda	2	0,6%	1,8	0,6%	12	2,8%	10,7	2,6%	14	1,9%	12,5	1,8%		
Somalia	0	0,0%	0	0,0%	3	0,7%	0,7	0,2%	3	0,4%	0,7	0,1%		
Sudan	1	0,3%	1,1	0,4%	0	0,0%	0,0	0,0%	1	0,1%	1,1	0,2%		
Tanzania	1	0,3%	1,5	0,5%	9	2,1%	4,9	1,2%	10	1,3%	6,4	0,9%		
Uganda	3	1,0%	6,3	2,1%	1	0,2%	0,0	0,0%	4	0,5%	6,3	0,9%		
South Africa	3	1,0%	2,8	0,9%	1	0,2%	0,4	0,1%	4	0,5%	3,2	0,4%		
Zambia	1	0,3%	0,3	0,1%	0	0,0%	0,0	0,0%	1	0,1%	0,3	0,0%		
Zimbabwe	2	0,6%	2,5	0,8%	1	0,2%	0,4	0,1%	3	0,4%	2,9	0,4%		
MIGRATION DURATION														
Migration to Belgium (N=734/	′n=705,3	3)												
2 years or less	104	33,4%	102,4	34,3%	103	24,3%	109,8	27,0%	207	28,2%	212,2	30,1%		
Between 2 and 5 years	39	12,5%	32,3	10,8%	88	20,8%	86,1	21,2%	127	17,3%	118,5	16,8%		0,003/ 0,033
Between 5 and 10 years	64	20,6%	59,7	20,0%	102	24,1%	91,3	22,5%	166	22,6%	151,0	21,4%		
10 years or more or born in Belgium	104	33,4%	102,2	34,9%	130	30,7%	119,3	29,3%	234	31,9%	223,5	31,7%		

		FEN	MALE			М	ALE			то	TAL			
	Unwe	ighted	Weigł	nthed	Unwe	ighted	Weig	hted	Unwe	ighted	Weig	hted		p-value
	N		N		N		N		N		N		OR	unweighted/
Variable	(314)	%	(300,3)	%	(430)	%	(413,7)	%	(744)	%	(714)	%	(CI95%)	weighted
MIGRATION HISTORY														
Prior migration in Africa (long	er than (6 months	other Afi	rican cou	ntry tha	n countr	y of birth)	(N=730/	699,3)					
Yes	53	17,2%	52,8	17,9%	116	27,5%	112,3	27,8%	169	23,2%	165,2	23,6%	1,8	
No	255	82,8%	242,6	82,1%	306	72,5%	291,5	72,2%	561	76,8%	534,1	76,4%	(1,1-2,8)	0,001/0,015
Prior migration in EU (longer t	han 6 m	onths in	other EU	country)	(N=700,	/670,4)								
Yes	78	24,8%	71,7	25,6%	135	31,4%	124,5	31,9%	213	28,6%	196,2	29,3%		
No	214	68,2%	208,2	74,4%	273	63,5%	266,0	68,1%	487	65,5%	474,1	70,7%		
Vulnerable situation*														
Yes	110	35,0%	99,6	33,2%	151	35,1%	142,3	34,4%	261	35,1%	242,0	33,9%		
No	204	65,0%	200,7	66,8%	279	64,9%	271,3	65,6%	483	64,9%	472,0	66,1%		

* Computed variable, yes if one of the following is true: financial difficulties most of the time in the last 12 months, unstable housing or no health insurance

Table 12: Sexual behaviour of the sample (unweighted) and population estimates of SAM socialising in Antwerp city (weighted), stratified by gender

		FEN	VIALE			M	ALE			то	TAL			
	Unwe	ighted	Weigl	hthed	Unwe	ighted	Weigl	hted	Unwe	ighted	Weig	hted		
	N		N		N		N		N		N			p-value
Variable	(314)	%	(300,3)	%	(430)	%	(413,7)	2,0	(744)	%	(714,0)	%	OR	weighted
SEXUALLY ACTIVE														
Sexually active, lifetime														
Yes	301	95,9%	288,2	95,9%	417	97,0%	400,1	96,7%	718	96,5%	688,3	96,4%		
No	13	4,1%	12,2	4,1%	13	3,0%	13,5	3,3%	26	3,5%	25,7	3,6%		
Sexually active, last 12 month	s													
Yes	259	82,5%	251,9	83,9%	370	86,0%	355,0	85,8%	629	84,5%	606,9	85,0%		
No	55	17,5%	48,4	16,1%	60	14,0%	58,7	14,2%	115	15,5%	107,1	15,0%		
SEXUAL ORIENTATION (N=718)	/n=688,3	3)												
Hetrosexual	276	91,7%	266,3	92,4%	394	94,5%	374,4	93,6%	670	93,3%	640,8	93,1%		
Holebi	11	3,7%	8	2,8%	10	2,4%	10,8	2,7%	21	2,9%	18,8	2,7%		
Prefer not to answer	14	4,7%	13,9	4,8%	13	3,1%	14,9	3,7%	27	3,8%	28,7	4,2%		
N OF SEXUAL PARTNERS (LAST	12 MON	NTHS) (N:	=718/n=68	88,3)										
Number of stable partners (la	st 12 mc	onths)												
None	64	21,3%	57,6	20,0%	87	20,9%	84,2	21,0%	151	21,0%	141,8	20,6%		
1	217	72,1%	211,8	73,5%	284	68,1%	274,3	68,5%	501	69,8%	486,1	70,6%		
2	16	5,3%	15,2	5,3%	32	7,7%	27,1	6,8%	48	6,7%	42,4	6,2%		
3 or more	4	1,3%	3,5	1,2%	14	3,4%	14,5	3,6%	18	2,5%	18,0	2,6%		
Number of casual partners (la	st 12 ma	onths)												
None	218	72,4%	210,3	73,0%	230	55,2%	225,5	56,4%	448	62,4%	435,8	63,3%		_
1	43	14,3%	43,9	15,2%	85	20,4%	77,1	19,3%	128	17,8%	121,0	17,6%		0,000/0,021
2	18	6,0%	15,5	5,4%	44	10,6%	42,4	10,6%	62	8,6%	57,9	8,4%		
3 or more	22	7,3%	19	6,4%	58	13,9%	55,1	13,8%	80	11,1%	73,7	10,7%		

		FEN	ЛАLE			M	ALE			то	TAL			
	Unwe	eighted	Weigl	hthed	Unwe	eighted	Weig	hted	Unwe	ighted	Weig	hted		
	N		N		N		N		N		N			p-value
Variable	(314)	%	(300.3)	%	(430)	%	(413.7)	2.0	(744)	%	(714.0)	%	OR	weighted
Concurrency by partcipant in a	a relatio	nship, la	st 12 mor	nths (N=3	91/n=37	75,6)								Ŭ
Yes	39	23,9%	37,7	22,9%	90	39,5%	82,6	39,1%	129	33,0%	120,3	32,0%	2.2	
No	124	76,1%	126,7	77,1%	138	60,5%	128,6	60,9%	262	67,0%	255,3	68,0%	(1,3-3,6)	0,001/ 0,004
Assumed concurrency by a pa	rtner													
Lifetime (N=682/n=654,5)														
Yes	100	34,8%	100,2	36,3%	159	40,3%	157,0	41,5%	259	38,0%	257,2	39,3%		
No	130	45,3%	117,2	42,5%	181	45,8%	168,8	44,6%	311	45,6%	286,0	43,7%		
Not sure/ Don't know	57	19,9%	58,4	21,2%	55	13,9%	52,9	14,0%	112	16,4%	111,3	17,0%		
Last 12 months (N=361/n=3	60,7)													
Yes	48	31,6%	53	34,5%	77	36,8%	72,0	34,8%	125	34,6%	125,0	34,7%		
No	78	51,3%	74,3	48,3%	101	48,3%	100,1	48,4%	179	49,6%	174,4	48,3%		
Not sure/ Don't know	26	17,1%	26,5	17,2%	31	14,8%	34,8	16,8%	57	15,8%	61,3	17,0%		
SINGLE AND MULTIPLE PARTN	ERS (3 o	r more in	the last 1	L2 month	s)									
Yes	13	11,3%	11,2	10,9%	41	26,1%	39,6	26,0%	54	19,9%	50,7	19,9%	2,9	
No	102	88,7%	91,8	89,1%	116	73,9%	112,6	74,0%	218	80,1%	204,4	80,1%	(1,2-7,0)	0,002/0,017
SEXUAL MIXING														
Origin last partner (N=684/n=	652,3)													
African	215	75,4%	213,7	78,2%	289	72,4%	280,0	73,8%	504	73,7%	493,6	75,7%		
Belgian	56	19,6%	49	17,9%	94	23,6%	83,0	21,9%	150	21,9%	132,0	20,2%		
Other	14	4,9%	10,5	3,8%	16	4,0%	16,2	4,3%	30	4,3%	26,7	4,1%		
Origin partner, Africa travels (N=138/	n=127,4)												
African	29	96,7%	28,1	94,4%	106	98,1%	95,5	97,9%	135	97,8%	123,6	97,0%		
Other	1	3,3%	1,7	5,6%	2	1,9%	2,1	2,1%	3	2,2%	3,8	3,0%		
Origin partner, EU travels (N=	93/n=79	9,8)												
African	21	67,7%	22,1	73,6%	35	62,5%	27,9	56,1%	56	64,4%	50,0	62,7%		
Other	10	32,3%	7,9	26,4%	21	37,5%	21,8	43,9%	31	35,6%	29,8	37,3%		

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		FEN	VIALE			M	ALE			то	TAL			
	Unwe	ighted	Weigh	nthed	Unwe	ighted	Weigl	hted	Unwe	ighted	Weig	hted		
Variable	N (314)	%	N (300,3)	%	N (430)	%	N (413,7)	2,0	N (744)	%	N (714,0)	%	OR	p-value unweighted/ weighted
PARTNER TYPE														
Last sexual partner (N=644/n=	=619,6)	-												
Casual	33	12,3%	30,5	11,7%	107	28,5%	103,0	28,7%	140	21,7%	133,5	21,5%	3,0	
Stable	235	87,7%	230,1	88,3%	269	71,5%	256,0	71,3%	504	78,3%	486,1	78,5%	(1,8-5,1)	0,000/ 0,000
PAID FOR SEX														
Lifetime (N=697/n=665,5)														
Yes	8	2,7%	9,0	3,2%	121	29,9%	106,0	27,3%	129	18,5%	115,0	17,3%	11.2	
No	284	97,3%	268,8	96,8%	284	70,1%	281,7	72,7%	568	81,5%	550,5	82,7%	, (5,2-24,2)	0,000/ 0,000
Last 12 months (N=695/n=662	2,7)													
Yes	4	1,4%	4,6	1,7%	59	14,6%	49,0	12,7%	63	9,1%	53,5	8,1%	8.6	
No	287	98,6%	271,9	98,3%	345	85,4%	337,4	87,3%	632	90,9%	609,2	91,9%	(2,8-27,0)	0,000/0,000
TRANSACTIONAL SEX														
Lifetime (N=691/n=660,1)														
Yes	41	14,0%	35,1	12,6%	41	10,3%	40,1	10,5%	82	11,9%	75,2	11,4%		
No	252	86,0%	244,4	87,4%	357	89,7%	340,5	89,5%	609	88,1%	584,9	88,6%		
Last 12 months (N=689/n=658	3,4)													
Yes	24	8,2%	21,2	7,6%	25	6,3%	25,5	6,7%	49	7,1%	46,7	7,1%		
No	268	91,8%	257,9	92,4%	372	93,7%	353,8	93,3%	640	92,9%	611,7	92,9%		
PARTNER VIOLENCE														
Lifetime (N=721/n=689)														
Yes	52	17,3%	48,5	17,0%	59	14,0%	49,3	12,2%	111	15,4%	97,9	14,2%		
No	249	82,7%	237,6	83,0%	361	86,0%	353,6	87,8%	610	84,6%	591,1	85,8%		
Last 12 months (N=718/n=687	7,1)													
Yes	24	8,0%	25,2	8,8%	32	7,6%	23,9	6,0%	56	7,8%	49,2	7,2%		
No	275	92,0%	260,1	91,2%	387	92,4%	377,7	94,0%	662	92,2%	637,9	92,8%		

	FEMALE			M	ALE			то	TAL					
	Unwe	ighted	Weigl	nthed	Unwe	ighted	Weig	hted	Unwe	ighted	Weigl	hted		
Variable	N (314)	%	N (300,3)	%	N (430)	%	N (413,7)	2,0	N (744)	%	N (714,0)	%	OR	p-value unweighted/ weighted
FORCED SEX														
Lifetime (N=699/n=666,4)														
Yes	38	13,1%	35,7	12,9%	18	4,4%	16,6	4,3%	56	8,0%	52,1	7,8%	3,3	
No	253	86,9%	241,0	87,1%	390	95,6%	373,3	95,7%	643	92,0%	614,3	92,2%	, (1,6-6,9)	0,000/ 0,001
Last 12 months (N=697/n=663	s,9)													
Yes	9	3,1%	9,2	3,4%	6	1,5%	4,3	1,1%	15	2,1%	13,5	2,0%		
No	281	96,9%	264,9	96,6%	402	98,5%	385,5	98,9%	683	97,9%	650,4	98,0%		
SEX AND MOBILITY														
Place last sexual contact (N=7)	14/n=68	3,8)												
Belgium	256	85,3%	240,9	83,6%	341	82,4%	320,7	81,0%	597	83,6%	561,6	82,1%		
Other EU country	19	6,3%	21	7,3%	27	6,5%	28,7	7,2%	46	6,4%	49,6	7,3%		
Africa	25	8,3%	26,3	9,1%	46	11,1%	46,4	11,7%	71	9,9%	72,6	10,6%		
Travelled to Africa after migra	tion													
Yes	138	43,9%	134,6	44,8%	194	45,1%	181,1	43,8%	332	44,6%	315,7	44,2%		
No	176	56,1%	165,7	55,2%	236	54,9%	232,6	56,2%	412	55,4%	398,3	55,8%		
Sexually active when travel	ing to A	frica (N=	318/n=29	9,9)										
Yes	32	24,4%	31,5	24,7%	110	58,8%	100,5	58,3%	142	44,7%	132,0	44,0%	4,3	
No	99	75,6%	96,1	75,3%	77	41,2%	71,8	41,7%	176	55,3%	167,9	56,0%	(2,7-6,8)	0,000/ 0,000
How long ago (N=139/n=1	29,3)													
1 year ago or less	10	32,3%	9,3	30,6%	55	50,9%	52,3	53,4%	65	46,8%	61,6	48,0%		0,043/
Between 1 and 5 years	11	35,5%	11,7	38,3%	38	35,2%	30,2	30,8%	49	35,3%	41,8	32,6%		0,060
Longer than 5 years ago	10	32,3%	9,4	31,0%	15	13,9%	15,4	15,8%	25	18,0%	24,9	19,4%		
Last sexual partner, Africa	travel (N	N=130/n	=122,3)											
Local	19	63,3%	18,4	63,5%	87	87,0%	81,8	87,7%	106	81,5%	100,2	81,9%	4,1	
Travel partner	11	36,7%	10,6	36,5%	13	13,0%	11,5	12,3%	24	18,5%	22,1	18,1%	(1,2-14,1)	0,003/ 0,021

		FEN	VALE			M	ALE			то	TAL			
	Unwe	eighted	Weigl	nthed	Unwe	eighted	Weig	hted	Unwe	ighted	Weig	hted		
	N		N		N		N		N		N			p-value
Variable	(314)	%	(300,3)	%	(430)	%	(413,7)	2,0	(744)	%	(714,0)	%	OR	weighted
Last sexual partner, Africa t	ravel (N	=130/n=	122,3)											
Casual	12	40,0%	11,6	40,0%	50	50,0%	48,6	47,9%	62	47,7%	56,3	46,0%		
Stable	18	60,0%	17,4	60,0%	50	50,0%	44,7	52,1%	68	52,3%	66,0	54,0%		
Risky sexual behaviour whi	le trave	lling in A	frica (loca	l partner	and no	condom	used)							
Lifetime														
Yes	12	8,7%	11,8	8,7%	39	20,1%	40,0	22,1%	51	15,4%	51,8	16,4%	3,0	
No	126	91,3%	122,8	91,3%	155	79,9%	141,1	77,9%	281	84,6%	263,9	83,6%	(1,5-5,9)	0,004/0,002
Last year														
Yes	6	4,3%	6,5	4,8%	19	9,8%	20,5	11,3%	25	7,5%	27,0	8,6%		
No	132	95,7%	128,1	95,2%	175	90,2%	160,6	88,8%	307	92,5%	288,7	91,4%		
Travelled to other European c	ountry a	after mig	ration											
Yes	172	54,8%	161,8	53,9%	247	57,4%	228,1	55,2%	419	56,3%	389,9	54,6%		
No	142	45,2%	138,6	46,1%	183	42,6%	185,5	44,8%	325	43,7%	324,1	45,4%		
Sexually active when travell	ing to of	ther Eu c	ountry (N	=398/n=3	364)									
Yes	32	19,6%	30,6	20,4%	60	25,5%	54,0	25,3%	92	23,1%	84,6	23,2%		
No	131	80,4%	119,9	79,6%	175	74,5%	159,4	74,7%	306	76,9%	279,4	76,8%		
How long ago (N=91/n= 84,	.3)													
1 year ago or less	16	51,6%	15,5	51,1%	28	46,7%	24,0	44,5%	44	48,4%	39,5	46,9%		
Between 1 and 5 years	14	45,2%	13,4	44,4%	23	38,3%	21,1	39,1%	37	40,7%	34,5	41,0%		
Longer than 5 years ago	1	3,2%	1,4	4,5%	9	15,0%	8,9	16,5%	10	11,0%	10,3	12,2%		
Last sexual partner, Eu trav	el (N=9	2/n=79,5)											
Local	17	58,6%	18,1	64,1%	48	87,3%	45,2	88,3%	65	77,4%	63,4	79,7%	4.2	
Travel partner	12	41,4%	10,1	35,9%	7	12,7%	6,0	11,7%	19	22,6%	16,1	20,3%	(1,4-13,2)	0,003/0,010
Last sexual partner, Eu trav	el (N=9	2/n=79,5)											
Casual	9	31,0%	9,6	34,2%	32	58,2%	31,5	61,5%	41	48,8%	41,2	51,8%	3,1	
Stable	20	69,0%	18,6	65,8%	22	41,8%	19,7	38,5%	43	51,2%	38,3	48,2%	(1,1-9,0)	0,018/ 0,037

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		FEN	ЛАLE			M	ALE			то	TAL			
	Unwe	eighted	Weigl	hthed	Unwe	ighted	Weig	hted	Unwe	ighted	Weig	hted		
Variable	N (314)	%	N (300,3)	%	N (430)	%	N (413,7)	2,0	N (744)	%	N (714,0)	%	OR	p-value unweighted/ weighted
Risky sexual behaviour whi	e trave	ling in Eu	(African	partner a	nd no co	ondom u	sed)							
Lifetime														
Yes	9	5,2%	10,7	6,6%	11	4,5%	8,0	3,5%	20	4,8%	18,7	4,8%		
No	163	94,8%	151,1	93,4%	236	95,5%	220,1	96,5%	399	95,2%	371,2	95,2%		
Last year														
Yes	5	2,9%	5,4	3,4%	6	2,4%	3,5	1,5%	11	2,6%	9,0	2,3%		
No	167	97,1%	156,3	96,6%	241	97,6%	224,6	98,5%	408	97,4%	380,9	97,7%		
RISKY SEXUAL BEHAVIOUR in t	he last 1	.2 month	s*											
Yes	80	30,7%	77,7	30,5%	169	45,2%	160,0	44,7%	249	39,2%	237,7	38,8%	1.8	
No	181	69,3%	176,6	69,5%	205	54,8%	197,6	55,3%	386	60,8%	374,2	61,2%	(1,2-2,9)	0,000/ 0,010

*Computed variable, engaged in risky sexual behaviour if one of the following is true: forced to have sex in the last 12 months, engaged in transactional sex in the last 12 months, in a relationship and concurrent in the last 12 months, single and 3 or more different sexual partners in the last 12 months, risky sexual behaviour during travels in Europe in the last 12 months, risky sexual behaviour during travels in Africa in the last 12 months.

Table 13: Health seeking- and HIV-testing behaviour of the sample (unweighted) and population estimates of SAM socialising in Antwerp city (weighted), stratified by gender

		FEN	1ALE		MALE					то	TAL			
	Unweighted		Weighthed		Unwei	ighted	Weighted		Unweighted		Weighted			P-value
	N		N				N		N		N			unweighted/
Variable	(314)	%	(300,3)	%	N(430)	%	(413,7)	2,0%	(744)	%	(714,0)	%	OR	weighted
HEALTH SEEKING BEHAVIOUR														
HEALTH INSURANCE (N= 743/n=712,9														
Yes (SIS-card, medical care														
in asylum centre, European														
or African health														
insurance)	254	80,9%	248,4	82,7%	354	82,5%	336,8	81,6%	608	81,8%	585,2	82,1%		
No (No health insurance or														
urgent medical care of	60	10.10	54.0	47.00/		47 50(75.0	10.40/	405	40.000	407 7	47.00/		
OCMW)	60	19,1%	51,9	17,3%	75	17,5%	/5,8	18,4%	135	18,2%	127,7	17,9%		
CONSULTING MEDICAL SERVIC														
Last medical consult in Belgium (among those who visited a doctor in Belgium) (N								50,9)						
6 months or less	213	73,4%	203,2	74,8%	252	63,0%	228,3	60,2%	465	67,4%	431,4	66,3%	2,0	0,004/
Langer than 6 months ago	77	26,6%	68,4	25,2%	148	37,0%	151,1	39,8%	225	32,6%	219,4	33,7%	(1,3-2,9)	0,001
Type medical service consulte	d last (N	l= 690/n=	650,9)											
GP	173	59,7%	165,9	61,1%	301	75,3%	282,5	74,5%	474	68,7%	448,4	68,9%		0,000/
Emergency care	17	5,9%	15,8	5,8%	36	9,0%	38,7	10,2%	53	7,7%	54,6	8,4%		0,000
Other	100	34,5%	89,8	33,1%	63	15,8%	58,1	15,3%	163	23,6%	147,9	22,7%		
HIV TESTING BEHAVIOUR														
Ever tested (N=720/n=690,5)														
Yes	224	74,4%	213,9	73,9%	289	69,0%	276,0	68,8%	513	71,3%	489,9	71,0%		
No	77	25,6%	75,4	26,1%	130	31,0%	125,2	31,2%	207	28,7%	200,6	29,0%		
Last HIV test (N=513/n=489,9)														
1 year ago or less	139	62,1%	130,9	61,2%	168	58,1%	155,4	56,3%	307	56,3%	286,3	58,4%		
Between 1 and 2 years ago	39	17,4%	34,2	16,0%	60	20,8%	57,2	15,5%	99	20,7%	91,4	18,7%		
Longer than 2 years ago	46	20,5%	48,8	22,8%	61	21,1%	63,4	23,0%	107	23,0%	112,2	22,9%		

	FEMALE				MALE					то	TAL			
	Unweighted		Weighthed		Unweighted		Weighted		Unweighted		Weighted			P-value
	N		N				Ν		Ν		Ν			unweighted/
Variable	(314)	%	(300,3)	%	N(430)	%	(413,7)	2,0%	(744)	%	(714,0)	%	OR	weighted
Country last HIV test (N=513/n=489,9)														
Belgium	176	78,6%	164,0	76,7%	221	76,5%	201,4	72,9%	397	77,4%	365,4	74,6%		
Other European country	29	12,9%	26,9	12,6%	30	10,4%	32,8	11,9%	59	11,5%	59 <i>,</i> 6	12,2%		
Africa	19	8,5%	23,0	10,8%	38	13,1%	41,9	15,2%	57	11,1%	64,9	13,2%		
STI HISTORY														
Ever diagnosed with STI (N=684/n=652,5)		2,5)												
Yes	28	9,6%	25,5	9,3%	60	15,3%	55,5	14,7%	88	12,9%	81,0	12,4%	1,7	
No	264	90,4%	249,8	90,7%	332	84,7%	321,8	85,3%	596	87,1%	571,5	87,6%	(1,0-2,8)	0,027/ 0,046
Diagnosed with an STI in the last 12 months (N=684/n				52,5)										
Yes	12	4,1%	10,6	3,8%	16	4,1%	15,2	4,0%	28	4,1%	25,8	3,9%		
No	280	95,9%	264,7	26,2%	376	95,9%	362,1	96,0%	656	95,9%	626,7	96,1%		

		FEN	/IALE			M	ALE			то	TAL			
	Unweighted		Weighthed		Unweighted		Weighted		Unweighted		Weighted			
Variable	N (314)	%	N (300,3)	%	N(430)	%	N (413,7)	2,0%	N (744)	23,0%	N (714,0)	%5	OR (CI 95%)	P-value unweighted/ weighted
HIV-STATUS														
HIV status based on oral fluid sample (N=726/n=714)			=714)											
HIV-positive	19	6,1%	18,4	6,1%	13	3,1%	12,6	3,0%	32	4,4%	31,0	4,3%		
HIV-negative	290	93,9%	282,3	93,9%	404	96,9%	400,7	97,0%	694	95,6%	683,0	95,7%		0,049/ 0,087
Reported result last HIV test (N= 513/n=489,9)														
HIV-positive	9	4,0%	10,6	5,0%	5	1,7%	137,5	33,8%	14	2,7%	16,8	3,4%		
HIV-negative	199	88,8%	189,2	88,5%	269	93,1%	255,4	62,7%	468	91,2%	444,7	90,8%		
Didn't collect result	7	3,1%	8	3,7%	9	3,1%	8,9	2,2%	16	3,1%	16,9	3,4%		
I don't know	8	3,6%	4,8	2,2%	5	1,7%	4,7	1,2%	13	2,5%	9,5	1,9%		
Prefer not to answer	1	0,4%	1,3	0,6%	1	0,3%	0,8	0,2%	2	0,4%	2,1	0,4%		
Perceived current HIV status	(N=730/	n=697,0)	-											
Definitely HIV positive	3	1,0%	5,1	1,8%	4	0,9%	3,4	0,8%	7	1,0%	8,5	1,2%		
Probably HIV positive	3	1,0%	2,5	0,9%	4	0,9%	6,2	1,5%	7	1,0%	6,2	0,9%		
Probably HIV negative	85	27,9%	80,7	27,9%	132	31,1%	129,6	31,6%	217	29,7%	210,3	30,2%		
Definitely HIV negative	161	52,8%	151,5	52,3%	196	46,1%	186,1	45,4%	357	48,9%	337,7	48,5%		
I don't know	53	17,4%	49,9	17,2%	89	20,9%	84,6	20,6%	142	19,5%	134,3	19,3%		
Reported HIV-positive and on HIV-treatment (N=14/ n=16,8)														
Yes	7	77,8%	9,3	86,9%	3	60,0%	4,7	75,2%	10	71,4%	13,9	82,7%		
No	2	22,2%	1,4	13,1%	2	40,0%	1,6	25,0%	4	28,6%	2,9	17,5%		
HIV-STATUS OF LAST SEXUAL PARTNER (N=712/n=681,8)														
Know HIV-status	173	58,8%	160,3	57,2%	237	56,7%	233,8	58,2%	410	57,6%	394,0	57,8%		
I don't know	121	41,2%	119,7	42,8%	181	43,3%	168,1	41,8%	302	42,4%	287,8	42,2%		

Table 14: HIV-status of the sample (unweighted) and population estimates of SAM socialising in Antwerp city (weighted), stratified by gender.

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Table 15: HIV preventive behaviour of the sample (unweighted) and population estimates of SAM socialising in Antwerp city (weighted), stratified by gender.

	FEMALE					MALE				тс	DTAL			
					Unweighted		Weighted							
	Unweighted		Weighthed						Unweighted		Weighted			P-value
	N		N		N		N		Ν		N		OR	unweighted/
Variable	(314)	%	(300,4)	%	(430)	%	(413,7	%	(744)	%	(714,0	%	(CI 95%)	weighted
CONDOM USE														
Condom intentions (Planning to use a condom with a new partner in th														
Likely	226	72,0%	214,0	71,3%	347	80,7%	336,7	81,4%	573	77,0%	550,7	77,1%	1,8	
Unlikely	88	28,0%	86,3	28,7%	83	19,3%	77,0	18,6%	171	23,0%	163,3	22,9%	(1,2-2,6)	0,005/ 0,006
Condom used last partner (N=680/n=646,3)														
Yes	77	27,2%	68,5	25,4%	145	36,5%	135,6	36,0%	222	32,6%	204,1	31,6%	1.6	
No	206	72,8%	200,7	74,6%	252	63,5%	241,5	64,0%	458	67,4%	442,2	68,4%	(1,0-2,7)	0,011/ 0,049
Condom use, Africa travel (last partner in Africa) (N=138/n=128,3)														
Yes	7	24,1%	6,6	23,5%	56	51,4%	49,4	49,3%	63	45,7%	56 <i>,</i> 0	43,6%	3,2	
No	22	75,9%	21,4	76,5%	53	48,6%	50 <i>,</i> 8	50,7%	75	54,3%	72,3	56,4%	(1,1-9,2)	0,009/ 0,030
Condom use, EU travel (last partner in EU) (N=88/n=81,8)														
Yes	9	28,1%	9,1	29,6%	34	60,7%	31,0	60,6%	43	48,9%	40,1	49,0%	3,7 (1,3-	
No	23	71,9%	21,6	70,4%	22	39,3%	20,1	39,4%	45	51,1%	41,7	51,0%	10,7)	0,003/ 0,016
SUBSTANCE USE (LAST SEXUAL														
													1,8	0,001/
Yes	39	13,0%	38,7	13,5%	93	22,5%	86,6	21,8%	132	18,5%	125,3	18,3%	(1,0-3,1)	0,038
Alcohol	38	90,5%	38,2	91,6%	80	78,4%	76,1	81,2%	118	81,9%	114,3	84,4%		0,016/ -
Traditional herbs	1	2,4%	0,9	2,2%	6	5,9%	6,1	6,5%	7	4,9%	7,0	5,2%		
													3,4	
Hash/ marihuana	3	7,1%	2,6	6,2%	16	15,7%	11,5	12,3%	19	13,2%	14,1	10,4%	(1,1-9,8)	0,018/ 0,020
No	260	87,0%	247,1	86,5%	321	77,5%	311,0	78,2%	581	81,5%	558,2	81,7%		

	FEMALE				MALE				TOTAL					
					Unweighted		Weighted							
	Unweighted		Weighthed						Unweighted		Weighted			P-value
	Ν		Ν		Ν		Ν		Ν		Ν		OR	unweighted/
Variable	(314)	%	(300,4)	%	(430)	%	(413,7	%	(744)	%	(714,0	%	(CI 95%)	weighted
PROTECTIVE BEHAVIOURS														
Protective condom behaviour (condom used at last sex and intention to use a condom with new sex partner)														
High	66	21,9%	57,6	20,0%	135	32,4%	126,0	31,5%	201	28,0%	183,6	26,7%	1,8	
Low	235	78,1%	230,6	80,0%	282	67,6%	274,1	68,5%	517	72,0%	504,7	73,3%	(1,1-3,0)	0,002/ 0,018
Protective testing behaviour (tested less than 1 year ago and know HIV-status of last sex partner)														
High	88	29,1%	83,1	28,8%	108	25,8%	100,8	25,1%	196	27,2%	183,9	26,6%		
Low	214	70,9%	205,8	71,2%	311	74,2%	301,3	74,9%	525	72,8%	507,1	73,4%		

Annex 4: Scientific output

Article

Loos J., Namanya F.B., Manirankunda L., Albers L., Vermoesen T., Platteau T., Fransen K. & Nöstlinger Ch. "New technology is good, because people don't like blood taking" Acceptability of a mobile HIV-testing intervention using oral fluid collection devices and online result collection among sub-Saharan African migrants. Submitted to AIDS and Behavior

Presentations

<u>Loos J.</u>, Namanya F.B., Manirankunda L., Albers L., Vermoesen T., Platteau T., Fransen K. & Nöstlinger Ch. "New technology is good, because people don't like blood taking." Assessing the acceptability and feasibility of outreach HIV-testing using oral fluid collection devices among sub-Saharan African migrants. Oral presentation during the XI AIDS Impact Conference (Barcelona, September 30th, 2013)

Loos J., Manirankunda L, Namanya F & Atieno S. "New technology is good, because people don't like blood taking" Lessons of the swab2know project, outreach HIV-testing using oral fluid collection devices among sub-Saharan African migrants in Antwerp. Workshop during the National congress STI *HIV *Sex 2013 (Amsterdam, December 1st, 2013)

<u>Loos J.</u>, Nöstlinger Ch., Vuylsteke Ch., Manirankunda L., Namanya F.B., Muhizi J., Atieno S., Akangwa J.C., Mugabi J., Ndungu M., Adobea D., Pilime E., Senga J., Tamasang E., Tantoh D., Vermoesen T., Fransen K., Albers A., Deblonde J., Kint I., Laga M., Colebunders R. HIV-prevalence among sub-Saharan African migrants in Antwerp city. Oral presentation during the 3rd BREACH symposium (Brussels, November 21st, 2014)

Loos J., <u>Nöstlinger Ch.</u>, Vuylsteke Ch., Manirankunda L., Namanya F.B., Muhizi J., Atieno S., Akangwa J.C., Mugabi J., Ndungu M., Adobea D., Pilime E., Senga J., Tamasang E., Tantoh D., Vermoesen T., Fransen K., Albers A., Deblonde J., Kint I., Laga M., Colebunders R. HIV/STI prevalence among sub-Saharan African migrants in Antwerp city. Oral presentation during the 10th Seminar on STI & HIV/AIDS in Belgium (December 9th, 2014)

Anticipated scientific output

Manuscripts on following topics will be developed and presented for publication to peer reviewed journals in the course of 2015 and 2016:

- Short communication: HIV-prevalence among a representative sample of Sub-Saharan African migrants in Antwerp city.
- Sexual behaviour, HIV preventive behaviours and factors increasing risk for acquiring HIV among sub-Saharan African migrants in Antwerp city. Lessons for prevention.
- Factors that increase sub-Saharan African migrants risk for acquiring HIV. Results from a multiple case study with HIV-positive SAM.
- Community participatory approach to epidemiological research. Lessons learned from a HIVprevalence study among sub-Saharan African migrants .

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Annex 5: Program World AIDS day symposium "HIV is real. Let us break the barriers"

HIV is real, let us break the barriers

HIV/AIDS among Sub-Saharan African migrant communities in Belgium and Europe: the problem and the solutions

Symposium at the Institute of Tropical Medicine, Antwerp



Date | 1 December 2014
Time | 9:00-17:00
Location | Aula Janssens, Institute of Tropical Medicine Antwerp

PROGRAMME

START	END						
8:45	9:15	REGISTRATION					
Part I: K	(now yo	ur epidemic					
Moderation: Prof. Marie Laga							
9:15	9:20	Welcome and introduction (Christiana Nöstlinger, HIV-SAM Project)					
9:20	9:40	Introduction to the Belgian and European HIV epidemic (Jessika Deblonde, WIV)					
9:40	10:15	HIV-prevalence and risk factors among Sub-Saharan African migrants in Antwerp: Results of the TOGETHER study (Jasna Loos & John Che Akangwa, ITM)					
10:15	10:30	Debate with the audience: Questions and answers					
10:30	11:00	COFFEE BREAK					
Part II:	Know	your response!					
11:00	11:30	The Belgian response: HIV-SAM Project's current prevention activities and challenges for community inclusion (Dr. Lazare Manirankunda, ITM & Levis Kadia, Bilenge vzw)					
11:30	12:00	The Belgian response: experiences with an HIV-testing bus in reaching hard-to reach groups (ARC Liège, Joëlle Defourny)					
12:00	12:30	The French situation and community response (Joséphine Ngah Ngono, AIDES)					
12:30	12:45	Debate with the audience: questions and answers					
12:45	13.45	NETWORKING LUNCH					
Part III:	How do	we respond?					
Modera	ation: Be	a Vuylsteke					
14:00	14:05	Welcome (Bruno Gryseels, Director)					
14:05	14:15	Flanders' policy view on HIV-prevention and sexual health promotion. Opening of the workshops by the Flemish Minister of Welfare, Public Health and Family, Jo Vandeurzen					
14:15	14:30	Interaction with audience					
14:30	16:15	Workshops: How do we respond? Parallel groups: French and English speaking Moderated by community researchers					
16:15	16:30	COFFEE BREAK					
16:30	17:00	Plenary with both groups: conclusions and "take home" messages					

Annex 6: Press clippings

November 21st 2014

- Eén, Het Journaal, om 13 uur en 19 uur
- Joe fm, radionieuws om 8 uur
- De Standaard (p. 6.) "Seks en hiv, daar praten Afrikanen niet over".
- Gazet Van Antwerpen (p. 1-2)."5% zwarte Afrikanen in Antwerpen heeft hiv".
- Het Belang Van Limburg, (p. 5). *"5 procent Antwerpse zwarten heeft hiv, helft weet het niet"*.
- Het Nieuwsblad (p. 7) "5 procent Antwerpse zwarten heeft hiv, helft weet het niet".
- www.demorgen.be. Elke dag meer dan drie nieuwe hiv-diagnoses in België.
- La Dernière Heure (p.17) "Le SIDA recule ».
- La Libre Belgique (p. 29) Laurence Dardenne. « Pour la première fois, à Anvers, un sondage ciblé sur les migrants originaires d'Afrique ».
- Vandaag.be. "Elke dag meer dan drie nieuwe hiv-diagnoses in België"
- <u>www.gentgezondestad.be</u>. "Seks en hiv, daar praten Afrikanen niet".
- Belga. "Vijf procent zwarte Afrikanen in Antwerpen heeft hiv"
- Belga. "Elke dag meer dan drie nieuwe hiv-diagnoses in België"
- Belga. « Trois diagnostics d'infection par le VIH établis chaque jour en 2013 »

November 22nd and 23rd, 2014

- De Standaard (p.6) "Hiv-diagnoses dalen (en dat is geen goed nieuws)".
- De Morgen (p.11.) "Nog te veel laattijdige hiv-diagnoses".
- Le Soir (p. 14) Frederic Soumois. « Sida : toujours trois contaminés par jour ».
- <u>lavenir.net</u>. « Sida en baisse, des chiffres à relativiser ».

December 1st, 2014

• Radio Urgent

Annex 7: Leaflet "HIV is real. Let us brake the barriers"



Want a free HIV-test?

Visit Helpcenter-ITM, Sint-Andriesstraat 7, 2000 Antwerp

Make an appointment on www.helpcenteritg.be or call 03/216 02 88

H_Qlpcenter

voor seksuele gezondheid

Order a test online from www.swab2know.be



Questions about HIV?

Visit the HIV-SAM Project website: www.hivsam.be or mail us on hivsam@itg.be





With the support of:



Ministerie van de Vlaamse Gemeenschap

In collaboration with the sub-Saharan African communities in Antwerp





Let us break the barriers



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HIV is real...

HIV affects everybody, but Africans are more affected. Recent research showed that one person in 22 Africans in Antwerp is living with HIV.

...Let us break the barriers



Let us accept people living with HIV

If one in 22 Africans is living with HIV, you know one of them. Only, they don't dare to tell you about their HIV status. They fear you will run away, avoid them, gossip about them... The truth is that with good medical treatment they can almost not infect other people anymore. Thanks to treatment, they live a long and normal life: they get married, have children free from HIV, work,..

Together we, as a community, can fight the HIV stigma, taboo and fear. Together we can break the silence and openly discuss HIV. We can accept and support people living with HIV. This conributes to improve their quality of life and helps them to prevent new HIVinfections.

Let us take an HIV test at least once a year

Research showed that more than half of people who are HIV-infected, don't know they have HIV because they didn't test. One can live 5 to 10 years with HIV without having any symptoms. Testing regularly for HIV is the only way to be sure.

Ask your doctor for an HIV-test, because it is never automatically included in blood tests.

Together we, as a community, can break the barriers and make yearly HIV-testing as normal as any other medical test. It is better to know your HIV-status. There is medication available in Belgium and with good medical follow-up you can live a long and normal life.

Let us use condoms

Most people get infected with HIV through unprotected sex. Condoms protect you and your partner. Yet, research showed that two out of three Africans did not use a condom the last time they had sex.

People get HIV in all kind of relationships; marriage, steady relationship, casual relationships and onenight stands. Even in a loving relationship you don't know everything about your partner.

So if you can't be sure that you are both HIV-negative, use a condom.

Condoms are very effective in preventing HIV, other sexually transmitted infections and unwanted pregnancies.

Together we, as a community, can break the barriers. We can make condoms popular and use them.



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