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"Beyond Merchandise Trading": Sexual Transactions, Sexual Behaviors, and HIV-Related Knowledge among Angolan Young Women Aged 15-24 on the Angola-Namibia Border

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"BEYOND MERCHANDISE TRADING": SEXUAL TRANSACTIONS, SEXUAL BEHAVIORS, AND HIV-RELATED KNOWLEDGE AMONG ANGOLAN YOUNG WOMEN AGED 15-24 ON THE ANGOLA-NAMIBIA BORDER.

by

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SEXUAL TRANSACTIONS, SEXUAL BEHAVIORS, AND HIV-RELATED KNOWLEDGE AMONG ANGOLAN YOUNG WOMEN AGED 15-24 IN THE ANGOLA-NAMIBIA BORDER.

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Abstract

BACKGROUND: Angolan young women involved in transactional sex are at high risk of Human Immunodeficiency Virus (HIV) infection due to their exposure to several sexual risk behaviors. This study was designed with three main aims. (1) to examine the differences in HIV-related knowledge, attitudes, and behaviors between female adolescents and young adults; (2) to assess the associations between sexual partners' occupation and young women's HIV serostatus; and (3) to describe the effect of Information-Motivation-Behavior skills model of condom use at last month with non-marital sexual partners among women involved in transactional sex in the Angola-Namibia border.

METHODS: This study used secondary data from the first cross-sectional study on HIV and Syphilis Behavioral and Serological Surveillance Survey (BSS) conducted in 2010 in Cunene province, Angola. Participants were recruited using Respondent-Driven Sampling (RDS). A questionnaire was used to collect data. IBM SPSS was used for the univariate and bivariate analysis. IBM SPSS AMOS was used to assess the IMB model.

RESULTS: A total of 500 participants completed their questionnaires. Among them, 439 (87.8%) provided a blood sample for the HIV testing. The results of the t-test showed statistically significant differences on HIV attitudes and sexual behaviors between adolescents and young adults. In addition, it was found statistically significant associations between HIV positive women and an increased likelihood of being in the ages of 20-24, having had a STD in the past 12 months, residing in Namacunde area, having had two or more partners in the past 12 months, and consuming alcohol before or during sexual intercourse. There was not found statistically significant associations between women's HIV serostatus and their partner's occupation. Regarding the IMB model, HIV-related knowledge and perceived risk accounted for 20% of variance on condom use at last month. However, none of the paths was significant.

CONCLUSIONS: Compared to adolescents, young adults seemed to have better knowledge on HIV prevention and transmission, more positive attitudes towards PLWHA, but more risky sexual behavior. This study found statistically significant social, demographic and behavioral factors related to HIV that should be targeted on HIV prevention programs. Further research is warranted to develop preventive interventions on the basis of the IMB model to promote condom use as well as other safer sexual behaviors among women involved in transactional sex in the Angola-Namibia border.

Key words: Young women, Transactional sex, HIV-related knowledge, Sexual risk behaviors Angola-Namibia border, Cunene province.

CHAPTER I: INTRODUCTION

Transactional sex is a terminology used to describe the act of exchanging sexual services for something. This term is mostly used to indicate sexual transactions that do not necessarily occur between a professional sex worker and client (Steinfatt, 2006). In some researches, the term transactional sex and sex work are used interchangeably because of the fine lines between them and the lack of a more specific definition of transactional sex (Ditmore, 2006; Moore, Biddlecom & Zulu, 2007). However, researchers argue that transactional sex differ from sex work despite their similarities; in both sex work and transactional sex something is exchanged for sex. Their differences consist in the fact that in sexual transactions, money is not the only form of payment. Sex may be exchanged to fulfil basic needs such as food and clothing, sometimes including school uniforms, or luxury goods such as cosmetics and jewelry, phones and other modern goods (Moore et al., 2007; Stoebenau et al., 2013). In addition, transactional sex participants may be seen as "girlfriends" and "boyfriends" (other expressions showing some affection are also used) (Stoebenau et al., 2013), whereas in sex work, the individual who pays for sex is a "client" (Steinfatt, 2006). Thus, the exchange of gifts for sex is understood as part of a broader set of obligations that might not involve a predetermined payment (Stoebenau et al., 2013).

Transactional sex was found to be a very common practice among unmarried female adolescents (Moore et al., 2007). Different reasons are claimed to be underneath this practice, but survival and consumptions are the most common reasons for engaging in transactional sex in Africa and across the world (Luke & Kurz, 2002; Moore et al., 2007; Stoebenau et al., 2013). Regardless of the meanings attributed to transactional sex, this activity places women, more than men, at risk of contracting STI's and particularly HIV. As a result, young women who must rely on transactional sex to support themselves financially are more likely to engage in a series of sexual risk behaviors, such as having multiple sexual partners and reporting inconsistent condom use, which increase their risk of contracting STI's including HIV (Moore et al., 2007).

In sub-Saharan Africa, a large quantity of research has been conducted to explore the associations between transactional sex and the high HIV rates, especially among women (Chatterji, Murray, London, Philip & Anglewicz, 2004; Luke & Kurz, 2002; Moore et al., 2007; Stoebenau et al., 2013). As it is known, countries in southern Africa are burdened with the highest HIV prevalence in the world. The region of southern and eastern Africa accounts for half of the global HIV infection, although it encompasses only 5% of the global population (UNAIDS, 2013). In Southern Africa, women are disproportionally infected with HIV (Babalola, 2011; Gouwsa, Staneckib, Lyerlaa & Ghys, 2008). They acquire HIV infection approximately five to seven years earlier than men because of practices such as transactional sex and intergenerational sex with older men, many of whom are already infected with HIV (Abdool Karim & Humphries, 2010.; Luke & Kurz, 2002; Moore et al., 2007). The nature of transactional sex does not offer women the opportunity for discussing or practicing safer sex because of gender-power

imbalances and the economic nature of the relationship (Karim & Humphries, n.d.; Wingood & DiClemente, 2000). Transactional sex is, therefore, an important element in the expansion of the HIV and AIDS epidemic in Sub-Saharan Africa (Norris, Kitali & Worby, 2009; Pitpitan et al., 2013, Stoebenau et al., 2013).

Although Angola is located in a high HIV prevalence area, it has one of the lowest HIV percentages in the southern region of Africa. The extended period of civil war is probably the main reason for such low percentage (Strand, Dias, Bergstrom & Andersson, 2007). However, the free movement of persons and goods around neighboring countries that have high HIV prevalence might change the course HIV in Angola. Besides, the proximity between Angola and Namibia has already been designated as major contributors for the elevated HIV prevalence in the Cunene province, which hosts most of the traders from Namibia (Europe Aid, 2011). Moreover, the practices of commercial and transactional sex within the Angola-Namibia border may bring important dynamics to the spread of HIV in the Cunene province and Angola in general.

1.1 Objectives of the Study

Based on the first behavioral surveillance survey (BSS) conducted in Angola, particularly around the border between Angola and Namibia, the aim of this study was to explore the level of HIV- related knowledge, sexual behaviors and HIV prevalence among young women involved in transactional sexual relationships. More specifically, the objectives of our study are:

- To explore the differences in HIV-related knowledge, attitudes, and behaviors between female adolescents (aged 15-19 years) and female young adults (aged 20-24 years) engaged in transactional sex in the Angola-Namibia border.
- To assess the linkages between sexual partners' occupation and the HIV status of young women who practice transactional sex in the Angola-Namibia border.
- To describe the effect of information, motivation, and behavior skills on condom use among young women involved in transactional sexual relationships within the Angola-Namibia border.

1.2 Research Questions

Transactional sexual relationships are often associated with sexual risk behaviors that lead to a variety of negative health outcomes including HIV infection (Gouwsa et al., 2008). Since HIV prevalence in southern Africa is still high, investments in research have been increasing in order to study factors associated with this epidemic. Hence, research on HIV is taking place in many countries in Southern Africa including Angola. Most of the HIV studies conducted in Angola have been focusing on HIV-related knowledge, age at sexual debut, number of sexual partners and condom use. However, no studies were found that has assessed the information, motivations, and behavioral skills that promote safer sexual behaviors among young women engaged in transactional sexual relationships. Additionally, no information was found on possible linkages between partner's occupation and young women's HIV serostatus. Therefore, in an attempt to fill this gap, this study seeks to answer the following research questions:

i. Are there any differences in HIV-related knowledge, attitudes, and behaviors between female adolescents (aged 15-19 years) and female young adults (aged 20-24 years) engaged in transactional sex within the Angola-Namibia border?

ii. What are the associations between sexual partner's occupation and the HIV status of young women who practice transactional sex within Angola-Namibia border?

iii. How do the information, motivation, and behavioral skill affect frequency of condom use among young women, who practice transactional sex in the Angola-Namibia border area?

1.3 Research Hypothesis

A wide range of literature suggests that HIV-related knowledge is a crucial factor on HIV prevention (Jung, Arya & Viswanath, 2013; Themane & Taole, 2013). Adequate HIV knowledge, including modes of transmission and prevention, can be a protective factor against HIV infection (Degroote, Vogelaers, Liefhooghe, Vermeir &Vandijck, 2014). Nonetheless, the Information-Motivation-Behavioral Skills model (IMB) states that information by itself is not enough to promote behavior change. This theory proposes that besides knowledge, other factors such as "motivations" and "behavioral skills" play an important role on "behavior change" that can support positive health outcomes (DiClemente, Salazar & Crosby, 2013). For instance, women engaged in transactional sex might have HIV-related knowledge but lack motivation and behavioral skills to negotiate condom use with her non-marital partners. Therefore, based on previous literature on transactional sex in Southern Africa, particularly in Angola, the following hypotheses are presented:

i. It is hypothesized that there will be differences in HIV-related knowledge, attitudes, and behaviors between female adolescents (aged 15-19 years) and female young adults (aged 20-24 years) engaged in transactional sex within the Angola-Namibia border.

ii. It is hypothesized that HIV prevalence will be higher among young women whose sexual partners worked as military personnel or truck drivers.

iii. It is hypothesized that information, motivation and behavioral skills will positively influence sexual behaviors among young women engaged in transactional sex within the Angola-Namibia border.

1.4 Significance of the Study

The southern region of Africa, where Angola is located, has the highest HIV prevalence in the world (UNAIDS, 2012; Karim & Humphries, n.d.). Angola and the Democratic Republic of Congo (DRC) are the only countries with low HIV prevalence, 2.2% and 1.3% respectively (UNAIDS, 2012). However, the free movement of persons and goods as well as the increased economic transactions between Angola and other southern countries of Africa, especially Namibia, may bring significant fluctuations on the spread of HIV in Angola. Furthermore, the most recent HIV report in Angola indicates that women represent about 60% of individuals age 15 and over living with HIV (UNGASS, 2012; UNAIDS, 2012).

On the other hand, although not commonly documented, transactional sex is an existent practice in Angolan society. Female adolescents and young adults are those that are mainly involved in transactional sex. As a consequence, they are also the ones who

suffer from the devastating consequences of this practice such as violence, unintended pregnancy, and risk of contracting STI's including HIV. Several studies conducted in Southern Africa found positive associations between transactional sex and HIV serostatus, which implies that transactional sexual relationships play an important role on the spread of HIV epidemic in southern African countries including Angola (Dunkle et al., 2004; Luke & Kurz, 2002; Norris et al., 2009; Onoya et al., 2011). In sum, this study is significant for many reasons. Because of the moral and cultural values, this topic is avoided and, consequently, not explored as much as it should be. Firstly, it is vital to understand the risk factors for HIV infection among young Angolan women engaged in transactional sex within the Angola-Namibia border in order to provide adequate interventions for them. Secondly, the increased free mobility of persons and goods between Angola and Namibia creates a wave of opportunities that go beyond commercial transactions, enabling sexual transactions. Therefore, it is necessary to explore whether or not women involved in transactional sexual relationships have relevant HIV-related information, motivations, and behavioral skills in order to practice safer sexual behaviors that can prevent them from contracting HIV infection. Lastly, by developing a clear understanding of this situation, it will be possible to inform the Government of Angola and assist them to work towards the Millennium Development Goal (MDG) six. The MDG 6 supports the reduction of the spread of HIV and the provision of comprehensive HIV-related knowledge and condom use (The Millennium Development Goals Report, 2013).

CHAPTER II: LITERATURE REVIEW

2.1 Background

The expression 'transactional sex' has many definitions. However, all of them agree that transactional sex involves exchanging sex for something, which may include money, material support, gifts or other luxury items (Moore et al., 2007; Stoebenau et al., 2013). Transactional sex has become a common practice among sexually active, single female adolescents and young adults in southern Africa, as well as in sub-Saharan Africa (Moore et al., 2007). Although there are males who also exchange sex for money or goods, transactional sex is mostly performed by females (Pitpitan et al., 2013). It is believed that women's engagement in transactional sex derives from the social-cultural and economic gender-power inequity that exists in sub-Saharan Africa (Norris et al., 2009; Pitpitan et al., 2013; Stoebenau et al. 2013). For example, in many regions of southern Africa, the literacy rates are much lower for women than for men (Lloyd & Hewett, 2009). Consequently, most women have fewer employment opportunities than do men as well as fewer economic resources. Therefore, women may be unemployed or perform activities that provide little revenue, such as subsistence farming and the sale of products in the street market (Njogu & Orchardson-Mazrui, 2006.). These circumstances enable and perpetuate the cycle of women's financial dependency on a male figure that can be their father, partner or husband. With that being said, transactional sexual

relationships have come to be an opportunity for economically disadvantaged women to receive financial assistance.

2.1.1 Motivations behind Sexual Transactions

The motivations behind transactional sex in Southern Africa are controversial. The motives for engaging in transactional sexual relationship vary according the type of the study (quantitative or qualitative) and the study setting (rural or urban). Most of the quantitative studies present the motives in two major areas: survival and consumption reasons (Luke & Kurz, 2002; Stoebenau et al. 2013). Regarding survival, women involved in sexual transactions are seen as victims of the social and economic system that may push women to use their bodies as a source of livelihood (Luke & Kurz, 2002; Moore et al., 2007). Survival sex is mostly performed by economically disadvantaged women. This practice is very common in rural areas where women in extreme need will trade sex for food, soap and clothing (Verheijen, 2011). On the contrary, in transactional sex motivated by consumption, women are active agents in sexual negotiations and they determine the rules of the game (i.e. what and how much should be given in exchange for sex). This case does not necessarily involve economically disadvantaged women, but mostly women who are more interested in exchanging sex to acquire modern goods. This practice has been found to be more common in urban areas (Stoebenau et al. 2013).

Besides the two major motives presented above, the qualitative set of research suggests other reasons for engaging in transactional sex. In discourses derived from interviews or focus groups conducted in different countries in southern Africa, it was expressed that receiving money or gifts from a man can be an indication of women's

worth, men's interest, and love. For instance, in a study conducted among young people in rural Northern Tanzania, it was found that women's self-respect and value were determined by the gifts or price required in exchange for sex. Cheap gifts or little money were understood as an insult or depreciation of the women (Wight et al., 2006). In an ethnographic study conducted in Malawi, Verheijen (2011) found that material support was an expression of love. These reasons may or may not be associated with the factors mentioned above (transactional sex motivated by survival or consumption).

2.1.2 Issues Related to Transactional Sexual Relationship

Studies have found a series of issues that are commonly related to transactional sex in different parts of the world. These issues may vary according to the social and cultural aspects of each country or region. However, it was found that most of the women involved in transactional sexual relationships worldwide are more likely to have older partners, have multiple partners, report infrequent or non-condom use and report some substance use (Exavery et al., 2012; Luke & Kurz, 2002). Additionally, women are also exposed to risks such as violence, unintended pregnancy and STI's including HIV infections (Babalola, 2011; Luke & Kurz, 2002).

a. Older male partners

Exchanging sex for money or material support is frequently associated with engaging in a sexual relationship with older male partners (Luke & Kurz, 2002). Since older men tend to have more economic power than the younger ones, women are more likely to engage in transactional sexual relationship with older men. Having sexual intercourse with an older man is found to be a risk factor for women (Luke & Kurz, 2002;

Moore et al., 2007). For example, studies conducted in the United States found that the risk of pregnancy were higher among female adolescents whose male partners were at least six years older than those girls whose male partners were only two years older (Darroch, Landry & Oslak, 1999). Similarly in sub-Saharan Africa, empirical study suggests that young women who have sexual intercourse with a man who is more than six or 10 years older have greater risks of becoming infected with HIV. In addition, studies have found that sexual partners who have large age differences are less likely to use a condom or discuss HIV protective behaviors (Luke & Kurz, 2002). As a consequence, young women are more susceptible of contracting HIV infection from older men. Moreover, a study in rural Zimbabwe found that HIV infection in female adolescents aged 17-24 was positively associated with greater age difference of the most recent marital or non-marital male partner (Gregson et al., 2002).

b. Number of Sexual Partners and Partner Concurrence

Women who exchange sex for money or material support find some economic benefits in this practice. Thus, they are more likely to have more sexual partners in their lifetime and concurrent partnerships in order to make more profit (Exavery et al., 2012; Luke & Kurz, 2002; Stoebenau et al., 2013). Since having multiple sexual partners is a risky behavior, it is probable that people who have multiple partners are at great risk for contracting STI's and HIV. While analyzing factors related with HIV infection among adolescents in 13 sub-Sahara African countries, it was found that having more than one sexual partner in 12 months prior to the study period increased the odds of HIV by 79% (Babalola, 2011). Similarly, cohort studies in Northern Tanzania and Zimbabwe support

this argument by claiming that among women, the risk of HIV increased as the number of sexual partners increased (Landman et al., 2008).

c. Substance Use and Infrequent or Non-Condom Use

Transactional sex is also related with substance use and infrequent or non-condom use. Among the many substances used by partners engaged in transactional sex, alcohol seems to be the most predominant around the world. For instance, in a study conducted in India among males and females engaged in transactional sex, Raj and colleagues (2011) found that alcohol use before sexual intercourse and unprotected sexual intercourse were common behaviors among women who practice transactional sex (Raj et al., 2011). Likewise, a study in a rural area in Tanzania showed that alcohol use combined with transactional sex enabled sexual intercourse without a condom, which led to an increased risk for STI's (Norris et al., 2009). In the same way, research on transactional sex in South Africa reveals that women who reported drinking alcohol before trading sex were also more likely to report engaging in sex without a condom. Furthermore, women involved in transactional sex may also report the use of illicit drugs such as marijuana, meth and injectables (Pitpitan et al., 2013).

Although substance abuse has a great influence on infrequent or non-condom use, the use of substances is not the only factor that affects the use of condoms in transactional sex. Other factors such as unequal gender power and lack of skills to negotiate safer sex practices may also affect condom use (Exavery et al., 2012; Luke & Kurz, 2002; Moore et al., 2007). For historical reasons, the social and cultural gender roles attributed to males and females in Africa, and many parts of the world, are defined in ways that

originate, reinforce, and propagate relationships of male dominance and female subordination (Njogu & Orchardson-Mazrui, 2006.; Wingood & DiClemente, 2000). Likewise, in economically motivated relationships, such as transactional sex, the last decision regarding condom use always depends on the male partner(s) who is (are) the dominant figure(s) of the relationship. This unequal gender power places women in a weak position to negotiate safer sex practices. Therefore, unequal gender power is also a major contributor for irregular or non-condom use among women engaged in transactional sexual relationships.

d. Violence against Women

Women who practice transactional sex are at an increased risk for experiencing violence from a sex partner (Luke & Kurz, 2002). Physical and sexual violence are the most common form of violence against women who trade sex. Several authors stated that most of the women engaged in transactional sex have experienced some form of gender-based violence (Pitpitan et al., 2013). Furthermore, in efforts to find links between transactional sex and violence against women, studies have found positive associations between these two. Thus, exchanging sex for money or other goods were found to be linked with increased risk of rape and physical violence from customers or from men who expected their ‘donations’ to be compensated with sex (Dunkle et al., 2004). In South Africa, for example, many studies have shown that women involved in the sex trade were more likely to report physical and sexual abuse compared to women who did not trade sex (Dunkle et al., 2004; Pitpitan et al., 2013).

e. Unintended pregnancy

Unintended pregnancy is another consequence of unprotected sex. All women of childbearing age who are sexually active are at risk for unintended pregnancy if they or their partner fails to use contraception regularly and correctly (Contraceptive use in the United States, 2013; Exavery et al., 2012). Thus, birth control, including condoms, plays an imperative role in women's health in regards to preventing unintended pregnancies (Hubacher, Mavranezouli, & McGinn, 2008). In Africa, adolescents are at greater risk for unintended pregnancies and unsafe abortions. More than one-quarter of the estimated 4.2 million unsafe abortions in Africa were experienced by adolescents 15 to19 years old (Moore et al., 2007).

Transactional sex was found to be a major factor behind HIV/AIDS and early pregnancy rates among underage females in the Tandale region of Tanzania, especially because partners fail to use condoms (Stark, 2013). The risk for unintended pregnancy is greater among disadvantaged groups of women who are negatively affected. Similar to other health indicators, unintended pregnancies are disproportionately found when levels of income and education are low (Hubacher et al., 2008; Stephenson, Baschieri, Clements, Hennink, & Madise, 2007). These arguments emphasize the peculiar vulnerability for coercive and abusive relationships among young African women, who engage in sexual transactional relationship with older, more resourceful men (Strebel et al., 2013).

f. STI's and HIV

Similar to sex work, transactional sex is associated with higher risks of sexually transmitted infections (STI's), particularly the human immunodeficiency virus (HIV), for both partners involved in the sex trade (Pitpitan et al., 2013). Being that people who trade sex are more likely to engage in sexual intercourse with multiple high-risk partners in short periods of time, the association between STI and HIV susceptibility is particularly relevant to this group (Roth et al., 2013). Women, however, are disproportionally affected because trading sex offers less opportunity to negotiate safer sex practices (Exavery et al., 2012). Consequently, women who practice transactional sex are more likely to engage in a series of sexual risk behaviors, which increases their risks of contracting STI's including HIV (Moore et al., 2007). Case in point, in India, amongst females involved in transactional sex, almost 40% reported having had an STI including HIV (Raj et al., 2011). Equally, in a study conducted in Indianapolis, USA, Roth and colleagues found that about 40% of participants (15 women and 2 men) tested positive for at least one STI. In Africa, the situation is the same. Women are also disproportionally infected with STI's and HIV. In South Africa, for example, a study reported that the STI prevalence among women who reported a history of transactional sex was higher than earlier reported rates among women in general (Onoya et al., 2011). Transactional sex is, therefore, an important element in the expansion of the HIV and AIDS epidemic in the Sub-Saharan Africa region (Norris et al., 2009; Pitpitan et al., 2013, Stoebenau et al., 2013). Transactional sex is associated with issues that may provide negative health outcomes for both partners involved in sexual transactions.

Although women who exchange sex for money or material support find some economic benefits in this practice, they are also the most affected.

2.2 The Republic of Angola: Country Profile

Angola is located on the south-western coast of Africa and is bordered by the Democratic Republic of Congo in the north, Namibia in the south, Zambia in the east and Atlantic Ocean in the west. Angola, which occupies an area of 1,276,700 km sq., is administratively divided into 18 provinces and has a population of over 21.47 million (Worldbank, 2013). Luanda is the capital city and host to about one-third of the entire Angolan population. A large majority of the Angolan population is younger than 25 years old (New Agriculturalist, 2009).

Figure 1. Map of Angola with its 18 administrative provinces and surrounding

Source: Emapsworld.com

Angola was one of the Portuguese colonies. After establishing its independence from Portugal on November 11th, 1975, Angola faced 27 years of civil war, which greatly affected the economy, health and education sectors of this country. In April of 2002, the Peace Agreement was signed between the two rival Parties: Popular Movement for the Liberation of Angola (MPLA) and the National Union for the Total Independence of Angola (UNITA). Afterwards, the country started rebuilding, investing more in education and health sectors. The economy has also experienced a boost since the peace agreement. Investors from all over the world started to develop their business in Angola, mainly in fields of construction, oil, diamond, gold and copper exploration. The Angolan Gross Domestic Product (GDP) was estimated at 39,3 per capita in 2000 (PEN, 2005).

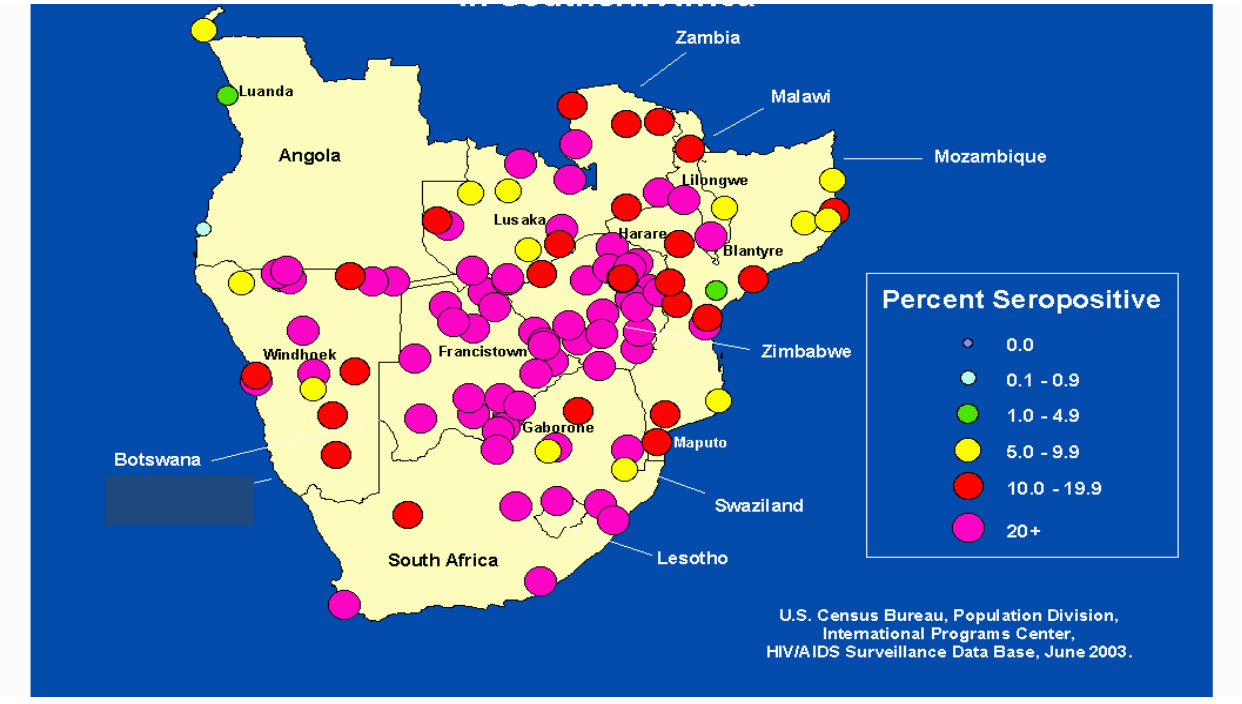
Despite all the natural resources and economic development, the lives of the Angolan citizens do not reflect the richness of their country. About 36.6% of the entire population lives in poverty. This population has limited access to food, potable water, improved sanitation, education, health services, electricity and other social services. In spite of investments in the health sector, the health indicators of Angola are one of the lowest in sub-Saharan Africa. The life expectancy is 48 years of age, being 47 for males and 49 for females. The maternal mortality is one of the worst in the entire world; estimated in 610 deaths per 100,000. In addition, child mortality is 250 per 1,000 children under the age of five (UNGASS, 2012). Unfortunately, people still die from preventable diseases such as Malaria and Typhoid fever (CIA, 2010)

2.2.1 HIV Prevalence in Angola

In 2011, the number of people living with HIV in sub-Saharan Africa was estimated at 23.5 million (UNAIDS, 2012). Despite the fact that many countries in sub-

Saharan Africa have higher HIV prevalence, Angola has a comparatively low prevalence (Strand et al., 2007). For example, in 2011 Angola's HIV seroprevalence was estimated at 2.1% among people 15-49 years of age. In contrast, surrounding countries such as Namibia and Zambia recorded prevalence of 13.4% and 12.5%, respectively (UNAIDS: World AIDS Day Report, 2012). The low HIV prevalence in Angola has been attributed to the long civil war that impacted migration and transactions among neighboring countries. During the war period, the borders of Angola were closed, which discouraged mobility and migration (Strand, 2007; Agadjanian & Avogo, 2008, UNGASS, 2012). Since the signing of the peace agreement in April of 2002, Angola has been experiencing increased mobility of people within and outside the country. Since Angola share borders with countries that have high HIV prevalence, efforts should be made to restrain the spread of HIV in the country.

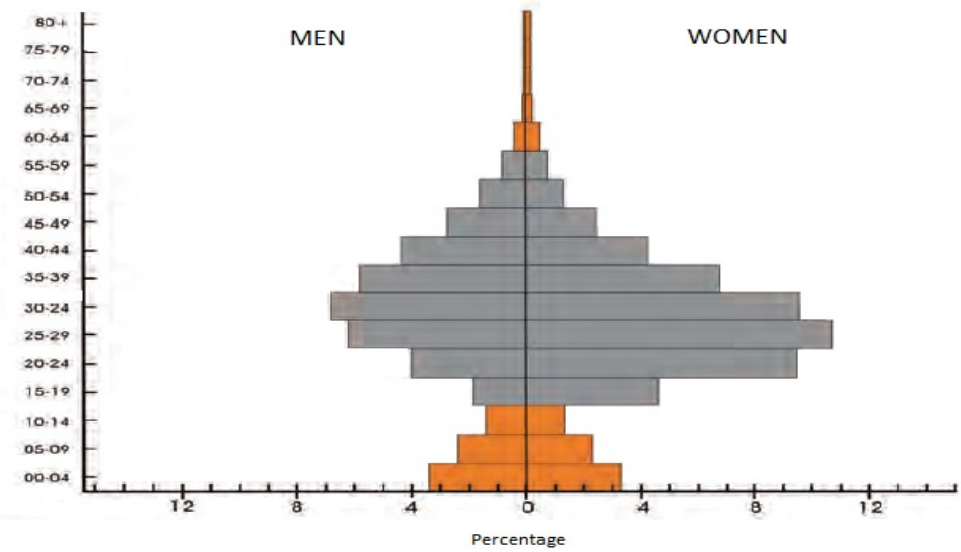
Figure 2: Seroprevalence of HIV for low-risk populations in southern Africa,



Source: U.S Census Bureau, Population Division, International Programs Center HIV/AIDS

The first known case of HIV in Angola was found in 1986. Since then, the Ministry of Health of Angola has created different interventions and strategic plans to address this epidemic. One of the most remarkable events occurred in 2004 when the National Institute to Fight against AIDS (Instituto Nacional de Luta contra a SIDA – INLS, in Portuguese) was created to provide a better response to the HIV epidemic and engage the civil society (UNAIDS, 2012). From 1986 to 2011, about 143,110 cases of HIV were recorded. From those cases, 39% were males and 61% were females (UNGASS, 2012). In 2012, it was estimated that about 200,000 adults between the ages of 15 and 49 were infected with HIV. Among them, 130,000 were women. Higher numbers of HIV cases are found among people between 20 and 39 years of age. For females, the HIV prevalence is higher between 25 and 32 years of age. For males the HIV prevalence peaks at the ages of 30 and 34 years (UNGASS, 2012). As it can be seen from the previous trend on HIV in Angola, women have been more infected than men (UNAIDS Country Profile, n.d.).

Figure 3. Estimated HIV prevalence by age group, 2009



Source: UNGASS, 2012

In Angola, heterosexual relationships are the main path of HIV transmission. In 2002, it was estimated that about 60% of the HIV recorded cases were heterosexual. On the other hand, 19% accounted for the use of non-sterilized material[1], 10% were attributed to transmission from mother to child and 11% were attributed to other reasons (Angola: National Strategy Plan on HIV/AIDS, n.d.). After ten years, there was an increase in heterosexual transmission. In 2012, it was estimated that 79.2% of the total HIV recorded cases were from heterosexual transmission. However, the transmission from mother to child decreased considerably to 6% (UNGASS, 2012).

[1] These is mostly attributable to inadequate biohazard management in the health services (UNGASS, 2006) biohazard

Figure 4: Distribution of the HIV/AIDS cases by transmission modes in 2002.

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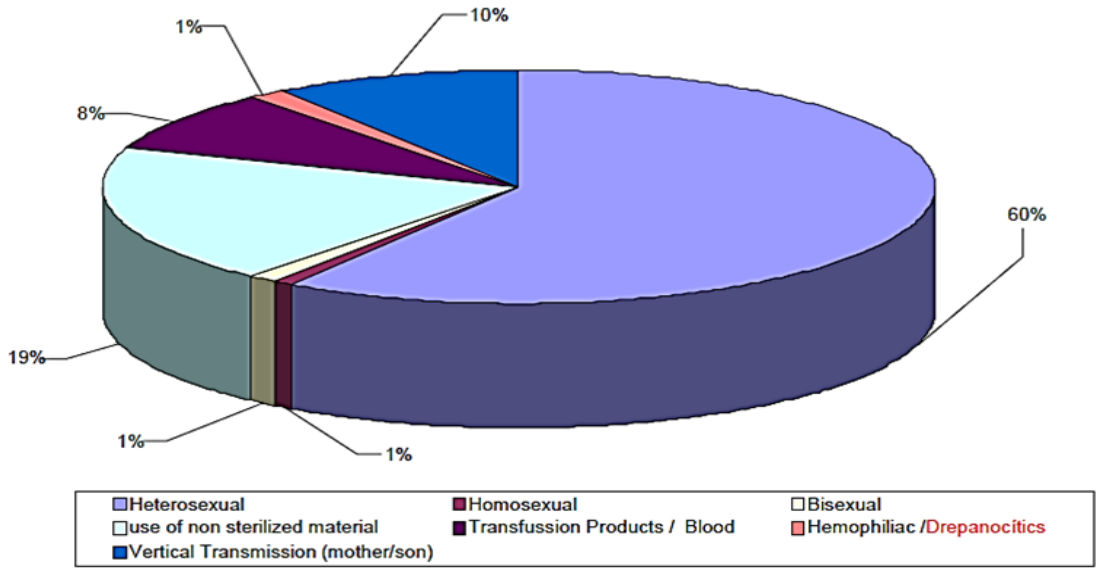


Source: Angola: National Strategic Plan on HIV/AIDS.

2.2.2 The Angola-Namibia Border

The Angola-Namibia border, which is separated by the Cunene River, goes from the west to east in a total of 1,376 km. Three southern provinces of Angola are within the Angola-Namibia border: Namibe, Cunene and Cuando-Cubango. Cunene, which is located in the southern part of Angola, covers about one third of the Angola–Namibia border. This region has the main immigration post between Angola and Namibia, Santa Clara, where many entrepreneurs and small traders travel from one country to another (Consulado Geral de Angola, n.d.).

Since the government of Angola invested in rebuilding the administrative structures, the Cunene province has been experiencing considerable economic and urban growth. The cross-border trading has attracted people from different parts of the country

to the province of Cunene. Most of the investors and traders are concentrated in Ondjiva, the capital, and in Santa Clara. The transactions in the Angola-Namibia border have been providing economic benefits for the Cunene province and the country in general (Rodrigues, 2010).

Commercial and transactional sex are common activities in the Cunene province, where traders and truck drivers spend some time or perform their commercial transactions (Rodrigues, 2010; INLS and UNAIDS, 2012). Thus, the frequent movement of people and goods from Angola to Namibia, and vice-versa, may bring important changes in the spread of HIV/AIDS in Angola and Cunene in particular. For instance, among all the 18 provinces of Angola, the National Institute to Fight Against AIDS (INLS), found the highest HIV prevalence in the Cunene province (INLS and UNAIDS, 2012). Thus, it is believed that high commuting between Angola and Namibia is one of the major factors behind the high HIV prevalence in Cunene province (Europe Aid, 2011).??????

2.2.3 HIV-Related Knowledge and Sexual Behavior

Accurate HIV-related knowledge is a major component for HIV prevention (Degroote et al., 2014). Interventions around the world have been implemented to provide knowledge on modes of HIV prevention and transmission in order to modify people's beliefs, attitudes, perceived norms and skills related to high risk behaviors (Wingood & DiClemente, 2000). Currently, with the advancement in science and technology, mass media (radio, television and newspapers) also plays an important role on disease prevention. In regards to HIV, mass media is used as a health communication tool to provide information on modes of prevention and transmission (Jung et al., 2013).

Research shows that many factors such as socio-economic status (SES), gender, age, and level of education influence HIV-related knowledge as well as exposure to HIV (Jung et al., 2013; Wingood & DiClemente, 2000). In many cases, these factors are inter-related. For instance, low SES groups are more likely to report low level of education as well as low HIV-related Knowledge (Domenico & Jones, 2007; Kaplan et al., 2013; Wight et al., 2012). On the subject of gender, women tend to have less HIV-related knowledge than men and, as a result, they are more exposed to HIV infection compared to men (SAFAIDS: Fact Sheet, 2008.). Wingood and DiClemente argue that economic and physical exposure increases women's risk to acquire HIV infection. For example, living in poverty, having less than a high school education, having limited access to HIV education, being unemployed, and having a steady high risk sexual partner are factors that highly expose women to HIV infection (Wingood & DiClemente, 2000). Furthermore, research comparing HIV-related knowledge in 13 sub-Saharan African countries claim that men had more knowledge than women. Moreover, HIV-related knowledge was highly associated with SES and level of education. For example, women who were wealthy and had at least 13 years of education were more likely to have more HIV-related knowledge compared to those women with less wealth and less education (Jung et al., 2013).

Sexual behavior plays an important role in unwanted pregnancy rates as well as the spread of HIV and other STI's (Prata, Vahidnia & Fraser, 2005). According to the INLS, Angolan youth in general are at higher risk of contracting HIV because of their sexual behaviors (INLS and UNAIDS, 2012). Factors such as knowledge about HIV transmission and infection, early sexual initiation, number of sexual partners and condom

use may not only impact youth's behavior, but also effects one's chances of contracting HIV. The 2012 INLS-UNAIDS report shows four important factors among Angolan youths (ages 15 to 24): first, young men have better HIV-related knowledge than young women; second, women more than men reported sexual initiation before the age of 15; third, women reported fewer sexual partners than men; fourth, women are less likely to report condom use than men (INLS & UNAIDS, 2012; Prata, Vahidnia & Fraser, 2005). Three of those indicators (HIV-related knowledge, sexual initiation, and condom use) suggest that HIV risk in Angola is greater for women than men.

2.2.4. Key and Vulnerable Populations

Some populations are at great risk for HIV/AIDS. These populations are commonly called key or vulnerable populations (UNAIDS, 2011). According to Angola's National HIV/AIDS Strategic Plan for 2003–2008, vulnerable groups are defined as the population groups that are susceptible to HIV/AIDS infection, individually and collectively, because of structural, institutional, political and cultural variation. The vulnerable groups identified in Angola are as follows: sex workers, truck drivers, mineworkers, military personnel, youth[2], street children, pregnant women, displaced people, refugees and resettled populations, prisoners, drug users, blood transfusion recipients, traditional healers and traditional birth attendants, health workers and children infected and affected by HIV, and orphans (World Health Organization, 2005). Among these groups, sex workers, truck drivers and military personnel are at a high risk for contracting and spreading HIV due to their constant mobility and high amount of potential partners (Bing et al., 2007). For example, the WHO and other partners reported

[2] Youth refers to the people aged 15 – 24 years. They are seen as a group at risk because they are more likely to engage in sexual risk behaviors (UNGASS, 2006)

that the prevalence among sex workers in Luanda, the capital of Angola, increased from 30% in 1999 to 33% in 2001 (WHO, 2005). In addition, truck drivers and military personnel are also more likely to engage in transactional sex and less likely to report condom use (Ramjee & Gouws, 2002; Bing et al., 2007). Thus, women that maintain a steady or transactional relationship with truck drivers and military personnel might be at high risk for HIV.

CHAPTER III: THEORETICAL FRAMEWORK

3.1 Information-Motivations-Behavioral (IBM) Skills Model

The Information-Motivation-Behavioral skills model (IMB), which was developed by Fisher and his colleagues, suggests that individuals may change their behaviors if they have correct information, motivations and behavioral skills (Zhang et al., 2011). According to the IMB model, relevant information and motivation leads to improved behavioral skills, which might increase the probabilities of performing a safer behavior (DiClemente, Salazar & Crosby, 2013). In other words, if someone has relevant health-related information and is motivated to act, his/her confidence level will increase leading to perform behaviors that produce positive outcomes (Fisher & Harman, 2008). This model was initially created and used to analyze risky behaviors related to HIV infection and predict HIV preventive behaviors (DiClemente et al., 2013; Zhang et al., 2011). Currently, this model has also been used to study other health issues (DiClemente et al., 2013).

The IMB model has three constructs: information, motivation and behavioral skills. The information is simply related to knowledge. Appropriate knowledge on HIV preventive measures is an essential factor for behavior change (DiClemente et al., 2013; Zhang et al., 2011). Research has shown that having low HIV-related knowledge is associated with high risk behaviors (Youchun, Brown, Muessig, Xianxiang & Wenzhen,

2014). Whereas, having greater HIV knowledge is associated with safer sexual behaviors such as consistent condom use and higher chances of HIV testing (Swenson et al., 2010). Thus, knowledge is an important component of HIV prevention.

On the other hand, motivation also plays an important role regarding behavior change. For instance, there are individuals who know that using condoms decreases one's chance of contracting HIV, but they might not be motivated to use condoms while visiting a sex worker (Youchun et al., 2014; Zhang et al., 2011). Additionally, in certain cases knowledge is not enough to promote behavior change; individuals also need to be motivated to change their behavior. The IMB model suggests that individuals may feel motivated to conduct safer behaviors when they consider themselves at risk of contracting the disease and when the social norms enables the behavior change (DiClemente et al., 2013).

The last construct, behavioral skills, is related to actual skill and self-efficacy. By "skills" we mean the ability to perform a specific behavior and by "self-efficacy" we mean the perception of personal ability. In certain cases, individuals will have information and motivation, but will also need behavioral skills in order to practice the behavior (DiClemente et al., 2013). For example, a man might have HIV-related knowledge and be motivated to prevent himself from contracting HIV by using condoms. Nonetheless, he might not have the necessary skill to use condoms. In such case, the man might not be able to perform the safer behavior. Thus, it is important to observe that this model suggests two routes to behavior change: direct and indirect routes. In the direct route, the IMB model suggests that the information and motivation can

directly affect behavior change. In the indirect route, the information and motivation have to pass through the behavioral skills and then the behavior change will occur.

3.2 Using the IMB Model to Predict Condom Use among Young Women Involved in Transactional Sex in the Angola-Namibia Border

Numerous theoretical frameworks of health behavior change have been used to explain the factors underneath the rapid spread of the HIV in Sub-Saharan Africa, with the objective of informing health promotion interventions. Many models such as the Health Belief Model, Social Learning Theory, Theory of Reasoned Action, and Stages of Change have informed researchers of HIV preventive and educational efforts in this region of the world. From a recent review of 34 intervention programs to reduce the spread of HIV in Africa, it was noticed that most of those interventions focused on knowledge as its main construct (Michielsen, Chersich, Temmerman, Dooms, & Van Rossem, 2012). As it was already mentioned, HIV-related knowledge is an important component of HIV prevention programs. Nonetheless, other factors such as motivation and skills play an important role on behavior change.

Since the IMB model not only includes HIV-related knowledge but also takes account of motivation and behavioral skills, this model will be helpful to explain HIV predictive behaviors among young women engaged in transactional sex in the Angola-Namibia border. HIV preventive behavior such as consistent condom use is influenced by the knowledge that condoms decrease the chances of contracting HIV. However, individuals also have to be motivated to use condoms or have skills to negotiate and correctly use condoms. Through the IMB model, it is

possible to explain how HIV-related information, motivations and behavioral skills influence HIV preventive behaviors, in this case condom use (Kalichman et al., 2003).

The most effective form of HIV prevention among female sex workers appears to be consistent and correct condom use (Zhang et al., 2011). This prevention method also applies to women involved in transactional sex since both groups have multiple sexual partners. However, according to the Population Services International (PSI) report, rates of consistent condom use among commercial sex workers and their clients in the Cunene province was reported at 25% (PSI, 2008). The PSI report suggests that it is vital to determine factors that affect consistent condom use among women involved in transactional sex to develop effective interventions for the prevention of HIV spread Angola.

Condom use can be influenced by several factors. Besides the constructs mentioned above, demographic factors such as age, level of education and SES also play an important role on women's knowledge, motivation and skills to use condoms. By using the IMB model, it will be possible to explore which of these factors significantly influences condom use among women involved in transactional sex. Thus, the IMB model will be used to attempt to predict condom use among young women engaged in transactional sex in the Angola-Namibia Border.

CHAPTER IV: METHODS

4.1 Behavioral Surveillance Survey

Since HIV surveillance alone cannot explain the reasons for high HIV prevalence in certain populations, the UNAIDS, WHO, Family Health International (FHI) and other organizations created a framework named "Second Generation HIV Surveillance." This framework rely on behavioral information to track HIV trends among specific groups in which HIV infection is more likely to be concentrated (WHO/UNAIDS, 2000). The Behavioral Surveillance Survey(s) (BSS or BSSs) has its origin from the knowledge-attitudes-practice surveys (KAPs). The BSS tool, which is used to track trends in HIV/AIDS knowledge, attitudes and risk behavior in different populations, generates data that can support organizations in making specific HIV/AIDS prevention programs for populations at risk (Spiegel & Le, 2006). This survey uses certain procedures that facilitate the acquisition of information on behaviors among sub-populations that are at risk for contracting or passing on HIV since it might be difficult to reach them during traditional household surveys. Examples of sub-populations that are at high risk for contracting and transmit HIV are: sex workers and their clients, men who have sex with men, and injecting drug users (Amon et al., 2000).

Because changing behavior is a prerequisite for successful HIV prevention programs, the BSS focuses on risk behaviors. These risk behaviors include, but are not limited to, having unprotected sex, having multiple sexual partners or partner concurrency, sex between men, and injecting drug (Family Health International, 2000). BSS is distinctively useful when it concerns investigating behaviors that may disproportionately affect the spread of HIV, but are infrequent or unequally distributed throughout a population. Thus, the data collected through the BSS serve to inform and explain trends recorded in HIV infection in specific populations. For instance, in Kenya respondent groups among women selected for BSS included high paid sex workers, low paid sex workers and youth; among men were bus drivers and youth. (Amon et al., 2000; Spiegel & Le, 2006).

In order to track changes on the risky behaviors that are crucial on the spread of HIV, a series of indicators were identified and included in the BSS questionnaires. The BSS guideline presents indicators for five sub-population groups, namely: male and female adults target groups aged 15-49, unmarried male and female youth, female sex workers (FSWs), men who have sex with men (MSM), and injecting drug users (IDUs). It is important to notice that the first two groups described above, adults aged 15-49 and unmarried male and female youth, include those individuals that are not identified as FSWs, MSM or IDUs. There is a standardized questionnaire for each sub-population group that can be adapted to fit the needs of the target group. Despite the fact that the indicators change from one questionnaire to another, the following indicators are measured in all questionnaires: knowledge of HIV prevention methods, condom use at

last sex, no incorrect beliefs about AIDS transmission, seeking voluntary HIV tests, exposure to interventions (see Appendix A). These indicators offer a suitable way to compare levels of risk behavior among different groups with the purpose of informing decision makers about the areas where resources for prevention should be allocated (Amon et al., 2000).

The BSS may be conducted with probability (i.e. the multi-stage cluster sampling) and non-probability samples (i.e. snowball or network sampling). The choice between probability and non-probability samples depends on the target population since some populations are harder to reach than others. For example, certain types of sex workers that do not necessarily have a fixed "place" of work (i.e. specific brothel, bar or specific street address) to perform their activities might be hard to reach through probability sampling methods. Therefore, non-probability sampling, such as snowball or network sampling would be the most appropriate method of sampling to reach the necessary number of participants in this population (Amon et al., 2000).

4.2 HIV and Syphilis Behavioral and Serological Surveillance Survey (BSS) Angola 2010

The BSS conducted in Angola in the year of 2010 was the first of its kind to collect baseline data on socio-demographic characteristics and risky behaviors for the surveillance system. This BSS targeted women involved in transactional or commercial sex, which are at great risk for contracting STIs and HIV. The study was conducted in the border between Angola and Namibia, where research and intervention programs have been taking place in the last decade due to transactional or commercial sexual activities

and the high HIV prevalence in the that area (PSI, 2008). Thus, the main objective of this BSS was to provide data on the serological status of HIV and Syphilis as well as behavioral risks among young women involved in transactional sex in the border area between Angola and Namibia (Pinho, Sampaio & Serrano, 2011).

Efforts for the design and implementation of the first BSS applied in Angola was made by researchers and supporting staff from Brazil, Angola and the United States through organizations such as Oswaldo Cruz Foundation (FIOCRUZ), the National Institute to Fight against Aids (INLS), and the Centers for Disease and Control and Prevention (CDC), respectively. Two main researchers were in charge; Ducelina Serrano, Medical Doctor and Head of the INLS in Angola and Adriana de Araujo Pinho, PhD and member of FIOCRUZ. The HIV and Syphilis BSS was sponsored by the CDC under the PEPFAR project (INLS & FIOCRUZ, 2011).

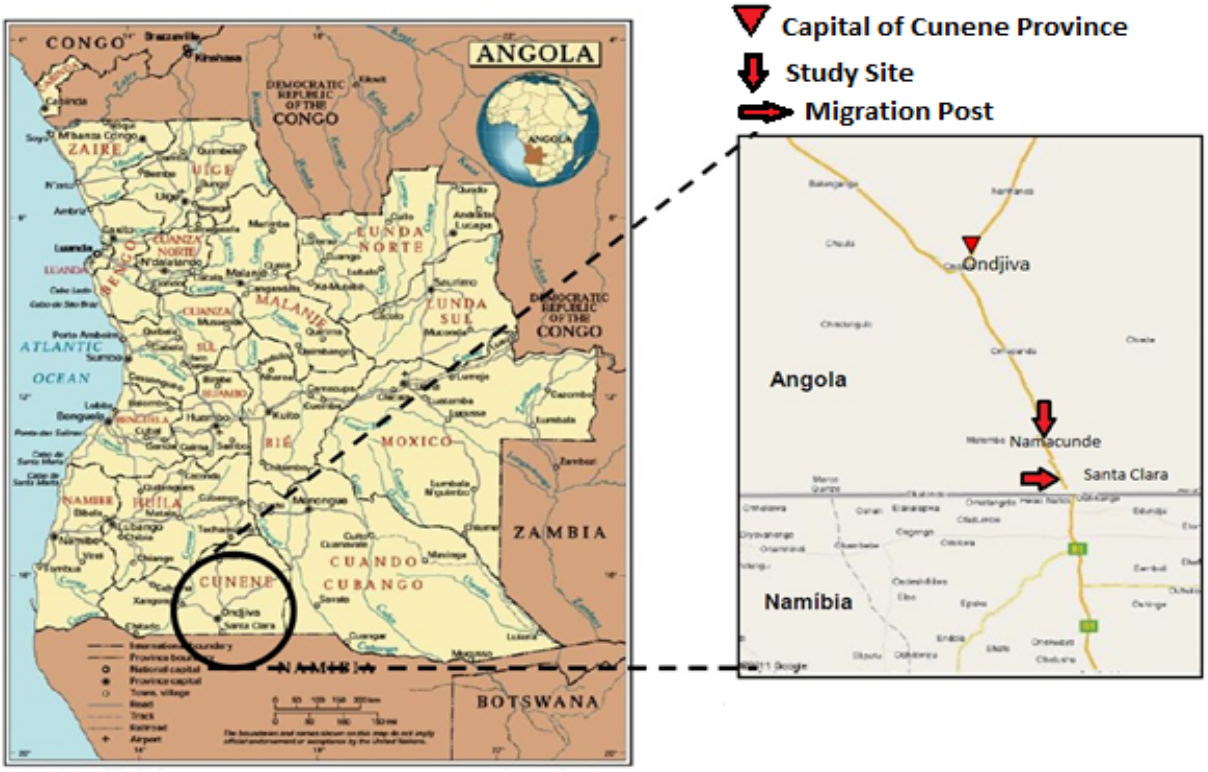
4.2.1 Study Design

The BSS is a cross-sectional study. The HIV and Syphilis BSS included both quantitative and qualitative components. Data generated from the quantitative methods were collected through surveys and one blood sampling for the HIV testing. Regarding qualitative methods, field observations and semi-structured interviews were used to collect information on the motivations and other factors related to transactional sex. For the purposes of this study, the focus will be on the quantitative component of the study and the results of the HIV testing. Since the focus of this study is to analyze sexual behaviors that enable HIV infections, the syphilis results are not included.

4.2.2 Study site

The HIV and Syphilis BSS was implemented in the Cunene Province. The Cunene Province has an area of 87, 342 Km sq. and is administratively divided into six municipalities, namely: Namacunde, Kahama, Xangongo, Kuvelai, Kuroca e Kawanhama. The BSS took place in the Namacunde municipality, which has a surface of 10,701 km sq. and host around 152,000 inhabitants. The municipality of Namacunde is located 25 kilometers away from the Cunene province's capital - Ondjiva (in the north) and 10 kilometers from the border (in the south), in Santa Clara (Figure 5). The municipality of Namacunde was chosen because of its proximity to the Namibia border and the main immigration post in Santa Clara. The Namacunde Health center hosted the survey and the blood tests.

Figure 5: Map of the study site.



Source: INLS & FIOCRUZ, 2011

4.2.3 Sample Design

A non-probability sample was used to reach the target population. Because transactional and commercial sex is not socially accepted in Angola, women involved in transactional sex are difficult to reach. In such cases, non-probability samples are the most appropriate technique. Accordingly, participants were recruited with the Respondent Driven Sampling (RDS). RDS works like the snowball sampling in which participants are asked to recruit their peers that meet the criteria of the study (Pinho, Sampaio & Serrano, 2011).

The RDS sampling procedure started with selected people who initiated the recruiting chains. These people are called "seeds." In this BSS, the seeds were six women involved in transactional or commercial sex that met the inclusion criteria. Each seed received three single invitations to give their eligible female friends. When women arrived at the place of study with a valid invitation, they were screened for eligibility. Those women who were eligible were asked to sign the informed consent form and then interviewed and invited to give a blood sample for the HIV testing. After the interview and, if the participant agreed, the blood testing, each participant received three new invitations to give their acquaintances. This process was repeated until the intended sample was obtained. Both the interview and blood testing were voluntary. To compensate the time of the participants, products such as bath and make-up kits, phone credits and T-shirts were made available. Each participant chose one product as compensation.

4.2.4 Inclusion Criteria and Study Participants

The HIV and Syphilis BSS targeted only young Angolan women between the ages of 15-24 that were involved in transactional sex in the Angola-Namibia border (Pinho et al., 2011). More specifically, to be included in the study women had to meet the following criteria:

(1) Have Angolan nationality;

(2) Be in the ages of 15 and 24 years;

(3) Report having had transactional sex with at least two partners;

(4) Present a valid invitation at the study site;

(5) Agree to sign an informed consent and to answer the questionnaire;

(6) Not be under the influence of alcohol or other drugs.

4.2.5 BSS Angola: Questionnaire and Measures

This BSS adapted the questions from the *FHI 2000 HIV/AIDS/STD Behavioral Surveillance Survey (BSS) For Female Sex Workers (FSWs)* to the context of transactional sex in the in the Angola-Namibia border. The questionnaire had a total of 170 questions divided into 14 sections (see Appendix B and C). The sections included in this BSS are described below.

Section 0: Background of the participants

This section included 18 items which aimed to collect data on demographics such as age, education, place of residency as well as to screen the participants for the eligibility criteria. The age of participants was assessed by two questions: “In what day, month, and year were you born?” and “How old are you?” Concerning education,

respondents were asked if they were attending school and what was the highest grade completed. Regarding the place of residence participants were asked the name of the municipality or village where they were living at the time of the survey. The answers included a list of the municipalities and some villages in the Cunene province. The screening questions included "How many men did you have sexual intercourse with in the last two months?" and "How many of those men did you have sexual intercourse because you expected gifts, money or something of value from them?"

Section A: Migration, Mobility and Source of Income

Migration, mobility and source of income were assessed with a total of 18 items. Six questions were used to identify migration of the participants (e.g. in which province where you born? In the last five years, in how many other provinces besides Cunene did you live?) Mobility was assessed with eight questions such as "In the last month, how many times did you go to Namacunde?" and "In the last month how many times did you cross the Angola-Namibia border?" Participants were also asked to express the motives that made them go to Namacunde or cross the Angola-Namibia border. The answers included (1) work, (2) to visit relatives, (3) go shopping, (4) business, visit boyfriend or "friends," (5) medical consultation, (6) recover dept, (7) other. Regarding to the source of income, four questions were included, for example: "Do you earn any money?" and "What do you do to earn money?"

Section B: Sexual Initiation and Marital Status

Sexual initiation and marital status of the participants at the time of the study was assessed with16 items. Four items evaluated sexual initiation (e.g., How old were you

when you had sexual intercourse for the first time? When you had sex for the first time, did you or your partner use condom?). Marital status was assessed with 12 items such as: "Do you have a husband or a live-in partner?" A statement assessed the HIV status of the participant's spouse. The answers to this statement were categorized into four groups. The statement reads "regarding your husband, do you know that: (1) He is HIV-positive; (2) He is HIV-negative; (3) Don't know his HIV Status; (4) Refuse to Answer".

Section C: Sexual Behavior with Non-Marital Partners

Sexual behavior with non-marital partners was assessed with 40 items. This section included questions about the number of non-marital partners in the year previous to the study. The items included questions such as "In the last year, with how many men, other than your husband, did you have sexual intercourse?" "Did you or your friend (non-marital partner) use condom?" "These friends or acquaintances give you or have given you (1) Money; (2) Pay bills; (3) Buy food; (4) offer clothes or other gifts;".

Section D: Social Network

This section was assessed with 12 items. Respondents were asked questions regarding the size of their networks, in this case, women that also practice transactional sex. Some of the questions included are: "Of the Angolan women, aged between 15 and 24 that you believe have sexual intercourse with men because they expect gifts, money or some valuable thing, how many have you talked to in person or over the phone in the last two months?" and "How many of these women with whom you talked in the last two months would you invite to participate in this survey?"

Section E: Sexually Transmitted Infections and Treatment

Sexually transmitted infections were measured with seven items. The questions included: “Have you ever heard of diseases that are transmissible by sex?” and “In the last year, did you have any of the following symptoms: (1) Low Abdominal pain; (2) Abnormal vaginal discharge that may have an odor; (3) Pain when urinating; (4) Itching or burning in or around the vagina, (4) none of the symptoms?” Participants who expressed having had any of the symptoms were also asked if they searched for medical treatment. If they said yes, they were asked where they went for treatment. Answers included: (1) Health Center or Public Hospital; (2) Private Clinic; (3) Pharmacy; (4) Traditional healer or (5) Other place.

Section F: Anti-HIV Testing and Treatment

Anti-HIV Testing and Treatment was evaluated with nine items. Participants where asked if they knew any place for HIV testing and if they had ever been tested for HIV. Participants who said that they were tested for HIV in the past were also asked when and where they were tested. Examples of other questions included are: “Do you mind sharing the result of your last HIV test?” The set of answers included: (1) Positive; (2) Negative; (3) Undetermined; (4) Refuse to say; (5) Did not get the result. In addition, participants were also asked if they perceived themselves at risk of contracting HIV. The answers were (1) No risk; (2) Low Risk; (3) Medium risk; (4) Great risk, (5) Do not know.

Section G: Reproductive History and HIV testing during Pregnancy

This section was indicated by 11 items. Participants were asked if they were pregnant at the time of the interview, how many times they have been pregnant and

whether they had children or not. Women who had children were asked if they had been tested for HIV during their pregnancy. Birth control methods were also assessed in this section. Some of the questions were “During your last pregnancy, did you attend pre-natal consultation?” and “During your last pregnancy, did you get tested for HIV?”

Section H: Knowledge, Attitudes and Perceptions about HIV

HIV knowledge, attitudes and perceptions were measured with 10 “yes” or “no” questions. The questions assessed participant’s knowledge about HIV/AIDS. Three items were HIV Knowledge and perceptions (e.g., “Have you ever heard about HIV or AIDS?” and “Do you know anyone who died from AIDS?”). Two items were related to HIV transmission (e.g., “Can someone get HIV by mosquito bite?”). Three Items were related to the beliefs about HIV (e.g. “Can someone get HIV/AIDS by sharing a meal with someone who is infected?” and “Do you think someone can get HIV because of witchcraft or other supernatural means?”). Two items assessed HIV prevention (e.g., Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?” and “Do you think that someone can prevent him/herself from getting HIV by correctly using condom during every sexual intercourse?”).

Section I: Stigma and Discrimination

Stigma and discrimination were measured with six “yes” or “no” items. Participants were asked to answer questions related to their attitudes towards someone who was HIV positive. This section included questions such as: “Would you share a meal with someone who you know that has HIV or AIDS?”

Section J: Experiencing Violence against Women

Violence against women was assessed with three "yes" or "no" questions (e.g. In the last year, did your husband or other sexual partner force you to have sexual intercourse when you did not want to? In the last year, did your husband or other sexual partner physically abuse you?).

Section K: Use of Substance (Alcohol or drugs)

Use of substance was measured with six items. Participants were requested to answer questions related to alcohol use (e.g., In the last month, how many times did you drink alcohol? The answers included: (1) Every day; (2) At least once a week; (3) Less that once a week; (4) Never). Questions related to drug use included "Have you ever tried any drugs such as: marijuana, cocaine, heroin, diazepam or injectable?"

Section L: Access to Condoms

This section contained seven questions regarding access to condoms. Questions asked participants if they ever purchased or were given condoms. Participants who purchased condoms were asked what they thought about the price of the condoms. Answers included: (1) Expensive; (2) Cheap; (3) Reasonable; (4) Never bought condoms. In addition, participants were asked if they were aware of the female condoms and if they had ever used it?

Section M: Exposure to HIV Prevention

Exposure to HIV Prevention was the last section of the interview. This section included seven questions related to exposure to any HIV information. Questions

included: “In the past three months, did you hear or see any information regarding STDs, HIV or AIDS?” The answer includes a large variety of options such as: (1) radio; (2) TV; (3) Newspaper or Magazines; (4) Text messages; (5) Health Center or Hospital; (6) School; etc. and “Do you know any organization in the Cunene province that works on STDs, HIV or AIDS prevention?” Those participants who said yes were asked to name the organization.

4.2.6 Clinical and Laboratory: HIV Testing

HIV testing was conducted with those participants who consented to be screened for HIV at the Namacunde’s Health Center. HIV rapid testing was used to examine participants’ blood samples. The HIV testing procedures followed the national algorithm applied for rapid testing accepted by the Ministry of Health of Angola. The algorithm includes two confirmatory tests: “Determine HIV ½” and “Uni-Gold HIV". If there was discordance in the results between those confirmatory tests, a third test, “OraQuick Advance Rapid HIV-1/2” was used for the final result.

Pre-test counseling was offered to all respondents who agreed to participate in the survey. The counseling was in form of individual-based and user-centered sessions, which discussed the individual’s vulnerability, risk awareness, risk-reducing strategies, reaffirmation of the voluntary and confidentiality test clauses, the meanings and impact of a positive test result, the assignment of support in case of a positive test result, informing partners and instructions and testing procedures (INLS & FIOCRUZ, 2011). The test results were given to the participants nearly 20 minutes after the HIV test was conducted. Participants received their test results during the post-test counseling. To

insure confidentiality, the post-test session was conducted with the same counselor who conducted the pre-test session. Participants were informed of their results and how to interpret them. In case of a positive result, emotional support was offered together with the negotiation of a risk-reduction plan, discussion about the importance of informing their partners, and evaluation of the sources of social and family support available. The counseling procedures were compliant with the CDC counseling manual (CDC, 2001), and the protocol for counseling using rapid testing (CDC, 1999).

4.3 IMB Model Measures

a. Information

Information is simply HIV-related knowledge, which was measured with eight items assessing the HIV modes of transmission and prevention. Response options were all "yes" or "no." All the wrong answers were coded 1 and the correct answers were coded 2. In this study, scores of HIV-related knowledge ranged from 8–16. A score of 8 indicates no HIV-related knowledge and a score of 16 indicates good HIV knowledge. Scores were summed to create scaled composites.Table 1 Sociodemographics Characteristics of Young Women Involved in Transactional Sex (N= 500)

b. Motivation

Regarding motivation, only self-efficacy was assessed. Self-efficacy was measured with one item question: "What risk do you think you have of being infected with HIV?" The response options varied from 1=none, 2=little risk, 3=medium risk and 4=High risk. In this study, scores on self-efficacy ranged from 1-4.

c. Behavioral Skill

There was not any section or question of the survey that assessed women's behavioral skills towards HIV prevention.

d. HIV Preventive Behavior: Condom Use

The percentage of condom use was used as the dependent variable in the model. This variable was assessed with the following question: "In the last month, how frequently did you use condoms during sexual intercourse with partners that you expected money from?" Response options ranged from 1= always to 4=never.

4.4 Independent and Dependent variables

For the purposes of this study, some variables from the BSS Angola were selected for data analysis. Variables were divided into two groups: independent and dependent. The independent variables included sociodemographic information such as age, residency, education level, religion, marital status at the time of the interview, and ethno-linguistic group. Behavioral characteristics were also included as independent variables. Among the behavioral characteristics, the following were included: number of non-marital partners, age at first sexual intercourse, frequency of condom use with non-marital partners, HIV related knowledge on prevention and transmission methods, HIV related attitudes, and alcohol and drug consumption. On the other hand, two main dependent variables were included in this study, namely: frequency of condom use and HIV serostatus. The results of the HIV rapid tests were coded as dichotomous (0 = HIV Negative, 1= HIV Positive).

4.5 Statistical Analysis

The statistical analysis for this study was performed with the following software: IBM SPSS 21, and IBM SPSS AMOS. The IBM SPSS 21 software was used to perform unadjusted analysis for the univariate, bivariate and multivariate analysis. The IMB SPSS AMOS was used to conduct the path analysis of the IMB skill model, its respective logistic regression and model of fit. The scores of the constructs variable (HIV-related knowledge, perceived risk and condom use) were conducted separately on SPSS and then inserted on AMOS for the logistic regression.

CHAPTER V: RESULTS

About 709 women arrived at the location of the study with a valid invitation. Among them, 209 (29.5%) where not eligible and two (0.3%) refused to participate. The final sample was made with a total of 500 (70.5%) young women who were eligible. Among those women, 61 (12.2%) of the participants did not provide blood for HIV testing. Thus, a total of 439 (87.8%) participants were tested for Syphilis and HIV (INLS & FIOCRUZ, 2011).

5.1 Univariate Analysis

Univariate analysis was used to describe the pattern of response such as frequencies and percentages of selected sociodemografics (i.e., age, level of education, local of residency, ethnicity, and marital status) and other variables related to HIV knowledge, attitudes and behaviors.

5.1.1 Sociodemographic Characteristic of the Study Population

Descriptive analysis was used to assess the sociodemographic characteristics of the study population. The results of the descriptive analysis are presented in Table 1. Since age was one of the inclusion criteria, all the participants were between the ages of 15 and 24 years. The mean age of the sample was 19.8 years (SD = 2.4). More than half (55%) of the participants were young adults (20-24 years of age) and 43% of the participants were adolescents (15-19 years of age).

The large majority (76.1%) of the participants were of Kwanhama ethnicity. Concerning education, middle school was the highest level attended by most of the participants (62.1%). Regarding income, almost three fourths (72.1%) of the participants relied on sexual partners as source of income. Most of the participants lived by the border between Angola and Namibia, more specifically in Namacunde (54.7%) and Santa Clara (28.6%). The large majority (89.2%) of the participants were single, whereas 8.6% of them were married or cohabiting. More than half of the participants (58.4%) did not have any children and 42.7% had at least one child. Regarding religion, the large majority (76.1%) of the participants were catholic.

Table 1 Sociodemographics Characteristics of Young Women Involved in Transactional Sex (N= 500

	Unadjusted	
Characteristics	**n**	**%**
Age		
Adolescent (aged 15-19)	215	43.9
Young women (aged 20-24)	275	56.1
Native language/Ethnicity		
Kwanhama	373	76.1
Umbundo	81	16.5
Ovambo-humbi	21	4.3
Another	15	3.1
Interview Language		
Portuguese	274	55.9
Kwanhama	216	44.1
Education level		
Never went to school	13	2.7
Primary school	112	23.0
Middle school	303	62.1
High school	60	12.3
Job or source of income		
Boyfriends and friends provide	352	72.1
Merchandiser	107	21.9
Peddler	18	3.7
Public servant	13	3.0
Other	18	3.7
Place of residence		
Namacunde	268	54.7
Santa Clara	140	28.6
Ondjiva	34	6.9
Other places	48	9.8
Marital Status		
Married or living with partner	43	8.6
Single	446	89.2
Number of children		
0	286	58.4

1	138	28.2
2	53	10.8
3 or 4	13	2.7
Religion Affiliation		
Catholic	373	76.1
Anglican	30	6.1
Other religion affiliation	86	17.4
No religion	1	0.2

5.1.2 HIV-Related Knowledge, Attitudes and Behavior

a. HIV-Related Knowledge

Table 2 presents the descriptive characteristics of HIV-related knowledge among young women involved in transactional sex on the Angola-Namibia border. Practically all the young women interviewed (99.4%) had heard about HIV or the disease AIDS. In regards to HIV transmission methods, the large majority of women in both groups, adolescents and young adults, had a high percentage of correct answers. About 93% of female adolescents and young adults said that HIV cannot be transmitted by mosquito bites. In addition, a large majority of adolescents and young adults, 91.5% and 98.5% respectively, said that HIV can be transmitted by sharing needles.

Although the large majority of women in both groups had high percentages of correct answers about HIV prevention, more adolescents than young adults incorrectly answered some of those questions. For instance, more adolescents (6.6%) than young adults (3.7%) said that a healthy looking person cannot have HIV. Similarly, more adolescents (8.5%) than young adults (4.4%) said that someone can get HIV by sharing food with someone who is infected. Surprisingly, few respondents amongst adolescents (1.4%) and young adults (0.4%) believed that HIV could be transmitted by supernatural means.

Regarding to HIV prevention, less than one fourth of the women in both groups (adolescents: 21.6%, young adults: 20.1%) said that people could protect themselves from contracting HIV by having sex only with one faithful uninfected partner. However, a higher

percentage of respondents said that people could protect themselves from contracting HIV by using condoms (84.0% and 86.0, adolescents and young adults respectively).

Table 2 HIV-related knowledge Among Young Women Involved in Transactional Sex in the Angola-Namibia border

	Total N=490	Adolescents aged 15-19 (n=215) Unadjusted		Young adults aged 20-24 (n= 275) Unadjusted	
		n	%	n	%
Heard of HIV					
Yes	486	213	99.1	273	99.6
No	3	2	0.9	1	0.4
HIV Transmission					
From mosquito bites					
Yes	32	14	6.6	18	6.6
No	453	199	93.4	254	93.4
Injections with used needles					
Yes	480	211	99.1	269	98.5
No	6	2	0.9	4	1.5
A healthy looking person can have HIV					
Yes	462	199	93.4	263	96.1
No	24	14	6.6	10	3.7
Can get HIV by sharing food					
Yes	30	18	8.5	12	4.4
No	456	195	91.5	261	95.6
Can get HIV by supernatural means					
Yes	4	3	1.4	1	0.4
No	479	209	98.6	270	99.6
HIV Prevention Methods					
By having one uninfected partner					
Yes	101	46	21.6	55	20.1
No	385	167	78.4	218	79.9
By correctly using condom					
Yes	413	179	84.0	234	86.0
No	72	34	16.0	38	14.0

The five measures of HIV transmission methods and the two measures of HIV prevention indicate that respondents in both age groups have more knowledge on HIV prevention methods

than HIV transmission. Disaggregating the analysis by age indicated that 60.6 % of the adolescent and 65.9% of the young adults had correctly answered the five questions on HIV transmission. Whereas 72.8% of adolescents and 75.1% of young adults correctly answered the two questions related to HIV prevention (See table 3).

Table 3 Indicators of HIV-related Knowledge (Transmission and Prevention Methods)

	Total N=500	Adolescents aged 15-19 (n=215)		Young adults aged 20-24 (n= 275)	
		Unadjusted		Unadjusted	
		n	%	n	%
Transmission Methods					
< 5 right	177	84	39.4	93	34.1
5 right	309	129	60.6	180	65.9
Prevention Methods					
< 2 right	126	58	27.2	68	24.9
2 right	360	155	72.8	205	75.1

b. HIV-Related Attitudes: Stigma and Discrimination

Characteristic of HIV-related attitudes among young women involved in transactional sex in the Angola-Namibia border are presented in Table 4. Looking into each of the six questions separately, it was noticed that across both age groups, more than 90% of the participants had non-stigmatizing attitudes towards people living with HIV/AIDS (PLWHA). Nonetheless, the percentages of adolescents who would share a meal with someone who has HIV, who would care for a family member with HIV, who would buy vegetables from a vendor with HIV, who did not want to keep a secret about their family member status of HIV positive, and who agreed that a female teacher with HIV, but not sick, should be allowed to continue teaching at school were slightly lower than among young adults. The highest level of stigma was reflected in willingness

to buy food from an HIV infected food seller (11.2% and 3.7%, adolescents and young adults respectively).

Table 4 Attitudes and Stigma Among Young Women Involved in Transactional Sex in the Angola-Namibia border

	Total N=490	Adolescents aged 15-19 (n=215) Unadjusted		Young adults aged 20-24 (n= 275) Unadjusted	
Characteristics		n	%	n	%
Share food with someone who has HIV					
Yes	468	199	92.6	269	98.2
No	21	16	7.4	5	1.8
Care for family member with AIDS					
Yes	485	213	99.1	272	99.3
No	4	2	0.9	2	0.7
Student with HIV can go to school					
Yes	485	212	98.6	273	99.6
No	4	3	1.4	1	0.4
Teacher with HIV can teach					
Yes	485	211	98.1	274	100
No	4	4	1.9	0	0
By food from a vendor who has HIV					
Yes	454	191	88.8	263	96.3
No	34	24	11.2	10	3.7
Not Secretive					
Yes	478	207	96.3	271	98.9
No	11	8	3.7	3	1.1

To specify what was said above, an indicator of stigma was created. This indicator shows if the respondents had none or at least one stigmatizing attitude towards PLWHA. The results indicated that 86% of the adolescents and 94.9% of the young adults have had accepting attitudes towards PLWHA (see Table 5).

Table 5 Stigma Among Young Women Involved in Transactional Sex					
	Total N=490	Adolescents aged 15-19 (n=215)		Young adults aged 20-24 (n= 275)	
		Unadjusted		Unadjusted	
		n	%	n	%
Stigma					
None	444	185	86.0	259	94.9
At least one	44	30	14.0	14	5.1

c. HIV-Related Behavior

The sexual behaviors of the young women involved in transactional sex are shown in table 6. Most of the respondents (75.7%) in both groups reported having their first sexual intercourse before the age of 15 (65.1% among adolescents and 83.9 among young adults). Age at first sexual intercourse ranged from 10- 21 years of age. The majority of participants in both age groups reported having had only one partner in the previous year (66.5% among adolescents and 52.9% among young adults). A considerable number of young adults also reported having had three partners (33.3%) or four or more (13.6%). Regarding partner's age, some respondents reported having had one partner who was at least 10 years older than them (26.5% in adolescents and 37.7% in young adults). Among young adults, a considerable amount of female young adults also reported having two or more partners who were 10 years older than them. Additionally, the large majority of the participants (85.1% among adolescents and 91.2% young adults) reported partner concurrency.

Among women involved in transactional sex, only a few of them reported condom use. In both age groups, only 38.9% among adolescents and 28.1% among young adults reported the use of a condom during their last sexual encounter. When asking about consistent use of condoms

with a commercial sexual partner (receiving money in exchange of sex) during the preceding month, the percentage of condom use decreased drastically. The percentage among adolescents and young adults was reported by 15.1% and 8.1% respectively. In both cases, condom use at last sexual encounter and condom use with commercial partners, adolescents reported more condom use than young adults. The most common reason for non-use of condom with a non-commercial partner was partner trust (48.6%).

Overall, 229 (46.8%) of the women had an alcoholic drink in the last four weeks. These respondents were asked about the frequency of their drinking. Few of the participants 36 (3.7% of adolescents and 10.2% of young adults) reported consuming alcohol on daily basis and 193 (32.5% of adolescents and 72.2% of young adults) consumed less or once per week. Women were also asked how often they had consumed alcohol before or during sexual encounters. The large majority 88 (38.8%) of the women reported that at least once a week they had consumed alcohol before sexual intercourse. Among them adolescents accounted for 28.2% and young adults for 44.3%. Daily alcohol use before sexual intercourse was reported by 16 (7%) of the participants (4 adolescents and 12 young adults). Regarding drugs, the large majority 471 (96.3%) of the participants reported have tried weed in the past. Among them, 98.6% were adolescents and were 94.5% young adults. None of the participants reported using drugs before or during sexual intercourse.

About 170 of the interviewees (30.2% adolescents and 38.3% young adults) reported having had an STI in the previous year and 62 interviewees (11.2% of the adolescents and 13.9% of the young adults) reported having STI symptoms at the moment of the interview.

Table 6 HIV-Related Risk Behaviors Among Young Women Involved in Transactional Sex

Characteristics	Total N=500	Adolescents aged 15-19 (n=215) Unadjusted		Young adults aged 20-24 (n= 275) Unadjusted	
		n	%	n	%
Age at first sexual intercourse					
Before age 15	370	140	65.1	230	83.9
After age 15	119	75	34.9	44	16.1
Condom use at first sex					
Yes	173	93	43.3	80	46.2
No	316	122	56.7	194	70.8
Number of non-marital sexual partners past year					
1-2	287	143	66.5	144	52.9
3	147	56	26.0	91	33.5
4≥	53	16	7.4	37	13.6
Number of non-marital partners 10 years older					
0	245	133	61.9	112	41.2
1	146	57	26.5	89	32.7
2≥	96	25	11.6	71	26.1
Partner Concurrency					
Yes	431	183	85.1	248	91.2
No	56	32	14.9	24	8.8
Condom use at last sex with non-marital partner					
Yes	159	82	38.9	77	28.1
No	330	133	61.9	197	71.9
Condom use when exchanging sex for money past month					
Consistent	15	8	15.1	7	8.5
Inconsistent	120	45	84.9	75	91.5
Had a STD past year					
Yes	170	65	30.2	105	38.3
No	319	150	69.8	169	61.7
STD symptom at the time of the interview					
Yes	62	24	11.2	38	13.9
No	427	191	88.8	236	86.1

Table 6. HIV-Related Risk Behaviors Among Young Women Involved in Transactional Sex (Cont.)

Characteristics	Total N=500	Adolescents aged 15-19 (n=215) Unadjusted		Young adults aged 20-24 (n= 275) Unadjusted	
		n	%	n	%
Used alcohol past month					
Never	260	137	63.	123	44.9
Less than once a week	39	19	8.8	20	7.3
Once a week	154	51	23.7	103	37.6
everyday	38	8	3.7	28	10.2
Used alcohol before intercourse past month					
Yes	134	36	46.1	98	65.8
No	93	42	53.8	51	34.2
Drugs used					
Weed	471	212	98.6	259	94.5
Cocaine	0			2	0.7
None	16	3	1.4	13	3.3
Received money for sex					
Yes	78	31	25.0	47	26.4
No	224	93	75.0	131	73.6
Asked money for sex					
Yes	350	161	74.9	189	69.0
No	139	54	25.1	85	31.0

Regarding to sexual transactions, the large majority of the participants (74.9% and 69% among adolescents and young adults, respectively) reported asking for money to have sex, while some adolescents and young adults (25% and 26.4%, respectively) reported that they did not ask for money, but they received it if the opportunity was presented to them. Common items exchanged for sex included money (25.2%), bill payments (22.5%), food (14.6%), clothing and other gifts (9.6%) and gifts for children (7.9%) (see Table 7).

Table 7 Common Items Exchanged for sex Among Young Women Involved in Transactional Sex

	Total N=500	Adolescents 15-19 (n=215) Unadjusted		Young Adults 20-24 (n= 275) Unadjusted	
		n	%	n	%
Items exchanged for sex					
Money	76	34	27.4	42	23.6
Pay bills	68	26	21.0	42	23.6
Buy Food	44	17	13.7	27	15.2
Give clothing/gifts	29	10	8.1	19	10.7
Buy gift for children	24	13	10.5	11	6.2
Pay education costs	26	7	5.6	19	10.7
Pay phone bills	13	5	4.0	8	4.5
Other	22	12	9.7	10	10

5.1.3 HIV Testing

a. Participants History of HIV Testing

Among women involved in transactional sex, 285 (44.7% of adolescents and 69% of young adults) reported having had at least one HIV test in their life time. However, the fewer women reported being tested for HIV in the previous 12 months (38.1% of adolescents and 50.7% of young adults). Women were also asked to share the result of their last HIV test. The HIV reported status is presented on Table 8. A total of 18 participants (3 of adolescents and 15 of young adults) reported being HIV positive.

Table 8 HIV Reported Status and Treatment Among Young Women Involved in Transactional Sex in the Angola-Namibia border

	Total N=500	Adolescents 15-19 (n=215) Unadjusted		Young Adults 20-24 (n= 275) Unadjusted	
		n	%	n	%
HIV Reported Status					
Positive	18	3	3.2	15	7.9
Negative	259	89	93.7	170	89.9
No response	7	3	3.2	4	2.1
Total	284	95	100	189	100
Tested for HIV					
Yes	285	96	44.7	189	69
No	204	119	55.3	85	31
Tested for HIV past year					
Yes	221	82	38.1	139	50.7
No	268	133	61.9	135	49.3

b. HIV Serostatus and Prevalence

Table 8 and 9 demonstrates the distribution of HIV cases by age group and the prevalence of HIV, respectively, among women involved in transactional sex. The data indicates that HIV prevalence is higher among young adults (10.5%) than adolescents (2.8%).

Table 9 HIV Serostatus of the Young Women Involved in Transactional Sex in the Angola-Namibia border

	Total N=500	Adolescents aged 15-19 (n=215) Unadjusted		Young adults aged 20-24 (n= 275) Unadjusted	
		n	%	n	%
HIV Serostatus					
Positive	35	6	3.1	29	12.2
Negative	396	188	96.9	208	87.8
Total	431	194	100	237	100

Table 10 HIV Prevalence among Young Women Involved in Transactional Sex in the Angola-Namibia border			
	Sample Size	**HIV – Positive Cases**	**Prevalence (%)**
15-19	215	6	2.8
20-24	275	28	10.5
Total	500	35	7

5.1.4 Marital Status, Partners' Occupation

a. Marital Status

Only 8.6% (n= 43) of the women involved in transactional sex are married or live with a partner. Within the age groups, 3.7% of adolescents and 12.8% of young adults are married or cohabiting (see Table 11).

Table 11 Marital Status disaggregated by age group Among Young Women Involved in Transactional Sex in the Angola-Namibia border					
	Total n=500	Adolescents aged 15-19 (n=215)		Young adults aged 20-24 (n= 275)	
		Unadjusted		Unadjusted	
		n	%	n	%
Marital Status					
Married or Cohabiting	43	8	3.7	35	12.8
Single	446	207	96.3	240	87.2

b. Characteristics Related to Young Women's Marital or Cohabiting Partner

Table 12 shows the characteristics of the young women's marital or cohabiting partners. The age of the young women's marital or cohabiting partners varied from 19 to 99 and the mean age was 30.4 (SD= 12.7). The large majority of the marital partners were between the ages of 20-

30. Concerning partner's occupation, 13 were public servers, 11 were military or police officers, 11 were merchandizers or had their own business, one was truck driver and seven had other activities.

In regards to behavioral characteristics, interviewees were asked how many other wives their husbands or cohabiting partners had. The number of wives ranged from zero to six. The majority of the married women (n=37) reported that their partners had one to three wives. Participants were also asked if they knew their husbands' or cohabiting partners' HIV status. The majority of the respondents (n=20) in both age groups (n=3 of adolescents and n=17of young adults) reported not knowing their partners' status and four of the participants reported that their partner were HIV positive. All four cases reported were among young adults. In addition, participants were asked if they had used condoms with their husbands or cohabiting partners during their last intercourse. Thirteen of the participants (n=4 of adolescents and n=9 of the young adults) reported having used a condom in their last sexual encounter with their husbands or cohabiting partners. Among the participants who reported condom use, 12 of them said that they were the ones suggesting condom use and only one reported that condom use was suggested by her and her partner. The main reason for not using condoms (n=21) was the unwillingness ("he didn't want") of the husbands or cohabiting partners.

Table 12 Sociodemographic and behavioral characteristics of young women's marital or Cohabiting partners

	Total N=43	Adolescents aged 15-19 (n=8) Unadjusted		Young adults aged 20-24 (n= 35) Unadjusted	
		n	%	n	%
Partners Age					
19	1	1	12.5	-	-
20-30	34	7	87.5	27	77.1
31-40	4	-	-	4	11.4
41-50	3	-	-	3	8.6
51≥	1	-	-	1	2.9
Partners' Occupation					
Public Server	13	-	-	13	37.1
Military/Police officer	11	1	12.5	10	28.6
Merchandizer/ Business	11	3	37.5	8	22.8
Truck Driver	1	-	-	1	2.9
Other	7	4	50.0	3	8.6
Number of Wives					
0	1	-	-	1	2.9
1-3	37	8	100	29	85.3
4-6	4	-	-	4	11.8
Partner's HIV Reported Status					
Positive	4	-	-	4	11.4
Negative	16	4	50	12	43.3
Don't Know	20	3	37.5	17	48.6
Refuse	3	1	12.5	2	5.7
Condom use at last sex					
Yes	13	4	50.0	9	25.7
No	30	4	50.0	26	74.3
Who suggested Condom use					
Her	12	4	100	8	88.9
Both	1	-	-	1	11.1
Motives for non-condom use					
"He is my Husband"	5	1	25.0	4	15.4
Did not have	2	-	-	2	7.7
He didn't want	21	3	75.0	18	69.2
She didn't want/ other	2	-	-	2	7.6

c. HIV Serostatus Among Married or Cohabiting Women Involved in Transactional Sex in the Angola-Namibia border

The HIV serostatus among married or cohabiting women that are involved in transactional sex are presented in Table 13. Among married women, only three (n=1 among married adolescents and n=2 among married young adults) tested positive for HIV. This result suggests that the majority of the HIV positive cases are found among single women who practice transactional sex.

Table 13 HIV Seroststus Among Married Women Involved in Transactional Sex in the Angola-Namibia border

	Total n=43	Adolescents aged 15-19 (n=8)		Young adults aged 20-24 (n=35)	
		Unadjusted		Unadjusted	
		n	%	n	%
HIV Serostatus					
Positive	3	1	12.5	2	9.1
Negative	27	7	87.5	20	90.9
Total	**30**	**8**	**100**	**22**	**100**

5.2 Bivariate Analysis

Bivariate analyses were applied to identify differences or associations between selected variables. Independent sample t-tests were used to identify differences of the mean scores of HIV-related knowledge, attitudes and behaviors between younger and older women involved in transactional sex. On the other hand, fisher's exact tests were used to calculate associations between women's HIV positive serostatus and partner's occupation. Additionally, odds ratio was calculated to identify the associations between HIV serostatus and selected variables such as

marital status, age groups (15-19 and 20-24), HIV-related knowledge, condom use, and receiving or asking money for sex.

a. Age Groups and HIV-related Knowledge

An independent samples t-test was conducted to determine a possible difference in HIV-related knowledge between adolescents and young adults involved in transactional sex on the Angola-Namibia border. The result of the t-test showed that there was not a statistically significant difference in the HIV-related mean scores between these groups (t=.140, df=480, p > .05). There was not much difference in the mean of the HIV-related score of adolescents (m=11.29, sd=.81) and young adults (m=11.28, sd=.75).

b. Age Groups and Stigma

In order to examine whether there was a significant difference between adolescents and young adults in their attitudes towards PLWHA, an independent samples t-test was conducted. The test revealed a statistically significant difference between adolescents and young adults (t = 3.46, df = 295.7, p < .001). Adolescents (m = 6.27, SD = .73) reported significantly higher levels of stigma towards PLWHA than young adults (m = 6.08, SD= .36).

c. Age Groups and Sexual Risk Behaviors

An independent samples t-test was conducted to examine whether there was a significant difference between adolescents and young adults in relation to sexual behaviors. The test indicated a statistically significant difference between adolescents and young adults (t = -3.88, df= 283, p < .001). Young adults involved in transactional sex (m = 7.61, SD = 1.15) reported significantly higher levels of risky sexual behavior than adolescents (M = 7.06, SD= 1.22).

d. Partner's Occupation and Married Women Serostatus

In order to test if partners' occupation would predict women's HIV serostatus, a bivariate analysis and a logistic regression were calculated. The cross-tabulation, which included partners' occupation and women's HIV serostatus, shows the distribution of women's seroststus across partners' occupation. One case of HIV was found among merchandizers or business men, one case among truck drivers, and one case among other occupations (see table 13).

Table 14 Women's HIV Serostatus by Partner's Occupation

	Total n=43	HIV Positive Unadjusted n	HIV Test Negative Unadjusted n
Partners' Occupation			
Public Server	10	-	10
Military/Police officer	5	-	5
Merchandizer/ Business	9	1	8
Truck Driver	1	1	1
Other	5	1	4

To evaluate associations between marital partners' occupation and women's HIV serostatus, fisher's exact test, an alternative to the Pearson Chi-square, was used since one or more cells contained less than five observations. Analyses were conducted for the three HIV positive cases mentioned above (merchandizer, truck driver, and other). No statistically significant associations were recorded between women's HIV positive serostatus and their partners' occupation; business (p= .408), truck driver (p=.115) and other occupation (p=.474).

e. Associations between HIV-positive Status and Selected Variables

Odds ratio (OR) was used to examine associations between women with and without HIV infection and sociodemographic and behavioral characteristics. The results revealed statistically significant associations between HIV positive women and an increased likelihood of being in the ages of 20-24 (crude OR: 4.37, CI 1.78, 10.76, p = 0.001), having had a STD in the past year (crude OR 3.24, CI 1.60, 5.58, p = 0.001), residing in Namacunde (crude OR 2.35, CI 1.10, 5.02, p= 0.027), having had two or more partners in the past year (crude OR 6319, CI 3.33, 11.95, p= 0.001), and consuming alcohol before or during sexual intercourse (crude OR 18.14, CI 7.62, 43.12, p= 0.001)

Table 15 Associations between HIV Serostatus and Selected Sociodemographic and Behavioral Variables

	HIV+ Cases (n=35)	OR	95% CI	p value
Married Women	3	1.28	0.37, 4.44	0.670
Young adults	29	4.37	1.78, 10.76	0.001*
Know 5 methods of HIV Transmission	23	1.17	0.55, 2.47	0.681
Know 2 methods of HIV Prevention	29	1.98	0.55, 2.47	1.172
DST past year	21	3.24	1.60, 5.58	0.001*
Received money for sex	4	1.04	0.32, 3.36	0.941
Asked money for sex	27	1. 40	0.62, 3.18	0.417
Age at first sex <15	31	2.59	0.89, 7.52	0.080
Sexual partner as source of income	32	0.81	0.24, 2.84	0.752
Risk Perception	23	1.35	0.65, 2.79	0.417
Inconsistent condom use	14	1.60	0.35, 7.37	0.540
Residency in Namacunde	25	2.35	1.10, 5.02	0.027*
Partner concurrency	32	1.48	0.44, 5.03	0.526
Partner 10 years older	23	1.70	0.83, 3.52	0.149
More than 2 partners past year	35	6.32	3.33, 11.95	0.001*
Alcohol before/during sex	28	18.14	7.62, 43.12	0.001*
Education Less than High school	34	5.59	0.79, 41.61	0.093

5.3 Multivariate Analysis

Multivariate analysis was used to explore relationships of selected variables within the information-motivation-behavioral skills model. A multiple linear regression was used to predict condom use at last month (dependent variable) among women involved in transactional sex. The estimated model did not demonstrate adequate fit of the data $X^2 = 0.00$, CFI = 0.00, RMSEA = .00 (90% CI: 0.00 – 0.04). Because our model only measured two independent variables, the chi square and the degree of freedom was equal to zero (see Appendix D). The results of the regression indicated that the predictors explained 20% of the variance (r=.02, p>.05). The path from HIV related information to condom use at last month were not significant (r = .001, p>.05). Similarly, the path from perceived risk to condom use at last sex was not significant (r = -.14, p>.05) (see Figure 7).

Figure 6: IMB Model of Condom use at last month when receiving money for sex.
Note: Coefficients are standardized path coefficients.

CFI: Comparative Fit Index (desirable values > .95, which indicates good fit).
RMSEA: Root Mean Square Error of Approximation estimates lack of fit compared to the saturated model (desirable values < .08, indicates good fit)
——— Calculated
- - - - - - - Not calculated

CHAPTER VI:

DISCUSSION, LIMITATIONS AND CONCLUSION

6.1 Discussion

This study had three research questions whose aim was to examine certain factors related to young women (aged 15-24 years) involved in transactional sex in the Angola-Namibia border. More specifically, the questions seek to find: (1) differences on HIV related knowledge, attitudes and behavior between female adolescents and young adults; (2) associations between young women's partners' occupation and their HIV serostatus; and (3) the effect HIV-related information, motivation, and behavior skills have on young women's sexual behaviors. In this section, each one of these questions will be addressed.

Differences on HIV-related knowledge, attitudes and sexual behavior

The descriptive statistics showed that young adult women were more likely to correctly answer questions related to HIV methods of transmission and prevention than adolescents. This finding agrees with other studies conducted at national levels in Angola. For instance, the UNGASS Report (2012) stated that among female participants between the ages of 15-24 (N=919), older participants (ages 20-24 years) had more knowledge on HIV methods of prevention and transmission than female adolescents, 46.2% and 37.9%, respectively. However, the *t*-test indicated that there was not a

statistically significant difference between adolescents and young adults regarding knowledge of HIV methods of transmission and prevention.

Even though the large majority of the women in our study reported having accepting attitudes towards people living with HIV/AIDS, adolescents were more likely to report less accepting attitudes than older adults. In other words, adolescents reported having higher levels of stigma towards PLWHA than young adults. As a result, the t-test revealed a statistically significant difference between these groups, with adolescents having higher levels of stigma.

Regarding sexual behavior, young adult women were more likely to expose themselves to sexual risk behaviors than adolescents. For instance, young adult women involved in transactional sex reported inconsistent condom use, more lifetime sexual partners, more partner concurrency, more cases of STDs in the past year, and more alcohol use before or during sexual encounters. The result of the *t*-test was statistically significant. These findings agrees with the findings presented on Strategic National Plan (PEN- Plano Estrategico Nacional, in Portuguese) which states that female young adults are more likely to engage in sexual risk behaviors than adolescents (PEN, 2005). In addition, a study comparing data from 2005 and 2008 on condom use among women involved in sex work in the Cunene province showed that there was no statistically significant change over time. Only one quarter 25% (N=307) of the women involved in sex work reported consistent condom use (PSI, 2008).

Marital or Cohabiting Partners' Occupation and Women's HIV Serostatus

More young adults reported being married or cohabiting with a partner than adolescents. Among the 43 married women, only eight were adolescents. Young women's partners' occupation was diverse, including professions such as public servants, truck drivers, merchandizers, etc. Three HIV positive cases were found among married or cohabiting women. Although other studies advocate associations between partners' occupation and women's HIV serostatus, in this study, partner's occupation had no effect on women's HIV serostatus.

The national strategic plan, as well as the WHO and the UNAIDS, consider military personnel and truck drivers to be among the vulnerable groups. Vulnerable groups are defined as groups of people that are potentially exposed, individually or collectively, to the risk of infection and transmission of the HIV/AIDS. Both professions imply a series of sexual risky behaviors such as more sexual partners, which is created from frequent mobility, little HIV-related knowledge on methods of prevention and transmission, sex without protection, and financial capability to pay for sexual services. Besides, military men are also known for using coercion to force sexual practices without protection (PNE, 2005). Despite the great exposure of military personnel and truck drivers, this study did not find any relationship between these two occupations and women's HIV status. Since the large majority of our sample was single women and only three HIV positive cases were found among married women, there was not enough data to effectively test the relationship between partners' occupation and women's HIV status. Thus, further studies should be conducted among military personnel, struck drivers and their spousal or cohabiting partners.

Information, Motivation and Behavioral Skills Model

The constructs of the IMB skills model were used to explore the effect of HIV-related knowledge and motivations on sexual risky behaviors among young women involved in transactional sex. The regression analysis showed that neither HIV-related knowledge nor perceived vulnerability had an effect on sexual risk behaviors of the women involved in transactional sex. This finding might incite several questions since the IMB model is a well-known approach that is used to explain HIV protective behaviors. For instance, in a study conducted in the Cunene province among female sex workers, it was found that having higher levels of HIV-related knowledge, self-efficacy to use condoms and risk perception (susceptibility) was significantly associated with consist use of condoms (PSI: 2008). This example shows the effectiveness of the IMB model in finding predictors of HIV preventive o behaviors. Thus, it is probable that the IMB model was not a good fit for this study because the items used in the questionnaire were not intended to measure the construct of the IMB or any other public health theory, on the contrary of the PSI study above mentioned. In addition, paths from HIV-related knowledge and from motivations to behavioral skills were not included in the model for lack of measurement of this construct in the questionnaire.

Factors Related to HIV Serostatus.

Table 16 presented the associations between selected sociodemographic or behavioral characteristics and HIV serostatus. Although statistically significant associations were found in five variables (ages, history of STD in the past 12 months, place of residency, two or more partners in the past 12 months, alcohol consumption

before or during sexual intercourse), there are other factors that deserve to be considered. The two by two tables showed that HIV positive cases were concentrated among women who knew five HIV methods of transmission and two methods of prevention. This controversial finding incites important questions since many studies have shown that increased HIV-related knowledge is related with reduced sexual risk behaviors (Degroote et al., 2014; Moore et al., 2007). Nonetheless, it also be crucial to consider the social characteristics that surrounds these women. Angolan women's increased HIV risk may be partially explained by the existing gender power inequality. As it was said earlier in this paper, women are more likely to have less economic and social power than men. As a result, women are in a disadvantageous position when it concerns to negotiating safer sex behaviors. This demonstrates that knowledge by itself is not enough to promote HIV protective behavior. Therefore, intervention programs should also address other factors such as skills to negotiate safer sexual behaviors and the gender power inequality.

6.2 Limitations

This study was subject to some limitations. First, only crude results were presented. Since the sampling method was based on referral chain, the analysis should have into consideration to the network chains. However, SPSS, which was the software used in the data analysis, does not take into consideration the recruitment process of the sample. Thus, our results are susceptible of self-reporting bias since respondents are more likely to recruit people that are like themselves. Second, all data, with the exception of the HIV serostatus, were self-reported and the participants might had given inaccurate responses during the interview because of social desirability or because of recall bias. Third, not all the constructs of the IMB model were measured and those that were measured had low reliability estimates, which might have reported inaccurate results and underestimated the associations between the constructs of the model. Fourth, because of the unclear definition of transactional sex (here defined as having had sexual intercourse with at least two partners in the last two months, from whom they received or expected to receive some material or financial benefit from, at least, one of them), the results of this study are not generalizable.

Conclusion

This study had three objectives: (1) to explore differences in in HIV-related knowledge, attitudes and behaviors between female adolescents (aged 15-19 years) and young adults (aged 20-24 years); (2) examine potential associations between women's serostatus and their partner's occupation; (3) implement the IMB model to examine the effect of the IMB constructs on condom use. Hence, some selected variables from the HIV and Syphilis Behavioral and Serological Survey (BSS) conducted in the Cunene province, Angola were reported.

The results of this study suggested that there were statistically significant differences in attitudes and sexual behavior between adolescents and young adults involved in transactional sex in the Angola-Namibia border. However, no statistically significant differences were found regarding HIV-related knowledge between these two groups. From this study, we also found that the overall crude HIV prevalence among women involved in transactional sex was estimated at 7%. Female young adults were more likely to be HIV positive than adolescents. HIV positive cases were very low among married women. Accordingly, it was found that women's serostatus were independent from marital or cohabiting partners' occupation. The IMB model did not show enough variance on condom use. However, caution should be used while interpreting the results of this model since some of the constructs (such as behavioral skills) were not captured on the BSS questionnaire.

Among women involved in transactional sex, HIV positive cases were more likely to be found on single women; women who knew five HIV methods of prevention and

two methods of HIV transmission: those who reported having had at least one DST in the past 12 months; those who had their first sexual intercourse before the age of 15, those whose source of income were the non-marital partners, those who perceived themselves at great risk for HIV and women who reported inconsistent condom use. Considering all the factors above mentioned, only few of them were significantly associated with HIV positive cases, namely: being between the ages of 20-24, having had a DST in the past 12 months, residing in Namacunde, and having had 2 or more sexual partners in the past 12 months. These findings on the significance of main sociodemographic and behavioral characteristics related to HIV risk presents insight into women who should be targeted for HIV prevention programs.

Since transactional sex and its possible associations to HIV infection or transmission are not popular research topic in Angola, this study brings a notorious contribution to the literature this area. Additionally, given the increased global efforts in reducing HIV incidence, it is important to analyze factors that might negatively contribute towards the Millennium Development Goal Number 6. Besides, in Angola, transactional sex is a topic that requires more attention from the decision makers in the health sector because what was seen in the Cunene province might be true in other parts of Angola, where women are also using sex to acquire material or basic needs. Therefore, a series of intervention programs must be implemented to reduce this women's exposure to sexual risk behaviors. Doing such effort will not only help to reduce HIV incidence, but also to promote help better quality of life for women in Angola.

Recommendations

The following recommendations are offered for improvement of the Behavioral Surveillance Survey instrument.

1. While the current the current questionnaire of the BSS seems efficient to report frequencies and differences amongst the sample, it may also be advantageous to include constructs form the IMB model. Such effort would enable researchers to apply adequate instruments from a research base to better identify the influence of factors such as behavioral skills on women's decision to practice safer sex behaviors.

2. The BSS should also include questions related to the ability of negotiating condom with commercial partners as well as assess women's skills in putting a condom on their partners. Although this might be might be costly and time consuming, it will provide more accurate responses on women's skills to negotiate or use condoms.

The following recommendations are offered to the implementers of the BSS:

1. Given the effects of sociodemographic factors on sexual behavior, the BSS should be implemented frequently (for example, every two years), in order to document trends on HIV status. This would also inform decisions makers of areas were interventions are needed.

2. The findings of this study showed that older women (ages 20-24) reported more sexual risk behaviors than female adolescents. Thus, it is recommended that the

Ministry of health of Angola in collaboration with the Institute to Fight against HIV and AIDS and other partners involved in HIV prevention (such as the CDC and the UNAIDS) work together to develop appropriate prevention programs for women in this age group, especially for women involved in sexual work in the Cunene province.

3. It was found that the large majority of the women depended on male partners as source of income. Based on this finding, it is recommended that women empowerment programs be implemented in the Cunene province and in Angola in general. Although empowerment is not directly linked to HIV prevention methods, it would be a great contributor on women's ability to be self-sustainable and adopt safer sexual behaviors.

4. It is also recommended the creation of appropriate and evidence based interventions programs for truck drivers and military personnel in order to reduce their exposure to sexual risky behaviors.

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Appendices

Appendix A: Sections of the FHI 2000 HIV/AIDS/STD Behavioral Surveillance Survey (BSS) For Female Sex Workers (FSWs).

The FEMALE SEX WORKER questionnaire includes the following sections:

Section #	*Section Name*	# of Questions
Section 0	Questionnaire identification data	(6 codes)
Section 2	Background characteristics	13
Section 3	Marriage, family, work	9
Section 4	Sexual history: Number and types of partners	3
Section 5	Sexual history: paying clients	6
Section 6	Sexual history: non-paying partners	6
Section 7	Male and female condoms	7
Section 8	STDs	5
Section 9	Knowledge, opinions, and attitudes towards HIV/AIDS	18
Section 10	Exposure to interventions	(variable)
TOTAL NUMBER OF QUESTIONS:		**57 questions**

Appendix B: Sections of the HIV and Syphilis Behavioral and Serological Surveillance Survey (BSS) among Young women involved in Transactional Sex in the Angola-Namibia Border Area.

The TRANSACTIONAL SEX questionnaire includes the following sections:

Section #	*Section Name*	# of Questions
Section 0	Background	18
Section A	Migration and Mobility	18
Section B	Sexual Initiation and Marital status	16
Section C	Sexual behavior with non-marital partners	40
Section D	Social Network	12
Section E	STI's and Treatment	7
Section F	HIV Testing	9
Section G	Reproductive History and HIV testing during Pregnancy	11
Section H	Knowledge, Attitude and about HIV	10
Section I	Stigma and Discrimination	6
Section J	Experiencing Violence against women	3
Section K	Substance Use (Alcohol and drugs)	6
Section L	Access to Condoms	7
Section M	Exposure to HIV Prevention Interventions	7
TOTAL NUMBER OF QUESTIONS:		**170**

Appendix C: HIV and Syphilis Bahavioral and Serological Surveillance Survey (BSS) among Young women involved in transcational sex in the Angola Namibia Border.

FORMULÁRIO ELETRÔNICO DE ELEGIBILIDADE

Página de identificação do questionário:

1) ID participante:	____.__.__.__.__.__.__.__	**[Paramêtros:]**
2) CONFIRMAÇÃO DO ID DA PARTICIPANTE:	____.__.__.__.__.__.__.__	**[Paramêtros:]**
3) PROVÍNCIA:	[__ __]	**[Códigos:]** 1- Cunene
4) SÍTIO DA PESQUISA	[__ __]	**[Códigos:]** 1- Namacunde 2- Santa Clara 3- Ondjiva 4- Outro
6) DATA DA ENTREVISTA	[__ __ /__ __ /__ __] [DD MM AA]	**[Sincronizado com o pocket e confirmar a data; Aparecer mensagem na tela:]** ***[Entrevistador: A data está correta?]***
7) ID do entrevistador:	[__ __]	
8) LÍNGUA DA ENTREVISTA:	[__ __]	**[Códigos:]** 1- Português 2- Kwanhama

(1). Em que dia, mês e ano você nasceu?

[Se não lembra ou não sabe, Digite 99 para dia, mês e/ou ano]

[__ __ /__ __ /__ ____]
[DD MM AAAA]

(2). Quantos anos você tem?

___ ___ anos

[Checar se a data da entrevista – data de nascimento= Q1, caso contrário aparecer a mensagem M1 em nova tela]

M1: *"Entrevistador, checar novamente a idade e data de nascimento da entrevistada"* **]**

(3). Você saber ler e escrever em Português?
1. ❍ Sim
2. ❍ Não

(4). Você estuda?
1. ❍ Sim
2. ❍ Não

(5). Qual foi a última classe que você completou na escola?
__ __ classe *[Se nunca foi a escola, digite 0]*

(6). Em que país você nasceu?
1. ❍ Angola
2. ❍ Namíbia
3. ❍ Outro. Qual? _____

(7). Qual é a sua religião ou igreja?
1. ❍ Não tenho religião
2. ❍ Católica
3. ❍ Metodista
4. ❍ Adventista
5. ❍ Testemunha de Jeová
6. ❍ Novo Apostólico
7. ❍ Igreja Universal
8. ❍ Simão Toco
9. ❍ Anglicana
10. ❍ Outra

(8). Qual é o principal dialeto que você fala?
1. ❍ Kwanhama
2. ❍ Umbundo
3. ❍ Nganguela
4. ❍ Kicongo
5. ❍ Tchokwe
6. ❍ Kibundo
7. ❍ Bancongo/Langa
8. ❍ Ayaneka-Humbi
9. ❍ Outro. Qual?_____

(9). Você tem filhos?
1. ❍ Sim
2. ❍ Não

[Se Q(9)=2, vá para Q(11)]

(10). Quantos filhos você tem?
__ __filhos

(11). Já tivestes relação sexual com um homem alguma vez na vida?
1. ❍ Sim
2. ❍ Não

[Se Q(11)=2, vá para Q(14)]

(12). Nos últimos dois meses, tivestes relação sexual com quantos homens?
__ __homens

[Se Q(12)=0, vá para Q(14)]

(13). Com quantos desses homens você teve relação sexual porque esperava que eles te dessem presentes, dinheiro ou alguma coisa de valor?
__ __homens

(14). O que te fez vir aqui hoje?
[Entrevistadora, não leia as opções, se for o caso, digite mais de uma opção]
1. ❑ Realizar a testagem para VIH
2. ❑ Realizar a testagem para Sífilis
3. ❑ Por causa do incentivo/brinde
4. ❑ Receber informação sobre DTS/VIH/SIDA
5. ❑ Conversar com um conselheiro
6. ❑ Recebi um convite
7. ❑ Outro motivo. Qual?_____

(15). Entrevistadora, a participante está sob efeito de álcool e drogas?:
1. ❍ Sim
2. ❍ Não

(16). [Aparecer na tela se entrevistada é elegível ou não elegível]
Entrevistadora, confirme se a entrevistada é:

Elegível = [15≤Q(2)≤24 e Q(6)=1 e Q(12) ≥2 e Q(13) ≥ 1 e Q(15)=2]
Não elegível = [15>Q(2)>24 ou Q(6)≠1 ou Q(12)<2 ou Q(13)=0 ou Q(15)=1]

1. ❍ Elegível
2. ❍ Não elegível

[Se (16)=1, aparecer a mensagem M2 em nova tela e pulo para (17)]

M2: "*Aplique o Termo de Consentimento Livre e Esclarecido, volte para este formulário e Digite na próxima pergunta se entrevistada quer ou não participar do estudo*"

[Se (16)=2, aparecer aparecer em nova tela a mensagem M3]

M3: "*Término da entrevista, agradeça novamente o participante*"

(17). Você quer participar deste inquérito?

1. ❍ Sim
2. ❍ Não

[Se (17)=1, aparecer em nova tela M4

FORMULÁRIO ELETRÔNICO SÓCIO-COMPORTAMENTAL

Seção A – Migração e Mobilidade

A(1). Em que província você nasceu?	A(2). Em que província você mora?
1. ❍ Luanda 2. ❍ Cunene 3. ❍ Zaire 4. ❍ Cabinda 5. ❍ Uige 6. ❍ Bengo 7. ❍ Kuanza Norte 8. ❍ Kuanza Sul 9. ❍ Malange 10. ❍ Lunda Norte 11. ❍ Lunda Sul 12. ❍ Benguela 13. ❍ Huambo 14. ❍ Bié 15. ❍ Moxico 16. ❍ Kuando-Kubango 17. ❍ Huila 18. ❍ Namibe 19. ❍ Província na Namíbia 20. ❍ Província em outro país	1. ❍ Luanda 2. ❍ Cunene 3. ❍ Zaire 4. ❍ Cabinda 5. ❍ Uige 6. ❍ Bengo 7. ❍ Kuanza Norte 8. ❍ Kuanza Sul 9. ❍ Malange 10. ❍ Lunda Norte 11. ❍ Lunda Sul 12. ❍ Benguela 13. ❍ Huambo 14. ❍ Bié 15. ❍ Moxico 16. ❍ Kuando-Kubango 17. ❍ Huila 18. ❍ Namibe 19. ❍ Província na Namíbia 20. ❍ Província em outro país

A(3). Há quanto tempo você mora nesta província?

__ __ anos
__ __ meses

[Se QA(3)>5, vá para QA(5)]

A(4). Nos últimos 5 anos, em quantas províncias você morou além dessa?
__ __ províncias

A(5). Em que localidade você mora?

1. ❍ Namacunde
2. ❍ Santa Clara
3. ❍ Ondjiva
4. ❍ Oshikango
5. ❍ Chiede
6. ❍ Oitamba
7. ❍ Xangongo
8. ❍ Mongua
9. ❍ Nehone
10. ❍ Outro lugar. Qual?_____

A(6). Há quanto tempo você mora nesta localidade?

__ __ anos
__ __ meses

A(7). No último mês, quantas noites você dormiu fora de sua casa?
__ __ noites

[Se mora fora de Namacunde, se QA(5)≠1, pergunte QA(8) e QA(9)]

A(8). No último mês, sem contar o dia de hoje, quantas vezes você veio para Namacunde?
__ __ vezes
[Se QA(8)=0, vá para QA(13)]

A(9). E quais motivos te trouxeram à Namacunde no último mês?

1. ❑ Para trabalho
2. ❑ Para visitar parentes
3. ❑ Para fazer compras na fronteira
4. ❑ Para fazer negócios
5. ❑ Para encontrar namorados ou "amigos"
6. ❑ Para fazer consultas médicas
8. ❑ Para cobrar dívidas
9. ❑ Outro motivo. Qual? _____

[Se mora em Namacunde, se QA(5)=1, pergunte QA(10) a QA(13)]

A(10). No último mês, quantas vezes você saiu de Namacunde?
__ __ vezes
[Se QA(10)=0, vá para QA(13)]

A(11). Dessas vezes que você saiu de Namacunde para onde você foi?

1. ❑ Santa Clara
2. ❑ Ondjiva
3. ❑ Oshikango
4. ❑ Chiede
5. ❑ Oitamba
6. ❑ Xangongo
7. ❑ Mongua
8. ❑ Nehone
9. ❑ Outro lugar. Qual?_____

A(12). E quais motivos te fizeram sair de Namacunde no último mês?

1. ❑ Para trabalho
2. ❑ Para visitar parentes
3. ❑ Para fazer compras na fronteira
4. ❑ Para fazer negócios
5. ❑ Para encontrar namorados ou "amigos"
6. ❑ Para fazer consultas médicas
7. ❑ Para cobrar dívidas
8. ❑ Outro motivo. Qual?_____

A(13). No último mês, quantas vezes você atravessou a fronteira entre Angola e Namíbia?
__ __ vezes
[Se QA(13)=0, vá para QA(15)]

A(14). Quais foram os motivos que te levaram atravessar a fronteira?

1. ❑ Para trabalho
2. ❑ Para visitar parentes
3. ❑ Para fazer compras na fronteira
4. ❑ Para fazer negócios
5. ❑ Para encontrar namorados ou "amigos"
6. ❑ Para fazer consultas médicas
8. ❑ Para cobrar dívidas

9. ❑ Outro motivo. Qual?_____

A(15). Você ganha algum dinheiro?

1. ❍ Sim
2. ❍ Não

A(16). O que você faz para conseguir dinheiro para se sustentar?

1. ❑ É empregada doméstica
2. ❑ É comerciante, tem seu próprio negócio
3. ❑ É zungueira, vende produtos na rua
3. ❑ Empregada no comércio local
4. ❑ Funcionária pública
5. ❑ Amigos ou namorados lhe dão dinheiro ou lhe ajudam quando pede
6. ❑ Atravessadora de mercadorias na fronteira
7. ❑ Outro. Qual?_____

A(17). Você sustenta alguém com o dinheiro que você ganha (filhos, pais, familiares ou outras pessoas)?

1. ❍ Sim
2. ❍ Não

[Se QA(17)=2, vá para QB(1)]

A(18). Quantas pessoas você sustenta com esse dinheiro?

__ __ pessoas

Seção B – Iniciação sexual e situação conjugal

B(1). Que idade você tinha quando teve relação sexual pela primeira vez?

__ __ *anos [Digite "99" se não sabe ou não se lembra]*

B(2). O homem com quem você teve relação sexual pela primeira vez era mais velho que você, mais jovem que você ou tinha a mesma idade que você?

1. ❍ Mais velho
2. ❍ Mais jovem
3. ❍ Tinha a mesma idade

[Se B(2)=1, pergunte QB(3), se QB(2)=2 ou QB(2), vá para B(4)]

B(3). **Você acha que este homem era mais velho do que você 10 anos ou mais?**

1. ❍ Sim
2. ❍ Não

B(4). Você ou este homem usaram preservativo na primeira vez que você teve relação sexual?

1. ❍ Sim
2. ❍ Não

B(5). Você é casada ou vive maritalmente?

1. ❍ Sim
2. ❍ Não

[Se QB(5)=2, vá para QC(1)]

B(6). Quantos anos tem seu atual marido?
__ __anos *[Digite "99" se não sabe ou não se lembra]*

B(7). Há quanto tempo você está com seu marido?
__ __ anos
__ __ meses

B(8). O que ele faz para ganhar dinheiro?
1. ❍ Está sem trabalho
2. ❍ É camionista
3. ❍ É militar/policial
4. ❍ É comerciante, tem seu próprio negócio
5. ❍ Faz negócios/é negociante
6. ❍ É empresário
7. ❍ É funcionário público
8. ❍ É camponês
9. ❍ Outro. Especifique a ocupação:_____

B(9). No último mês, quantas noites seu marido dormiu fora de casa?
__ __ noites

B(10). Quantas mulheres (esposas) seu marido tem?
__ __ mulheres/esposas

B(11). Na última vez que você teve relação sexual com seu marido, vocês usaram preservativo?
1. ❍ Sim
2. ❍ Não

[Se QB(11)=2, vá para QB(13)]

B(12). Quem sugeriu ou pensou em usar preservativo nessa última vez que vocês tiveram relação sexual?
1. ❍ Ela
2. ❍ O marido
3. ❍ Os dois

[Se QB(11)=1, vá para QB(11)B(13)]

B(13). Por que você ou seu marido não usaram preservativo na última vez que tiveram relação sexual?
1. ❍ Porque ele é meu marido
2. ❍ Não tinha
3. ❍ Muito cara
4. ❍ Ele não quis usar / ele não gosta de usar
5. ❍ Ela não quis usar
6. ❍ Usou outro método para evitar filhos
7. ❍ Marido é saudável
8. ❍ Esqueceu / não pensou nisso
9. ❍ Outro. Qual?_____

B(14). No último ano, você ou seu marido usaram preservativo:
[Entrevistadora: leia as opções para a participante]
1. ❍ Sempre
2. ❍ Na maioria das vezes
3. ❍ Algumas vezes
4. ❍ Nunca

B(15). Seu marido fez circuncisão ou é cortado?

1. ❍ Sim
2. ❍ Não

B(16). Em relação ao seu marido:

1. ❍ Você sabe que ele tem o vírus da SIDA
2. ❍ Você sabe que ele não tem o vírus da SIDA
3. ❍ Você não sabe se ele tem o vírus da SIDA
4. ❍ Não quer dizer

Seção C – Comportamento sexual com parceiros não-conjugais

C(1). No último ano, com quantos homens você teve relação sexual [Se QB(5)=1, aparecer na tela "que não o seu marido"]?

__ __ homens

C(2). Quantos desses [resposta da QC(1)] homens são pelo menos 10 anos mais velhos do que você?

__ __ homens

[QC(2) deve ser ≤ QC(1)]

C(3). Quantos desses homens com quem você teve relação sexual no último ano [Se QB(5)=1, aparecer na tela "que não o seu marido"], você considera:

C(3.1). __ __Namorados
C(3.2). __ __Amigos ou conhecidos

[C(3.1)+C(3.2)=QC(1)]

C(4). Com quantos desses [resposta da QC(1)] homens você teve relação sexual porque esperava que eles te dessem presentes, dinheiro ou alguma coisa de valor?

__ __ homens

[QC(4) deve ser ≤ QC(1)]

[Se C(3.2)=0, vá para Int.3]

Int.1: Agora, gostaria de perguntar sobre os amigos ou conhecidos com quem você teve relação sexual no último ano porque esperava que eles te dessem presentes, dinheiro ou alguma coisa de valor.

C(5). No último ano, você ou esse(s) amigos ou conhecidos, vocês usaram preservativo:

[Entrevistadora: leia as opções para a participante]

1. ❍ Sempre
2. ❍ Na maioria das vezes
3. ❍ Algumas vezes
4. ❍ Nunca

C(6). Esses amigos ou conhecidos lhe dão ou já lhe deram:
[Entrevistadora: leia as opções para a participante]

1. ❑ Dinheiro
2. ❑ Paga aluguel, contas, prestações
3. ❑ Compra comida
4. ❑ Dá roupas, presentes
5. ❑ Dá itens para seus filhos, como material escolar
6. ❑ Paga seus estudos ou material escolar, ou cursos para você
7. ❑ Dá telefone celular ou saldo telefônico
8. ❑ Paga transporte ou viagens
9. ❑ Dá mobiliário para sua casa
10. ❑ Outro_____

C(7). Pense na última vez que você teve relação sexual com um desses amigos ou conhecidos porque esperava que ele te desse presentes, dinheiro ou alguma coisa de valor, vocês usaram preservativo:

1. ❍ Sim
2. ❍ Não

[Se QC(7)=1, vá para QC(9)]

C(8). **Por que vocês não usaram preservativo nessa última vez que tiveram relação sexual?**

1. ❑ Não tinha
2. ❑ Muito cara
3. ❑ Ele não quis
4. ❑ Ela não quis usar
5. ❑ Usa outro método para evitar filhos
6. ❑ Parceiro é saudável
7. ❑ Esqueceu, não pensou nisso
8. ❑ Porque gosto dele/ amo ele
9. ❑ Porque confia nele
10. ❑ Porque ele a ajuda
11. ❑ Porque é difícil convencer ele a usar
12. ❑ Porque eu não falo disso com ele
13. ❑ Outro motivo. Qual?_____

C(9). Com este amigo ou conhecido com quem você teve relação sexual pela última vez, quanto tempo você está ou ficou com ele?

__ __ meses [Se menos de 1 mês, Digite "00"]
__ __ anos

C(10). Durante este tempo que você está ou ficou com ele, você teve relação sexual com outro homem além dele?

1. ❍ Sim
2. ❍ Não

C(11). Este último amigo ou conhecido com quem você teve relação sexual, era mais velho que você, mais jovem que você ou tinha a mesma idade que você?

1. ❍ Mais velho
2. ❍ Mais jovem
3. ❍ Tinha a mesma idade

[Se C(11)=1, pergunte B(3), se B(2)=2 ou B(2), vá para B(4)]

C(12). **Você acha que este homem era mais velho do que você 10 anos ou mais ?**

1. ❍ Sim
2. ❍ Não

C(13). Quantas vezes você tem ou teve relação sexual com ele?
[Entrevistadora: leia as opções para a participante]

1. ❍ Todos os dias ou quase todos os dias
2. ❍ Uma ou duas vezes por semana
3. ❍ Uma ou três vezes por mês
4. ❍ Menos de uma vez por mês
5. ❍ Somente uma vez

[Se QC(3.1)=1, vá para C(16)]

C(14). Esse amigo ou conhecido lhe dá ou já lhe deu:
[Entrevistadora: leia as opções para a participante]

1. ❑ Dinheiro
2. ❑ Paga aluguel, contas, prestações
3. ❑ Compra comida
4. ❑ Dá roupas, presentes
5. ❑ Dá itens para seus filhos, como material escolar
6. ❑ Paga seus estudos ou material escolar, ou cursos para você
7. ❑ Dá telefone celular ou saldo telefônico
8. ❑ Paga transporte ou viagens
9. ❑ Dá mobiliário para sua casa
10. ❑ Outro_____

C(15). Em relação a esse amigo ou conhecido:
1. ❍ Você sabe que ele tem o vírus da SIDA
2. ❍ Você sabe que ele não tem o vírus da SIDA
3. ❍ Você não sabe se ele tem o vírus da SIDA
4. ❍ Não quer dizer

[Se C(3.2)=0, vá para Int.3]

Int.2: Você disse que teve [resposta à QC(3.2)] amigos ou conhecidos com quem você teve relação sexual no último ano.

C(16). Chegaste a pedir dinheiro para ter relação sexual com algum desses homens no último ano?
1. ❍ Sim
2. ❍ Não

[Se QC(16)=2, vá para QC(18)]

C(17). De quantos homens chegaste a pedir dinheiro para ter relação sexual com eles no último ano?
__ __ homens

C(18). Chegaste a receber dinheiro para ter relação sexual com algum desses homens no último ano?
1. ❍ Sim
2. ❍ Não

[Se C(18)=2, vá para QC(21)]

C(19). De quantos homens chegaste a receber dinheiro para ter relação sexual com eles no último ano?
__ __ homens

[Se QC(16)=2 e QC(18)=2, vá para QC(26)]

C(20). No último ano, você ou esse(s) homens de quem você pediu ou recebeu dinheiro para ter relação sexual com eles, vocês usaram preservativo:
[Entrevistadora: leia as opções para a participante]

1. ❍ Sempre
2. ❍ Na maioria das vezes
3. ❍ Algumas vezes
4. ❍ Nunca

C(21). E no último mês, chegaste a pedir ou receber dinheiro para ter relação sexual com algum homem?

1. ❍ Sim
2. ❍ Não

[Se QC(21)=2, vá para QC(24)]

C(22). De quantos homens chegaste a pedir ou receber dinheiro para ter relação sexual com eles no último mês?
__ __ homens

C(23). No último mês, você ou esse(s) homens de quem você pediu ou recebeu dinheiro para ter relação sexual com eles, vocês usaram preservativo:
[Entrevistadora: leia as opções para a participante]

1. ❍ Sempre
2. ❍ Na maioria das vezes
3. ❍ Algumas vezes
4. ❍ Nunca

C(24). Pense na última vez que você teve relação sexual com um homem de quem você pediu ou recebeu dinheiro para ter relação sexual com ele, vocês usaram preservativo?

1. ❍ Sim
2. ❍ Não

[Se QC(16)=1, vá para Q Erro! Fonte de referência não encontrada.**]**

***C(25).* Por que vocês não usaram preservativo nessa última vez que tiveram relação sexual?**

1. ❑ Não tinha
2. ❑ Muito cara
3. ❑ Ele não quis
4. ❑ Ela não quis usar
5. ❑ Usa outro método para evitar filhos
6. ❑ Parceiro é saudável
7. ❑ Esqueceu, não pensou nisso
8. ❑ Porque eu gosto dele/ amo ele
9. ❑ Porque confio nele
10. ❑ Porque ele me deu mais dinheiro
11. ❑ Outro motivo. Qual?_____

[Se participante mora em Namacunde, se QA(5)=1, vá para QC(27)]

C(26). No último mês, quantas vezes você veio a Namacunde para encontrar homens que pudessem te dar presentes, dinheiro ou alguma coisa de valor por você ter relação sexual com eles?
__ __ vezes

[Se participante mora fora de Namacunde, se QA(5)≠1, vá para QC(28)]

C(27). No último mês, quantas vezes você saiu de Namacunde para encontrar homens que pudessem te dar presentes, dinheiro ou alguma coisa de valor por você ter relação sexual com eles?
__ __ vezes

C(28). No último mês, para qual localidade você foi para encontrar homens que pudessem te dar presentes, dinheiro ou alguma coisa de valor por você ter relação sexual com eles?

1. ❑ Namacunde
2. ❑ Santa Clara
3. ❑ Ondjiva
4. ❑ Oshikango
5. ❑ Chiede
6. ❑ Oitamba
7. ❑ Xangongo
8. ❑ Mongua
9. ❑ Nehone
10. ❑ Outro lugar. Qual?_____

C(29). Em quais locais você costuma ir para encontrar homens que possam te dar presentes, dinheiro ou alguma coisa de valor por você ter relação sexual com eles?
[Entrevistadora: leia as opções para a participante]

1. ❑ Hotéis/pensões
2. ❑ Restaurantes
3. ❑ Bares
4. ❑ Discotecas
5. ❑ Parques de estacionamento de veículos
6. ❑ Rua
7. ❑ Posto alfandegário ou fiscal
8. ❑ Outro lugar. Qual?_____
9. ❑ Não sabe

[Se QC(3.1)=0, vá para Seção D]

Int.3: Agora, gostaria de perguntar sobre seu(s) namorado(s) com quem você teve relação sexual no último ano.

C(30). No último ano, você ou esse(s) namorado(s) usaram preservativo:
[Entrevistadora: leia as opções para a participante]

1. ❍ Sempre
2. ❍ Na maioria das vezes
3. ❍ Algumas vezes
4. ❍ Nunca

C(31). Esse(s) namorado(s) lhe dão ou já lhe deram:
[Entrevistadora: leia as opções para a participante]

1. ❑ Dinheiro
2. ❑ Paga aluguel, contas, prestações
3. ❑ Compra comida
4. ❑ Dá roupas, presentes
5. ❑ Dá itens para seus filhos, como material escolar
6. ❑ Paga seus estudos ou material escolar, ou cursos para você
7. ❑ Dá telefone celular ou saldo telefônico
8. ❑ Paga transporte ou viagens
9. ❑ Dá mobiliário para sua casa
10. ❑ Outro_____

C(32). Pense na última vez que você teve relação sexual com seu último namorado, vocês usaram preservativo:

1. ❍ Sim
2. ❍ Não

[Se QC(32)=1, vá para QC(34)]

C(33). **Por que vocês não usaram preservativo nessa última vez que tiveram relação sexual?**

1. ❑ Não tinha
2. ❑ Muito cara
3. ❑ Ele não quis
4. ❑ Ela não quis usar
5. ❑ Usa outro método para evitar filhos
6. ❑ Parceiro é saudável
7. ❑ Esqueceu, não pensou nisso
8. ❑ Porque gosto dele/ amo ele
9. ❑ Porque confia nele
10. ❑ Porque ele a ajuda
11. ❑ Porque é difícil convencer ele a usar
12. ❑ Porque eu não falo disso com ele
13. ❑ Outro motivo. Qual?_____

C(34). Há quanto tempo você está ou ficou com este namorado?

__ __ meses [Se menos de 1 mês, Digite "00"]
__ __ anos

C(35). Durante este tempo que você está ou ficou com ele, você teve relação sexual com outro homem além dele?

1. ❍ Sim
2. ❍ Não

C(36). Este namorado é/era mais velho que você, mais jovem que você ou tem/tinha a mesma idade que você?

1. ❍ Mais velho
2. ❍ Mais jovem
3. ❍ Tinha a mesma idade

[Se C(36)=1, pergunte C(37), se C(36)=2 ou QB(2)=3, vá para C(38)]

C(37). **Você acha que ele é/era mais velho do que você 10 anos ou mais?**

1. ❍ Sim
2. ❍ Não

C(38). Quantas vezes você tem ou teve relação sexual com ele?
[Entrevistadora: leia as opções para a participante]

1. ❍ Todos os dias ou quase todos os dias

2. ❍ Uma ou duas vezes por semana
3. ❍ Uma ou três vezes por mês
4. ❍ Menos de uma vez por mês
5. ❍ Somente uma vez

[Se QC(3.1)=1, vá para Seção D]

C(39). Este namorado lhe dá ou já lhe deu:
[Entrevistadora: leia as opções para a participante]

1. ❑ Dinheiro
2. ❑ Paga aluguel, contas, prestações
3. ❑ Compra comida
4. ❑ Dá roupas, presentes
5. ❑ Dá itens para seus filhos, como material escolar
6. ❑ Paga seus estudos ou material escolar, ou cursos para você
7. ❑ Dá telefone celular ou saldo telefônico
8. ❑ Paga transporte ou viagens
9. ❑ Dá mobiliário para sua casa
10. ❑ Outro_____

C(40). Em relação a esse namorado:
1. ❍ Você sabe que ele tem o vírus da SIDA
2. ❍ Você sabe que ele não tem o vírus da SIDA
3. ❍ Você não sabe se ele tem o vírus da SIDA
4. ❍ Não quer dizer

Seção D – Rede Social

D(1). Quantas mulheres entre 15 e 24 anos você conhece pelo nome e que também conhecem você pelo nome?
_____ mulheres

D(2). Dessas [resposta à D(1)] mulheres entre 15 e 24 anos que você conhece, quantas você acha que tem relação sexual com homens porque esperam que eles lhes dêem presentes, dinheiro ou alguma coisa de valor?
___ mulheres
[D(2) deve ser ≤ D(1)]

D(3). Quantas dessas [resposta à D(2)] mulheres que você mencionou são namibianas
___ mulheres
[D(3) deve ser ≤ D(2)]

D(4). Quantas dessas [resposta à D(2)] mulheres que você mencionou são angolanas?
___ mulheres
[D(4) deve ser ≤ D(2)]

[D(3) + D(4) deve ser =D(2)]

D(5). Pense agora somente nas [resposta à D(4)] mulheres angolanas entre 15 e 24 anos que você acha que tem relação sexual com homens porque esperam que eles lhes dêem presentes, dinheiro ou alguma coisa de valor, com quantas você falou pessoalmente ou por telefone nos últimos dois meses?
___ mulheres
[D(5) deve ser ≤ D(4)]

D(6). Quantas dessas mulheres com que você falou moram em:
[Entrevistadora: leia as opções para a participante]

__ __ Namacunde
__ __ Santa Clara
__ __ Ondjiva
__ __ Oshikango
__ __ Outro município da província do Cunene
__ __ Na Namíbia
__ __ Outra província angolana

[D(6) deve ser ≤ D(5)]

D(7). Quantas dessas [resposta à D(5)] mulheres com quem você falou nos últimos dois meses conhecem a pessoa que te deu o convite?
__ __ __ mulheres

[D(7) deve ser ≤ D(5)]

D(8). E quantas dessas mulheres com quem você falou nos últimos dois meses, você convidaria para participar desse inquérito?
__ __ __ mulheres

D(9). Quem deu o convite para você participar deste inquérito?

1. ❍ Amiga
2. ❍ Conhecida
3. ❍ Uma pessoa desconhecida
4. ❍ Outro, especificar_____

D(10). Se a pessoa que te deu o convite ainda não tivesse participado, você pensaria nela para entregar um de seus convites?

1. ❍ Sim
2. ❍ Não

D(11). Além do convite que você trouxe aqui hoje, você recebeu mais algum convite?

1. ❍ Sim
2. ❍ Não

[Se QD(11)=2, pule para QE(1)]

D(12). Quantos convites a mais você recebeu?
___ ___ convites

Seção E – Infecções Sexualmente Transmissíveis e Tratamento

E(1). Já ouviste falar em doenças que se pegam pelo sexo?

1. ❍ Sim
2. ❍ Não

E(2). No último ano, você teve os sintomas que vou mencionar?
[Entrevistadora: leia as opções para a participante]

1. ❑ Dor no baixo ventre ou na bexiga
2. ❑ Corrimento na vagina
3. ❑ Corrimento que cheira mal
4. ❑ Dor ou queimação ao urinar
5. ❑ Ferida ou lesão na região genital

6. ❑ Enchaço nas virilhas
7. ❑ Comichão na região genital
8. ❑ Nenhum dos sintomas acima

[Se QE(2)=8, pule para QE(7)]

E(3). Na última vez que você teve esse(s) sintoma(s), buscaste tratamento em algum lugar?
1. ❍ Sim
2. ❍ Não

[Se QE(3)=2, pule para QE(5)]

E(4). Qual foi o primeiro lugar em que buscaste tratamento?
1. ❍ Centro de saúde ou hospital público
2. ❍ Clínica privada
3. ❍ Farmácia
4. ❍ Kibandeiro ou Curandeiro (medicina tradicional)
5. ❍ Outro lugar. Qual?_____

E(5). Tomaste algum medicamento para tratar esse(s) sintoma(s)?
1. ❍ Sim
2. ❍ Não

E(6). Você ainda está com algum desses sintomas?
1. ❍ Sim
2. ❍ Não

E(7). No último ano, [Se QB(5)=1, aparecer na tela "seu marido"] ou algum de seus parceiros sexuais teve:
[Entrevistadora: leia as opções para a participante]

1. ❑ Corrimento que sai pelo pênis ou ânus
2. ❑ Dor ou queimação ao urinar
3. ❑ Ferida ou lesão na região genital
4. ❑ Enchaço nas virilhas
5. ❑ Nenhum dos sintomas acima
6. ❑ Não sabe

Seção F – Testagem anti-VIH

F(1). Você sabe onde ir se você quiser fazer o teste para saber se tem VIH?
1. ❍ Sim
2. ❍ Não

F(2). Já fizeste o teste para saber se tinha VIH?
1. ❍ Sim
2. ❍ Não

[Se QF(2)=2, pule para QF(6)]

F(3). Quando foi a última vez que você fez o teste para VIH?
1. ❍ Nos últimos 3 meses
2. ❍ Entre 3 e 12 meses atrás
3. ❍ Entre 1 e 5 anos atrás
4. ❍ Mais de 5 anos atrás

F(4). Em que local você fez o último teste para VIH?
1. ❍ No CATV do Hospital em Ondjiva

[Se QG(1)=2 ou 3, vá para QG(2)]

G(2). Quantas vezes você já ficou grávida [Se QG(1)=1, aparecer na tela "fora esta gravidez atual"]?
__ __ vezes

[Se QG(2)=0 e QG(1)=2 ou 3, vá para QG(10)]

G(3). Tinhas quantos anos quando engravidou pela primeira vez?
__ __ anos

Int.4: Agora, vamos falar sobre a sua última gravidez

[Se QF(5)≠1, pule para QG(5)] - *Apenas para mulheres VIH positivo*

G(4). Essa gravidez ocorreu antes ou depois de você descobrir que tinha VIH?
1. ❍ Antes de descobrir o VIH
2. ❍ Depois de descobrir o VIH
3. ❍ Descobriu o VIH durante a gravidez

G(5). Você fez alguma consulta de pré-natal para esta gravidez?
1. ❍ Sim
2. ❍ Não

[Se QG(5)=2, pule para QG(10)G(10)

G(6). Em alguma dessas consultas de pré-natal, fizeste o teste para VIH?
1. ❍ Sim
2. ❍ Não
3. ❍ Não sabe

[Se G(6)=2 ou G(6)=3, vá para G(8)

G(7). Você recebeu o resultado do teste de VIH antes do parto?
1. ❍ Sim
2. ❍ Não

G(8). Em alguma dessas consultas de pré-natal, fizeste a análise para Sífilis?

1. ❍ Sim
2. ❍ Não
3. ❍ Não sabe

[Se G(6)=2 ou G(6)=3, vá para G(8)

G(9). Você recebeu o resultado da análise de Sífilis antes do parto?
1. ❍ Sim
2. ❍ Não

G(10). Nesse momento, você faz planeamento familiar para evitar gravidez?
1. ❍ Sim
2. ❍ Não

[Se QG(10)=2, pule para QH(1)]

G(11). O que você faz para evitar gravidez?
1. ❍ Pílula anticoncepcional

2. ❍ Injeção/implante
3. ❍ Mola (DIU)
4. ❍ Diafragma
5. ❍ Coito interrompido/ejacular fora
6. ❍ Calendário (tabela)
7. ❍ Preservativo masculino
8. ❍ Preservativo feminino
9. ❍ Laqueação das trompas
10. ❍ Método tradicional Qual?_____
11. ❍ Outro. Qual?_____

Seção H – Conhecimento, Opiniões e Atitudes sobre VIH/SIDA

H(1). Já ouviste falar sobre o VIH ou a doença chamada SIDA?
1. ❍ Sim
2. ❍ Não

[Se H(1)=2, vá para Seção I]

H(2). Conheces alguém que está com VIH ou que morreu de SIDA?
1. ❍ Sim
2. ❍ Não

H(3). Tens alguém na tua família ou amigo(a) com VIH ou que morreu de SIDA?
1. ❑ Sim, um familiar
2. ❑ Sim, um amigo(a)
3. ❑ Não

H(4). Uma pessoa pode pegar o VIH se for picada por um mosquito?
1. ❍ Sim
2. ❍ Não

H(5). Uma pessoa pode pegar o vírus da SIDA se tomar injeções (ou lhe picar) com uma agulha que já foi usada por outra pessoa?
1. ❍ Sim
2. ❍ Não

H(6). Uma pessoa com aparência saudável pode estar infectada pelo VIH?
1. ❍ Sim
2. ❍ Não

H(7). Uma pessoa pode se infectar com o vírus da SIDA compartilhando refeições com uma pessoa com VIH ou SIDA?
1. ❍ Sim
2. ❍ Não

H(8). Uma pessoa pode se infectar com o VIH por causa de feitiços?
1. ❍ Sim
2. ❍ Não

H(9). Uma pessoa pode se proteger do VIH se tiver relações sexuais somente com um parceiro não infectado e que não tenha relações com outras pessoas?
1. ❍ Sim
2. ❍ Não

H(10). Uma pessoa pode se proteger do VIH usando corretamente o preservativo toda vez que tiver relações sexuais?
1. ❍ Sim

2. ❍ Não

Seção I – Estigma e discriminação

I(1). Você compartilharia uma refeição com uma pessoa que você sabe que tem VIH ou SIDA?
1. ❍ Sim
2. ❍ Não

I(2). Se um familiar seu ficasse doente com o VIH, o vírus que causa o SIDA, aceitarias cuidar dele em sua casa?
1. ❍ Sim
2. ❍ Não

I(3). Se um aluno tem o VIH mas não está doente, você acha que ele/ela poderia continuar os seus estudos?
1. ❍ Sim
2. ❍ Não

I(4). Se um professor tem o VIH mas não está doente, você acha que ele/ela poderia continuar dando aula na escola?
1. ❍ Sim
2. ❍ Não

I(5). Você compraria alimentos de um vendedor ou zungueira se soubesse que ele(a) tivesse VIH ou SIDA?
1. ❍ Sim
2. ❍ Não

I(6). Se alguém da tua família ficasse doente com o VIH ou SIDA, você gostaria de guardar isto em segredo?
1. ❍ Sim
2. ❍ Não

Seção J – Experiências de violência contra a mulher

Int.5: Agora gostaria de perguntar sobre algumas experiências que você possa ter passado, mais uma vez reforço que tudo que você disser aqui ficará em segredo.

J(1). Alguma vez na sua vida, alguém lhe forçou a ter relação sexual quando você não queria?
1. ❍ Sim
2. ❍ Não

J(2). No último ano, o seu marido ou algum parceiro sexual lhe forçou a ter relação sexual quando você não queria?
1. ❍ Sim
2. ❍ Não

J(3). No último ano, o seu marido ou algum parceiro sexual lhe agrediu fisicamente, como deu chapadas, empurrões, socos, bicos ou feriu você com algum objeto?
3. ❍ Sim
4. ❍ Não

Seção K – Uso de álcool e drogas

K(1). No último mês, quantas vezes consumiste álcool:
[Entrevistadora: leia as opções para a participante]

1. ❍ Todos os dias ou quase todos os dias
2. ❍ No mínimo uma vez por semana
3. ❍ Menos de uma vez por semana
4. ❍ Nunca

[Se K1=4, pule para K3]

K(2). No último mês, quantas vezes consumiste álcool durante a relação sexual ou duas horas antes da relação:
[Entrevistadora: leia as opções para a participante]

1. ❍ Todos os dias ou quase todos os dias
2. ❍ No mínimo uma vez por semana
3. ❍ Menos de uma vez por semana
4. ❍ Nunca

K(3). **Algumas pessoas experimentam diferentes tipos de drogas. Você já experimentou:**
[Entrevistadora: leia as opções para a participante]

1. ❑ Liamba ou cangonha
3. ❑ Cocaína
4. ❑ Heroína
5. ❑ Mandrax
6. ❑ Diazepam ou comprimidos
7. ❑ Injetou alguma droga na veia
8. ❑ Outro tipo de droga. Qual?_____
9. ❑ Nenhuma

[Se QK(3)=9, pule para QK(6)]

K(4). No último mês, você usou:
[Entrevistadora: leia as opções para a participante]

1. ❑ Liamba ou cangonha
3. ❑ Cocaína
4. ❑ Heroína
5. ❑ Mandrax
6. ❑ Diazepam ou comprimidos
7. ❑ Injetou alguma droga na veia
8. ❑ Outro tipo de droga. Qual? _____
9. ❑ Nenhuma

[Se QK(4)=9, pule para QK(6)]

K(5). No último mês, quantas vezes usaste alguma dessas drogas durante a relação sexual ou duas horas antes da relação?
[Entrevistadora: leia as opções para a participante]

1. ❍ Todos os dias ou quase todos os dias
2. ❍ No mínimo uma vez por semana
3. ❍ Menos de uma vez por semana
4. ❍ Nunca

K(6). No último ano, você injetou alguma droga na veia?

1. ❍ Sim
2. ❍ Não

Seção L – Acesso ao preservativo

L(1). Geralmente, quando você precisa de preservativos masculinos, compras ou alguém te dá ou oferece?

1. ❍ Compra
2. ❍ Alguém lhe dá ou oferece
3. ❍ Nunca usou preservativos

[Se Q0=3, pule para QL(3)]

L(2). Na última vez que você comprou preservativos masculinos, achaste que foi caro, barato ou o preço foi normal?

1. ❍ Caro
2. ❍ Barato
3. ❍ Normal
4. ❍ Nunca comprou ou precisou comprar

L(3). No último ano, recebeste preservativos masculinos de graça?

1. ❍ Sim
2. ❍ Não

[Se QL(3)=2, vá para QL(6)]

L(4). No último ano, em quais locais ou com quais pessoas você conseguiu preservativos masculinos de graça?
[Entrevistadora: leia as opções para a participante]

1. ❑ CATV
2. ❑ Centro de saúde
3. ❑ Hospital
4. ❑ Bares, restaurantes ou lanchonetes
5. ❑ ONG. Qual?_____
6. ❑ De um ativista
7. ❑ Dono da pensão, motel, hotel
8. ❑ De uma colega, amiga
9. ❑ Clínica militar
10. ❑ Outro. Qual?_____

L(5). Esses preservativos que recebeste, chegaram para ti (foram suficientes)?

1. ❍ Sim
2. ❍ Não

L(6). Já ouviste falar em preservativo feminino (para senhoras)?

1. ❍ Sim
2. ❍ Não

[Se QL(6)=2, vá para QM(1)]

L(7). Já usaste o preservativo feminino alguma vez?

1. ❍ Sim
2. ❍ Não

Seção M – Exposição a ações de prevenção ao VIH

M(1). Nos últimos três meses, viste ou ouviste alguma informação sobre DTS/VIH/SIDA:
[Entrevistadora: leia as opções para a participante]

1. ❑ Na rádio
2. ❑ Na televisão
3. ❑ No jornal/ Revistas
4. ❑ Mensagem em celular/SMS
5. ❑ No centro de saúde/hospital
6. ❑ Na escola
7. ❑ Na igreja
8. ❑ Numa ONG
9. ❑ Em bares ou restaurantes
10. ❑ Em pensões ou hotéis
11. ❑ Em outro lugar _____
12. ❑ Nenhum lugar

M(2). Nos últimos três meses, procuraste algum serviço de saúde para obter informação sobre DTS/VIH/SIDA?
1. ❍ Sim
2. ❍ Não

M(3). Nos últimos três meses, recebeste algum material educativo sobre DTS/VIH/SIDA?
1. ❍ Sim
2. ❍ Não

[Se QM(3)=2, pule para QM(5)]

M(4). De quem ou onde recebeste material educativo sobre DTS/VIH/SIDA nos últimos três meses?
[Entrevistadora: leia as opções para a participante]

1. ❑ Centro de Saúde ou hospital em Namacunde
2. ❑ Centro de Saúde ou hospital fora de Namacunde
3. ❑ ONG. Qual?_____
4. ❑ De um ativista
5. ❑ Dono da pensão, hotel
6. ❑ De uma colega, amiga
7. ❑ Na escola
8. ❑ Outro. Qual?_____

M(5). Nos últimos três meses participaste de alguma das seguintes atividades educativas sobre DTS/VIH/SIDA:
[Entrevistadora: leia as opções para a participante]

1. ❑ Palestra
2. ❑ Discussão em grupo ou debate
3. ❑ Teatro
4. ❑ Falou com um educador/ativista
5. ❑ Outro _____
6. ❑ Nenhuma atividade

[Se QM(5)=6, pule para QM(7)]

M(6). Em que localidade participaste dessas atividades educativas sobre DTS/VIH/SIDA nos últimos três meses?
[Entrevistadora: leia as opções para a participante]

1. ❑ Namacunde
2. ❑ Santa Clara
3. ❑ Ondjiva
4. ❑ Oshikango
5. ❑ No município de Kuvelai
6. ❑ No município de Ombadja
7. ❑ No município de Kahama
8. ❑ Em outra província de Angola
9. ❑ Em alguma província da Namíbia

M(7). Você conhece alguma organização ou grupo aqui na província do Cunene que trabalhe com prevenção de DTS/VIH/SIDA?

1. ❍ Sim. Qual? _____
2. ❍ Não

M6: *[Chegamos ao fim da entrevista, muito obrigada por responder esse questionário!]*

Appendix D: Path Analysis Output (SPSS Amos)

Variable counts (Group number 1)

Number of variables in your model: 4
Number of observed variables: 3
Number of unobserved variables: 1
Number of exogenous variables: 3
Number of endogenous variables: 1

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 9
Number of distinct parameters to be estimated: 9
Degrees of freedom (9 - 9): 0

Result (Default model)

Minimum was achieved
Chi-square = .000[3]
Degrees of freedom = 0
Probability level cannot be computed

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
condom_dinheiroum	<---	qhHIVscore	-.001	.035	-.040	.968	par_2
condom_dinheiroum	<---	riskpercp	-.043	.028	-1.564	.118	par_3

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
condom_dinheiroum	<---	qhHIVscore	-.003
condom_dinheiroum	<---	riskpercp	-.136

Means: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
qhHIVscore	11.283	.035	319.237	***	par_4
riskpercp	2.858	.045	63.019	***	par_5

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Standardized Direct Effects (Group number 1 - Default model)

	riskpercp	qhHIVscore
condom_dinheiroum	-.136	-.003

Standardized Indirect Effects (Group number 1 - Default model)

	riskpercp	qhHIVscore
condom_dinheiroum	.000	.000

Model Fit Summary

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	1.000		1.000		.000
Saturated model	1.000		1.000		
Independence model	.000	.000	.000	.000	

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Independence model	.000	.000	.040	.979