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The extent and risk factors for transactional sex among young people, in urban informal settlements in Blantyre, Malawi

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A Research Report submitted to the School of Public Health, University of the Witwatersrand in partial fulfillment of the requirements for the degree of Master of Public Health.

May 27, 2015

Declaration

I, Monica Brenda Longwe, declare that this research report is my original work. It is submitted in partial fulfillment of the requirements for the degree of Master of Public Health, in the field of Social and Behavior Change Communication, in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to this or any other university.



Date: 27th May 2015

Abstract

Introduction: Studies across Sub-Sahara have established transactional sex as one of the of the keys factors contributing to young people's risk of HIV infection. However, there are few studies that have explored the dynamics of transactional sex among young people in Malawi. The aim of this study was to investigate the extent of, and risk factors associated with transactional sex among (in and out of school) young men and women of ages 18 – 23 years in urban informal settlements in Blantyre, Malawi.

Methods: This was a secondary analysis of data from a cross-sectional study conducted in 2013 on sexual risk-taking among young people aged 18 – 23 years in urban informal settlements in the city of Blantyre, Malawi. The analysis was restricted to sexually active young men and women (those respondents who reported ever having sexual intercourse in the primary study). Bivariate and multivariate analyses were conducted to detect associations between socio-demographic factors (i.e. age, socio-economic status, relationship status and education, as well as behavioral factors (i.e. sexual debut, number of partners, age disparity with sexual partner, coercive sex and alcohol consumption), and transactional sex.

Results: The majority (60.06%) of the study population reported involvement in transactional sex. Stratified by sex, 67.10% of young men had ever given cash or material goods in order to get sex, and 53.45% of young women had ever received cash or material goods in exchange for sex. Half (50.75%) of the transactional sex reported was in exchange for cash and consumption/lifestyle goods and from this, over half of the young women (58.67%) reported receiving consumption and lifestyle goods in exchange for sex, and slightly over a quarter (26.32%) of the young men reported giving survival needs in exchange for sex. Among men, household structure (AOR 2.07, 95% CI 1.37 – 3.13) and severe food insecurity (AOR 1.67, 95% CI 1.05 – 2.67) emerged as important socio-demographic predictors of transactional sex, and number of sexual partners (AOR 2.67, 95% CI 1.78 – 4.08) and age disparity (AOR 0.34, 95% CI 0.21 – 0.57) were shown to be the behavioral factors that influence giving cash/material goods for sex. Among young women, only age at sexual debut (AOR 2.07, 95% CI 1.37 – 3.13) and number of sexual partners (AOR 3.02, 95% CI 1.65 – 5.52), were significantly associated with receiving cash or goods in exchange for sex.

Conclusions: Overall, the study findings show that transactional sex is a common practice among young men and women, and that both young and women exchange luxury or aspirational items more than survival items for sex. Among young men, household structure, food security, age at sexual debut, number of sexual partners and age differentials with sexual partner were associated with giving material goods or money for sex. Among women on the other hand, age at sexual debut and number of sexual partners were associated with receiving material goods or money in exchange with sex. These findings suggest that young people in poor urban settings engage in risky sexual behavior such as Transactional sex, and highlight the need for HIV prevention interventions to deliberately target this group. Programmers should consider designing interventions that suit the needs of the different gender groups. The study findings also highlight the importance of targeting young women with behavioral change interventions before sexual debut, and integrating transactional sex interventions with those focused on reduction of multiple sexual partnerships may have beneficial implications for transactional sex among young people in poor urban settings. Further research should explore the influence of materialist and consumeristic cultures on transactional sex among young people.

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Definition of Terms

Young people in this study refer to persons between the ages of 18 – 23 years old.

Out-of-school youth is defined as 18-23 year-olds previously in primary school and did not have the opportunity to continue with secondary or tertiary education or have never been to school.

In-school youth refers to youth aged 18-23 years attending public or private school or tertiary or vocational training schools.

Transactional sex in this study has been defined as *'a relationship that is primarily motivated by the exchange of money or material goods for sex'* (Dunkle et al., 2004, Leclerc-Madlala, 2003, Stoebenau et al., 2013a)**.**

Chapter 1. Introduction, Aims and Objectives, Literature Review

Chapter 1 provides a background of transactional sex as it relates to HIV/AIDS, and an overview of the extent of HIV/AIDS and transactional sex among young people globally and in Sub-Saharan Africa. It also states the aims and objectives of this study; to establish the extent of, and risk factors for transactional sex among sexually active young. Literature describing studies on transactional sex that have been conducted specifically among young people in Sub-Saharan is also provided. The chapter concludes with a problem statement and justification for the study.

1.1 Introduction

Half of all new HIV infections worldwide occur among young people between the ages of 15 – 24 years (Rosen, 2004). Young women are more affected by the HIV epidemic than young men (UNAIDS, 2010, Rosen, 2004, Underwood et al., 2011). More than a quarter of all new HIV infections globally are in young women aged 15–24 years (United Nations, 2011).

Sub-Saharan Africa, and Southern Africa in particular, have experienced a severe HIV/AIDS pandemic. In Malawi, it is estimated that 11% of adults aged between 15-49 years are HIV positive (National Statistical Office, 2011), and 4% of young women and men between 15 and 24 years are infected with HIV (National Statistical Office, 2011). Studies show that the risk of HIV infection among young people in Sub-Saharan Africa is exacerbated by risky sexual behaviors, including high rates of transactional sex (Luke, 2003, Dunkle et al., 2004, Chatterji et al., 2005, Maganja et al., 2007, UNAIDS, 2010, Wojcicki, 2002).

Transactional sex refers to any sexual relationship that is based on the exchange of sex for money or material goods (Dunkle et al., 2004). Transactional sex has been distinguished from formalized commercial sex work. Commercial sex work involves payment at every sexual encounter, while in relationships that are transactional in nature, gifts or money given and received, are not pursued on a professional basis and may not be given or accepted every day or for every sexual encounter (Chatterji et al., 2005, Luke, 2003, Leclerc-Madlala, 2008). The gifts or money may be given prior to, or even some days or months after the sexual encounter (Poulin, 2007). In some relationships, the monetary or material exchange in transactional relationships is considered an obligation of the relationship and not a payment for the sex as such (Maganja et al., 2007, Hunter, 2002), or can even be viewed as a way of showing affection (Hunter, 2002).

Additionally, transactional sexual relationships are distinguished from commercial sex work in that partners are constructed as "girlfriends" and "boyfriends" and not clients (Leclerc-Madlala, 2003). Research shows that women who engage in transactional sex do not consider themselves as sex workers, neither does society perceive them as such (Hunter, 2002).

1.2 Aim and Objectives

1.2.1 Study Aim

The aim of this study was to investigate the extent of, and risk factors for, transactional sex among (in and out of school) young women and men aged 18 – 23 years in urban, informal settlements in Blantyre, Malawi in 2013.

1.2.2 Specific Objectives

1. To describe the socio-demographic characteristics of young women and young men in-school and out-of-school (18 – 23 years) in urban informal settlements in Blantyre, Malawi in 2013.
2. To describe the proportion of young women and men (18 – 23 years), in-school and out-of-school, who have ever engaged in transactional sex (giving and receiving) in urban informal settlements in Blantyre, Malawi in 2013
3. To determine the relationship between socio-demographic, behavioral and other risk factors such as age, socio-economic status, relationship status, education, sexual debut, number of partners, age differences in relationships and coercive sex, and transactional sex among young women (receiving) and men (giving) (18 – 23 years old) in urban informal settlements in Blantyre, Malawi in 2013

1.3 Literature Review

1.3.1 Extent of HIV/AIDS among young people

Literature from across Sub-Saharan countries suggests that young people's risk of HIV infection is increasing due to involvement in risky sexual behaviors. An estimated 4% of young people aged 15 – 24 years are reported to be HIV positive in Malawi with young women bearing a higher burden (5%), in contrast to their male counterparts (2%) (National Statistical Office, 2011). The prevalence in urban areas is twice that of rural areas; with 17% of women and men age 15-49 in urban areas infected with HIV and 9% in rural areas (National Statistical Office,

2011). The difference is very prominent among young women, as women living in urban areas are three times more likely to be infected with HIV in comparison to rural women (National Statistical Office, 2011).

1.3.2 Transactional Sex as a Risk Factor for HIV/AIDS

Transactional sex has been shown to increase the risk of acquiring HIV. Studies conducted in many African countries have shown that young people engaging in transactional sex are at greater risk of HIV infection (Kaufman and Stavrou, 2004, Stoebenau et al., 2013a, Castle and Konate, 1999, Chatterji et al., 2005, Nyanzi et al., 2001, Maganja et al., 2007). In South Africa, several studies have shown transactional sex to be associated with HIV seropositivity. Women attending antenatal clinics in Soweto were 54% more likely to be HIV positive (OR = 1.54, 95% CI 1.07, 2.21) if they reported transactional sex (Dunkle et al., 2004). Young women aged 15-26 in South Africa were found to have a 44% increased risk of acquiring HIV if they reported transactional sex with main partner (IRR 1.44, 95% CI 0.92, 2.24) and there was a twofold higher risk among those who had transactional sex with an on-going concurrent or casual partner (IRR 2.23 95% CI 1.28, 3.88), while HIV risk was increased three times (IRR 3.29 95% CI 1.02, 10.55) for young women who reported transactional sex with a once off partner (Jewkes et al., 2012). Pettifor and colleagues reported that among South African youth aged 15–24 the odds of HIV infection was 86% higher (OR 1.86, 95% CI 1.10, 3.12) among those who reported engaging in transactional sex (Pettifor et al. 2005).

Inconsistent condom use has been suggested to contribute to the increased risk of HIV infection (Wilkinson, 2002, Karen et al., 1999, Shai et al. 2010, Eaton et al. 2003). Research studies in Sub-Saharan Africa report low levels of condom use in transactional sexual relationships (Luke, 2003, Hunter, 2002, Maganja et al., 2007, Leclerc-Madlala, 2008, Kaufman & Stavrou, 2002; MacPhail & Campbell, 2001). Studies have also acknowledged increased HIV risk for young women in transactional sexual relationships due to non-condom use resulting from age and economic asymmetries, (Luke, 2003, Maganja et al., 2007, Leclerc-Madlala, 2008). Evidence shows that transactional sexual relationships in many African settings involve older, wealthier men, and younger girls, and are characterized by age and economic disparities (Luke, 2003, Hunter, 2002, Maganja et al., 2007, Leclerc-Madlala, 2008, Abdool Karim et al., 2009, Wellings et al., 2006). The age and economic differences, combined with the material and economic

exchange are believed to compromise the power and ability of the young women to negotiate for condom use during sexual intercourse thereby increasing the risk of HIV infection for the young women (Luke, 2005, Chatterji, Longfield et al., 2002). On the other hand, older men are motivated to have transactional sexual relationships with young girls in the mistaken belief that girls are unlikely to be infected with HIV and therefore it is safe to have unprotected sex with them (Langen, 2005). Additionally, studies that men generally have low intention to use condoms due the perception that condoms reduce sexual pleasure (Ankomah, 1998).

Another pathway through which HIV risk is increased in transactional sexual relationships pertains to multiple sexual partnerships. Studies conducted in South Africa and Uganda found that women who have transactional sexual relationships tended to have multiple concurrent relationships, in order to maximize their economic benefits (Hunter, 2002, Nyanzi et al., 2001). It has been argued that the risk of HIV infection goes beyond those involved in transactional sex. The young girls involved in 'sugar daddy' relationships with older men might also have relationships with young men of their age (Hunter, 2002), which in turn puts the young men at HIV risk. Sexual concurrency increases rates of HIV transmission as larger numbers of people are sexually connected at a given time (Eaton et al., 2003, Morris & Kretzschmar, 1997).

There is currently limited literature to describe the extent or explain the nature of transactional sexual relationships specifically among young people in Malawi. However, a qualitative study conducted by Pakachere Institute of Health and Development (Limwame & Kumwenda, 2008) on Multiple and Concurrent Partnerships in Malawi reported that transactional sex was the motivating factor for Multiple and concurrent partnerships, as young people, particularly females reported engagement in concurrent relationships for material gains in the context of poverty. (Limwame & Kumwenda, 2008). Literature from several Sub-Saharan countries shows that transactional sex is more common among young women than men. While most studies have predominantly focused on transactional sex (receiving) among female adolescents, other studies have also shown the extent that young men give and receive gifts or money in exchange for sex (Dunkle et al., 2007, Luke, 2005, Nyanzi et al., 2001). A study conducted among young men aged 15 – 26 in South Africa found that young men gave and received money and material resources in exchange for sex in both casual and main partnerships (Dunkle et al., 2007). Of the men who participated in the study, 17.7% in casual relationships reported giving while 6.6%

reported receiving material resources. In main partnerships on the other hand, less than fifteen percent of men reported involvement in transactional sex with equal levels of material transaction between men and women (Dunkle et al., 2007). Another study conducted among Kenyan men aged 21–45 found that three-quarters of men gave money or goods to their female partners in non-marital sexual partnerships (Luke, 2005), and a qualitative study conducted in Uganda among 14 – 18 year old boys and girls also found that men give and receive moneey of material for sex (Nyanzi et al., 2001). A synthesis of studies on transactional sex from several African countries reports that the percentage of sexually active men in 12 sub-Saharan African countries, aged 15 to 19 years, who report giving money or material goods in exchange for sex ranges from 10.3 to 48.4% (Chatterji et al., 2005).

1.3.3 Risk factors for transactional sex among young people

The limited research on transactional sex, particularly among young people in Malawi, limits knowledge of the dynamics and risk factors for indulgence in transactional sexual relationships. However, studies in other parts of Africa have established demographic factors such as age, sex, educational attainment, socio-economic status, relationship status and marital status to be associated with vulnerability to HIV infection as well as transactional sex (MacPherson et al., 2012, Chatterji et al., 2005, Hunter, 2002, Dunkle et al., 2004, Hallman, 2005, Castle and Konate, 1999, Kaufman and Stavrou, 2004, Luke, 2005, Luke, 2003, Maganja et al., 2007, Robinson & Yeh, 2011). Being male or female and staying in urban or rural setting influences the risk of transactional sex. A study conducted in the fishing communities in Malawi established gender differences in engagement in transactional sex as well as HIV risk (MacPherson et al., 2012). In South Africa, urban women were more likely to engage in transactional sex than rural women (Dunkle et al., 2004).

Behavioral factors like alcohol use, engaging in relationships with older partners, having multiple sexual partners and forced sex have also been identified as determinants for transactional sex in studies conducted in various African countries.

1.3.4 Demographic factors associated with transactional sex among young women

Poverty is known to be the key determinant of transactional sex in many African contexts. Studies have suggested that young women in Sub-Sahara Africa usually engage in transactional sexual relationships with older and rich men for economic survival; to support their basic needs

like food, tuition fees, and clothing (Chatterji et al., 2005, Dunkle et al., 2004, Kaufman and Stavrou, 2004, Luke, 2005, Luke, 2003, Maganja et al., 2007). This is what has come to be termed 'survival sex' known in various discourses in contrast to what is called 'consumerism-driven sex'. Survival sex is understood to be the practice of exchanging sex for basic needs, while consumption sex refers to the exchange of sex for luxury or designer goods (Leclerc-Madlala, 2008, Stoebenau et al., 2011). Survival sex represents the conventional understanding that women exchange sex for material gain due to their disproportionate economic disadvantage (Stoebenau et al., 2013). A study conducted in 12 Sub-Saharan countries (Chatterji et al., 2005) found that most young people indulge in transactional sex in order to get money to get access to their basic needs such as school fees, clothing and food (Luke, 2003, Hunter, 2002). In Malawi, Swidler and Watkins (2006) stated the definite link of transactional sex to the idea that women need money while men have it. This shows the gendered inequalities that increase women's vulnerability and risk of transactional sex.

Recent studies however, have shown that modernity has brought heightened consumerism and materialism which are fast influencing transactional sex among young women who have been found to engage in transactional sex for purposes of acquiring designer goods to attain higher status among their peers (Stoebenau et al., 2013a, Stoebenau et al., 2013b, Leclerc-Madlala, 2008, Leclerc-Madlala, 2003, Hunter, 2002, Kaufman and Stavrou, 2004, Underwood et al., 2011). Materialism is related to buying products that confer status, and consumerism implies high levels of consumption where too much attention is given to buying and owning things that may not be necessary (Goldsmith and Clark, 2012). The practice of exchanging sex for lifestyle or aspirational goods is reported to be more associated with urban areas where transactional sex has been shown to be related to the drive to acquire luxurious goods (Hunter, 2002, Stoebenau et al., 2011, Leclerc-Madlala, 2003). Peer pressure in this context plays a big role as young people are under pressure to keep up with the social status of their peers. Studies conducted in Uganda (Nyanzi et al., 2001), South Africa (Leclerc-Madlala, 2003, Dunkle et al., 2004) and Madagascar (Stoebenau et al., 2013b) showed that young people engage in transactional sex out of pressure from peers to attain higher social status. A study in South Africa established that this tendency is more common among young women who have low education attainment and lack employment opportunities (Dunkle et al., 2004).

Another critical factor associated with transactional sex is education. Studies have found that being out of school increases the risk of transactional sex among young women (Chatterji et al., 2005, Hunter, 2002, Dunkle et al., 2004, Hallman, 2005, Nzyuko et al., 1997).

Studies have also found that relationship status is critical in determining whether one engages in transactional sex or not. Studies in various countries have found that transactional sex is common in non – primary or casual partnerships (Castle and Konate, 1999, Dunkle et al., 2004), and that unmarried youth are more likely to engage in transactional sex than married youth (Dunkle et al., 2004, Chatterji, 2005).

While a study conducted in Mali among young women aged 15 -9 years in rural and urban areas found that high socio-economic status was associated with transactional sex (Castle and Konate, 1999), a synthesis of studies from several African countries found that low socio-economic status was associated with transactional sex among young women (Chatterji, 2005). Another study in Kenya among 15 – 19 year old women established household size and school status as predictors of transactional sex among young women (Nzyuko et al., 1997).

Studies in Kenya have found that food security also influences transactional sex among young women (Luke, 2005, Nzyuko et al., 1997). In her study, Luke (2005) found that women were more likely to exchange sex in return for money during periods of food insecurity (Luke, 2005). A study conducted in Kenya also demonstrated similar results (Robinson & Yeh, 2011).

1.3.5 Demographic factors associated with transactional sex among young men

Among young men, socio-demographic factors that have been found to be associated with transactional sex include socio-economic status, school status, relationship status and food security. A study among South African men found higher socio-economic status to be associated with transactional sex (Dunkle et al., 2007) while another study in 12 Sub-Saharan countries found low socio-economic status to be associated with transactional sex among young men (Chatterji, 2005). In Kenya, being out of school was found to be associated with increased odds of engaging in transactional sex among young men (Nzyuko et al., 1997). Food security emerged as a key factor influencing transactional sex among young men in a synthesis of studies from 12 Sub-Saharan countries, where young men who came from families who did not provide enough food were at an increased risk of engaging in transactional sex (Chatterji et al., 2005).

1.3.6 Behavioral factors associated with transactional sex among young women

Studies from across Africa have found several behavioral factors such as having an older partner, having multiple sexual partnerships, engagement in early sexual debut, experience of first forced and use of alcohol use, to influence transactional sex among young women (Dunkle et al., 2004, Hedden et al., 2011, Castle & Konate, 1999). A study conducted in Mali among young women aged 15 -19 years in rural and urban areas found that having an older partner and initiating sex before 16 years of age were associated with receiving gifts in exchange for sex (Castle & Konate, 1999). Having multiple relationships has also been reported to be associated with transactional sex (Hunter, 2002). Studies conducted in among women South Africa have established alcohol and drug use to influence transactional sex (Dunkle et al., 2004, Hedden et al., 2011).

Age disparity in sexual relationships has been shown to be strongly related to the practice of transactional sex among young women in various countries in Africa. In many African countries, relationships are characterized by high age differences between the partners with a mean age difference of 7.4 years in North and central Africa, and 5.5 years in east and Southern Africa (Wellings et al., 2006). A study in Kenya found that transactional relationships that involve young women and older men, commonly known as 'sugar daddy relationships', are common (Luke, 2005). In Malawi, the National Demographic and Health Survey (2006) reported that 8% of women aged 15 – 24 years reported having sex with a man 10 or more years older (National Statistical Office, 2008). Relationships that are characterized by age differences are also known to have economic differences between the partners. A review of literature on dynamics of age disparate relationships found that relationships involving young people and older partners were more likely to be transactional in nature (Luke, 2003).

1.3.7 Behavioral factors associated with transactional sex among young men

For young men, behavioural factors established to influence transactional sex included having a younger partner, having multiple partners, early sexual debut, alocohol use (Castle and Konate, 1999). In Mali, a study found that having a younger partner, multiple sexual partnerships and early sexual debut were associated with increased odds of engaging in transactional sex (Castle and Konate, 1999). A study conducted in Zambia found a strong link between transactional sex and the number of sexual partners (Nshindano & Maharaj, 2008). Similarly, a study in South Africa found that having more lifetime sexual partners, and alcohol use were associated with

giving resources in return for sex (Dunkle et al., 2007). The association between violence and transactional sex has also been documented in a study conducted among men in South Africa (Dunkle et al., 2007).

1.4 Problem Statement

There is strong evidence suggesting that in many parts of Sub-Saharan Africa is exacerbated by high rates of transactional sex (Luke, 2003, Castle and Konate, 1999, Dunkle et al., 2004, Chatterji et al., 2005, Hunter, 2002, Maganja et al., 2007, UNAIDS, 2010, Wojcicki, 2002). Studies conducted in South Africa show that gifts are given among young people in relationships in exchange for sex (Kaufman and Stavrou, 2004, Stoebenau et al., 2013a). Other studies have also asserted the prevalence of transactional sex among young people in Cameroon (Chatterji et al., 2005) Uganda (Nyanzi et al., 2001), South Africa (Dunkle et al., 2007, Dunkle et al., 2004, Leclerc-Madlala, 2003), and Tanzania (Maganja et al., 2007). Findings from Chatterji et al., (2005), show that young people in Sub-Saharan Africa are at an increased risk of engaging in transactional sex compared to older people.

A study conducted in Malawi has shown that transactional sex among adolescents occurs in the context of relationships characterized by age differences, commonly known as 'sugar daddy' relationships (Munthali et al., 2004). This finding is in line with the results of the demographic health survey conducted in 2006, which reported that 8% of women aged 15 – 24 years reported having sex with a man 10 or more years older (National Statistical Office, 2008). Studies conducted in other African countries have also shown that young people particularly women, practice transactional sex and with older men for economic survival; to support their basic needs like food, tuition, and clothing (Chatterji et al., 2005, Dunkle et al., 2004, Kaufman and Stavrou, 2004, Luke, 2005, Luke, 2003, Maganja et al., 2007). The older men on the other hand, prefer young young women in the mistaken belief that young women are unlikely to be infected with HIV and it is therefore safe to have unprotected sex with (Langen, 2005, Nyanzi et al., 2001). These studies have demonstrated that the transaction aspect which suggests economic benefit, combined with age and economic differences in transactional sexual relationships compromise the power and ability of young people to negotiate for safer sex, which increases their risk for HIV infection.

There is limited empirical evidence in Malawi documenting the extent or factors that influence transactional sex among young people in Malawi. Understanding the extent of and risk factors for transactional sex among young people in Malawi will be important for HIV prevention efforts among this group considering the heightened risk of HIV infections, and the role of transactional sex in exacerbating the risk of HIV infection among young people (Luke, 2003, Castle and Konate, 1999, Dunkle et al., 2004, Chatterji et al., 5005),.

1.5 Justification for the study

Despite the increasing evidence that young people in Sub-Saharan Africa are involved in transactional sex and the recognition of the role of transactional sex in increasing the risk of HIV infections, there is currently no quantitative research that has been conducted to establish the extent or determinants of transactional sex among young people in Malawi. As such, there is limited empirical evidence that shows that young people in Malawi are engaging in transactional sex. A qualitative study was conducted in Malawi exploring transactional sex focused on fishing communities with the aim of understanding factors that increase the risk of HIV infection in the fishing communities (MacPherson et al., 2012). Another study concentrated on transactional sex among adults in the rural areas of Malawi (Swidler and Watkins, 2007). There is little, if any at all, published evidence of transactional sex among young people in Malawi, and yet, young people make up a significant proportion of the population. The youth profile in Malawi indicates that out of the population of 13.1 million 40% are persons aged 10 to 29 years (Population and Housing Census, 2008).

Considering the high risk that transactional sex carries for HIV infection, and the significance of the youth population in Malawi, the importance of examining both the extent and risk factors of transactional sex among young people for the development of HIV prevention efforts cannot be overemphasized. Findings of this research will contribute to a body of literature on transactional sex, and provide information for the development of health promotion efforts that aim at influencing behavior change for prevention of HIV/AIDS among young people in Malawi.

2. Chapter 2. Methodology

2.1 Study design

This was a secondary analysis of data from a cross-sectional study conducted between June and July 2013, with the aim of investigating the multilevel determinants of HIV-related sexual risk-taking and decision-making among youth aged 18 – 23 years in informal urban settlements in Blantyre, Malawi (Kamndaya et al., 2015). This secondary data analysis answered a unique research question on the extent and risk factors of transactional sex among sexually active young people in informal urban settlements.

2.2 Study site

The study was conducted in two urban informal settlements (Ntopwa and Mbayani) in the city of Blantyre in Malawi (Refer to figure1). The city of Blantyre forms part of the Southern Region, and is the most important industrial and commercial centre in the country. The southern region has the highest HIV prevalence than the central and northern regions (National Statistical Office, 2011). There have been reports of increasing poverty and unemployment rates in Blantyre city between 2004 and 2010. Poverty is at 24% while unemployment stands at eight percent (National Statistical Office, 2008, Statistical Yearbook).The city has also an increase in population due to the expansion of urban informal settlements on the fringes of the city; there are 14 unplanned settlements (aggregated) within the city. Many residents migrate from rural areas in search of jobs that do not exist in their local communities. Blantyre urban planning largely reflects past policies in which housing was tied to employment, with city dwellers generally viewed as temporary residents in the urban arena, and the population increase has far outstripped the housing stock. This trend has resulted in the increase of swaths of urban informal settlements inhabited by over 65% of the population (UN-Habitat, 2011), the majority of whom are out of school and live in dire circumstances of chronic and persistent poverty without access to social infrastructure or basic urban services (UN-Habitat, 2011). Housing in the informal settlements is inadequate and lacks the minimum requirements for low income housing (Blantyre City Assembly, 2000). The availability of affordable but less desirable housing results in the dynamic population mix and the broad spectrum of urban poor in these areas. Residents displaced from more affluent neighborhoods are generally drawn into informal settlements by prospects of

cheaper rents and the ease of erecting informal shelters. Likewise, new immigrants from rural areas seeking a foothold in Blantyre tend to saturate these areas (Government of Malawi, 2008).

The study sites are two of the most populous urban informal settlements in Blantyre City, with an estimated 10,000 homes (see figure 1). Ntopwa is smaller with about 1000 households than Mbayani but has a large out-of-school population and is near a tobacco auction floor. Mbayani, on the other hand, is close to the main road with about 9,000 households and in the city. Ntopwa and Mbayani neighborhoods are characterized by unplanned squatter settlements and populated by the urban poor. Most houses in the study sites are cobbled together from unfired bricks and are not connected to the city's water, electricity, or road network. It is the availability of affordable but less desirable housing that accounts for the dynamic population mix and the broad spectrum of urban poor in these areas (Kamndaya, 2012).

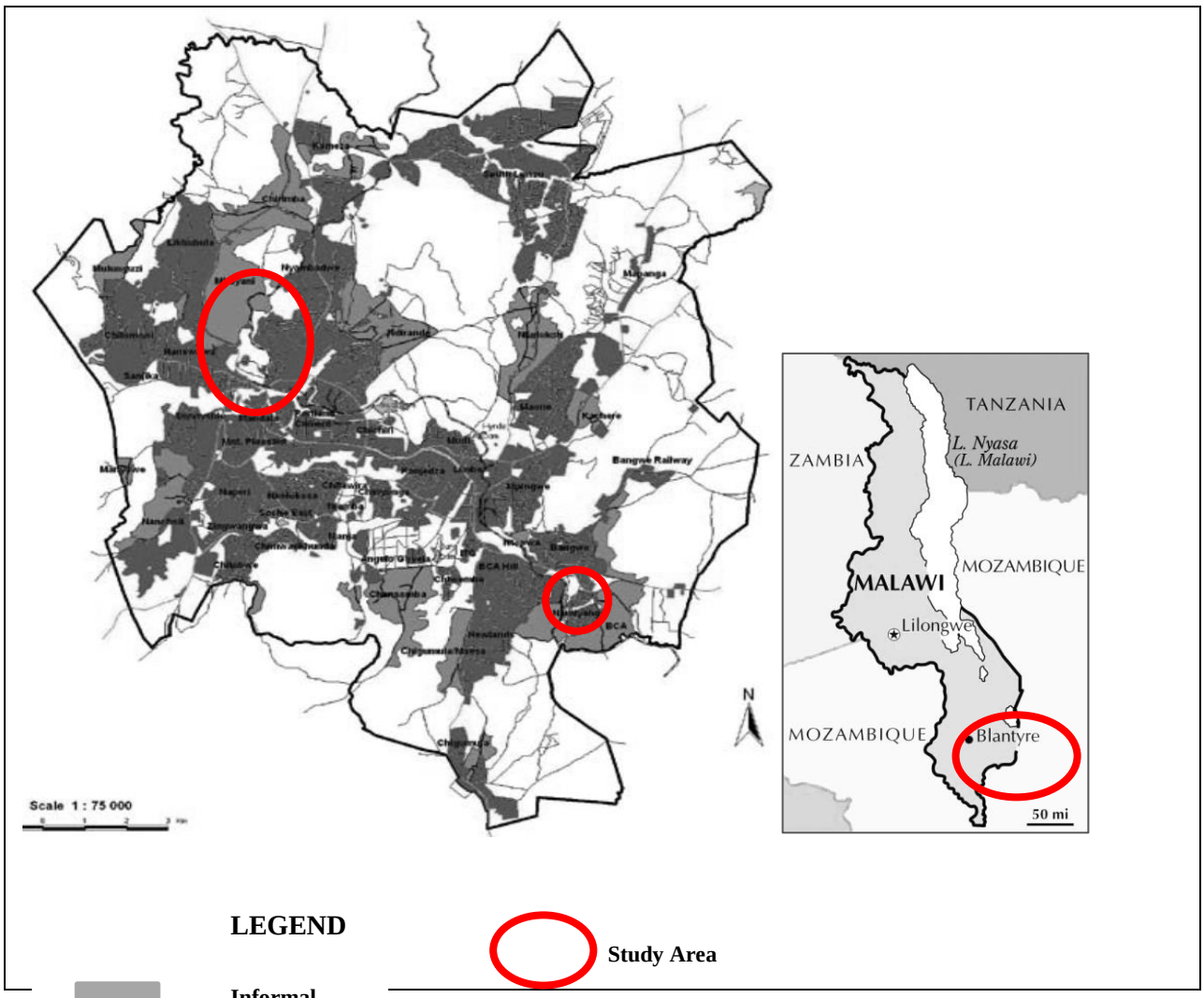




Figure 1. Map of Blantyre City Showing the Study Sites (Mbayani and Ntopwa)

Source: UN-Habitat, 2011.

2.3 Study population and sampling

The population for the primary study included all young women and men aged 18-23 years resident in the urban informal settlements of Ntopwa and Mbayani during the study period. The population included both in-school and out-of-school young people. A large proportion of the study population lives in dire circumstances of chronic and persistent poverty without the most rudimentary of resources and services (Kamndaya et al, 2015).

Because the main interest of this study was to investigate the extent and risk factors for transactional sex, this secondary analysis used a subset of the sample of the primary study and the analysis was limited to those respondents who reported ever having sexual intercourse in the primary study. Both women and men were included in the analysis.

The primary study used a multi-stage disproportionate, stratified cluster sampling approach to sample 1,248 young people at household level. Participants were recruited through a three-stage sampling process. In the first stage, 11 clusters, defined by geographic location, were selected. Households within selected clusters were systematically selected from a listed sampling frame. Every second or third household, depending on the cluster size, was selected for the survey. Eligible respondents identified in each selected household were 18–23 years old who spent the previous night in the household. One individual per household was selected using a Kish grid to ensure that all age-eligible individuals in the household stood an equal chance of being interviewed. A total of 1,123 young people were interviewed in this study, but 52 respondents were excluded from this sample due to inconsistencies in data reporting, representing a survey response rate of 92.1% (Kamndya et al., 2015)

Included in this secondary analysis are 959 respondents who reported ever having sexual intercourse in the primary study.

2.4 Data collection and quality control

Data from the primary study was collected using a standardized questionnaire (Annex 6) that was administered to the study participants at the participants' residence, using face-to-face interviews conducted by trained field workers. The process of questionnaire administration was gender sensitive i.e. male field workers administered the questionnaire to a male study participant, and female fieldworkers administered questionnaires to female participants. Pretesting was done during the data collection process with a sample of in-school and out-of-school youth to ensure that the questions included in the questionnaire were culturally and linguistically appropriate for Malawian youth. This also created an opportunity to train the interviewers on data collection for a period of two days in order to be able to ask sensitive questions in a manner that would solicit responses from study participants. Experts working on youth sexuality were also consulted for their input, which was incorporated accordingly. The questionnaire was then modified to incorporate all the feedback. The interviewers were closely observed during the interviews by field supervisor and the principal investigator. Every questionnaire was closely scrutinized and checked (question by question) by the supervisor for any errors or inconsistencies before being sent for entry into the data base. If any errors or inconsistencies were found, the fieldworker responsible was sent back to re-administer the questionnaire to the respondent on the same day (Kamndaya, 2012).

2.5 Measurement

The questionnaire included six questions that primarily focused on transactional sex. The questions were structured to measure the extent as well as the nature of transactional sex among the study population. The questionnaire also elicited responses on a wide range of variables including socio-demographic characteristics, behavioral and other factors that are evidenced to influence transactional sex amongst the young population. The detailed questionnaire is appended as annex 5.

2.5.1 Transactional Sex

The dependent variable of interest for this analysis was transactional sex. Transactional sex was measured by asking the participants if they had ever engaged in sex in exchange for items such as food items, transport or money for transport, school or residence fees, a place to stay or cash, and modern lifestyle items such as clothing, alcohol and partying. Men were asked about

'giving' money and/or gifts, while women were asked if they had 'received' the aforementioned items in exchange for sex. The items given or received were categorized into three; 'cash' which was defined to mean money that was given or received regardless of the use, luxury or modern lifestyle items included items such as clothing, alcohol and partying, and 'survival needs' included items such as food items, transport or money for transport, school or residence fees and a place to stay or cash.

2.5.2 Socio-demographic characteristics

The socio-demographic characteristics measured were age, education, socio-economic status, employment, relationship status, expendable income and household characteristics including size and structure of the household. Age was measured as the age of respondent at the time of survey in years, and was regrouped into two age groups; those aged between 18 and 20, and those between 21 and 23. Education was measured by asking if the participant was in school or out of school.

Relationship status was established by asking the question, 'are you currently in a relationship?' Employment was measured by asking participants their primary occupation i.e. the work from which they earn most of their income. Household size was originally a continuous variable, but was categorized into smaller (five or less persons), and bigger (more than five persons) households.

Socio-economic status was measured using a wealth index based on data collected on the following household assets: working radio, working television, working cell phone, bicycle and tables/chairs. Participants were also asked if they had made a phone call from their cell phone the day preceding the interview, if they had access to internet and if they had used the Internet in the past six months. Each person was assigned a score for each asset and the scores were summed for each household. The index scores were subsequently ranked to generate wealth tertiles; high, average and low, based on the total score.

Household food security status was determined from the responses to questions from three domains of food insecurity: (1) anxiety and uncertainty about household food supply; (2) insufficient quality; and (3) insufficient food intake. Based on the distribution of responses,

algorithm was developed to classify households into three categories: food secure, some food insecure (FI), and severe FI. Households that experienced at least one member going to bed hungry or often worrying about food access or food quality were classified as severe food insecurity. Households classified as having some FI had sometimes worried about food access or food quality. Lastly, food secure households are those that experienced either none of the food insecurity conditions or only rarely worried about food access or food quality.

2.5.3 Behavioral factors

Behavioral factors measured included age at first sex, condom use, first coerced sex, number of sexual partners, age difference with sexual partner and alcohol use. Age at first sex was the age of participant at first sexual intercourse reported in years. Participants who initiated sex before the age of fifteen were categorized as having early sexual debut. Age difference with regular sexual partner was measured by subtracting the age of respondent from the age of the regular sexual partner. This variable was categorized into two; less than five years difference, and five or more year's difference. Number of sexual partners was a continuous variable measured as the number of sexual partners in the last 12 months. First coerced sex was measured by asking participants if they willingly agreed to first sexual intercourse. Condom use was the reported use of condom at the last sexual intercourse and was measured by asking participants if they used a condom the last time they had sexual intercourse. To measure alcohol use, participants were asked about their current use of alcohol with a yes and no option

The study also looked at the relationship between perceived peer pressure and transactional sex. Perceived peer pressure was measured using a likert scale assessing the amount of pressure felt from friends to have sexual intercourse. Study participants were asked 'how much pressure do you get from your friends to have sexual intercourse'. Initially there were 4 categories of 'No pressure at all', 'not much pressure', 'some pressure' and 'a lot of pressure'. These were collapsed into two groups; those who felt no pressure and not much pressure were categorized as 'Not feeling pressure', while those who experienced some pressure and a lot of pressure were classified as 'feeling pressure'.

2.6 Data processing and data analysis

Data for the primary study was entered into Epi-Data software. A 10% random check was performed to control for quality of data entry. The data was checked and cleaned.

For this study, the de-identified data was transferred into STATA® software for further cleaning. The investigator checked the dataset for incongruent values, missing data, and obvious data entry errors. In consultation with the principal investigator of the primary study, errors were filtered and data was recoded accordingly; new variables were generated, some existing variables were transformed and missing values and non-responses were coded appropriately. The dataset was saved under another name.

Exploratory analysis was conducted to assess the distribution of variables in of interest and also to check the data against variables of particular interest in the study. The researcher also consulted with the principal investigator for explanations and retrieval of missing or incongruent data.

To account for potential gender differences, separate analyses were conducted for males which focused on giving money or gifts, and females which focused on receiving money or gifts. Basic univariate statistics (means, standard deviations, and frequency counts) were computed to describe the demographic as well as behavioral characteristics of the respondents. The prevalence/extent of transactional sex and items exchanged were summarized by gender as frequencies and percentages.

The data were largely categorical and bivariate analysis was conducted, using Pearson's chi-squared to test associations between independent variables (i.e., socio-demographic, behavioral and other factors) with the dependent variable (i.e. transactional sex). Logistic regression models were constructed separately for men and women to explore two-way associations between each of the independent variables and the outcome variable of interest.

Multivariate logistic regression models were developed to measure the relationship between transactional sex and independent variables. All theoretically relevant variables and those that showed statistical association with transactional sex at p-value<0.20 in bivariate analysis were then tested multivariable logistic regression model. A stepwise backward logistic regression of transactional sex was modelled to assess which independent variables predicted the dependent

variables of interest, and to determine the strength and direction of these variables. All significant variables were entered into the model, and at each step the least significant variable was removed until all the remaining variables had a statistically significant contribution to the model. Variables were eliminated based on p-values that were higher than the alpha value (i.e., $\alpha = 0.05$). Age was controlled for in all the steps. The likelihood ratio and confidence intervals were also examined for significant changes. The results of the logistic regression models are reported using adjusted odds ratios (AORs) and 95% confidence intervals. All analyses were conducted using STATA (version 12.0, STATA Corp., College Station, Texas, USA).

2.7 Ethical considerations

Ethical clearance for the primary study (Protocol Number M120658) (Kamndaya et al., 2015) was granted unconditionally by the Human Research Ethics Committee of University of the Witwatersrand (Annex 3), and another review and consideration for the primary study was sought from the National Health Sciences Research Committee (NHSRC) in Malawi (Annex 2). For this secondary study, permission to use the de-identified data collected from the primary study was granted by the principal investigator (Annex 4), and ethical approval (Certificate number M131159) was obtained from the Human Research Ethics Committee of University of the Witwatersrand (Annex 5).

For the primary study, participants were provided with an information sheet which clearly explained the purpose, risks and benefits of the study prior to the commencement of the interview. Informed consent was obtained from the study participants through informed consent forms (Annex 1). To ensure anonymity, study participants were assigned numbers and no names were attached to the completed questionnaires.

The study used a cleaned and de-identified dataset. The de-identified data was securely stored on the investigator's computer, and backed up in an external hard drive protected by a password. Access to the dataset was limited to the investigator and supervisors, and was not shared with any other person. The data will be kept for two years post the publication of this study.

3. Chapter 3. Results

The aim of this study was to investigate the extent of and risk factors for transactional sex, giving material goods or money by young men and receiving material goods or money in exchange for sex among young women, aged 18 – 23 years and living in urban inform settlements in Blantyre, Malawi in 2013. This chapter presents the findings of the study including socio-demographic characteristics, behavioral and other factors evidenced to influence transactional sex. Pearson's chi-squared were used to detect associations between transactional sex and the independent variables (i.e. age, education, socio-economic status, relationship status, number of sexual partners, age difference with partner, peer pressure and alcohol use.

3.1 Characteristics of sexually active young men and women

3.1.1 Socio-demographic characteristics

Table 1 presents key socio-demographic characteristics of the study participants (n=959) who reported ever having sexual intercourse. Participants ranged in age from 18 to 23 years; with 58.81% (n=564) within the age range of 18-20 years, and 41.19% (n=395) aged between 20 and 23 years. Over half (56.5%; n=542) were sexually active males. The mean age for both young men and young women was 20.19 years (SD = 1.9). Almost two thirds (60.79%) of the sexually active young people were out of school, with a higher proportion of young women (72.18%) than young men (52.03%) out of school. Majority of the participants (86.76%) had stayed in the area for more than one year. More than half of the young people (62.53%) reported being in a relationship, with more young men reporting this (70.09%) than young women (51.73%). Two thirds (66.42%) of the study participants were employed, and the proportion was higher among the young men as compared to the young women (76.20% men and 53.72% women). Young men had more access to expendable income as almost 55% of the young men had received some money from their parents or relatives in the month prior to the study in comparison to 36.14% of the young women. More respondents came from a combination of extended and child-headed households (45.26%), while 37.54 % came from nuclear households, 10.64% from female headed households and 6.57% belonged to male headed households. The average number of people in a household for the total population was 4.64 (SD = 2.22). There were 54.74% of the participants in the high wealth tertile, representing over half of the participants. Slightly over a quarter (27.84%) was in the low wealth tertile, and 17.41% were in the average wealth tertile.

The proportions were similar for both sexually active men and women. Almost half of the participants reported being food secure (48.69%) and one third 33.65% reported severe food insecurity, with the lowest proportion (17.67%) reporting some food insecurity.

Table 1. Socio-demographic characteristics of all sexually active young people and for young men and women

Variable	**Total sample of sexually active people**		**Sexually Active Young men**			**Sexually Active Young Women**		
	N	*%*		*n*	*%*		*n*	*%*
Total	**959**	**100**		**542**	**56.5**		**417**	**43.5**
Age *n = 959*			*n=542*			*n=417*		
18 - 20	564	58.81		321	59.23		243	58.27
21- 23	395	41.19		221	40.77		174	41.73
Mean (SD)	20.19 (1.9)			20.17 (1.93)			20.22 (1.88)	
School Status *n = 959*			*n=542*			*n=417*		
In-School	376	39.21		260	47.97		116	27.82
Out-of-school	583	60.79		282	52.03		301	72.18
Years Lived in Community *n = 959*			*n=542*			*n=417*		
≤1 year	127	13.24		59	10.89		68	16.31
> 1 Year	832	86.76		483	89.11		349	83.69
Household Structure *n = 959*			*n=542*			*n=417*		
Female headed	102	10.64		52	9.59		50	11.99
Male headed	63	6.57		55	10.15		8	1.92
Nuclear	360	37.54		158	29.15		202	48.44
Other	434	45.26		277	51.11		157	37.65
Household size *n = 957*			*n=541*			*n=416*		
5 persons or less	645	67.26		355	65.50		290	69.54
More than 5 persons	314	32.74		187	34.50		127	30.46
Mean(SD)	4.64 (2.22)			4.6 (2.36)			4.7 (2.02)	
Relationship Status *n =910*			*n=535*			*n=375*		
In a relationship	569	62.53		375	70.09		194	51.73
Not in a relationship	341	37.47		160	29.91		181	48.27
Employment Status *n = 959*			*n=542*			*n=417*		
Employed	637	66.42		413	76.20		224	53.72
Unemployed	322	33.58		129	23.80		193	46.28
Expendable Income *n = 959*			*n=540*			*n=415*		
Yes	447	46.61		297	55.00		150	36.14
No	508	52.97		243	45.00		265	63.86

Socio-Economic Status								
Wealth Tertiles (asset based) *n = 959*			*n=542*			*n=417*		
High	525	54.74		251	46.31		190	45.56
Average	167	17.41		84	15.50		82	19.66
Low	267	27.84		207	38.19		145	34.77
Food Insecurity *n = 951*			*n=539*			*n=412*		
Severe Food Insecurity	320	33.65		176	32.65		144	34.95
Some Food Insecurity	168	17.67		106	19.67		62	15.05
Food Secure	463	48.69		257	47.68		206	50.00

3.1.2 Sexual history

Table 2 describes the sexual history of the young people. The mean age at first sex for the total sample was 13.94 (SD = 1.71). Over half of the participants in the study (56.10%) had initiated sex at 15 years of age or more. The findings are similar for both male (56.64%) and female (55.40%) participants.

Slightly over half of the participants (51.65%) reported that they did not use a condom at last sexual intercourse. Nearly two thirds (64.25%) of young women and 41.73% of young men reported that they did not use a condom at last sexual intercourse.

When describing their first sexual experience, over three-quarters of the participants, (76.23%) reported that they were willing. There are differences in terms of gender regarding forced first sex among the study population. Slightly over a third (36.52%) of the young women and only 6.81% of young men reported having been forced into their first sexual encounter.

The proportion of young people who reported having multiple sexual partners was not as high as expected; more people (63.92%) reported having one or no sexual partner, and 36.08% had two or more sexual partners. The proportion was higher for young men; 49.45% of young men, and 18.71% of young women said they had two or more sexual partners.

The average difference in age reported between the participants and their sexual partners was 1.73 years (SD = 1.9). Just over a quarter (28.68%) of the participants reported having a sexual partner who was five years older or more than them. More young women (43.41%) in comparison with young men (17.34%) were in sexual relationships that involved partners who were more than five years older than them.

Table 2. Sexual history of all sexually active young people and for young men and women

Variable	**Total Sample of sexually active people**			**Sexually Active Young men**			**Sexually Active Young women**	
	N	***%***		***n***	***%***		***n***	***%***
	959	**100**		**542**	**56.5**		**417**	**43.5**
Age at first sex *n =959*			*n =542*			*n=417*		
14 years or less	421	43.90		235	43.36		186	44.60
15 years or more	538	56.10		307	56.64		231	55.40
Mean (SD)	13.94 (1.71)			14.05 (1.7)			13.78 (1.71)	
Condom use *n – 908*			*n=508*			*n=400*		
Yes	439	48.35		296	58.27		143	35.75
No	469	51.65		212	41.73		257	64.25
First sex *n = 911*			*n=514*			*n=397*		
Willing	731	76.23		479	93.19		252	63.48
Not Willing	180	18.77		35	6.81		145	36.52
Number of sexual partners *n = 921*			*n=520*			*n=401*		
1 or no partner	613	63.92		274	50.55		339	81.29
2 or more partners	346	36.08		268	49.45		78	18.71
Median (IQR)	1 (1.2)			2.09 (2.23)			1.25 (1.29)	
Age difference with sexual partner *n =959*			*n=542*			*n=417*		
Less than 5 years	684	71.32		448	82.66		236	56.59
5 years or more	275	28.68		94	17.34		181	43.41
Mean (SD)	1.73 (1.9)			2.09 (2.23)			1.25 (1.29)	

3.1.3 Alcohol and perceived peer pressure

Alcohol consumption and perceived peer pressure to have sex were also examined among the study participants, and the results are presented in table 3. Three quarters (75.50%) of the young people reported not drinking alcohol. More men (37.45%) reported alcohol consumption in comparison to women (7.49%). With regards to perceived peer pressure to have sex, slightly over half of the population (52.35%) said that they do not feel pressured by peers to have sex. About two thirds (64.75%) of young women and 57.20% men reported not feeling pressure from friends to have sex; there were more women than men who did not feel the pressure.

Table 3. Alcohol consumption and perceived peer pressure to have sex among all sexually active young people

Variable	**Total Sample of sexually active people**			**Sexually Active Young men**			**Sexually Active Young Women**	
	N	***%***		***N***	***%***		***n***	***%***
Alcohol Consumption *(n =955)*			*n =541*			***n =414***		
Yes	234	24.50		203	37.45		31	7.49
No	**721**	**75.50**		338	62.36		383	95.51
Perceived peer pressure to have sex *(n = 954)*			*n =541*			***n =413***		
No pressure	502	52.35		232	42.80		270	64.75
Pressure	457	47.65		310	57.20		147	35.25

3.2 Extent of transactional sex among sexually active young men and women

Figure 2 presents findings of the extent of transactional sex occurring among sexually active young people. The majority (60.06%) of the sexually active young people reported having ever transacted money or material goods for sex. Two thirds (67.10%) of young men said they had ever given money or material goods in return for sex, and about half (53.45%) of the young women reported having ever received money or material goods in exchange for sex.

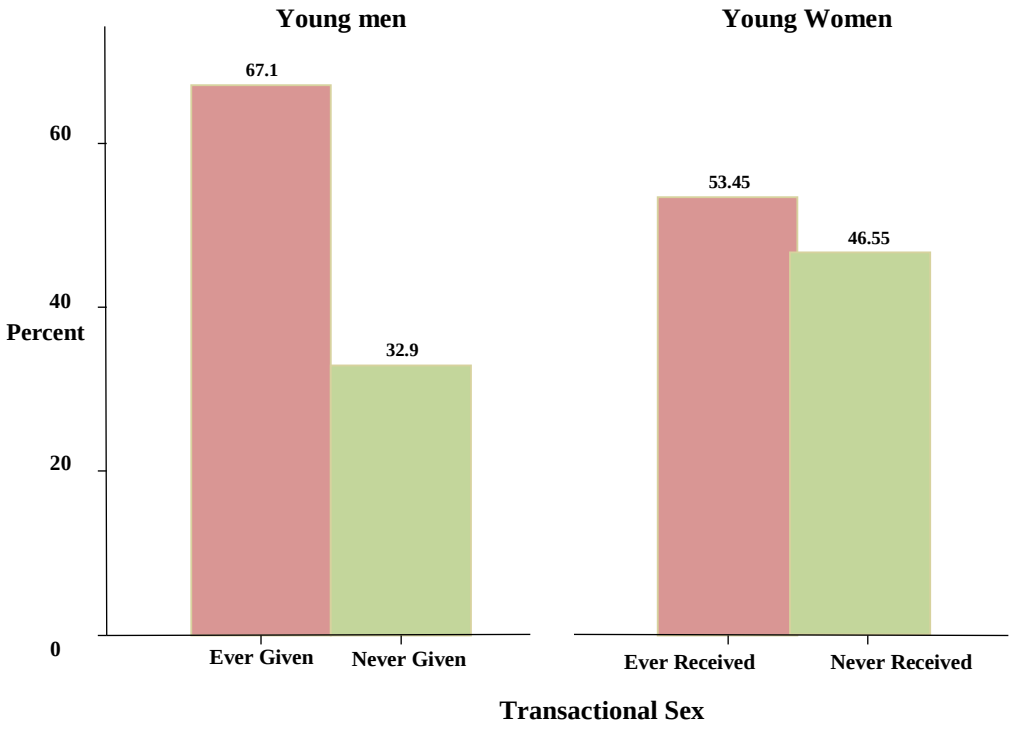


Figure 2. Transactional sex among sexually active young men and women

3.3 Nature of transactional sex among young men and women

Most commonly, young men and women reported giving and receiving money and luxury items in exchange for sex. Overall, half (50.75%) of all the study participants reported exchange of cash and luxury items. Two out of every nine participants (21.79%) reported exchange of sex for cash and survival needs. One in every six participants (16.42%) had ever exchanged sex for cash only and one in every nine participants (11.04%) reported exchanging sex for a combination of cash, luxury items and survival needs. More women (58.67%) than men (45.36%) reported exchange for luxury or modern lifestyle goods. On the other hand, more men (26.32%) in

comparison to women (15.13%) exchanged sex for survival needs. Figure 3 presents results of the nature of transactions reported by young men and women separately.

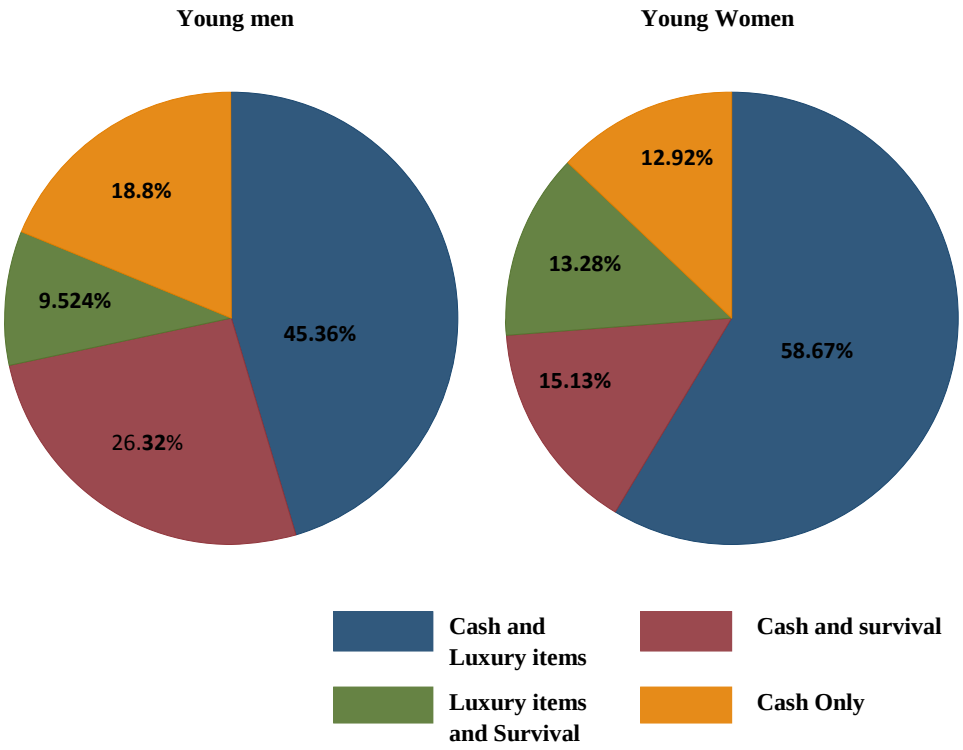


Figure 3. Nature of transaction among young men and women

3.4 Associations between socio-demographic, behavioral and other factors, and transactional sex

Several socio-demographic, behavioral and other factors were tested for their association with transactional sex in the study population. Separate analyses were made for young men and young women. Table 5 below describes the associations between several socio-demographic factors and transactional sex.

3.4.1.1 Association between socio-demographic factors and transactional sex among young men

Among young men, giving material goods in exchange for sex was significantly associated with school status, household structure, relationship status, employment status, and food security. Young men who reported giving material goods in exchange for sex were more likely to be out

of school than those who did not exchange any material goods for sex (56.55% vs. 43.18%, $p < 0.001$). Giving material goods in exchange for sex was also significantly associated with household structure ($p < 0.001$). Young men who gave material goods in exchange for sex were more likely to come from 'other' (extended and child headed) households than their counter parts who did not engage in transactional sex (56.27% vs 39.20%), but were less likely to come nuclear households (27.02% vs 34.66%), female-headed households (7.52% vs 14.20%(and male-headed households (9.19% vs 11.93%), than their counter parts who did not report transactional sex.

Transactional sex among young men was also associated with relationship status and employment status ($p < 0.001$ and $p < 0.001$ respectively). Young men who reported giving material goods in exchange for sex were more likely to be in a relationship, and were also more likely to be employed than young men who did not engage in transactional sex (75.21% vs 59.54%, 81.34% vs 65.91% respectively).

Giving material goods in exchange for sex was also significantly associated food security status among young men ($p = 0.01$). Those who reported giving material goods for sex were less likely to come from households that experienced severe food insecurity than those who did not exchange material goods for sex (44.85% vs 52.87%), but were more likely to come from households that reported food security than their counterparts (37.05% vs 23.56). Among young men who engaged in transactional sex, age, household size, wealth, and expendable income were not statistically associated.

3.4.1.2 Association between Socio-demographic factors and transactional sex among Women

Among women who reported engaging in transactional sex, only employment status had a significant association. Young women who received material goods in exchange for sex were less likely to be employed that those who did not exchange sex for material goods were employed (41.47% vs 51.85%%, $p = 0.04$).

Among young women who engaged in transactional sex, age, school status, household size, relationship status, household size, wealth, and expendable income and food security were all not

significantly associated (see Table 4). There was, however, a trend towards association between transactional sex and School status ($p = 0.08$).

Table 4. Association between socio-demographic characteristics and transactional sex among young men and women

Young men *n = 542*				**Young Women = *417***			
Socio-demographic Characteristic	**Engaged in transactional sex (giving)**				**Engaged in transactional sex (receiving)**		
	Yes ***n (%)***	**No** ***n (%)***	**P Value**		**Yes** ***n (%)***	**No** ***n (%)***	**P Value**
Age *n = 535*				***n = 406***			
18 – 20	202 (56.27)	114 (64.77)	0.06		127 (58.53)	107 (56.61)	0.70
21- 23	157 (43.73)	62 (35.23)			90 (41.47)	82 (43.39)	
Mean (CI)	20.23 (20.07- 20.46)	20 (19.70 – 20.30)	0.14		20.18 (19.93 – 20.44)	20.31 (20.04 – 20.58)	0.51
School Status n = 535				*n = 406*			
In-School	156 (43.45)	100 (56.82)	<0.001		51 (23.50)	59 (31.22)	0.08
Out-of-school	203 (56.55)	76 (43.18)			166 (76.50)	130 (68.78)	
Household Structure *n = 535*				*n = 406*			
Male headed	33 (9.19)	21 (11.93)	<0.001		5 (2.30)	3 (1.59)	0.97
Female headed	27 (7.52)	25 (14.20)			26 (11.98)	20 (10.58)	
Nuclear	97 (27.02)	61 (34.66)			104 (47.93)	94 (49.74)	
Other	202 (56.27)	69 (39.20)			82 (37.79)	72 (38.10)	
Household size *n = 535*				*n = 406*			
5 persons or less	240 (66.85)	110 (62.50)	0.32		152 (70.05)	132 (69.84)	0.96
More than 5	119	66			65	57	

persons (33.15)		(37.50)			(29.95)	(30.16)	
Relationship Status *n = 528*				*n = 365*			
Not in a relationship	88 (24.79)	70 (40.46)	<0.001		87 (46.52)	91 (51.12)	0.38
In a relationship	267 (75.21)	103 (59.54)			100 (53.48)	87 (48.88)	
Employment Status *n = 535*				*n = 406*			
Employed	292 (81.34)	116 (65.91)	<0.001		127 (58.53)	91 (48.15)	0.04
Unemployed	67 (18.66)	60 (34.09)			90 (41.47)	98 (51.85)	
Expendable Income *n = 534*				*n = 405*			
Yes	189 (52.65)	106 (60.57)	0.08		71 (32.72)	74 (39.36)	0.16
No	170 (47.35)	69 (39.43)			146 (67.28)	114 (60.64)	
Socio-Economic Status							
Wealth Tertiles *n = 535*				*n =406*			
High)	162 (45.13)	86 (48.86)	0.69		96 (44.24)	90 (47.62)	0.48
Average	56 (15.60)	27 (15.34)			47 (21.66)	32 (16.93)	
Low	141 (39.28)	63 (35.80)			74 (34.10)	67 (35.45)	
Food Security *n = 533*				*n =403*			
Food Secure	133 (37.05)	41 (23.56)	0.01		81 (37.50)	60 (32.09)	0.50
Some Food Insecurity	65 (18.11)	41 (23.56)			32 (14.81)	28 (14.97)	
Severe Food Insecurity	161 (44.85)	92 (52.87)			103 (47.69)	99 (52.94)	

3.4.1.3 Association between behavioral and other factors, and transactional sex among young men

Results of the bivariate analysis between the dependent variable (transactional sex) and each of the behavioral factors among young men showed a significant association with age at sexual debut, number of sexual partners, age difference with partner, alcohol consumption and peer pressure (Table 5). Among young men who reported transactional sex, age of sexual debut showed a statistical association (p = 0.02). Young men who reported giving materials in exchange for sex were more likely to report early sexual debut (initiate sex at 14 years or less) than those did not exchange materials for sex (47.08% vs 36.36%).

Giving material goods was significantly associated with number of sexual partners and with age disparity with partner among young men ($p < 0.001$). Young men reporting transactional sex were more likely to have multiple sexual partners (58.22%) than those who did not engage in transactional sex (29.55%). Young men who gave material goods in order to have sex were less likely to older partners (age difference of 5 years or more) in comparison to those who (10.31% vs 30.11%, $p < 0.001$). There was no statistically significant association between transactional sex and condom use and coercive sex (first forced sex) among young men.

The study also investigated associations between transactional sex and alcohol consumption and peer pressure. The results show a statistically significant association between transactional sex and alcohol consumption (p = 0.01). Young men who reported giving material goods in exchange for sex were more likely to consume alcohol than those who did not give material goods in exchange for sex (41.23% vs 30.115, p = 0.01).

Transactional sex was also associated with associated with peer pressure among young men (p = 0.02). Young men who reported transactional sex were more likely to feel pressure from friends to have sex, than young men who did not report any involvement in transactional sex (60.45% vs 49.43%, p = 0.02).

3.4.1.4 Association between Behavioral and Other Factors, and Transactional Sex among Young Women

Among young women who reported receiving material goods in exchange for sex, age of sexual debut and number of sexual partners were had a significant association ($p < 0.001$). The patterns

of association though, vary from young men. Unlike young men, young women who reported transactional sex were more likely to have initiated sex much earlier (14 years of age or less) than those who did not engage in transactional (53% vs 35.45%, $p < 0.001$). Young women who engaged in transactional sex were more likely to have multiple sexual partners than their counterparts who did not receive anything for sex (24.88% vs 8.99%, $p < 0.001$). There was no statistically significant association between transactional sex and condom use, coercive sex (first forced sex) and age difference with partner among young women (Table 5).

Alcohol consumption and peer pressure were also tested for their associations with transactional sex among young women. The results show a statistically significant association between transactional sex and alcohol consumption ($p = 0.01$). The pattern is similar with young men; young women engaged in transactional sex were more likely to report alcohol consumption than those who did not engage in transactional sex (10.60% vs 4.23%, $p = 0.01$). Transactional sex among young women was not statically associated with peer pressure

Table 5. Associations between behavioural and other factors, and transactional sex among young women and young men

Young men				Young women			
	Transactional sex (giving)				Transactional sex (receiving)		
Behavioral Characteristic	**Yes** ***n (%)***	**No** ***n (%)***	**P Value**		**Yes** ***n (%)***	**No** ***n (%)***	**P Value**
Age at first sex *n = 535*							
15 years or more	190 (52.92)	112 (63.64)	0.02		102 (47.00)	122 (64.55)	<0.001
14 years or less	169 (47.08)	64 (36.36)		*n = 330*	115 (53.00)	67 (35.45)	
Condom use n = 508				*n =400*			
Yes	211 (59.60)	84 (55.63)	0.41		70 (32.56)	71 (39.66)	0.14
No	143 (40.40)	67 (44.37)			145 (67.44)	108 (60.34)	
First forced sex *n =512*				*n =215*			
No	23 (6.42)	12 (7.79)	0.57		85 (39.53)	59 (33.52)	0.22
Yes	335 (93.58)	142 (92.21)			130 (60.47)	117 (66.48	
Number of sexual partners *n =451*				*n =395*			
1 or no partner)	150 (41.78)	124 (70.45)	<0.001		163 (75.12)	172 (91.01)	<0.001
2 or more partners	209 (58.22)	52 (29.55)			54 (24.88)	17 (8.99	
Mean (CI)	2.52 (2.26 - 2.77)	1.14 (.95-1.32)	<0.001		1.52 (1.31 - 1.73)	.93 (0.88 - 0.99)	<0.001
Age Difference with partner n *=451*				*n =217*			
Less than 5 years	322 (89.69	123 (69.89)	<0.001		127 (58.53)	105 (55.56)	0.55
5 years or more	37 (10.31)	53 (30.11)			90 (41.47)	84 (44.44)	
Alcohol Consumption *n =535*				*n =406*			
No	211 (58.77)	123 (69.89)	0.01		194 (89.40)	181 (95.77)	0.02
Yes	148 (41.23)	53 (30.11)			23 (10.60)	8 (4.23	
Peer Pressure *n =535*				*n = 405*			
No	142 (39.55)	89 (50.57)	0.02		141 (64.98)	123 (65.08)	0.98
Yes	217 (60.45)	87 (49.43)			76 (35.02)	66 (34.92)	

3.4.2 Multivariate adjusted association between independent variables and transactional sex among active young men and young women

A model adjusting for age was fitted to measure the relationship between transactional sex and all independent variables that are theoretically relevant, and those that that showed statistical association with transactional sex in bivariate analysis. Table 6 presents the results of the final multivariate logistic regression models for young men and women showing the adjusted odds ratios (AOR), *p*-values, and 95% confidence intervals for variables associated with transactional sex.

3.4.2.1 Multivariate adjusted association between independent variables and transactional sex among a young men

The results of multivariate model show that four variables were significantly associated with giving cash or material goods in exchange for sex among young men; household structure, food security, number of sexual partners and age difference with sexual partner. Young men coming from 'other' (child headed and extended) households were twice as likely, to give materials in order to have sex compared to those coming from households headed by males (AOR 2.12, 95% CI 1.09 – 4.12). The odds of engaging in transactional sex were increased by 67% amongst young men with severe food insecurity compared to young men with food security (AOR 1.67, 95% CI 1.05 – 2.67). The young men with multiple sexual partners were almost three times more likely to be associated with transactional sex than those with no or just one sexual partner (AOR 2.67, 95% CI 1.78 – 4.08). However, young men who had partners with age difference of older partners (more than five years older) were 66% less likely to be engaged in transactional sex compared to those with younger partners (AOR 0.34, 95% CI 0.21 – 0.57). There was a trend

towards association with transactional sex amongst young men who use alcohol but this effect did not reach statistical significance (AOR 1.42, 95% CI 0.93 – 2.16).

3.4.2.2 Multivariate adjusted association between dependent variables and transactional sex among young women

Among young women, only age of sexual debut and number of sexual partners were significantly associated with receiving cash or material goods in exchange for sex. The odds of engaging in transactional sex was twice as high in young women who initiated sexual activity early compared with those who had sexual intercourse for the first time at 15 or more years of age (AOR 2.07, 95% CI 1.37 – 3.13). Similarly, young women who had two or more sexual partners had significantly greater odds of reporting transactional sex; they were three times more likely to receive cash or material goods in exchange for sex, compared to those with no or one sexual partner (AOR 3.02, 95% CI 1.65 – 5.52). Consistent with results observed among young men, there was a trend towards association with receiving material goods for sex among young women who used alcohol but this effect did not reach statistical significance (AOR 2.09, 95% CI 0.88 – 4.99).

Table 6. Multivariate logistic regression model for transactional sex among sexually active young men (giving) and women (receiving), controlling for age

Variable	Model 1 Young Men			Model 2 Young Women		
	AOR	95% CI	P Value	AOR	95% CI	P Value
Socio-demographics						
Household structure						
Male headed(Ref)						
Female headed	0.93	0.40 - 2.15	0.86	-	-	-
Nuclear	1.33	0.66 - 2.65	0.03	-	-	-
Other	2.12	1.09 - 4.12	0.43	-	-	-
Food Security						
Food Secure(ref)						
Some Food Insecurity	0.85	0.51- 1.42	0.55	-	-	-
Severe Food Insecurity	1.67	1.05 - 2.67	0.03	-	-	-
Behavioural Characteristics						
Age at first sex						
15 years or more(ref)						
14 years or less	-	-	-	2.07	1.37 - 3.13	0.001
Number of sexual partners						
1 or no partner (ref)						
2 or more partners	2.67	1.78 - 4.01	<0.001	3.02	1.65 - 5.52	<0.001
Age difference with partners						
Less than 5 years(ref)						
5 years or more	0.34	0.21 - 0.57	<0.001	-	-	-
Alcohol Consumption						
Alcohol Use						
No(ref)						
Yes	1.42	0.93 - 2.16	0.11	2.09	0.88 - 4.99	0.10

3.5 Summary

Over half (50.62%) of the study participants were sexually active males, and almost two thirds (60.79%) were out of school, with a higher proportion of young women out of school. The results of the study show that about two thirds (60.06%) of the young people reported engagement in transactional sex. 67.10% of young men had ever given cash or material goods in order to have sex, and 53.45% of young women had ever received cash or material goods in exchange for sex.

For both young men and women, the proportions reporting transactional sex were higher among the younger (18 – 20 years) in comparison to those who were in the older age group (21 – 23 years). The data revealed differences in transactional sex patterns between young men and young men; more men as compared to women reported transactional sex. The majority (50.75%) of the participants primarily transacted money and luxury and modern lifestyle goods such as clothing, alcohol and partying, for sex. Over half of the women (58.67%) reported to have received aspirational or lifestyle goods in exchange for sex, and 45.36% of men reported giving luxury or lifestyle goods for sex. Few participants reported exchange of sex for survival needs among both young men and women; slightly over a quarter of the men (26.32%) reported giving survival items such as food, transport or money for transport, school fees or residence fees and a place to stay, for sex. Only 15.13% of women reported receiving survival items in exchange for sex.

The study also found differences in the risk factors associated with transactional sex across the genders. Bivariate analysis showed that among young men, socio-demographic characteristics associated with transactional sex included school status; household structure; relationship status; employment status and food security, and behavioral factors statistically associated with transactional sex were age at sexual debut, number of sexual partners, age difference with partner, alcohol consumption and peer pressure

The results of multivariate model show that among young men, four variables were significantly associated with giving cash or material goods in exchange for sex; household structure, food security, number of sexual partners and age difference with sexual partner. Young men coming from ‘other’ (child headed and extended) households were more likely to give cash or material goods for sex compared to those coming from households headed by males. Young men who came from household that experienced severe food insecurity were more likely to report giving cash or material goods in exchange for sex compared to young men from households with food security. Young men with multiple sexual partners were almost three times more likely to give money or gifts in order to have sex than those with no or just one sexual partner. Young men who had partners with an age difference of more than five years were less likely to transact for sex compared to those with partners with age difference of less than five years

For young women on the other hand, bivariate analysis showed that employment status was the only socio-demographic factor significantly associated with transactional sex. Behavioral factors statistically associated with transactional sex included age at sexual debut and number of sexual partners. The multivariate analysis showed that age of sexual debut and number of sexual partners was significantly associated with receiving cash or material goods in exchange for sex among young women. Young women initiated sexual activity at 14 years of age or earlier were more likely to receive money or material goods in exchange for sex than those whose sexual onset was at 15 or more years. Young women who had multiple sexual partners were three times more likely to receive cash or material goods in exchange for sex, compared to those with no or one sexual partner

For both young men and women, there was a trend towards association with transactional sex amongst young men who reported alcohol consumption but this was not statistically significant.

4. Chapter 4. Discussion

This section discusses the findings of the extent and risk factors of transactional sex among young men and women in the two urban informal settlements. The results are discussed in the context of the relevant literature in line with the stated study objectives.

4.1 Extent of transactional sex among sexually active young people

Results of the study show that giving and receiving money or material goods in exchange for sex, a practice that has been strongly associated with increased risk of HIV among young people (Dunkle et al., 2004, Hunter, 2002, Luke, 2006, Luke 2005, Maganja et al., 2007, Swidler 2007) is common among young men and women in urban informal settlements in Malawi. About two thirds (60.06%) of the young people reported having ever been engaged in transactional sex, with 67.1% of young men reporting having ever given cash or material goods in order to have sex, and 53.45% of young women reporting having ever received cash or material goods in exchange for sex.

The levels of transactional sex reported in this study were higher by comparison to most previous studies. One exception to this was a study among young men and women (15 – 19 years old) in Malawi which found that 70% of the15-17 year old females, and over 80% of 18-19 year old females in Malawi reported having received money or material goods from their last sexual encounter (Moore et al., 2007). There are several potential reasons for both higher and lower levels of transactional sex among young men and women across different studies.

One potential reason could be the difference in measurement of transactional sex, which makes it difficult to compare the findings from the studies. The study conducted by Moore et al., (2007) in which , 70% of the15-17 year old, and over 80% of 18-19 year young women reported transactional sex, measured transactional sex by asking unmarried adolescents if they had received money or material goods in exchange for sex with a partner in the last 12 months. On the other hand, the Malawi Demographic and Health Survey (DHS) which found that 10% of men age 15-49 had engaged in transactional sex, measured transactional sex by asking study participants if they had ever paid anyone for sexual intercourse (National Statistical Office, 2011)). This measure of transactional sex could conflate commercial sex work and exclude the giving of other material in exchange for sex, resulting in underreporting of transactional sex. The

present study on the other hand, did not ask for ‘paying’ as such, but rather about ‘giving’ money or any type of materials including money, in exchange for sex.

In her study, Dunkle et al., (2007) assessed transactional sex by asking young men if they had given or received for material items with main and casual partners in exchange for sex. Men were asked whether they believed any of their main girlfriends” became involved with them out of expectation to receive something or because they received something” (Dunkle et al., 2007). The proportions reporting transactional sex were hence broken down into the different types of partnerships. In contrast, the current study did not further explore with whom the participants had engaged in transactional sex.

In addition to differences in measurement of transactional sex across the studies, differences in the study settings may also have contributed to the disparities in the levels of reported transactional sex. While the current study was conducted in two of the most populous urban informal settlements in Blantyre City, where the majority of inhabitants dropped out of school and live in dire circumstances of chronic and persistent poverty, other studies have been conducted in rural or urban settings. A study among men aged 15–26 in the rural Eastern Cape province of South Africa reported 17.7% of young men giving material resources or money to casual sex partners, and 6.6% receiving resources from a casual partner Dunkle et al., (2007). And the Malawi Demographic Health Survey of men aged 16 – 49 years found that 6.4% of young men between 15 – 24 years of age, and 8.7% of young men between the ages of 20 – 24 reported giving money and material items in exchange for sex (National Statistical Office, 2011). Another conducted among young men and women ages 15–24 in rural, urban and peri-urban Madagascar found that 5.9% of women had having ever had sex with the intention of accessing money or materials (Stoebenau et al., 2013). A similar study among pregnant women ranging in age from 16 – 44 years, seeking routine antenatal care in Soweto, South Africa, found that the prevalence of participants who reported transactional sex with non-primary partners in exchange for material goods or money was 21.1% (Dunkle et al., 2004). All the study findings sharply contrasts with the 67.1% of young men reporting giving cash or material goods in order to have sex, and 53.45% of young women reporting receiving cash or goods in exchange for sex in the present study.

It is very likely that the young people in the urban informal settlements represent a group of young people who are significantly different from the rural or general urban young population. Youth in these settings may come from economically disadvantaged households that have no access to basic resources in comparison to other youth urban dwellers, which may compel them to indulge in transactional sex in order to meet their needs. Evidence shows that urban informal settlements provide environments that are associated with increased vulnerability to HIV (Hunter, 2002, Sverdlik, 2011). A report by Blantyre city assembly (2000) documents that, living conditions in informal settlements in Blantyre are poor and that many households do not have access to social infrastructure or basic urban services, and lack the minimum requirements for low income housing (Blantyre City Assembly, 2000). The study closely comparable with the present study is one that was conducted in truck stops in Kenya among 15 – 19 year old adolescents, most of whom were out of school, came from low socio-economic households with inadequate access to food, clothing and pocket money (Nzyuko et al., 1997). This study also reported higher levels of transactional sex; 78% of girls exchanged sex for gifts or money, and 59% of boys gave gifts or money for sex.

This study found that a greater proportion of young men reported giving money or material goods than young women reported receiving money or material goods in exchange for sex. This finding is consistent with findings of previous studies in other countries. A synthesis of demographic studies on transactional sex from 12 Sub-Saharan African countries reported that the percentage of sexually active women aged 15 to 19 years reporting having ever received money or gifts in exchange for sex ranged from 2% to 11%, and the proportion of men in this same age range who reported ever giving money or material goods in exchange for sex ranged from 5% to 24.7% (Chatterji et al., 2005). A possible explanation to this finding in this study could be related to young men's access to expendable income and employment. Young men in this study had more access to expendable income (55%) in comparison of young women (36.14%) who reported having had received some money from their parents or relatives in the month prior to the study. Moreover, young men who reported giving money or material goods in exchange for sex were more likely to be employed than young men who did not engage in transactional sex (81.34% vs 65.91%). A study in South Africa found that men who had earned money were more likely to engage in transactional sex (Dunkle et al., 2007). It is baffling at the same time that men who engaged in transactional sex were also more likely to have experience

severe food insecurity. There is need to further investigate this association in the context of other factors.

While indeed, it is possible that young men could be giving money or goods to have sex more than young women could be receiving money or items for sex, but it is also plausible that these results may have been influenced by social desirability bias; young men may have over reported their provision of materials to female sexual partners as they are expected to provide for their partners in a relationship. A qualitative study conducted among young people in Malawi showed that money and gifts are given and received as part of a courting tradition, and that male partners are expected in relationships to provide their girlfriends with money or gifts to express love and affection (Poulin et al., 2007). For men, it is integral to be able to provide a female partner with money that they can use to buy luxury items (Poulin et al., 2007). The pride and prestige associated with men being able to provide money or gifts to their female partners is likely to lead to over reporting of sexual behaviors. On the other hand, it is plausible that women could have under reported receiving resources from male partners in exchange for sex, because such behavior is deemed socially inappropriate and women who report such receiving money or goods for sex are labeled 'prostitutes' (Glynn et al., 2011). In settings such as Malawi, males and females face different pressures in reporting certain sexual behaviors because gender norms create different expectations about socially acceptable behavior for the different genders. There is documented evidence in Malawi that shows that males tend to over report and females may underreport their sexual behavior due to social values and expectations (Glynn et al., 2011).

4.2 Nature of transactional sex among sexually active young men and women

Of the young men and women who reported engagement in transactional sex, half (50.75%) reported exchange of cash and luxury/modern lifestyle goods such as fashionable clothing items and partying. Among women, 58.67% had ever received a combination of cash and lifestyle goods, and only 15.13% had received cash and items for survival. These findings contradict the conventional understanding of the 'survival sex' theory which points to women's economic dependence or desperation as a motivation for engagement in transactional sex, and agrees with contemporary research findings that identify the 'pursuit of modernity' as key driving force for

transactional sex, particularly among urban young people (Leclerc-Madlala, 2001, Stoebenau et al., 2013, Hunter 2002).

In Sub-Saharan Africa, exchange of sex for money or gifts has generally been interpreted as a consequence of women's poverty and economic dependence on men to survive. Many previous studies have pointed out poverty as a key factor driving women to engage in transactional sex with older and wealthier men for economic survival i.e. to get money to get access to their basic needs such as school fees, clothing and food (Chatterji et al., 2005, Dunkle et al., 2004, Kaufman and Stavrou, 2004, Luke, 2005, Luke, 2003, Maganja et al., 2007 Hunter, 2002; Leclerc-Madlala, 2003; Wojcicki, 2002). Poor women are thought to be particularly vulnerable to this form "survival" sex. In Malawi, Swidler and Watkins (2006) found that involvement in transactional sex was connected to the fact that women need money while men have it, attributable to the gendered material inequalities prevalent in many Malawian societies (MacPherson et al., 2012). However, more recent studies (Hunter, 2002; Kaufman & Stavrou, 2004; Leclerc-Madlala, 2001; Luke, 2003; Nyanzi et al., 2001, Wojcicki, 2002**)** in Africa have begun to challenge this theoretical and empirical notion as more and more evidence emerges suggesting that transactional sex is not engaged in solely for purposes of meeting survival needs, but more to meet luxury and materialistic needs (Leclerc-Madlala, 2003, Hunter, 2002, Stoebenau et al., 2013a). Similar to the current study, a study conducted among women in Kenya found that young women received money in exchange for sex out of peer pressure to obtain modern lifestyle goods such as make up, fashionable clothes, jewelry and hairstyles (Nyanzi et al., 2001). A synthesis of studies from Sub-Sahara found young women's desire to attain social status to be the key driving force to their engagement in transactional sex (Luke, 2003), and another study among women in South Africa found that women reported receiving items such as clothing (36.7%), and cosmetics (33.0%) in exchange for sex (Dunkle et al., 2004). A study in Tanzania found that young women considered sex with men as a strategy for obtaining materials such as clothes, phones, and other material goods for the women (Maganja et al,. 2007) . In Malawi, Moore et al. (2007) found that girls in Malawi were more likely to receive jewelry/cosmetics than food, and a qualitative study exploring women's motivations for extramarital sex study contrasted the view that transactional sex in rural Malawi is driven by survival needs, when the rural women themselves indicated that they are attracted into engaging in sexual relationships outside of marriage for attractive consumer goods (Tawfik & Watkins

2007). The findings of this current study appear to support the argument that young women transact for sex more to acquire luxury goods and attain modern lifestyle than for survival as the levels of modern lifestyle goods exchanged were quite this study.

4.3 Socio-demographic factors associated with transactional sex among young men

Food insecurity emerged as key socio-demographic predictors of transactional sex among young men in this study. Young men belonging to other (extended and child-headed) households and those who reported experiencing severe food insecurity in their households had increased odds of giving resources for sex compared to young men with food security. This finding is puzzling as plausibly, the reverse would be expected. Other studies though, have found similar results; a synthesis of studies from 12 Sub-Saharan countries found that young men who came from families who did not provide enough food were at an increased risk of engaging in transactional sex (Chatterji et al., 2005). Qualitative studies would be useful in explaining this relationship in greater detail.

Unlike other studies, school status and age did not emerge as key predictors of transactional sex in this study even though bivariate analysis found school status to be statistically associated with transactional sex. Studies from other African countries have shown that school-going or educated youth, are less likely to engage in risky sexual behavior such as transactional sex than their out-of-school counterparts (Chatterji 2005, Nzyuko et al., 1997).

4.4 Behavioral factors associated with transactional sex among young men

Number of sexual partners and age difference with sexual partner on the other hand, were the main factors associated with giving money and goods for sex among young men in this study.

Having multiple sexual partners was associated with increased odds of giving resources for sex among young men. A study conducted Malian men aged 15 – 19 (Castle & Konate, 1999), obtained similar results. In another study among South African men in rural Eastern Cape, men who had more lifetime sexual partners were more likely to report both giving and receiving resources for sex (Dunkle et al., 2007). In many African countries, stereotypical gender norms of male dominance influence men and boys to have multiple sexual partnerships because it is not only considered a status symbol, but also a benchmark for measuring intelligence, masculinity,

and success among peers. In many parts of sub-Saharan Africa, including Malawi, masculinity is almost synonymous with the power or ability to demonstrate sexual competency through multiple sexual partnerships (Kaler, 2004), and men like to boast about their sexual skills achievements to their peers in their social networks (Kaler, 2004). In the same vain, men in Malawi feel obliged to provide their girlfriends with money or gifts not only to express their affection, but also because it is expected for them to be able to provide a partner with money or luxury items (Poulin et al., 2007). It can therefore be argued that these norms could be contributing to the increase of transactional sex and multiple sexual partnerships among young men, but unpacking all the nuances surrounding these practices qualitatively would be necessary.

Age difference with sexual partner was also statistically associated with transactional sex. Young men who had partners five years or younger were more likely to report giving money or materials in order to have sex, than those whose partners were five or more years older than them. This finding is similar to the finding of a study conducted among Malian women aged 15 - 19 which found that having a younger partner was associated with transactional sex for young men (Castle & Konate, 1999). This may not necessarily mean that having an older partner is a protective factor for transactional sex among young men, as young men may be receiving materials in such type of relationships. It is important to note that young men in this study were specifically asked about 'giving' and not receiving. Studies have shown that young men do receive gifts or money in exchange for sex (Dunkle et al., 2007, Luke, 2005, Nyanzi et al., 2001). A study in South Africa reported 'sugar mummy' relationships where older women provide money and gifts to younger men for sex (Morojele al., 2006), even though in Malawi, this practice is reported to be less prevalent than men giving resources to women for sex (MacPherson et al., 2012).

Previous studies have indicated that age disparity is associated with transactional sex (Luke, 2005). There is a widespread understanding that women tend to have sexual relationship with men who are older than them for economic gains. However, literature shows that this is often true mostly for intergenerational relationships, defined as a relationship characterized by an age difference of 10 or more years, rather than age-disparate relationships where there is an age difference of five years or less. This finding points to the need for further research to further

understand the relationship between age differentials in sexual relationships and transactional sex.

It is also important to interpret these results with caution considering that the study did not elicit data to further establish the age of the sexual partners who the young men and women had transacted materials with for sex. The data used to measure age difference with partner was obtained from the difference of the respondent's age, and the reported age of their partner, and not necessarily the age of the partner with whom they reported having transactional sex; It is possible that the age of the partner given by the participants could have been of their main partner who could possibly be younger, and that the transactional sex reported on the other hand, could have been with another partner who could possibly be older.

4.5 Socio-demographic factors associated with transactional sex among young women

None of the socio-demographic characteristics investigated were associated with receiving money or gifts among women in this study. This is surprising as studies across Africa have recurrently reported socio-economic status and school status as key predictors of transactional sex among young women (Chatterji, 2005, Nzyuko et al., 1997)

Socio-economic status was not found to be associated with transactional sex among young women in this study, but bivariate analysis showed that young women who belonged to households that scored high on the wealth index were more likely to report transactional sex in comparison to their counter-parts in the low tertiles. As discussed earlier, many studies have linked women's vulnerability to consumerism-driven sex argument considering that more women reporting receiving items or cash for sex came from economically well off households. Being out of school has also been associated with increased odds of transactional sex in other settings (Nzyuko et al., 1997). In this study however, school status was not statistically associated with transactional sex among young women. Further study is required to understand the dynamics underpinning socio-economic status and school status, and transactional sex among young women in poor urban settings.

4.6 Behavioral factors associated with transactional sex among young women

Early sexual debut was associated with receiving cash or goods in exchange for sex among young women in this study. Similar results were obtained from a study conducted in South Africa among pregnant women attending antenatal clinics in Soweto in which initiating sexual activity at age 21 or older were was found to be a protective factor of transactional sex (Dunkle al., 2004). This finding points to the importance of targeting young women before they become sexually active in order to minimize their risk of engaging in transactional sex.

Having multiple sexual partners was also associated with increased odds of receiving cash or material goods in exchange for sex, compared to those who had one sexual partner or none. Due to the cross-sectional design, it is not possible to tell the direction of association between number of sexual partners and transaction. However, there is a clear link highlighted through qualitative research in which many young people who have multiple sexual partners cite material gain as their motivation for having multiple partners. In his qualitative study, (Hunter, 2002) noted that women who have transactional sexual relationships have multiple such relationships, with one man providing money for groceries, another clothes, and so on. Individuals who have multiple sexual partners increase their risk of contracting HIV as each new relationship introduces another pathway for HIV transmission. Qualitative research studies have reported a link between transactional sexual relationships and multiple sexual partnerships particularly among women; women who often report being motivated to have multiple sexual partnerships in order to maximize economic gains. Studies have noted that transactions tend to compromise women's ability to negotiate for safer sex (Luke, 2003, Nkosana and Rosenthal, 2007). This limited capacity to negotiate safer sex with the multiple partners during each and every sexual encounter raises a cause for concern with regards to HIV vulnerability.

In this study, age disparity in sexual relationships did not emerge as predictor for transactional sex among young women in this study. This finding is surprising because studies have found that most transactional sexual relationships involve young girls and older, wealthier men. In a synthesis of studies from Sub-Saharan Africa, Luke (2003) noted that that transactional sex often occurs in age-disparate sexual relationships because older men are likelier than boys to have the means to offer gifts for sex). A qualitative study in Uganda found that female adolescents engaged in transactional sexual relationships with older men as a strategy to maximize economic

gains (Nyanzi et al., 2001). As already discussed earlier for young men, these results should be interpreted with caution because the study did not elicit data to further establish the age of the sexual partners with whom the young women transacted materials for sex. Data for measuring age difference with partner was obtained from the difference of the respondent's age, and the reported age of their partner, and not necessarily the age of the partner with whom they had engaged in transactional sex. It is worth to note that a considerably bigger proportion (43.41%) of young women reported having sexual partners who were five years older than them.

4.7 Limitations and strengths

The findings of this study should be interpreted in the context of important study limitations and strengths.

Firstly, the primary study used a limited definition of transactional sex specifically asking males about 'giving' and female participants about 'receiving' money or materials in exchange for sex. The question was modeled to reflect the economic and social roles in many African countries where men are predominately expected provide the material benefits, and women are supposed to be on the receiving end in transactional sexual encounters, as noted in a previous study (Moore et al., 2007). A study in Kenya (Nyanzi et al., 2001) has revealed that men do receive material goods too in exchange for sex. Findings of research among urban and rural Malian adolescents (Castle and Konate, 1997) indicate that financial transactions in exchange for sexual intercourse does not only go from boys to girls, but that girls also give gifts or cash to their sexual partners as recompense for sex. As such, it is recommended that future research should also explore men receiving material goods in exchange for sex, and probably explore women giving material goods for sex.

Secondly, the study utilized data from a cross-sectional study design and as such, causal inferences between transactional sex and dependent variables cannot be made i.e. it is impossible to establish whether factors such multiple sexual partnerships lead to transactional sex or the other way round. The study could only establish associations between transactional sex and the socio-demographic and behavioural factors. Thirdly the study sample comprised of sexually active young people in two urban informal settlements in Blantyre, and may therefore not necessarily be representative of all urban young people. Findings of this study may therefore, only be generalized to young people in urban informal settlements as young people in other

urban areas and rural areas in Malawi may not only have different values with young people in urban informal settlements, but their socio-economic status and other socio-demographic factors may also differ. This does not in any way imply that young men in other settings do not practice transactional sex, but highlights the need to further explore the dynamics of this practice in the general urban population and rural areas, particularly considering that transactional sex is an area that has been generally under-researched in Malawi.

Furthermore, the primary study relied on self-reported data that depended on participants to truthfully and accurately report their sexual behaviour and may have been affected by social desirability bias (Catania et al., 1990. It is possible that men may have over reported sexual behaviours such as transactional sex and multiple sexual partners while women on the other hand, may have underreported the same behaviours due to the gender norms that create different expectations for males and females about socially acceptable. It is not possible however, to ascertain the extent to which the men over reported and women underreported, and the extent to which this has influenced the results of this study. Efforts were made though, to curtail this problem during data collection by using trained researchers, emphasizing anonymity to the participants and employing a gender sensitive questionnaire administration i.e. letting male field workers administer questionnaire to a male study participant, and female fieldworkers administer questionnaires to female participants.

Another important limitation to this study relates to lack of data on sexual orientation. Studies have shown that men who have sex with men report higher rates of transactional sex (Berry et al., 2012, Friedman et al., 2013). The fact that the primary study did not collect data to this extent poses a weakness. It is recommended that future studies explore this aspect thoroughly as it may have implication on targeting HIV prevention interventions.

Nonetheless, the strength of this study lies in its ability to include both young men and women and be able to draw comparisons on the transactional sex patters and risk factors across the genders. In addition, this study was able to establish the nature of transactions taking place among the young people in the study sample based on the type of items or materials exchanged. This allowed for a detailed assessment of the extent of survival sex and sex for luxury or aspirational goods is occurring among the young people.

Regardless of the limitations, the findings of this study provide valuable information on the prevalence, nature and risk factors for transactional sex among young men and women in informal urban settlements in Blantyre city, which can be used to inform policy, research and programs focused on HIV prevention among young people in Malawi.

5. Conclusions and Recommendations

5.1 Conclusion

While there is a growing body of research in Sub –Saharan Africa on transactional sex, this is one of the few studies in Malawi to explore transactional sex, particularly among young people in urban informal settlements.

Overall, this study has shown that the practice of transactional sex is common among young men and women in urban informal settlements and that most young people engage in transactional sex for consumption, more than survival purposes. The study findings reflect differences in predictors of transactional sex for women and men. Among young men, household structure, food insecurity, number of sexual partners and age differentials with partner were associated with giving money or material resources for sex. Coming from 'other' (child headed and extended) households, belonging to households that experience severe food insecurity and multiple sexual partners were associated with increased risk of giving materials for sex. Having older partners with an age difference of more than five years on the other hand, was associated with decreased risk of engaging in transactional sex. For young women, age of sexual debut and number of sexual partners emerged as important predictors of receiving cash or goods in exchange for sex. Early sexual debut and having multiple partners were associated with increased risk of receiving resources in exchange for sex among young women.

Although the study specifically focused on young men and women from urban informal settlements, predominantly of lower socio-economic status, the study will enable a greater understanding of patterns of transactional sex among young people, and highlight important issues regarding the dynamics of transactional sex among young people.

This study revealed that the pattern of transactional sex as well as the risk factors differed for males and females. These results suggest that young men and women require different sets of interventions taking into account the distinct risk factors predispose young people to transactional sex across the genders.

This study also showed that more men are engaging in transactional sex, particularly in the provider role. This is noteworthy considering the conventional understanding that young women are at an increased risk of indulging in transactional sex with older men more than men due to

their economic vulnerability. This study contradicts this line of understanding and suggests that young men are equally at an increased risk of engaging in transactional sex. This finding calls for greater investment in prevention efforts targeting young men as well to address this risky practice and in the long run, prevent HIV infection among the young population in Malawi.

Overall, this study has shown that young people in poor urban settings engage in risky sexual behavior including transactional sex, and should be a focus for HIV prevention interventions. Behavior change interventions should endeavor to discourage risky sexual behaviors identified as predictors of transactional sex in this study such as having multiple sexual partners, initiating sexual activity early. This study is one of the few examining the prevalence and correlates of transactional sex among a sample of young urban informal settlement dwellers. Further research is needed for a detailed understanding of the dynamics and underlying factors of transactional sex among young people.

5.2 Recommendations

The findings of this study have important implications for research, policy and HIV prevention interventions targeted at young people in Malawi. The study highlights the need for HIV prevention interventions to deliberately target young people in poor urban settings, and consider designing interventions that suit the needs of the different gender groups. The findings also point to the importance of targeting young women with behavioral change interventions before sexual coital, and integrating transactional sex interventions with those focused on reduction of multiple sexual partnerships may have beneficial implications for transactional sex among young people in poor urban settings. There is also need for further research to explore the influence of materialist and consumeristic cultures on transactional sex among young people.

5.2.1 Behavior change interventions

The results of the study show that the majority of young people engage in transactional sex. This suggests the need for HIV prevention interventions to deliberately target young people in poor urban settings in Malawi. Currently, behavior change interventions for young people in Malawi are implemented under the National HIV and AIDS Strategic Plan (NSP) 2011-2016. Various initiatives implemented under the NSP include life skills education for in-school and out-of-School young people. Communication approaches under this intervention include mass media, performance-based interactive sessions, sensitization meetings, debates, market campaigns,

video shows and drama performances. Transactional sex is acknowledged in the NSP as one of the key drives of HIV/AIDS in Malawi, which also recommends development and implementation of behavior change programs specifically targeting different youth age groups and gender groups. The NSP offers an immense opportunity for integrating transactional sex into the existing behavior change programs. Based on the study results, the following are recommended for behavior change interventions:

5.2.1.1 Gender specific interventions

Evident from this study, young men and women face are affected by different risk factors hence have different needs. This finding suggests for HIV programs to shift from generic intervention that target 'young people' in general, and consider designing separate interventions that are tailored to suit the needs of the different gender groups.

5.2.1.2 Integrated Interventions

In this study, having multiple sexual partners was associated with transactional sex. Considering the cross-sectional nature of the data, the direction of causality is uncertain. However, if the estimated association is causal, our findings suggest that interventions targeting reduction of multiple sexual partnerships may have beneficial implications for transactional sex and hence HIV prevention. Even though condom use did not emerge as a predictor of transactional sex for both young men and women in this study, qualitative studies have suggested that the power imbalance introduced in economically motivated sexual relationships because of the financial/material transfers compromise condom use. It is therefore important for interventions aimed at preventing HIV/AIDS among young people to encourage condom use.

5.2.1.3 Theory based Interventions

Even though engaging in transactional sex and multiple partnerships is an individual behavior, it is still influenced by a whole range of factors from individual, family, community to the wider structural level. This study found that young men's involvement in transactional sex was influenced by family level factors such as household structure and household food insecurity. Household food insecurity for instance could also be a result of poor policies or other factors at the broader structural level. The socio-ecological model will be useful for developing comprehensive behavior change interventions address the multi-level factors influencing transactional sex and its subsequent risk factors.

5.2.1.4 Community Based Interventions

Considering that the majority of the population in urban informal settlements in Malawi is comprised of out-of-school young men and women, community based rather than school-based interventions are recommended in order to reach more young people in poor urban settings and maximize impact.

5.2.1.5 Target Young Men

The wide range of evidence and the conventional understanding that young women are the ones who engage in transactional sexual relationships with older men has seen HIV prevention behavior change programs predominantly targeting young women. The current study found that young men are equally at risk of engaging in transactional sex; in fact the levels of transactional sex reported were higher among young men in comparison to women; more young men reported giving that young women reported receiving materials for sex. This suggests the need for behavior change interventions specifically targeting young men and addressing the risk factors identified in this study to be associated with transactional sex among young men as well.

5.2.1.6 Target Sexually Inactive Young women

Early sexual debut was associated with transactional sex among young women. This finding suggests that targeting young women with behavioral change interventions before they initiate sexual activity may reduce their risk of engaging in transactional sex.

5.2.2 Further Research

The study showed that more participants exchanged sex with luxury and modern lifestyle items such as clothing, alcohol and partying. This seems to suggest that young people in this study sample, just like other young people in other urban African settings engage in transactional sex to pursue modern lifestyles. There is need for further research to explore in details the dynamics of transactional sex in poor urban settings, and investigate how materialist and consumerist cultures, fast influencing urban populations, influence young people's involvement transactional sex. Knowledge and clarification of the role of consumerism and materialism in transactional sex is important in informing policy and program design for HIV prevention interventions aimed at promoting health behaviors among young people in poor urban settings.

The association between household structure, food security and age disparity and transactional sex among young men also needs to be qualitatively explored further to better understand the underpinning factors.

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Annexures

Annex 1. Consent Forms

Participant information sheet

Study Title: Multilevel Analysis of Determinants of Sexual Risk-Taking and Decision Making among youth in urban informal settlements in Malawi and South Africa

Researcher: Mphatso Kamndaya, School of Public Health, University of the Witwatersrand

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Dear participant,

My name is Mphatso Kamndaya. I am studying at University of the Witwatersrand in South Africa. As part of my studies, I am conducting research under the supervision of Dr. Liz Thomas, Dr. Joanna Vearey (from University of the Witwatersrand in South Africa) and Prof Lawrence Kazembe (from University of Malawi). I am inviting you to participate in my research. Before agreeing to participate in my research, it is important that you read and understand the following explanation of the purpose of my study, procedures, risks, benefits and alternative procedures that are available to you and your right to withdraw from the study at any time.

Purpose of the study

The purpose of this study is to understand some of the issues that make young people vulnerable to HIV/AIDS. I would like to investigate factors associated with sexual risk-taking and decision-making among youth in urban informal settlements. Sexual risk taking and poor sexual decision-making among youth contribute to higher HIV prevalence among youth than other population groups.

What is involved in the study?

If you agree, you will participate in the interview/discussion that should take approximately 1 hour to complete. You will not assume any out-of-pocket costs for participating in the study and there is no payment for you to be in the study. However, you will get a R12 airtime voucher as a token of thanks for your participation.

Risks

You may experience some discomfort with some of the questions on your sexual health. You may also feel frustrated or encounter psychological and emotional problems due to some of the questions on your sexual health. Please note that should you feel any emotional distress after answering some of the questions, let us know.

Benefits

The study will produce information that may be used to understand more about vulnerability of youth to HIV/AIDS and help policy makers to deal with the youth HIV risks that Malawi and South Africa face.

Participation in the study

Your participation in this study is voluntary. To participate, you have to give written consent. You will be provided with a form to read and sign. If you are not interested to participate, it is fine and we will respect your wishes. You may discontinue participation at any time in the study without penalty or without having to provide reasons for termination. You may also decide not to answer some of the questions.

Confidentiality

All information obtained in this study will be kept strictly confidential. It may be disclosed only if required by law or an organisation that may inspect for quality assurance and data analysis, such as a research ethics committee. All identifying information will be removed from the data, and all data will be kept separately in a locked cupboard at the Malawi Polytechnic. The results of this study will be published, but the names of participants will remain anonymous.

Contact details

If you have any questions about this research, please contact Mphatso Kamndaya by phone +265999851477 (Malawi) or +27727339503 (South Africa) or by e-mail mkamndaya@cartafrica.org. You may also contact the following: The lead supervisor, Dr. Liz Thomas by phone (+27824472293) or e-mail Liz.Thomas@wits.ac.za; Dr. Wilson Mandala (CARTA focal person, University of Malawi-College of Medicine) on +265888858454.

This research has been reviewed and approved by the Human Research Ethics Committee (Medical) of the University the Witwatersrand and the National Health Sciences Research

Committee (NHSRC) in Malawi. If you have any questions or concerns about this study, you may contact Dr. Charles Mwansambo, Chair of the NHSRC, by phone (+265 1 726 422/418) or by e-mail at mocdoccentre@gmail.com.

Signing at the bottom means that you agree to participate in the study.

PARTICIPANT:

Printed Name	Signature / Mark or Thumbprint	Date and Time

I, [researcher's name], herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

INVESTIGATOR:

Printed Name	Signature	Date and Time

Verbal Participant Informed Consent Form

(Applicable to participants who cannot read or write)

Study Title: Multilevel Analysis of Determinants of Sexual Risk-Taking and Decision Making among youth in urban informal settlements in Malawi and South Africa
Researcher: Mphatso Kamndaya, Centre for Health Policy, School of Public Health, University of the Witwatersrand

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- I, the undersigned, **interviewer**. …….....have read and have explained fully to the participant, named .....…… the participant information leaflet.
- The account I have given has explained both the possible risks and benefits of the study. The participant understands these.

- The participant indicated that he/she understands that the participant will be free to withdraw from the study at any time for any reason and without affecting his/her future relationships with any person or organisation.

I hereby certify that, the participant:

1. Has confirmed that he/she has understood the information sheet for the above study and has had opportunity to ask questions. **YES/NO**
2. Has understood that his/her participation is voluntary and that he/she is free to withdraw at any time without giving reasons. **YES/NO**
3. He/she agrees to take part in study. **YES/NO**
4. He/she agrees to the interview being audio recorded. **YES/NO**

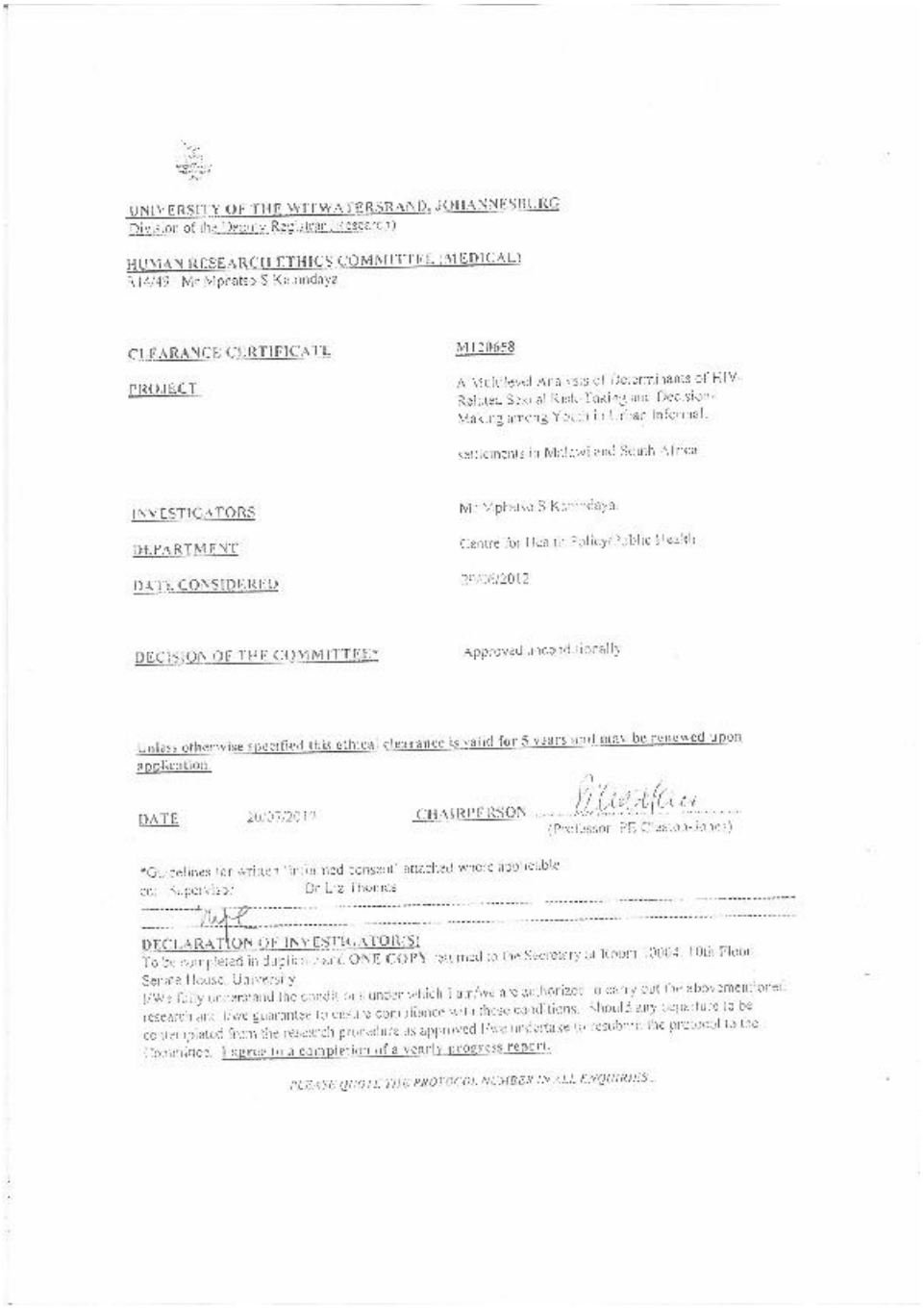
PARTICIPANT:

Printed Name Mark or Thumbprint (if applicable) Date and Time

Interviewer/Fieldworker:

Printed Name Signature Date and Time

Annex 2. Wits Ethical Clearance Certificate for the Primary Study



UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
A14/43 Mr Mpratso S Kaimdaya

CLEARANCE CERTIFICATE — M120658

PROJECT — A Multilevel Analysis of Determinants of HIV-Related Sexual Risk-Taking and Decision-Making among Youth in Urban Informal settlements in Malawi and South Africa

INVESTIGATORS — Mr Mphatso S Kamndaya

DEPARTMENT — Centre for Health Policy/Public Health

DATE CONSIDERED — 29/08/2012

DECISION OF THE COMMITTEE* — Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 20/07/2013 CHAIRPERSON (Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable
cc: Supervisor: Dr Liz Thomas

DECLARATION OF INVESTIGATOR(S)
To be completed in duplicate and ONE COPY returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the above mentioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the proposal to the Committee. I agree to a completion of a yearly progress report.

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

Annex 3. NHSRC Ethics Approval

Telephone: + 265 789 400
Facsimile: + 265 789 431
e-mail doccentre@malawi.net
All Communications should be addressed to:
The Secretary for Health and Population



In reply please quote No. MED/4/36c
MINISTRY OF HEALTH
P.O. BOX 30377
LILONGWE 3
MALAWI

11/10/12

Mphatso Kandaya
University of Witwatersrand

Dear Sir/Madam,
RE: Protocol # 1078: A multilevel analysis of determinants of HIV-related sexual risk-taking and decision-making among youth in urban informal settlements in Malawi and South Africa

Thank you for the above titled proposal that you submitted to the National Health Sciences Research Committee (NHSRC) for review. Please be advised that the NHSRC has **reviewed** and **approved** your application to conduct the above titled study.

- **APPROVAL NUMBER** : **NHSRC # 1078**
  The above details should be used on all correspondence, consent forms and documents as appropriate.
- **APPROVAL DATE** : **11/10/2012**
- **EXPIRATION DATE** :This approval expires on **11/10/2013**
  After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtainable from the NHSRC secretariat should be submitted one month before the expiration date for continuing review.
- **SERIOUS ADVERSE EVENT REPORTING**: All serious problems having to do with subject safety must be reported to the National Health Sciences Research Committee within 10 working days using standard forms obtainable from the NHSRC Secretariat.
- **MODIFICATIONS**: Prior NHSRC approval using standard forms obtainable from the NHSRC Secretariat is required before implementing any changes in the Protocol (including changes in the consent documents). You may not use any other consent documents besides those approved by the NHSRC.
- **TERMINATION OF STUDY**: On termination of a study, a report has to be submitted to the NHSRC using standard forms obtainable from the NHSRC Secretariat.
- **QUESTIONS**: Please contact the NHSRC on Telephone No. (01) 789314, 08588957 or by e-mail on doccentre@malawi.net
- **Other:**
  Please be reminded to send in copies of your final research results for our records as well as for the Health Research Database.

Kind regards from the NHSRC Secretariat.

.....
FOR CHAIRMAN, NATIONAL HEALTH SCIENCES RESEARCH COMMITTEE

PROMOTING THE ETHICAL CONDUCT OF RESEARCH
Executive Committee: *Dr.C.Mwenembo (Chairman), Prof. Mfutso Bengo (Vice Chairperson)*
Registered with the USA Office for Human Research Protections (OHRP) as an International IRB
(IRB Number IRB00003905 FWA00005976)

Annex 4. Permission Letter From Principle investigator of Primary Study

Mphatso Steve Kamndaya (Student No. 435493)
PhD Student
School of Public Health
University of the Witwatersrand

Friday, 07 June 2013

Monica Brenda Longwe(Student No. 677604)
MPH Student
School of Public Health
University of Witwatersrand

To Whom It May Concern: Permission Letter for using Secondary data for MPH Research

This letter serves to confirm that I am aware that Monica Brenda Longwe has proposed to use secondary data from my doctoral research project entitled "***A multilevel analysis of determinants of HIV-related sexual risk-taking and decision-making among youth in urban informal settlements in Malawi and SouthAfrica***"for her MPH dissertation.

Monica is one of my fieldwork supervisors for my doctoral research project in Malawi. Through the cooperation I have with Monica, she has developed a research protocol for her MPH dissertation with me as a co-supervisor. I support her proposed research and consider it to be of mutual benefit.

All protocols for my doctoral research project were reviewed and approved by two ethics review boards: The Human Research Ethics Committee (Medical) of the University of the Witwatersrand (Protocol No: M120658) and the National Health Sciences Research Committee in Malawi (Approval No: 1078).Approval certificates are attached.

I am looking forward to a fruitful cooperation.

Kind regards,

Mphatso Steve Kamndaya (Student No. 435493)

PhD Student

Annex 5. Wits Ethical Clearance Certificate for the Secondary Study

R14/49 Ms Monica Brenda Longwe

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M131159

NAME: (Principal Investigator)	Ms Monica Brenda Longwe
DEPARTMENT:	School of Public Health Johns Hopkins University Centre for Communication Programmes, SSDI-Communication
PROJECT TITLE:	The Extent of, and Risk Factors for, Transactional Sex among Young People in Urban Informal Settlements in Blantyre, Malawi
DATE CONSIDERED:	29/11/2013
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Nicola Christofides and Mphatso Kamndaya
APPROVED BY:	Professor A Woodiwiss, Co-Chairperson, HREC (Medical)
DATE OF APPROVAL:	18/12/2013

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Secretary in Room 10004, 10th floor, Senate House, University.

I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report**

Principal Investigator Signature

Date 20th December 2013

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Annex 6. Questionnairre

Research Title: A multilevel analysis of determinants of HIV-related sexual risk-taking and decision-making in urban informal settlements in Malawi and South Africa

Survey Instrument

Hello, my name is […]. On behalf of researchers from University of the Witwatersrand, we are conducting a study about some of the issues that young people like you and your family face in relation to HIV/AIDS. Some of the questions are personal in nature and some ask about your sexual health. The interview will take about 1 hour. You have the right to refuse to take part in this interview or refuse to answer any question during the interview. Your responses will be reported in a way that protects your anonymity. Would you like to take part in the interview?
Yes____ No _____

At this point in time, I would like to read information sheet and take a few moments for you to fill out consent forms.

RESPONDENT #_____AGE_____SEX_____ SCHOOL STATUS_____ ____INTERVIEWER ID _____
INTERVIEW DATE:_____

1	**I would like to ask you about the area in which you live** How many years have you lived in this area? **RECORD ONLY ONE RESPONSE ONLY**	Between 1 and 6 months	1
		Between 6 mths and 1 year	2
		Between 1 and 4 years	3
		5 years or more	4
		Don't know	98
		Refused	99
2	How many years have you lived in this house? **RECORD ONE RESPONSE ONLY**	Between 1 and 6 months	1
		Between 6 mnths and 1 year	2
		Between 1 and 4 years	3
		5 years or more	4
		Don't know	98
		Refused	99
3	**Now I would like to ask you about the things you like about in the area you live.** What do you **LIKE** most about your community?	Enter first mentioned _____	
		Don't know	98
		Refused	99

4	**Now I would like to ask you about the things you DO NOT LIKE about your community.** What do you **DISLIKE** most about your community?	Enter first mentioned _____	
		Don't know	98
		Refused	99

SECTION 1: YOUTH EDUCATION

5	Are you currently enrolled in school?	Yes	1
		No	2
6	**IF NO,** why are you not enrolled in school?	Distance too far	1
		Don't have fees	2
		Disability	3
		No school supplies	4
		Not allowed	5
		Afraid/Embarrassed	6
		Other (specify)	
		Refused	99
7	How far are you (did you go) in school?	Primary	1
		Secondary	2
		College	3
		University	4
		Don't know	98
		Refused	99
8	How far would you like to go in school?	Satisfied with status quo	1
		Primary	2
		Secondary	3
		College	4
		University	5
		Refused	99

SECTION 2: SOCIO-DEMOGRAPHIC PROFILE

9. Now I would like to ask you about the people who live with you in your household									
Person #	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Relation to interviewee									

Age									
Sex									
Marital status									
Highest level of education									

10	What is your religious affiliation?	No religion	1
		Christian	2
		Muslim	3
		Traditional	4
		No response	99
11	11.1 What is your marital status?	Single/never married	1
		Married/cohabiting	2
	11.2 Are you currently in a relationship? (Yes/No)	Widowed	3
		Divorced/separated	4
	11.3 If YES, what is the age of your current boyfriend/girlfriend/partner? (Age in years:_____)	Other (specify)	
12	What is your ethnic group?	Chewa	1
		Yao	2
		Lomwe	3
		Tumbuka	4
		Sena	5
		Other (specify)	

13	**What is your primary occupation – the work from which you earn most of your income?**	Construction	1
		Trading	2
		Services	3
		Industry	4
		Agriculture	5
		Unemployed	6
		Other (specify)	
14	**Did you receive any money fom your parents/relatives last month?**	Yes	1
		No	2

15	What was your last month's household expenditure?	Enter estimated amount in MWK

SECTION 3: HOUSEHOLD INFRASTRUCTURE (ASSETS AND HOUSING TYPE)

16 **ASSETS: I am going to read you a list. I would like you to tell me if your household owns the following things** *(Read out each item from the list and ask if the household **OWNS** the item.*

	Item	Yes	No
A	Working radio	1	2
B	Working television	1	2
C	Working cell phone	1	2
D	Did you make a call on your cell phone previous day?	1	2
E	Bicycle	1	2
F	Tables/chairs	1	2
G	Access to Internet	1	2
H	Have you used the Internet in the last six months?	1	2

HOUSING

17 *By observation!*

Type of dwelling?

Free standing house	1
Flat	2
Backyard service room	3
Backyard shack	4
Shack in a shack settlement	5
Hostel or boarding house	6
Other: *Specify*	

18 Materials used to build the dwelling?

Ask for Wall, Roof & Floor

		Wall	Roof	Floor
A	Mud	1	1	1
B	Wood	2	2	2
C	Stone/brick	3	3	3
D	Cement	4	4	4
E	Metal sheet/corrugated iron	5	5	5
F	Plastic	6	6	6
G	Other: *specify*			

19 Total number of people within dwelling?

20	How many rooms are there in <u>this</u> household? By this I mean the household where you live.		
21	How many rooms are used for sleeping in this household?		
22	**I am also interested in some of the problems households face making ends meet**. In the past twelve months, have you stayed in a shelter, abandoned building or any other place not meant for regular housing, even for one night.	Yes	1
		No	2

SECTION 4: FOOD SECURITY

Interviewer: *In the next few question I want you to think about what has happened in your* ***household*** *in the past 24 hours. Remember a* ***household*** *is a person or a group of persons who eat from the same pot and share resources, and are normally living together at least 4 nights a week. This question will be done in* ***TWO*** *steps.*

23
Step I

		Time of Day	**What food and/or drink did you consume yesterday**
Now I would like to ask you about the types of foods that you ate yesterday during the day and night I want you to try and remember what you ate and drank yesterday from the moment you woke up in the morning, right through until you went to bed again last night. If anyone ate or drank something during the night, we would also like to know that. Please list all the food items that you ate yesterday, starting early in the morning.	**A**	Breakfast time	
	B	During the morning	
	C	Lunch time	
	D	During the afternoon	
	E	Supper time	
	F	After supper, and through the night	

Step II: Interviewer: *Refer to the list of food and drinks consumed yesterday (as mentioned in Step I above) and, in the table below, circle in the box if the respondent ate one or more of the foods listed in the group.*

24	**Food Group**	**Examples**	**Ate it yesterday**	
			Yes	**No**
A	Maize products	Porridge, whole maize (corn-on-the cob)	1	2
B	Other cereals	Rice, pasta, fermented/sour porridge, bread.	1	2
C	White roots & tubers	Cassava, potato, sweet potatoes, potato (either cooked, mashed, fried, fries/chips)	1	2
D	Vitamin A-rich fruit	Yellow orange coloured fruit: mango, pawpaw	1	2
E	Other fruit	Apple, banana, guava, lemon, orange, peach, pineapple, strawberries, watermelon, wild fruit, dried fruit	1	2
F	A-rich tubers	coloured vegetables: carrot, pumpkin, orange sweet potato	1	2
G	Vegetables	Spinach, mpiru, marog, imifino	1	2
H	Other vegetables	Cabbage, green beans, green peas, mushrooms, tomato	1	2
I	Meat, poultry, fish	Beef, pork, lamb, goat, mutton, sausage, chicken, stew, fish	1	2
J	Eggs	Eggs	1	2
K	Legumes, nuts, seeds	Beans, dried peas, cowpeas, pumpkin seeds	1	2
L	Dairy	Milk, yoghurt, cheese	1	2
M	Oils & fat	Any food made with oil, margarine or butter	1	2
N	Sugars	Sugar, syrup, sweets, honey, chocolate	1	2
O	Beverages	Tea, coffee, cool drink, fruit juice, beer	1	2

25	Were there particular times in the past year when food security was poor? (eg. after losing a job, after death in the family, etc.) If, yes what were they?	Lost a job	1
		Death in the family	2
		Just arrived in Blantyre	3
		Drought	4
		Poor harvest	5
		Unreliable income	6
		Food security is always poor	7
		Other (specify)	
26	Does anyone from the household ever regularly go and eat with others because there is not enough food in the household?	Yes	1
		No	2

27	Do members of the household ever borrow food from other households?	Yes	1
		No	2
28	Does this household ever loan food to other households?	Yes	1
		No	2
29	Do people in this household use credit to get food?	Yes	1
		No	2
30	If yes, how often do people in this household use credit at the store to buy food? ***Probe for an average, record only one response***	More than once a week	1
		About once a week	2
		About every two weeks	3
		About once a month	4
		A few times a year	5
		Other: specify	
31	Are there any children in your household who are on school feeding scheme?	Yes	1
		No	2
32	In the past 12 months, were there times when members of your household went hungry because there was not enough food in the house to eat?	Yes	1
		No	2
33	Which were the months (in the last 12 months) in which you experienced a lack of food or money such that one or more members of your household had to go hungry?	Month(s)	
34	**I am also interested in some of the problems households face making ends meet**. In the past twelve months, did you receive free food or meals?	No	1
		Yes	2

SECTION 5: ACCESS TO HEALTH CARE

Now I would like to ask you information concerning health and health services in your area			
35	How far is it from where you live to the nearest health facility?	Less than 1km	1
		Between 1 and 5km	2
		More than 5km	3
		Don't know	98
		Refused	99
36	Have you ever been ill in the last 4 weeks?	Yes	1
		No	2

		Don't know	98
		Refused	99
37	What kind of illness did you suffer from?	Malaria	1
		Diarrhoea	2
		Pneumonia	3
		Skin conditions	4
		Headache	5
		Tuberculosis	6
		Heart disease	7
		Fever	8
		Cancer	9
		Other (specify)	97
		Don't know	98
		Refused	99
38	Where did you go to seek treatment for your illness?	Did not go	1
		Health centre	2
		Mobile clinic	3
		Hospital	4
		Comm. Health worker	5
		Traditional healer	6
		Other (specify)	97
		Don't know	98
		Refused	99
39	**IF RESPONDENT DID NOT SEEK TREATMENT ASK** Why did you not seek treatment for your illness? **PROBE**	Cost too high	1
		Distance too far	2
		Used drugs from past treatment	3
		Guardian not available	4
		Permission not given	5
		Other (specify)	97
		Don't know	98
		Refused	99
40	**IF RESPONDENT SOUGHT TREATMENT ASK** How long after onset of **[ILLNESS NAME],** did you visit the hospital or clinic?	Less than 24 hours	1
		Betwn 24 and 48 hours	2
		More than 48 hours	3
		Don't know	98
		Refused	99
41	In the past twelve months, was there anyone in your household who needed to see a doctor or go to the hospital but could not because of the cost?	Yes	1
		No	2

SECTION 6: YOUTH SEXUAL BEHAVIOUR AND DECISION MAKING

Now, I need to ask you some questions about your sexual activity an decision making			
42	How old were you when you first had sexual intercourse **(if ever?)**	Age in years	
		Never	1
		Don't remember	98
		No response	99
43	**IF PERSON EVER HAD SEX, ASK** The **first time** you had sexual intercourse, was a condom used?	Yes	1
		No	2
		Refused	99
44	**IF NO**, why was a condom not used?	Did not have one	1
		Partner refused	2
		Afraid or embarrassed	3
		Other (specify)	
		Don't know	98
		Refused	99
45	**IF PERSON HAD SEX, ASK** When you first had sex, did you willingly agree to have sexual intercourse?	Yes	1
		No	2
		Don't know	98
		Refused	99
46	**IF PERSON HAD SEX, ASK** When did you last have sex?	Days ago	1
		Two weeks ago	2
		Betn 1 mon–6 mon	3
		Between 6 mon–1yr	4
		More than one year	5
		Don't know	98
		Refused	99
47	The **last time** you had sex, was a condom used?	Yes	1
		No	2
		Refused	99
48	**IF CONDOM WAS USED,** who made the decision to use a condom?	Myself	1
		My partner	2
		Joint decision	3
		No response	99

49	**IF NO CONDOM WAS USED,** why was a condom not used?	Did not have one		1
		Partner refused		2
		Afraid or embarrassed		3
		Other (specify)		4
		Don't know		98
		Refused		99
50	Did you willingly agree to have sexual intercourse with this person?	Yes		1
		No		2
51	Do you know of a place where a person can get condoms?	Yes		1
		No		2
52	Where is that? CIRCLE AS MENTIONED	Hospital		1
		Health centre		2
		Mobile clinic		3
		Shop/Grocery		4
		Fieldworker		5
		Private doctor		6
		MACRO		7
		Banja La Mtsogolo		8
		Other (specify)		
		No response		99
53	Have you ever become involved with someone because s/he provided you with or you expected that s/he would provide you with:	Food items?	Yes	1
			No	2
		Clothing items (leggings, fishnets, dresstops)?	Yes	1
			No	2
		Transport or money for transport?	Yes	1
			No	2
		Your own school or residence fees? (if in school)	Yes	1
			No	2
		Place to stay?	Yes	1
			No	2
		Cash?	Yes	1
			No	2
54	Have you ever had sex in exchange for the items mentioned above?		Yes	1
			No	2
55	Have you ever had sex ***with the intention to*** **receive** gifts or money in return?		Yes	1
			No	2

56	When was the last time you had sex with someone because s/he gave you or you expected that s/he would give you money or something else?	M M Y Y Y Y	
57	**What forms of materials (cash or goods) were exchanged from the last partner you had sexual intercourse with?**	Enter first two items	
		No response	99
58	How old were you when you first had sex in exchange for something material?	Age in years	
		Cant remember	98
		No response	99
59	How old is your regular sexual partner?	Age in years	
		No Response	99
60	How many partners have you had sex with in the last 12 months?	Number	
		No response	99
61	Of the people, you have had sexual intercourse with, how many were PAYING PARTNERS?	Number	
		No response	99
62	Of the people, you have had sexual intercourse with, how many were NON-PAYING PARTNERS?	Number	
		No response	99

SECTION 7: SOCIAL SUPPORT

63	Which of the following sources have you personally found useful for information about HIV?AIDS services?					
		Not applicable	Very useful	Useful	Neutral	Not useful
	Teachers	1	2	3	4	5
	Friends	1	2	3	4	5
	Relatives	1	2	3	4	5
	Medical personnel	1	2	3	4	5
	TV/radio programmes	1	2	3	4	5
	Print media	1	2	3	4	5
	Books	1	2	3	4	5
	Posters	1	2	3	4	5
	Billboards	1	2	3	4	5
	Drama	1	2	3	4	5
	Internet	1	2	3	4	5

64	**I have a strong network of family that support me**	Strongly agree	1
		Agree	2
		Disagree	3

		Strongly disagree	4
		Don't know	5
65	**I have a strong network of friends that support me**	Strongly agree	1
		Agree	2
		Disagree	3
		Strongly disagree	4
		Don't know	5

SECTION 8: PERCEIVED PEER PRESSURE

66	How much pressure do you get from your friends to have sexual intercourse, would you say…?	No pressure at all	1
		Not much pressure	2
		Some pressure	3
		A lot of pressure	4
67	I feel pressure from friends to do things I do not want to	Very often	1
		Often	2
		Rarely	3
		Never	4
		Don't know	5
		Refused	

SECTION 9: SUBSTANCE ABUSE

68	Do you drink alcohol?	Yes	1
		No	2
69	**IF YES**, how often do you get drunk	Very often	1
		Sometimes	2
		Other specify	
		Refused	99
70	Do you currently smoke cigarettes?	Yes	1
		No	2
71	Do you currently use psychoactive (behaviour affecting) drugs	Yes	1
		No	2
72	**IF YES**, how often do you use psychoactive (behaviour affecting) drugs?	Very often	1
		Sometimes	2
		Other (specify)	
		Refused	99

SECTION 10: PSYCHOSOCIAL STRESS

73	*Are there any negative **critical life events** that have occurred to you over*	Yes	1

	the past 12 months?		No	2
74	What are some of these **critical life events**? PROBE IF THE RESPONDENT EXPERIENCED ANY OF THE FOLLOWING:		Yes	No
		Separation from spouse due to marital difficulties	1	2
		Breakup of any other close relationship	1	2
		Loss of job (*Ganyu*)	1	2
		A major financial crisis	1	2
		Being the victim of a serious physical attack or assault	1	2
		Being robbed or having one's home burglarized	1	2
		Death of anyone close	1	2
		Serious illness or injury in family	1	2
		Having someone very close with a serious illness, injury, physical attack, or assault	1	2
75	***Are you under stress or worried about any of these events right now?***		Yes	1
			No	2

END OF QUESTIONNAIRE