Contextual Factors, Substance Use and HIV Risk
Among Young Rural Male Workers in a Malawian Market

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THESIS
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This dissertation is dedicated to the young men and the leaders at Tsangano market for their time and willingness to share their thoughts and experiences with me. This study could not have been completed without them.

I also dedicate this work to my family for the sacrifices they made so I could complete my studies at the University of Illinois at Chicago.
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Summary

Substance use and HIV-related risky sexual behaviors are increasing among young men in Malawi. The purpose of this study was to describe substance use and HIV risk behaviors of young men who work as casual workers in a rural Malawi market and the contextual risk factors that contribute to these behaviors.

Using a qualitative ethnographic research design, three types of data were collected: systematic observations of the marketplace and surrounding establishments; interviews with eighteen key leaders knowledgeable about the marketplace; and in-depth interviews with fifteen young men, aged 18-25, who worked at the market. Interviews were conducted in Chichewa, audio-taped, transcribed, and translated into English. All data was analyzed using constant comparative method.

The results have shown that there were three major findings of this study. First, there were three patterns of risky behaviors among young men working at this rural market. Six young men continued to engage in high risk behavior, six formerly engaged in risky behaviors but then discontinued the risky behaviors, and three never engaged in risky behaviors. Alcohol and marijuana were the two substances commonly used by young men. Second, substance use was linked to sex with multiple partners and the irregular use of condoms. Finally, factors at multiple levels influenced young men’s risky behaviors. The market where young men worked put young men at high risk for substance use and risky sexual activities. The market offered high availability, accessibility and affordability of resources and services, including ready cash, substances for sale and commercial sex workers. Norms supporting risky behaviors were prevalent at the market, including the belief that using substances increased
capacity for work. The market also had a lack of restraints, such as, guidance from elders and policies regulating availability of substances. At the community and home environment level, poverty and lack of resources influenced young men to work at the market. At the interpersonal level, peer influences and having no parents or a single parent encouraged risky behaviors. At the individual level, lack of formal education, and early initiation of risky behaviors influenced young men’s risky behaviors.

This study identified the market as a risky environment for young men who work there. These young men should be treated as a high-risk group who require intervention. Also, national policies and programs addressing substance use as a disease are needed.
I. INTRODUCTION

HIV prevalence is high among young people aged 15-24 in Malawi. HIV incidence rises as young people begin to engage in sexual activities with minimal consistent condom use. Risk of HIV infection in male youth in Malawi is associated with age at sexual debut and number of sexual partners (National HIV Prevention Strategy 2009-2013). Their early participation in sexual activity increases their length of exposure to health risks (Calves, 2000). Bachanas, Sarett-Causay, & Sawyer (2002) found that teens who had early sexual debuts reported unprotected sex with multiple partners. Multiple and concurrent sexual partnership with low and inconsistent condom use is one of the most important factors driving the HIV epidemic in Malawi (DHS, Malawi, 2010; Helleringer, Kohler, 2007; USAID Project Search, 2011).

Substance use, including alcohol and marijuana, is on the rise in sub-Saharan countries which includes Malawi (Parry, et al 2004;). Substance use and risky sexual behaviors among young people are prevalent (Guiao, Blakemore, & Wise, 2004), and the number of young people infected with HIV is growing. The use of alcohol is increasingly being recognized as a key determinant of risky sexual behavior, and a contributor to HIV transmission in sub-Saharan countries (Fritz et al., 2002).

A. Background

1. Malawi profile

Malawi is a sub-Saharan African country located south of the equator. It is bordered to the north and northeast by the United Republic of Tanzania; to the east, south, and southwest by the People’s Republic of Mozambique and to the west and
northwest by the Republic of Zambia. Malawi covers a land area of approximately 118,484 square kilometers and is divided into three regions: the Northern, Central, and Southern regions. There are 28 districts in the country: six districts are in the Northern region, nine are in the Central region and thirteen are in the Southern region (2010 MDHS).

The total population of Ntcheu district in the Central region, where the study took place, is 474,464, covering a land area of 3424 square kilometers, with 227,134 persons aged 18 years and above.

The economy of Malawi is based primarily on agriculture which accounts for 30% of the gross domestic product (2010MDHS).

B. **Sociocultural Factors Promoting HIV in Malawi**

1. **Demography**

   The population of Malawi is 13.1 million people (13,066,320), making it one of the most densely populated countries in Africa. Eighty percent of the population live in rural areas and depend on subsistence farming for their livelihoods (Malawi Country Strategy Paper, 2012-2016). Malawi has a very young population, with 54% of the total population under the age of 18 years. The preliminary results from the Census of 2008 give an annual growth rate of 2.8%, and average life expectancy of 54 years (HIV and Syphilis Sero-Survey and National HIV Prevalence Estimates Report 2005). Malawi has a rapidly growing population which is a key driver of Malawi’s persistent poverty (World Bank Report, 2006).
2. **HIV epidemic in Malawi**

Out of a population of 13 million, almost 1 million people (910,000) are living with HIV and AIDS (UNAIDS, 2010; UNAIDS, 2011). Malawi has one of the highest adult prevalence rates. The primary mode of HIV transmission is unprotected heterosexual activity. HIV prevalence is significantly higher in urban areas (20.4%), than semi-urban (17.0%), and rural (13.0%) area (UNAIDS, 2010). Tsangano market, where this study was conducted, falls in the category of semi-urban. Studies suggest that HIV prevalence is rising in rural areas while it is declining in urban ones (Bello, Chipeta & Arberle-Grasse, 2006).

Certain patterns have emerged as the epidemic progresses. There is evidence that the majority of HIV infections occur among young people, particularly those between 13 and 24 (UNAIDS, 2008). There is also a high prevalence among certain groups in Malawi, such as sex workers, partners of clients of sex workers, those who have multiple partners and those who participate in premarital sex (1.2%) (UNGASS, Contry report, 2010; HIV Prevention Strategy, 2009-2013). HIV is one of the many problems currently faced by Malawi, alongside poverty, low education levels, food insecurity and other diseases. These are among many factors that contribute to HIV infection in Malawi. These factors are interlinked in various ways and need a multilevel and multifaceted approach in tackling them.
3. **HIV risk factors among young people**

Evidence demonstrates that the risk of HIV infection in male youth is directly linked with age at sexual debut, the number of sexual partners and nonuse of condoms. Poverty and lack of education are contributing factors.

4. **Poverty**

Poverty in Malawi remains one of the most important social challenges. Forty percent of the population lives below the poverty line ($1.25 per day) and 15% of the population is unable to meet daily food needs (Malawi Country Strategy Paper 2012-2016). Malawi is one of the least developed and poorest countries in the world, ranking number 171 out of 187 on the Human Development Index (HDI) in 2011. Reports in the Integrated Household Survey 2004/05 indicated that 52.4% of the population lives below Malawi’s poverty line, meaning that 6.3 million Malawians are poor (Malawi Growth and Development Strategy, 2006). Several studies have identified the connection between poverty and HIV risk (Kathewera-Banda, Gomile-Chidyaonga, Hendricks, Kachika, Mitole, & White, 2005).

Food insecurity in households is likely to both affect and be affected by HIV/AIDS. There are some households that never get out of food insecurity because of perpetual poverty, and this influences young people to drop out of school and engage in daily paid work (MOH Report of a Country-Wide Survey of HIV/AIDS Services, 2005). Research suggests a significant correlation between poverty and HIV (Natalie, 2010). People who are impoverished are likely to turn to prostitution as a way to get money.
Abject poverty often leads to a day to day existence dominated by survival needs. Poverty also fosters a fatalistic attitude that manifests itself in indifference to high sexual risk behaviors (ILOAIDS, 2005; Tladi, 2006). In 2011, UNICEF reported that poverty in Malawi prompts girls and women to engage in transactional sex as a source of income. High rates of illness and death, due to both HIV infection and other causes, is pushing many families and individuals into abject poverty. In many poor households, children are left to fend for themselves, or they are left in the care of others such as grandparents, aunts, or uncles who may be unable to care for the orphaned children. This scenario deepens poverty in that children fail to go to school resulting in illiteracy and early informal employment (Whiteside, 2002). Thirteen percent of children under age 18 are orphaned, that is, one or both parents are deceased (DHS 2010). These children experience hardships due to parental loss, and may have limited resources available to get food and education.

5. **Education**

Adult literacy among persons in Malawi is low (60% for women and 79% for men). According to MDHS 2010, the proportion of men and women who have never attended school is 12 and 23 percent respectively. The government of Malawi abolished school fees in primary education in 1994, to enable more children to attain an education. However, dropout rates are very high, and many of those who leave school early have not yet gained competency in reading and writing (World Bank Country Report 2011).
Education has been cited as the most effective ‘social vaccine’ against this pandemic by the US and Europe (industrial countries). More schooling was associated with lower risk of HIV infection (Baker, Collin, & Leon 2008). In Malawi, however, people with higher levels of education have higher levels of HIV (13.7% among those with post secondary education versus 12.3% among those with no education). HIV risk is more strongly linked to higher social economic status and education levels among men than women (National HIV Prevention Strategy 2009-2013).

6. **Norms about sexuality**

There are norms that support multiple sexual relationships in Malawi, where a man is allowed to have more than one partner (USAID Research Project, 2011). However, sexual issues are regarded as private. Many people are unwilling to disclose their sexual practices for fear of being labelled as immoral and maybe suspected of having HIV. This is because HIV is mainly sexually transmitted and in most areas of the world, the epidemic initially affected populations whose sexual practices or identities are different from the ‘norm’. Most young men earning money engage in multiple sexual relationships as a sign of economic and social success. People who earn money are regarded as belonging to a class that is different from the rest of the people in their village or community (Crooks-Chissano, 2008).

C. **Problem Statement**

There has been little research involving the sociocultural and environmental context of HIV-risk behaviors of young men in Malawi, and the intersection of substance
use and STI, including HIV infection. No study has examined the rural market as a risky environment. This study focused on young men who are employed as casual workers at rural roadside markets. These casual workers are likely to be at especially high risk for both substance use and risky sexual behavior. The prevalence of substance use is visible, because there are usually groups of men standing around the market drinking alcohol, exhibiting extreme hyperactivity, and rude behavior to people around them. There may also be protective factors within the market or through ties to family and community. Thus, this is an especially relevant context for studying the intersection of substance use and risky sexual behavior. This study will describe the experiences of young men working in these markets.

D. **Purpose of the Study**

The purpose of this study was to describe the substance use and HIV risk behaviors of young men who work as casual workers in a rural Malawi market and the contextual risk factors that contribute to these behaviors. The study is guided by the ecological framework which views HIV risk and substance use as the outcome of complex interactions between the physical and social environment and the individual. I used an ethnographic research design to obtain a holistic picture of the cultural experiences of young men who work at a roadside market in a rural district in the central region of Malawi.

The specific aims of the study are to:

1. Develop an empirically based description of substance use and sexual behavior patterns of young men working in the market.
2. Develop an empirically based model of how contextual and cultural factors at the roadside market influence alcohol and marijuana use and sexual behavior.

3. Describe young men’s perceptions of the influence of the market environment on their lives, their risky substance use and sexual behaviors, and the relationships between their substance use and sexual behaviors.

E. **Significance of the Problem**

The spread of HIV in Malawi remains a major public health and social concern. The youth are learning about sexual behavior in an environment where an estimated 11% of the adult population age 15-49 is HIV infected (MDHS 2010; UNAIDS 2010). Unsafe sex has been ranked as the highest risk factor in HIV transmission (Rehm, & Room 2003; Chersich, & Rees 2010). Among sexually experienced 15-19 year olds, 16% of males reported having had more than one sexual partner in the last 12 months, with low condom use (HIV Prevention Strategy for Malawi, 2009-2013). It was reported that the age at first sexual intercourse for men aged 20-49 is 18.5 years, Yet, 14% of men have initiated sexual intercourse by age 15 (NAC 2009).

Substance use can make young people more vulnerable to HIV acquisition. Both alcohol and marijuana are central nervous system (CNS) depressants that have the ability to reduce CNS activity and diminish the brain’s level of awareness, resulting in a suspension of rational or thoughtful constraints on impulsive behavior (Hanson, Venturelli & Flecknstein, 2009). Both alcohol and marijuana act as disinhibitors that
impair decision-making, decrease awareness of social norms and perceptions of acceptable behavior (Parsons, Viciouso, Kutnick et al 2004). These disinhibitors are perceived to have a sexually stimulating effect which may increase people’s likelihood of engaging in risky sex. Alcohol can act directly on the brain to reduce inhibitions while marijuana acts on the central nervous system functions and can alter mood, coordination, memory, and diminish risk perception. Hence substance use is associated with high-risk sexual behaviors (Fritz, Morojele, & Kalichman 2010; Townsend, Rosenthal, Parry, Zembe, Mathews & Flisher 2011; Fritz, Woelk, Basset, McFarland, Routh, Tobaiwa, & Stall 2002, Campbell, Williams, & Gilgen, 2002; Hanson, Venturelli & Flecknstein, 2009).

F. **Significance of the Study**

The role of substance use in contracting HIV has been documented even when drugs are not injected. Studies have provided ample evidence that individuals who use substances engage in unprotected sex and thus are at high risk of contracting HIV and other sexually transmitted infections (STI). People who strongly believe that substance use enhances sexual arousal and performance are more likely to practice risky sexual behavior after using substances (Fisher, Cook & Kapiga, 2010). Studies in Malawi and Tanzania found that alcohol and drugs, including marijuana use, before sex was associated with an increased likelihood of failure, to use condoms while engaging in casual sex (Bisika, Konyani, & Chamangwana 2004; Fisher, Cook, & Kapiga 2010).
Some researchers have suggested that family instability, parental substance use, dysfunctional parent-child interaction, and child abuse are risk factors for alcohol and marijuana use among children from such homes (Garland, Howard, Vaughn, & Perron, 2011). However, no research has explored the stories of the young men who engage in risky behaviors in Malawi based on the relationship between substance use and risky sexual behaviors.

The results from this study will provide evidence which will facilitate the design of intervention strategies targeting risky behaviors for young men. Even though substance use has been identified as one of the factors that promote risky sexual behavior, HIV prevention campaigns have not reached the places where young men who use substances are found, and they have not focused on substance use as a risk factor. There is a need to consider the social context of alcohol and marijuana use environments, including the larger community surrounding these young men, in developing HIV prevention strategies.

G. **Definition of Terms**

The following definitions will be used in this study on contextual factors, substance use and HIV risk:

- **Market Environment**: A regular gathering of people for the purchase and sale of commodities and other provisions. It is a place where young men work to earn money.

- **Young Man**: A man aged between 18 and 24 years.
- **Key Leaders**: These are individuals who hold critical positions at the market and interact with a variety of people. In this study, they either are employers of young men or hold influential positions at the market.

- **HIV Risk**: Social circumstances that may make young men vulnerable to exposure to sexually transmitted illnesses including HIV.

- **High Risk Behaviors**: High-risk behaviors are those that can have adverse effects on the overall development and well-being of a person and hinders future successes and development. Examples include substance use and risky sexual behaviors.

- **Multiple Sexual Relationships**: Relationships where an individual has more than one sexual partner serially and/or concurrently. These relationships may be overlapping sexual relationships with more than one person, regardless of the length of the time of the overlap.

- **Risky Sexual Behaviors**: Having unprotected sex with more than one sexual partner. It will also include having sexual intercourse under the influence of substances and without using a condom.

- **Substance Use**: Consumption of alcohol and marijuana.

- **Substance Use Disorder**: Excessive use of alcohol or marijuana, and dependence on alcohol or marijuana or both, leading to significant physical, mental or social problems.
II. CONCEPTUAL FRAMEWORK AND RELATED LITERATURE

This chapter presents the conceptual framework for this study. This framework involves substance use and risky sexual behaviours among young men, and explains the multi-level influences on risk behavior. The framework not only focuses on the individual but also on environmental factors and has been used in HIV preventive research. The concepts in the framework are reviewed and gaps identified.

HIV risk behavior and substance use involve complex interactions between social, environmental and biological factors. Understanding these behaviors requires a framework that is not only focused on individual risk factors but also includes social and environmental factors (Scribner, Theal, Simonsen, & Robinson, 2010). Many theories that have been used in understanding risk behaviors have focused on the individual.
These include Bandura’s theory of self-efficacy (Bandura, 1994), and Ajzen and Fishbein’s theory of planned action (1991). However, the focus of this study is to understand contextual factors related to substance use (alcohol and marijuana) and sexual risk behaviors. The contextual factors within which alcohol, marijuana, and sexual behaviors intersect are critical to our understanding of how alcohol and marijuana use influences HIV risk.

The ecological model has been adapted to describe factors at multiple levels that contribute to HIV infection in the community. The framework includes multiple levels of influence which begin with the individual, followed by the interpersonal level, the neighborhood or community level, and finally the national or societal level (Bronfenbrenner 1979). A number of researchers have proposed an ecological framework for the study of sexually transmitted infections (STI) including HIV (DiClemente, Salazar, Crosby, & Rosenthal, 2005: Scribner, Robinson, Theall, & Simonsen, 2008; McLeroy, Bibeau, Steckler, & Glanz, 1988). Other researchers have also used this approach to understand adolescent and youth substance use (Connel, Gilreath, Aklin, & Brenx, 2010; Duncan, Duncan, & Strycker 2000). These frameworks are based on the idea that individuals operate within spheres of social influences and, therefore, risk behavior prevention should include multiple spheres of influence. Factors affecting whether young men engage in risky behaviors at the market begin at the environmental level and continue through the interpersonal level to the individual level.
Scribner, et al.’s, (2008) framework was chosen to guide this study because it is based on evidence that no single factor can explain why some people or groups are at a higher risk of HIV. The framework views HIV as the outcome of many factors at the societal, community, relationship, and individual levels. The framework treats the interaction between and among factors at different levels with equal importance to the influence of factors within a single level (WHO, 2011). It provides the basis for a framework with specific risk factors at each of these levels and cross-level associations. These factors interact to influence people to engage in risky behaviors. Using this model leads to a more comprehensive approach to understanding HIV risk behavior.

This study used three levels of influence. The first level of influence is the neighborhood level and includes the market, the community, and homes where young men come from and go to after working at the market. The second level of influence is the interpersonal level. Lastly, individual level factors are considered.

A. **Concepts of the Framework**

1. **Neighborhood level factors**

   In this study, neighborhood level refers to the community environment where young men come from and the market environment where they are working. The framework that was used in this study refers to this level as neighborhood context, that is, an environment in which social relationships occur. The young men move between two different environments; market and home.
a. **Community and home environment**

Lack of adequate resources in the community that could assist young men to engage in constructive activities influences risky behaviors. Poverty in the community at the household level has shown to be associated with increased risk-taking behavior. Young people living in poverty stricken populations live a stressful life, and are more likely to engage in risky behaviors. (Tenkorang, Maticka-Tyndale, & Rajulton, 2011).

Community substance use norms could also influence young peoples use of alcohol. In some Malawian communities, alcohol is brewed in the homes and consumed at social gatherings. This could possibly influence young people from those communities to engage in risky drinking behaviors. Evidence shows that alcohol use in African communities affect children’s substance use. Modelling of substance using behavior and parental attitudes towards alcohol use may influence substance use (Morojele et al, 2002: Brook et al, 2006:Kalichman, 2010).

There is ample evidence that involvement with multiple sex partners is most prevalent in societies in which sexual norms are widely permissive and where polygamy is common (Uchidi, Magadi, & Mostazr, 2012). In the setting where this study was conducted, polygamy is to some extent permitted, although no longer common. These norms can influence young men to engage in sex with multiple partners. For them, multiple sexual relationships are a social norm. Numerous research studies have shown that key drivers of HIV in the sub-Saharan region, including Malawi,
are multiple and concurrent partnerships, with low and inconsistent condom use (Laclere-Madlala, 2008; Shisana et al., 2009; NAC 2009).

Family may influence children’s substance use behavior. Evidence shows that perceived family support, parent and family connectedness, family structure, and parental monitoring help prevent young people from engaging in risky behaviors (DiClemente et al., 2005; Fergus, & Zimmerman, 2005). Parental death often results in loss of protective structures in the life of a child. This loss of a parent figure may leave millions of orphaned children vulnerable to substance use (UNCEF, 2005). Lack of support and absence of role models influence risky behaviors in adolescents (Cluver, Gardner, & Operario, 2007). Very young people are left to take care of each other due to the death of parents forcing them to find some means of survival. This may lead to some of them being stressed and getting work under unfavourable conditions. Those young people living with other relatives may reduce the economic well-being of the whole family. There has been a growth in the number of children who have been orphaned in Malawi (Malawi DHS, 2010).

b. **Market factors**

According to the framework, the neighborhood alcoholic environment influences risky behaviors that result in HIV infection. Availability of alcohol, increases its consumption and leads to risky sexual behaviors. Evidence suggests that substance use and risky sexual behaviors co-occur and are highly correlated (Guo et al., 2002; Coleman, & Cater, 2005; Kalichman, Simbayi, Vermaak, & Cain, 2008; Ryan, et al., 2009; Chersich, & Rees, 2010; Orchowski, & Barnett, 2012).
Sixty five percent of young women who visit drinking venues in Zimbabwe reported that they usually meet sexual partners there, and 42% reported to have met a partner after drinking (Mataure, et al (2002). Alcohol venues increase HIV transmission, in part, because they provide a place where sex encounters occur. Some alcohol venues are also sex venues with back rooms for sex in Africa (Morojele et al., 2006). Studies in Africa and Asia have shown that an increased number of alcohol retail locations within a short distance of an adolescent’s home is positively associated with reported alcohol use. The strong presence of alcohol and marijuana at the market is likely to convey pro-use and pro-risk taking community norms (Kalichman, 2010; Chelenski, 2011).

Studies in other regions also show a link between availability of resources and risky behaviors. Unrestricted availability and easy accessibility of substances and other resources was found to influence risky behaviors especially alcohol use among young men in India (Girish, Kavita, Guraj & Benegal, 2010). When alcohol is more available, the prevalence of drinking and the amount of alcohol consumed increases (Pettigrew, Miller, Krieger, & Hecht, 2012; Kalichman, 2010). Availability of marijuana has been found to be associated with its use among youths in the US (Pettigrew, 2012).

Lack of restraints, such as laws and norms that restrict alcohol use behavior, affect the use and sale of substances, especially alcohol. Laws reflect social norms. Policies regulating alcohol sales and age limitations for purchase provide a broad context in which young men and market people are embedded and operate their
businesses. Studies have shown that alcohol consumption is affected by price in the US. Increases in taxes on alcohol led to sharp decreases in alcohol consumption (Wagenaar, Tobler & Komro, 2010; Xu, & Chaloupka, 2011). Lowering the drinking age increased teen drinking and teen traffic fatalities in the US (Wechster & Nelson, 2010). The National Drug Institute in Australia (2007) found that legal restrictions on the purchase of alcohol and instituting norms that look unfavourably on alcohol use were associated with a lower prevalence of alcohol abuse. Evidence has shown that availability of substances is dependent on laws and norms of the society. People and individuals live within a social context, where they share cultural and group norms. Enacting policies that define certain behaviors have shown to be associated with changes in substance use behavior (Wagenaar, Tobler, & Komro, 2010; Xu, & Chaloupka, 2011). The lack of policies on alcohol availability affect users in that they can drink any time as long as they have the cash, as is the case in Malawi. The National Youth Policy in Malawi noted that drugs and alcohol abuse were on the rise among youth in Malawi.

Malawi’s Liquor Act of 1979 is the current law and has never been amended. It was drafted with the purpose of controlling alcohol issues, like licensing of bars, and prescription of sale hours of alcohol. The law restricts selling alcohol to children. Unfortunately, Malawi does not have a national identity card for its nationals except the passport and driver’s licence which most low-income persons do not have. It has also been noted that there is little enforcement of the law by police and sellers (Ntaba, 2008).
2. **Interpersonal level factors**

Interactions between the child, or young man, and family members, intimate partners and peers have a strong influence on a young man’s behaviors. Families provide the primary influence, however, peer relations and behavior were found to have a significant influence on young people in South Africa (Tenkorang, Tynale, & Rajulton, 2011; Meghdadpour, Curtis, Pettifor, MacPhail, 2012). Evidence shows that greater parental disapproval was associated with less involvement with friends and peers who use alcohol, lessened peer influence to use alcohol, provided greater self-efficacy for avoiding alcohol use and lowerered subsequent alcohol use and related problems in the US. Researchers found that having parents who support their children, who are firm, have clear rules and provide an appropriate level of supervision have a protective effect against risk taking behaviors among adolescents (Nash, McQueen, & Bray, 2005; Markham et al, 2010). This implies that children know what their parent’s expectations are regarding their behavior and they try to do what their parents expect them to do. Existence of family rules about substance use and general behavior was found to be a significant factor in buffering young peoples’ substance use (Stuart, 2000; Wood, Read, Mitchell, & Brand, 2004; Kosterman 2000). Poor parental care and high levels of family conflicts that lead to low degree of bonding between child and parents leads to an increase in the risk for substance abuse (Markham et al., 2010). Maintaining a two-parent household was found to be protective (Haglund, & Fehring, 2010). Our review of the literature search shows that most of the family influence studies are not in Africa.
Peer pressure influences young men to engage in risky behaviors. Evidence shows that peer pressure increases with age. Parents may exert more influence on an adolescent’s decision to engage in risky behaviors than peers. As adolescents grow up, however, perceived peer norms surrounding risky behaviors seem to grow stronger and influence risky behaviors in young people in Africa and in other regions (Morojele, Brook, & Kachieng’a, 2006; DeClemente et al., 2004; Grish, Gururaj, & Benegal, 2010; Bahr, Hoffman, & Yang, 2005). Peer pressure among youths in South Africa was found to be a factor that undermines healthy social norms and HIV prevention messages to abstain, be faithful, use condoms and delay sex (Selikow et al., 2009). If young men perceive that their friends are engaging in risky behaviors, for example, drinking with friends, they are likely to adopt their peer’s behavior (Boyer, Shafer, Wibblesman, Seeberg, Teitle, & Lovell, 2000; Orchowski, & Barnett, 2012). These researchers also found that perceived peer norms that support non risky behaviors (protective behaviors), have a significant influence on adoption of preventive behaviors. Modelling behavior of peers regarding substance use may also be important among young men in Africa (Cluver, Gardner, & Operario, 2007).

3. **Individual level factors**

The final set of factors affecting risky behaviors are individual factors (Scribner et al., 2010). Individual characteristics, such as age of individual initiating substance use, play a role on influencing its use. Research suggests that early alcohol use may have lifelong consequences. Alcohol may affect the adolescent’s brain more adversely than an adult’s brain, since the child’s brain is undergoing development.
People who drink before age 15 are found to be four times more likely to develop alcohol dependence at some time in their lives, compared to those who had their first drink at a later age such as 20 or above (Grant & Dawson, 1997; Brook, Brook, & Zhang, 2002; Chen, Storr, & Anthony, 2008). The younger a person is at alcohol initiation the stronger the likelihood of a higher level of alcohol misuse at age 17-18 (Hawkins, Maguin, Abbott, Hill, Catalano; Rachal, et al., 1982).

Age at sexual debut is an important determinant of HIV infection. In a study among youth in South Africa and Kenya, researchers found that multiple sexual partners were significantly more common among those that had an early sexual debut (Khangelani, et al., 2010; Phillips, et al., 2011). In another study, early coital debut was associated with lack of condom use and forced sex (Pettifor, O’Brien, MacPhail, Miller, & Rees (2009). In Malawi, risk of HIV infection in male youth was associated with age at sexual debut (HIV Prevention Strategy for Malawi, 2009-2013).

Formal education is believed to be a key to transforming people’s behavior. Skills that individuals acquire in school are likely to translate into aspirations for a healthier life. Education, for example, is believed to increase the ability to avoid involvement in risky behaviors, thereby lowering the risk of HIV infection, by imbuing people with a sense of self-confidence, authority and a greater future orientation (Uchidi et al. 2012; Baker, Collins, & Leon, 2008). The level of literacy among Malawian youth is at 83.8% for 15-24 year olds. Young people between the ages of 10 and 29 years old
have an 8.6% drop out rate. Only 9% of young men (5% young women) complete tertiary education (National Youth Council of Malawi, 2011). Other researchers have found that education motivates people to think optimistically about their future, and that academic achievement reduces risk of substance use involvement (Edstrom & Khan, 2009; Bryant, Schulenburg, Bachman, O'Mally, & Johnston, 2000). A study by Simbayi, et al. (2005), in South Africa, found that for young men HIV risky behaviors were associated with fewer years of education, lower levels of AIDS related knowledge and marijuana use. Another study found that young men who had future aspirations were associated with lower prevalence of substance use and risky sexual behavior (Dunn, Kitts, Goodrow, & Scherzer, 2011).

Contrary to studies in other countries, however, there is evidence in low resource settings in Africa that increases in socioeconomic status may increase the risk of HIV infection. Perhaps, one of the reasons is people have more resources with which to attract multiple relationships (Shelton, 2005; Mishra, 2007). Empirical evidence in Africa links higher socio- economic status to risky sexual behaviors, including multiple sexual partnerships (Awusabo-Asare & Annim 2008). People who have lived in poverty most of their life, may engage in risky behaviors as they start earning money, especially in the presence of factors like peer pressure, availability of resources and no restraints on behavior. In Malawi, it has been found that HIV prevalence increases with increasing wealth among men (MDHS,2010).
One other factor that can influence youth to avoid substance use is their belief that these substances might cause them harm (NSDUH, 2011). Youth who perceive substance use to be harmful to their health were found to be less less likely to initiate use (Kilmer, Walker, Lee, Palmer, Mallett, Fabiano & Larimer 2007).

B. **Risky Behaviors**

Risky behaviors such as substance use, inconsistent condom use and sex with multiple partners are common among young men in Malawi (Draft Youth Policy, 2010). In South Africa, risky sexual behaviors have been found to increase the risk of HIV (MacPhail & Campbell, 2001). Risky sexual behaviors were found to be significantly and positively associated with alcohol and marijuana use in the US (Mackesy-Amity, Fendrich & Johnson, 2010; Harrington, et al., 2012). Parsons et al., (2004) found that alcohol played a role in unsafe sex because alcohol led to sexual activity and men pursuing their sexual desires. Studies have found that intoxication decreases awareness of social norms or perceived acceptable behavior (Mutchler, 2000). A number of studies have reported on substance use and its relationship to unsafe sex and the spread of HIV (Mackesy-Amity, Fendrich, Johnston, 2010; Irwinn et al., 2006; Elkington, et al., 2009; Cook & Clark, 2005; Kalimach & Simayi, 2011; Guo, et al., 2002; Orchowisk, & Barnett, 2012). Heavy drinking males report that alcohol makes potential dating situations more enjoyable (McLatchy-Gaudet & Stewart, 2001). Alcohol independently influences decisions around sex, undermines skills for condom negotiation and correct use among South African binge drinkers (Chersich, & Rees, 2010).
One concern regarding risky behaviors among young men in Malawi is that substance use in the early years of development increases the risk of young people’s substance use disorder (Chassin et al. 2002; McGuier & Iacono, 2005). Substance use disorder defined as; “a maladaptive pattern of substance use that interferes with a person’s relationship with family, inability to fulfill work, school and family obligation, which may also result in legal problems (Hanson, Venturelli, & Fleckenstein, 2009). Symptoms include increased tolerance to substances they use, and a person’s inability to cut down or stop using the substance even in the presence of health, relationship or other problems (DSM-IV-R, 2000). The person with a substance use disorder may spend a lot of time managing their habit. This could also be at the expense of other activities like eating, or doing constructive work. There is increased tolerance and continued repeated use of a substance despite negative consequences (DSM-IV-R, 2000; Patrick, Schulenberg, O’Mally, Johnston & Bachman, 2011). Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the alcohol. The substance user develops a craving or a strong desire or urge to use a specific substance (DSM-IV-R).

The most commonly used and abused substances by young people are alcohol and marijuana (Johnston, O’Malley, & Buchman (2002). Young people’s use of substances is highly influenced by peers, desire for autonomy and at other times the desire to experiment with different lifestyles. Brown & Abrantes (2006) reported that the level of supervision from parents and significant others can influence adolescents’ behavior towards substance use. The risk of developing substance use disorder
depends on many factors, some of which include: (a) genetic inheritance, (b) family history of substance use, and (c) availability of substances in an environment. Drunkenness or alcohol intoxication is a disease that requires attention and treatment, because alcohol intoxication can cause euphoria and lowered inhibitions. Alcohol intoxication effects may be unpleasant or dangerous because they could have long-term consequences on the individual using them. The user may not realize the difficulties surrounding them and may not manage to stop its use on their own. Some researchers reject the disease theory of alcoholism and propose that substance use is a choice and that the disease model has not offered a solution for those attempting to stop using substances (Baldwin, 2002).

C. **Summary of Prior Research**

There is a gap in knowledge on contextual factors affecting young men working at a rural roadside market in Malawi. The young people are in a semi-urban area with some income and they find themselves caught in an environment that has social risk promoting factors. These factors affect their lives and influence their behaviors and attitudes. The complex relationships that define young men working at a market need to be identified and addressed as related to contextual factors that promote risk and enhance protection. An ecological perspective helps to examine the behaviors of individuals within the context of environmental, community, familial and peer influences. These factors when viewed together represent the ecological perspective underlying young men’s risk behaviours (DiClemente, Salazar, Crosby, & Rosenthal, 2005).
III. METHODOLOGY

This chapter discusses research design, setting and sample, data collection guides, data collection procedures and data analysis procedures of the study. There will also be a discussion on enhancing rigor, ethical consideration and human subject protection.

A. Design

An ethnography approach with ongoing observations and in-depth interviews was used to describe contextual factors that lead to risky behaviors of young men working at a rural market in Malawi. Ethnography was chosen to develop a rich, holistic description of the context, perspectives, behaviors of young men who work in the roadside market, plus their substance use, and sexual risk behaviors. This approach allows for collection of detailed observations and interviews. As stated by Hammersley (1992), “The task of ethnography is to document the culture, the perspectives and practices of the people in a setting. The aim is to get ‘inside’ the way a group of people see the world” (p. 2). Ethnography can also identify and explore social phenomena which may seem to have little or no connection with each other (Reeves, Kuper, & Hodges, 2008). In this study, I explored the relationship between substance use and sexual risky behaviors, two sensitive topics, and how they influence each other in a workplace situation.

I used three methods in collecting data, namely; observations, interviews with key leaders and with young men. Observations were used as a method to give the
researcher the opportunity to gather empirical insights into the physical setting and practices at the roadside market that may be hidden from public gaze. Observations provide information about behavior in action, and where and when these behaviors occur (Briggs, 1986).

Interviews provide a chance to learn how people reflect directly on their behavior, circumstances, identity, events and other things surrounding them (Briggs, 1986). Interviews also allow people to tell their experiences over time. It was useful to interview a variety of people at various points to help the researcher understand the setting. Key leaders were interviewed to gain an understanding of the activities that take place at the market, their perspective on substance use, and sexual risk factors associated with the activities taking place within the roadside market. These interviews helped in identifying venues for conducting further observations and identifying the social and cultural context of risk behaviors. Young men who work as casual workers were interviewed to solicit their views about substance use and sexual risk behaviors as seen through their eyes and other young mens eyes at the market.

B. Setting

Tsangano market is an important location to purchase agricultural produce like potatoes, cabbage, tomatoes, carrots and many others. People from within the country and outside Malawi visit the market to purchase these commodities in bulk and smaller quantities. Many trucks come there filled with produce or to be filled with produce. At the market, there is an area allocated to the bulk selling and buying of potatoes. It is at this
site trucks park for loading and offloading of merchandise. Young men working as casual workers are primarily working at this part of the market.

This market is located at a crossroad where a variety of activities involving people from two countries and several districts meet to conduct business. The market is at the border between Malawi and Mozambique. It is one big market with people from both countries transacting in business with each other and among themselves. The market is on the main highway connecting two major urban cities in Malawi: Blantyre the commercial city, and Lilongwe, the capital city of the country. This highway also connects two regions of the country: the South and Central regions. Hence, it draws people from the main cities travelling on the main road who purchase agricultural commodities.

The market buildings and shelters (permanent and temporary) are built right on the edges of the main road, including some bars and rest houses. More shops, bars and rest houses are located behind the Malawi buildings and belong to people from Mozambique. The buildings belonging to the two countries are only separated by a small space so that a stranger wouldn’t know there is a national border there.

The market environment is in sharp contrast to the surrounding agricultural communities. Malawi is predominantly a rural country with an agriculture-based economy. Rural areas in Malawi are characterized by poverty and a lack of decent work opportunities. Much of the country is deeply rural, characterized by a poor road network,
and a poor physical, social and economic infrastructure. Young men from such rural areas lack decent work and they do not have many opportunities to engage in formal non-agricultural economic activities or earn cash.

C. **Sample**

1. **Sample and inclusion criteria**

   The research assistants and I observed the market on different days of the week and different times of the day (Appendix A), noting general activities taking place at the market, interactions between and among people and specific activities involving young men. We observed that there were young men of different age groups working in various jobs. We looked at the whole picture of the market, to capture the social setting (context) in which people were functioning and the behaviors taking place therein. We conducted observations to understand and interpret cultural behavior among young men working at the market (Mulhall, 2003).

   Eighteen key leaders were invited to participate in the study because they represent a variety of different positions in the market. Six belong to the market committee, either the main committee or various subcommittees. The key leaders who were selected to participate in this study were those who had contact with young casual workers at the market. The key leaders were interviewed at the beginning of data collection in order for the researcher to get an overview of the activities taking place at the market. Key leaders had to meet the following selection criteria: a) at least 18 years of age and b) have operated a business or held a position involving regular contact with young people at the market for a period of more than 2 months. Operating a business
for a period of more than 2 months at the market was one of the criteria because I wanted to get insights from people who had better knowledge of what young men do at the market.

Fifteen young men (n=15) participated in this study. They all came from Tsangano market and were all working as casual workers, offloading and loading merchandise onto trucks. Young men who were interviewed met the following selection criteria: a) 18-25 years old, b) work at the roadside market as casual workers, loading and offloading trucks, c) have worked in that position for a period of more than one month, and d) usually work at least 15 hours a week. Being a casual worker was one of the selection criteria, because I wanted a group of people who share their culture and work together. The criterion of having worked for a period of more than one month was on the assumption that the young man would know what was going on among his peers and might have established relationships with his peers as well. The criterion for young men working as casual workers loading goods onto trucks was necessary because the study wished to learn of the shared culture of this group of young men at this market. Working at least 15 hours per week at the market meant that the young men interacted more with their peers hence share their cultural beliefs on certain issues. The inclusion criteria was determined by asking direct questions to both key leaders and young men.

D. Data Collection Materials

1. Observation guide
An observations checklist with predetermined categories was developed to ensure quality of the data, in that all observers would focus on the types of activities taking place at the market, the flow of activities around the market and its surrounding places. I prepared a list of things to observe, as well as, blank space to record additional events on thoughts (Appendix B). This list was reviewed at the end of each day’s observation. New insights were added to that prepared list to cover more events in the setting.

2. **Interview guides**

Separate interview guides, for key leaders and young men, were developed. The questions were developed based on the conceptual model of levels of influence. Both interview guides began with a section involving demographic semi-structured open-ended questions at the beginning of the guide. Asking these simple questions allowed the interviewer and participant to become used to each other before discussing more complex issues. The key leader and young men’s interview guides were based on the conceptual framework of levels of influence, and ecological epidemiology for HIV/AIDS adapted from Scribner, Theall, Simonsen, & Robinson, (2010). The interview guides were developed in English, and then translated into Chichewa. The translation and back translation (Maneesriwongul & Dixon, 2004; WHO 2013) were undertaken by two bilingual translators with a background in qualitative research. There were minor discrepancies that were noted. I discussed the discrepancies with the translators at a meeting where we reached a consensus. Both interview guides are provided in Appendix C and D.
In the key leader interview guide, questions focused on what key leaders knew about young men, what they do at the market and the reasons for young men working at the market. The second part asked questions about substance use and sexual behaviors among young men working as casual workers. The last section was on soliciting their knowledge on HIV and AIDS among young men working at the market.

The young men's interview guide had a second part focused on their life and experiences at the market, and the third section covered alcohol and marijuana use. The fourth section was on relationships with women, followed by a section on their family, friends and the people they work with at the market. The last section focused on knowledge on HIV and AIDS.

Both guides were pilot tested to assess clarity of questions and dependability/feasibility as a data collection tool. The questions were clear and did not require modifications.

E. Data Collection Procedures

Data was collected between June and August 2012. Two male research assistants were recruited to conduct observations. Males were selected because they would be less obtrusive observers at the bars. To ensure high quality and consistent data, the observers (research assistants and the principal investigator) were trained for 5 days by Dr Kaponda, a doctorally prepared nurse with scientific expertise in
developing and testing of interventions for adolescents in rural communities in Malawi

The training included orientation on the purpose of the study, and the purpose for using observations as a method of collecting data. The research team was further trained on how to record the actual behavior observed, and on recording data immediately after an observation to ensure correctness of what has been observed.

All but two of the interviews were conducted by the investigator. Dr. Kaponda, the experienced researcher who trained the team, conducted the first interview with a key leader and the first interview with a young man to model the qualitative interviewing process for the investigator. Data was collected through face to face in-depth interviews to obtain the perspective and experiences of the participants. The interviews lasted 60-90 minutes and were conducted in Chichewa. The interviews were audio taped using a digital recorder. Field notes were written at the end of each day and at times at another discrete site. The field notes included personal experiences and descriptions of the events taking place at the site. The field notes provided insights into data collection process.

Observation and recruitment of participants were done in the following manner. I first obtained permission from local authorities. Through discussion with local authorities, I identified the key leaders I wanted to talk with and I began to interview them. The research assistants and I also began the observations of the market. Through team meetings, I integrated what I was learning from observations and the key leaders. After these processes were complete, I started anew to simultaneously
interview key leaders and to observe the market. These activities lasted five weeks. Although the two types of data collection overlapped, I describe them separately below to deliniate each clearly. Then I recruited and interviewed the young men, integrating what I learned from the earlier interviews to expand the probes for relevant areas in the later interviews.

After each observation and interview, the personal details and summaries were entered into a computer. Interviews were then transcribed, and all the data was entered into a computer. A journal was kept with field notes written each day immediately after leaving the setting to produce a fresh recollection of the day’s events (Emerson, Fretz, & Shaw, 1995). Field notes from observations and interviews, as well as, the consent forms with signatures on them, were kept by the investigator in a locked file cabinet.

1. **Gaining permission from local authorities and identifying key leaders**

Permission was obtained from the district commissioner of Ntcheu to conduct the study in this district. The market also has a committee that regulates activities. So after obtaining permission from the commissioner, I talked with the chairperson of the market committee. Permission was granted to walk through the market at any time and to conduct interviews. I also sought advice about people who would be important to talk with as key leaders familiar with the market and the young men working there.
2. **Interviewing key leaders**

The sample size of key informants was determined on the basis of theoretical saturation, that is, at the point in data collection when new data no longer bring additional insights to the research question. A sample of 18 key leaders in positions of leadership and responsibility at the roadside market was chosen using purposive sampling technique. The sample included the secretary of the main market committee, four other committee members, two guards/vendors, three owners of establishments, and eight business owners operating within and around the market. Key leaders from different categories were recruited to allow for variation of ideas. Key leaders who were referred by the secretary of the market committee were those who were most likely to have an experience and knowledge of young men through engaging the services of the young men.

3. **Direct observations of the market setting and mapping of the market**

Observations were conducted from June 20-30, 2012. During direct observation of the market setting, we noted where substances were sold and used, types and content of alcoholic drinks available, patterns of substance use and the context in which substance use was taking place.

The two RAs and I began by making a map of the market. Mapping of the market establishments was done by three people; two research assistants and the principal investigator. I developed a schedule of observation times for market activities. On each day, we observed the market on a different time of the day as a way of
capturing the activities as comprehensively as possible (the schedule is in Appendix A). We identified the establishments and venues where young men drink and smoke and have sex. Contextual information about the market that was collected included number and types of buildings, where different activities occur especially activities involving young men, commodities sold; people selling these commodities, any specific activities taking place during certain times of the day and week. As indicated to market leaders, we observed and talked to people in our role as observers. We also took note of places that sell rooms for sexual activities. Direct observation of places was conducted as one way to help us gain knowledge of the activities taking place at the market. At each of the places we observed: the environment of the entire place, the people present, their ages and gender, commodities sold, activities taking place including interaction, and we also listened to people’s conversation. Observations were discussed after each day’s collection to combine information and identify what additional information was needed.

4. **Recruiting and interviewing young men**

After observations and interviewing key leaders, a rich picture of market activities emerged which formed the framework for talking with the young men. Then the recruitment and in-depth interviewing of young men between the ages of 18-25 years working as casual workers in the market was done. A purposive quota sampling technique was used. The young men were recruited from the designated potato market, at different times and days of the week, assuming that some of them also frequent the bars and other establishment within the market. The principal investigator observed the pattern of young men’s work, to identify the potential participants from the site.
The young men were recruited one at a time. The investigator visited the potato market at the selected time and approached the first young man who was not actively engaged in his business. The principal investigator asked the young man if he had time to talk with her. If he was willing to participate, the young man was invited to a quiet place at the nearby school. Using a recruitment script, I confirmed that the participant met the inclusion criteria. If the young man met the criteria and expressed willingness to participate, then the informed consent process was completed. The consent form and the purpose of the study were explained. Written consent was obtained followed by the actual interview. In most cases, the in-depth interview was conducted immediately after consent.

The interviews were conducted by the investigator and lasted 60-90 minutes. Permission was sought to have the interview recorded. All interviews began with demographic questions and engaged the participant in a conversation as a warm-up before asking the in-depth questions. When each interview was completed, the participants received a thank you token. To show appreciation for their time, participants were given $20. We wanted to demonstrate our recognition that they might have lost income-generating time during the interview.

5. **Interview refusal**

Participant refusal occurred in the key leaders group only. The participants who refused to be interviewed most frequently indicated they were busy at the time of
being approached. If an interview was scheduled, they would give a similar excuse that it was not the right time for them. One female key leader indicated that she was too busy with administrative work at the market on top of doing business. Other key leaders like the police manning the road block explained that they did not have good knowledge of the activities of the market. I noted that the policemen worked at that post for five days at a time. The officer in charge of the police in Ntcheu informed me that there are frequent transfers in the police service so it would not be possible to find a policeman who had been at that post for a period of two months or more. I was also told that the police were not assigned to monitor the activities taking place at the market. Their assignment was to attend to the portion of the road involving the road block. However, if and when problems arose needing their attention they would attend to such issues. For example, the police would intervene if there were fights resulting in injury, reported thefts requiring the accused to be transferred to Ntcheu police station, and road traffic accidents within the market.

F. **Data Analysis Procedures**

Data analysis of the interviews was conducted using the following steps: simultaneous data collection, preliminary analysis, open coding within and across case comparisons. Observation data brought out a “dialogue” with the data (Anderson, 2003). Observation data was used to uncover ideas and weight these new ideas against the reality at the market. Observation data was used to evaluate explanations, and confirm/disconfirm evidence I got from the interviews.
At each step of the coding process, the initial codes that were identified/developed were operationally defined so they could be applied consistently over time (Miles and Huberman, 1994; Spradley, 1980). As coding progressed, the definitions were revised when inconsistencies appeared or when the codes did not fit the data. Throughout the coding process memos were written. A record of the progress, in the form of thoughts, feelings and directions were noted to help the researcher keep track of the analysis and patterns that were emerging from the data.

1. **Step 1: Simultaneous data collection and analysis in Malawi**

   The constant comparison method was used in analysing the data. In the constant comparative method, data collection and analysis occur in alternating sequences (Strauss & Corbin, 1998). Interviews were transcribed verbatim from the digital recorders and translated into English. The principal investigator transcribed and translated the data with help from three hired assistants. To ensure accuracy of the data obtained, the principal investigator listened to the tape recorded interviews and compared them with transcribed and translated scripts. To establish an accurate process, the first six interviews of each of the key leaders and young men were reviewed. The rest of the interviews were audited by randomly selecting interviews as data collection proceeded.

   In some cases, time limitations hampered the iterative procedures. Sometimes the last interviews were not fully transcribed as data collection proceeded because transcribing and translating each interview took almost four days to complete. To maintain the method of analysing data by constant comparative method, the principal
investigator listened to each interview after each visit and created summaries. All the interviews were summarized after listening to them and again after reading the transcripts based on information that participants frequently provided. New information that emerged from each interview was recorded and compared with the subsequent interviews. This procedure guided the determination of subsequent information that was sought from the next participants in areas that required more focus. Preliminary codes, which are labels for assigning units to the information compiled during the study (Miles & Huberman 1994) were developed.

2. **Step 2: Open coding**

   After interview data collection, transcription and translation were completed, the interviews were entered into Atlas. ti. 6.2, a software program for analyzing, retrieving and managing qualitative data. The interviews were examined line by line to identify events or actions within the narratives. The transcripts were read through several times to get a general sense of ideas and common patterns coming from the interviews. During this process, initial codes were developed based on the conceptual framework, the literature reviews, the interviews and the observations. These codes were continuously reviewed and modified as new themes were identified (Flick 2002). After the descriptive codes were identified and reviewed, categories and subcategories were developed. Categories are defined as concepts that stand for phenomena (Strauss & Corbin, 1998). Linking themes were identified and quotations were selected from the data highlighted and coded using the categories that were identified (Basit, 2003).
The developed categories were examined for completeness, consistency and inclusiveness. A second person independently coded two interviews and then reviewed the categories for coder disagreements and whether the codes captured all important meanings in the interviews. To ensure reproducibility, intercoder reliability was estimated using Miles & Huberman (1994, p. 640), calculated as:

\[
\frac{\text{Number of Agreements}}{\text{Total Number of Agreements + Disagreements}}
\]

The result was 90.29% agreement, indicating that the categories developed could be reproduced, and used by other people.

3. **Step 3: Selective coding and analysis across cases**

With the help of ATLAS ti 6.2 software, initial descriptive codes were collapsed into higher level themes and categories of individual and contextual factors related to HIV infection. The three sets of data strengthened our interpretation of the in-depth interviews with participants. All data was analyzed and summarized. A list of major concepts was made and organized into themes concerning the participants self-perception of risks, and how the environment affects them.

I created a within and across case profile for each participant, and then summarized the codes looking within and between cases for each transcript. This analysis allowed the researcher to inspect "cases, whether they formed in clusters or groups that share certain patterns or configurations" (Miles & Huberman, 1994, p. 174).
I developed several matrices or charts that organized data from different participants in a standard form. I also developed a matrix that had observation data involving key leader and young men’s interview data regarding alcohol, marijuana and sex. Each row represented a case (a participant/obervation setting) and each column represents categories related to themes identified in the study. Data from the transcripts was placed in the appropriate cells with the codes identified and a tick was used to state the actual behavior noted. Repeated patterns were noted, and once all the transcripts had been collected the data was examined to identify patterns, differences and similarities to construct a story for this group of participants.

Personal data was entered into a computer and stored in a password protected hard drive and was analyzed using descriptive statistics which allowed me to link the factors that could lead to risky sexual behaviors, like age, education, and the type of activities and behaviors performed at the market.

G. **Enhancing Rigor**

The guidelines proposed by Lincoln and Guba (1985) were used to address issues of quality of data identified as trustworthiness. Trustworthiness was evaluated in relation to credibility, dependability, confirmability and transferability. In most cases, the researcher and two research assistants conducted observations. We visited each venue as a pair of observers to ensure trustworthiness of the data and to make sure that observations were done comprehensively. The thinking was that two people may be able to capture different aspects of the activities taking place simultaneously.
Different sources of data including observations, key leader, and in-depth interviews with young men were collected. Triangulation across these different data sources ensures a more detailed and comprehensive picture of the factors affecting young men’s risk behavior. I also spent time in the field to develop an in-depth understanding of the environment and activities that take place at the market where the interviewees spend their time.

**Credibility** is analogous to internal validity, and refers to clarity and faithfulness in the description of the phenomena (Beck, 1993). I used an iterative process of collecting data. We observed the setting, conducted interviews, and then continued with observations. We discussed the observations and the early interview data to inform the follow up observations and interviews until the data reached saturation. The objective was to increase credibility of the study.

In this study, credibility was also enhanced by verifying the transcripts for accuracy to make sure that they do not contain obvious mistakes (Creswell, 2009). An interview summary form was completed at the end of each interview to ensure completeness of the data and to compare the data with what other participants had said. Methodological processes such as addition or refinement to the interview guide was documented, and all details and observations were jotted down in the field notes at all the times during fieldwork. Peer debriefing occurred between the investigator and Dr. Kaponda, who was supervising the investigator during data collection, and members of the committee. These discussions provided the investigator with feedback on the
research process, as well as, the development of expanded ideas and interpretation of
the data.

Dependability or reliability is the stability of data over time, and the ability of
another researcher to follow the methods and conclusions of the original researcher
(Beck 1993). Dependability was established in several ways. First, I specified how the
participants were selected. Then the recorded interviews were also reviewed against
tape-recorded interviews for completeness and accuracy. After the codes were
established and defined, an uncoded transcript and list of codes and definitions was
given to a Research Professor conversant with qualitative research at the international
level. That person’s coding was compared with mine to assess reliability. The intercoder
reliability was 90.29%. An intercoder agreement of 90% and above is a good indication
of internal consistency in the coding (Miles & Huberman, 1996). Record keeping
memos, the codebook, and constant follow up with the local supervisor and committee
members to discuss the coding of the data increased the dependability of the data.

Transferability of the data was enhanced by providing a detailed description of
the context from which data emerged. This will allow other researchers to make their
own judgments about the study and its relevance for other settings (Lincoln & Guba
1985; Devers 1999). If they want to then replicate the study in another setting, detailed
sample characteristics, setting, selection criteria, the process used in data collection,
analysis and in-depth description of the results will facilitate replication.
Confirmability, which is analogous to objectivity, is the degree to which others could corroborate results. Confirmability was achieved by constructing an audit trail of the chronological sequence of the research process through memos. The notes in the memo included the detailed procedures and events happening at the research site, and by checking/rechecking the data throughout the study. The notes allow people to trace the research process systematically.

H. Ethical Considerations and Human Subjects Protection

One of the responsibilities of a researcher is to conduct an ethical study. Patton (2002) noted that interviews may impact both the interviewee and interviewer, hence care should be taken that the interviewer's rights are protected. To confirm that the study protocol protected human subjects, an approval was obtained from the Institutional Review Boards (IRB) at the University of Illinois at Chicago and College of Medicine in Malawi, an NIH registered IRB. Permission was also obtained from the District Commissioner of Ntcheu who is a government officer who oversees administrative aspects of the district. Furthermore, permission was also obtained from the market chairperson prior to recruitment and data collection.

Sampling procedures and data collection methods were developed keeping in mind the literacy level, poverty and cultural belief system in rural Malawi that could affect the voluntary nature of participating when incentives are offered. Incentives were offered at the end of the interview to compensate for the time spent during the interview.
Informed consent for interviews was obtained by fully educating prospective study participants about the study’s aims, activities, risk, and benefits as stipulated in the IRB approved informed consent document that was made available to the participants in Chichewa versions. Written consent was obtained from participants who were able to read and write, and was also obtained by asking the participants to give their thumb prints for those who were not able to read and write. All records with participant’s personal information were maintained separately from the interview reports to avoid linking participants with the information supplied. To ensure that participants understood what participation entailed, before being enrolled in the study, they were asked some questions related to what they had been told about the study. If the participant showed some misunderstanding of the information, then the information was repeated until it was clear the participant indicated an understanding of the intent of the study.

For both key leaders and young men, there was a concern about confidentiality of the interview. To protect confidentiality, a private place for the recruitment and interview was identified at a nearby school. The school was not in session during the entire period the study was conducted, This gave us access to the classrooms at any time of the day. All data was stored in a secured area at the research projects offices in the same district where the study was conducted.

There was no visible psychological distress noted due to the sensitive nature of discussing alcohol and marijuana use and sexual behaviors. Participants were allowed
to ask questions at any point during the interview. They were also encouraged to be free to stop at any time during the interview if they felt uncomfortable with the questions. If participants had shown any distress during the interview, I, being a mental health nurse, would have provided an opportunity to discuss issues of concern.

For observations in public places, informed consent is not generally viewed as necessary. However, we chose to approach the chairpersons of the market committee and the casual workers were approached to obtain informed consents. Confidentiality was emphasized by informing them the reporting of outcomes would not mention people’s names. I also obtained permission from proprietor or other relevant persons.

There were no obvious safety issues for the observers that were reported. Any potential safety issues were discussed. In addition, ways of responding in order to promote safety were discussed with the research assistants before they were sent out to conduct observations in selected venues. The research assistants were also instructed to leave immediately if at any time they felt they were in a potentially dangerous situation. Cellphones were provided to the research assistants for their use in case of any safety issues. None of the research assistants reported feeling uncomfortable with the setting. Also, if at any time the research assistants had shown any discomfort, I would have counseled them.
IV. RESULTS

The purpose of this qualitative study was to describe the substance use and HIV risk behaviors of young men who work as casual laborers in a rural Malawian market and the contextual protective and risk factors that contribute to these behaviors. The study was guided by the ecological model (levels of influence) adapted from Scribner, Theall, Simonsen and Robinson (2010), which views HIV risk and substance use as the outcome of complex interactions among the physical and social environment, interpersonal interactions and the individual. This chapter describes the major themes and subthemes that emerged from the data. We first describe the risky behavior patterns of young men working in the market. Then the factors influencing these risky behaviors are examined according to the levels of influence depicted in the conceptual model: (a) context of the market, the community and family, (b) interpersonal factors.

A Participant Characteristics

Eighteen key leaders (n=18) participated in the study. Their ages ranged between 20 and 37 years. They all had worked at the market for a period ranging between 3-14 years. Six had completed secondary education (Form 4); six dropped out of secondary education; four dropped out of primary school, and two had never been to school.

Fifteen young men (n=15) participated in this study. Table I shows the summary of the demographic characteristics of young men who participated in this study. The age of the young men ranged from 18 to 25 years. One participant had never been to school,
and eleven had only a primary school education. Three young men indicated that they had been to secondary school. However, only one young man stated that he had completed secondary education. The other two dropped out in Forms 1 and 2.

Nine young men indicated that they were married and were living with their wives. The period of marriage ranged from nine months to five years. One young man was separated from his wife and five young men were not yet married. All the young men had worked at the market for a period of more than two years. Almost all were Ngoni (the dominant tribe in the district where the market is located). Two young men indicated that they were Chewas from Lilongwe and came to this market following a brother and a father respectively.
<table>
<thead>
<tr>
<th>Individual characteristics</th>
<th>No of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>18-21</td>
<td>2</td>
</tr>
<tr>
<td>22-24</td>
<td>13</td>
</tr>
<tr>
<td><strong>Educational Level</strong></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>1</td>
</tr>
<tr>
<td>Primary education</td>
<td>11</td>
</tr>
<tr>
<td>Secondary education</td>
<td>3</td>
</tr>
<tr>
<td><strong>Length of working at the market</strong></td>
<td></td>
</tr>
<tr>
<td>1-2 years</td>
<td>8</td>
</tr>
<tr>
<td>3-4 years</td>
<td>4</td>
</tr>
<tr>
<td>5 years and above</td>
<td>3</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>5</td>
</tr>
<tr>
<td>Married</td>
<td>9</td>
</tr>
<tr>
<td>Separated</td>
<td>1</td>
</tr>
<tr>
<td><strong>Length of marriage</strong></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>3</td>
</tr>
<tr>
<td>1-2 years</td>
<td>3</td>
</tr>
<tr>
<td>3 and above years</td>
<td>3</td>
</tr>
<tr>
<td><strong>Tribe</strong></td>
<td></td>
</tr>
<tr>
<td>Ngoni</td>
<td>13</td>
</tr>
<tr>
<td>Chewa</td>
<td>2</td>
</tr>
</tbody>
</table>
B. Risky Behavior Patterns

We identified two kinds of risky behaviors - substance use and risky sexual relationships.

1. Substance use behaviors

Observers reported that they had seen alcohol being sold, and people at the market drinking it. They also reported that some young men they had spoken with had reported that they use both alcohol and marijuana. Based on their observations, they believed that both alcohol and marijuana use was common among young men working at the market. In addition, key leaders and young men perceived that the two widely known substances being used by young men working as casual workers were alcohol and marijuana. No other substances were mentioned or observed.

a. Alcohol use

The magnitude of alcohol use among young men was reported in many different ways. Observers reported that young men were drinking alcoholic beverages while on the job, as well as, after their work assignments and in between their assignments. I observed some young men getting too drunk to be able to walk, and some were selling and buying alcohol at different alcohol establishments. All the key leaders believed that many young men working at the market used alcohol and were heavy alcohol users. One key leader said:

Most casual workers drink too much to the point of drunkenness. They drink all sorts of alcoholic drinks, for example, Kachasu, Chibuku, Carlsberg, Lawidzani, masese, and alcoholic beverages in sachets like Tyson, boss whiskey, triple x,
zed, kamtazi. They get very drunk to the point of failing to walk; they do not remember what they do when they are under the influence of alcohol.

Young men reported many of their peers drink alcoholic beverages, and some young men also reported their own accounts of alcohol use and how alcohol affects them. As reported by one:

Most of my friends drink alcohol and I drink alcohol. The type of alcohol I like most is Chibuku followed by Carlsberg green. After drinking a lot of Chibuku, my tummy gets too full so I drink Carlsberg green to release the pressure caused by Chibuku, Carlsberg causes burping and a relaxing feeling thereafter.

Nearly all the participants believe that those who drink too much alcohol were earning more money than non-users. One key leader and three young men perceived that young men use alcohol because they did not know how to use their money and so they copied what other people were doing. Two key leaders did not agree with the above observation. To them the casual workers who drink too much were less regular workers, because casual workers who were busy on their job did not have time to drink too much.

Key leaders and young mens’ perception of the reasons for alcohol use varied from availability of alcoholic beverages in all the bars and some grocery stores, affordability of alcohol, convenient packaging of alcoholic drinks (e.g. alcoholic drink packaged in easy to carry packets), availability of alcohol in different amounts and at various costs, availability of drinking mates, availability of time during breaks in between jobs, and as a form of entertainment. None of the participants recognized alcohol
dependence among young men as a disease. They reported young men’s use of substances casually and some seemed to blame the users.

Both key leaders and young men perceived that drinking alcohol helps users cope with the heavy load they carry. The body feels light and relaxed, giving them freedom to do things or talk to anyone without restrictions. Alcohol helps them to be aggressive and energetic in their job and numbs their existing problems.

Young men mentioned peer influence to try alcohol especially when they observe their peers being able to lift and carry heavy goods while under the influence of alcohol. The young men also like the effects of alcohol. All the key leaders and the young men who did not drink alcohol described the behaviors of the young men who drank as unbecoming. They were described as causing quarrels, and fights at the market, having sex without protection, and being absent from their job. As reported by one key leader:

It is usually young men who drink heavily; they can be very drunk and ill-mannered, and some of them have never had parental guidance. They are the main perpetrators of problems at this market.

One young man who reported to have never engaged in any risky behaviors believed that:

People who drink alcohol may cause confusion and unnecessary fights, alcohol alters their minds and young men may forget even to protect themselves during sexual activities with the women who are known to be selling sex.
i. Patterns of alcohol use

We identified three patterns of alcohol use/nonuse among young men from the analysis. Three young men working at the market had never used alcohol, six young men reported to be former alcohol users and six reported they currently use alcohol. All the participants reported that more than half (4 to 6 out of every ten young men) of the young men who drink alcohol could be classified as heavy alcohol users. Key leaders’ perceptions were that five out of ten young men who drink and work in this market were heavy drinkers, and three out of ten would drink moderately. The young men perceived that more than three quarters of casual workers drink, and that half of those were heavy users.

Never used alcohol

Three young men working as casual workers reported that they had never used alcohol. These young men reported that they are at the market to earn money and not to waste their money on buying alcohol. As stated by one young man:

I came to work at this market to earn a living; in search of cash, I left home because there was severe poverty at our home. My parents are poor and we have no other support from anyone nor any other source of income. I cannot afford to spend my money on alcohol, knowing very well that alcohol kills people.

Former users of alcohol

Six young men in this study reported that they used alcohol for some time when they started to work at the market. They reported that they felt that they needed alcohol to do their work and mix well with their peers who were also drinking. They discontinued its use for various reasons. Two young men reported their parents did not
approve of their drinking behaviour. One young man stopped drinking alcohol because he was on antiretroviral therapy (ARV), drugs used to suppress the HIV virus, and he was advised not to use alcohol with these medications. Two young men had a bad experience from a heavy bout of drinking, and one reported that he was newly married and wanted to have enough cash to support his family. As reported by one young man who stopped drinking:

As I stated earlier on in our interview that I used to drink alcohol, but I stopped taking it because I was causing problems whenever I was under the influence of alcohol. I would provoke and beat up people for unknown reasons. Some young men beat me up and I was terribly hurt. I also learnt the truth about my religion; my religion (Islam) does not allow alcohol drinking. Therefore, I stopped taking alcohol some 8 years past.

Current users of alcohol

Six young men in this study were currently using alcohol. One of them stated that he drinks to conform to his Ngoni culture and that is the reason he joined a group of peers who drink alcohol at the market. Two other young men reported that they drink alcohol to make the work they do lighter and to be able to manage and deal with their colleagues who were ever drunk. Two young men, aged 23 and 25 years respectively, reported that they started to drink due to peer pressure at an early age, 11 and 14. They both reported that their bodies were used to both substances and could not do without them. They strongly believe that alcohol helps the body to relax and enables them to do the kind of job they do. One of them indicated that he was contemplating reducing the amount of substances he was consuming, but failed to state the means to do that. The other young man said that there is no way he would stop taking these substances, “When I wake up in the morning, I start the day by taking one
packet of Chibuku. Around mid-day, I get a drink and continue drinking after 4 pm, which is towards the end of my workday.”

b. **Marijuana use**

Observers saw a group of young men smoking at a place away from the market and they were sharing their cigarette. The young men in that group told us that they were smoking marijuana. Key leaders reported that many young men, more than half, working as casual workers smoked marijuana and that most of them were heavy marijuana users. Young men reported that most of their peers smoke marijuana and five reported to have been former users, and two were currently using marijuana. All the participants described marijuana use as frequent smoking marijuana three to four times a day. They felt that heavy users smoke more than three times a day, regular marijuana users smoke about three times a day and less serious smokers participate in sporadic smoking. All the participants reported that many (more than 7 to 8 young men out of 10) casual workers loading and offloading goods onto trucks smoke marijuana daily and more so when they had extraneous work to do. Again, they reported that many of the casual workers mix marijuana and alcohol to get very drunk quickly.

Twenty-eight of the 33 participants, both key leaders and young men, perceived that casual workers use marijuana as a way to socialize with their peers. Three young men who have never used substances and two key leaders disputed the wisdom in this; they explained that peers easily influenced those who smoke marijuana. They indicated that there were many less risky ways young men could socialize at the
market, for example, watching video films, playing football and doing their job. Twelve key leaders and eleven young men perceived advantages of using marijuana. They believed it enhances the young men’s ability to work under difficult situations, enables young men to compete with others by being more aggressive, and enables young men to gather courage to talk to women and girls if they want to have a relationship.

All except one participants attributed young market workers’ use of marijuana to multiple factors including availability, easy accessibility, affordability and less costly than alcohol. They reported that marijuana was found at the bars; and that there were convenient and accessible “smoking corners” in the market. They said marijuana gives young men courage to deal with coworkers and customers. The one exception stated that people who smoke marijuana were not independent thinkers, they were failures in life, and hence they do what others do.

i. Patterns of marijuana use/nonuse

The patterns of marijuana use were similar to those for alcohol use, but marijuana use was reported less often. Of the 15 young men, eight never used marijuana, five were former users and two were current users.

Never Used Marijuana

Eight young men in this study indicated that they had never used marijuana. They perceived marijuana as toxic and harmful to their mental health. They had heard stories of their peers developing mental illness because of smoking
marijuana. Parental disapproval of its use was also one of the reasons given by three young men for not smoking marijuana. One young man stated:

My father used to discourage me from using marijuana. He told me that marijuana was bad for my health and that if I smoked it I would develop mental illness. That frightened me, hence I have never used it, because I took my father’s advice because I respected his decisions and I knew he meant well for me.

**Former Marijuana Users**

Five young men in this category reported that they started smoking marijuana at age 10, 12, and 15; two did not indicate the age they started to smoke. Their siblings and peers at home influenced the young men who started smoking at a younger age. One young man started working at the market at the age of 15, and learned to smoke from his peers and an uncle at the market. Two of them stopped because their parents did not approve of their smoking habits and the other three had a bad experience which influenced them to stop using marijuana. One young man spent 21 months in jail after having caused havoc at his village after smoking marijuana and drinking alcohol. The other two developed hallucinations and were unable to get to their homes on one particular day. One young man said:

The day I developed the hallucinations I had smoked the powerful type of marijuana. Marijuana comes in different strengths; there is *Kaning'ina* that grows in Mzimba and Nkhota-kota, it is very toxic marijuana. It is compressed into a brick and to use it we break it with a knife, some marijuana is known as "*mipovu*", this is marijuana that is grown in most parts of Malawi, it is not as toxic as *Kaning'ina* is. However, all types of marijuana are toxic; the only difference is the level of toxicity.
Current Marijuana Users

Two young men were using marijuana at the time of study. They described themselves as heavy users and said that their bodies depend on it and that they could not do without it. One of them reported that he started smoking marijuana at the age of 10, and it was his older peers who introduced him to marijuana. He reported that his parents were supporting him with school fees and everything else needed, however, his parents had no knowledge of his smoking habits. The other one started smoking marijuana at the age of 9. His elder brother taught him to smoke marijuana, and he believed that marijuana enhances his strength. These two young men came to the market already smoking marijuana; they continued to use it at the market. One of them said:

Whenever I have a job to do, I need to smoke marijuana, so that my body can relax, feel well, and gain strength to be able to do any kind of job. My body is used to marijuana so I need to smoke it.

c. Sexual relationships

Observers reported that they saw many young women hanging around the bars and rest houses. Young women were seen at the bars dancing by themselves and some with men. A couple was touching and kissing during dancing. Some women were serving alcoholic drinks and some were hanging outside the rest house during the day in the company of young men. At night, young women were seen dressed in attractive attire and they were mainly at the bars, drinking and dancing with men of different ages. All the key leaders believed that many young market workers engage in unprotected sex with multiple partners. They perceived that risky sexual behavior was very common, especially among young men working as casual workers.
Both young men and key leaders described risky sexual behavior as having many sexual partners and having other sexual partners outside marriage. They believed that three out of ten casual workers will have many multiple sexual partners; two out of ten will have at least three sexual partners and one will have one sexual partner besides their wives for those who were married. They perceived that young workers prefer to have their sexual relationships with women from the market and not from the villages. Young men preferred women from the market because it was easy to dispose of them since they were only interested in money and not in long lasting relationships that end up in marriage. Key leaders believed that some young men, both married and single, have longer relationships, lasting for a period of more than six months, with one or more than two female sex workers. Some of them can have extramarital sex every day or every other day with or without protection. Some young men were perceived to be drunk and to have smoked marijuana before and at the time they have sex with these women. They perceived that young men buy sex with the money they earn from their work.

i. **Patterns of sexual behavior among young men**

Three patterns of risky sexual practices emerged from the data – never any sexual involvement with multiple partners; past sexual involvement with multiple partners and current involvement in multiple partner relationships.
Never engage in sex with multiple partners

Seven young men indicated that they never engaged in risky sexual behaviors, in that they only had their wife as a sexual partner, or they were abstaining from sex as reported by one young man who is not yet married. This group of young men bemoaned the fact that peers who engage in sex with multiple sexual partners will be infected with STIs, including HIV. One young man said:

No, I am not having sex with anybody else; I am faithful to my wife. I made a choice to have sex with one woman, this is my choice; there is no difference in having sex; whether with sex workers or with my wife. Sex is the same and I get satisfied with my wife, and I do not want to infect my wife.

Former multiple partner relationships

Six young men reported to have previously had multiple sexual relationships, but that they had stopped for various reasons. Two reported that they were married now and would like to be faithful to their wives. Two young men reported that they feared contracting HIV. The remaining two indicated that they did not want to spend their hard earned cash on sex and that they did not want women to occupy their time. These two had reported they had no sex partner at the time of the study. One said:

No, I do not have one [sex partner]. I may say that I used to have sex with female sex workers but I now stopped, since I reduced my intake of alcohol and marijuana, I am able to control my sexual desires. I want to concentrate on my education, go to college and have a good job. Women can distract my plans in that if I continue the way I used to live, I will be busy thinking about ways to get money to spend on alcohol, marijuana and sex and that can jeopardize my plans.
Currently engaging in multiple sexual partner relationships

Surprisingly, only one young man who participated, in this study admitted to be currently engaging in risky sexual behaviors. He reported that he had sex with multiple partners for a long time, more than eight years and that he still engages in sex with female sex workers. He reported that at times he did not use a condom whenever the female sex workers requested it. He admitted that he knew that it was risky, especially since he was HIV positive. He felt that he was putting his life in danger by not using a condom but he never mentioned the consequences of his behavior on female sex workers. This young man is not married.

I stopped having sex with multiple partners as I used to do before. I was having sex with a different woman every day and I never had sex with the same woman more than twice. Now I am having sex with different female sex workers, once or a few times in a week. I do not have one particular woman. Whenever I have a sexual desire, I go to the bar and have sex with any sex worker I meet at that particular time. I change sex partners because I do not want to be involved in a lasting relationship and I do not want to have sex with one sex worker. I had one sex worker with whom I used to have sex with, however, this woman was getting too close to me, and I did not like it. She would visit me at my place of work and demand cash from me anytime even without us having had sex. I decided that I would be changing sex partners, and pay them after each sexual encounter.

One young man did not reveal his sexual behaviors, stating that sexual relationships are private matters. He believed that many of his peers engage in sex with multiple partners and that as much as they all knew that it was risky, they still did it because it was a basic need. He also said that he believed that many young men who have sex with multiple partners failed to use condoms, because of their belief in bare sex which was more satisfying, and also due to drunkenness.
One question emerged due to the discrepancy identified between young men’s reports of their own risky behaviors versus their views about what most young men at the market did. Observers reported that many young men working as casual workers were seen using both alcohol and marijuana. Many of them were seen in the company of women at the bars and within the market square. I even observed that the work areas used by casual workers were always littered with empty packets of Chibuku beer and alcohol packaged in sachets. Likewise, key leaders and young men perceived that many casual workers were using both alcohol and marijuana. However, the young men did not report as many risky behaviors for themselves personally. Only one said he currently had multiple partners, and only seven young men in this study admitted to be current or former marijuana users. One key leader perceived that young men were not truthful to the researcher possibly because a recorder was used during the interviews or because some of them suspected that the researcher was collecting data involving HIV prevention programs. It was felt that the workers did not want to admit their sexual behaviors for fear of being stigmatized. However, there is evidence that at least some young men have resisted the pressures at the market and do not engage in any risky behavior.

2. **Links between substance use and risky sexual behaviors**

The data shows similar patterns of risky behaviors across substance use and sexual behaviors, as shown in Table II. Young men who reported to be current or former users of substances also reported to be current or formerly engaged in risky sexual activities. Young men who reported to have never used substances, reported to
be either abstaining from sex or being faithful to one sexual partner. Only one young man reported that he is a heavy substance user but he only has sex with his wife. He did not have multiple sex partners. Table II shows these patterns.
# Table II

## RISKY BEHAVIOR PATTERNS

<table>
<thead>
<tr>
<th>Case</th>
<th>Drinks</th>
<th>Marijuana</th>
<th>Risky sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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All but one of the participants perceived that alcohol consumption was strongly related to risky sexual behaviors. Both key leaders and young men perceived that young market workers lose their capacity to think clearly when they are very drunk and may indulge in risky and unplanned sexual behaviors. They reported that when drunk, young men have unprotected sex, buy sex for money and have multiple sexual partners per day or on subsequent days. Both key leaders and young men said that because casual workers have easy cash in their pockets and easy access to alcohol they get involved in extra marital affairs. One young man reported that when drunk he sees every woman to be beautiful, so it was easy to have sex with female sex workers. In addition, one young man reported that young men have sex with many partners due to their inability to resist the temptation because beautiful women seem to be born every day, and the practice at the market is to “test” all new beautiful fresh women. All the participants acknowledged that casual workers risk having sex with a female sex worker with HIV and or other STIs.

Two key leaders and three young men perceived that there was no relationship between marijuana use and sexual behavior. Because marijuana users smoke it in hidden places isolated from the female sex workers, they said, it was not as easy for marijuana smokers to engage in risky sexual activities. One young man reported that he was convinced that marijuana use reduces sexual desire and that long-term use of marijuana leads to sterility, hence marijuana users do not engage in risky sexual activities. One young man perceived that there was no direct relationship
between marijuana use and high-risk behaviors; rather he sees the behaviors arising out of their using intoxication as an excuse for their behavior.

Different views were reported about effects of alcohol drinking before and during sexual encounters. All participants perceived that alcohol makes people more bold toward women, and leads to more flirtatious and sexually provocative behavior. Most participants reported that alcohol increased the desire to have women. One young man who admitted to engage in sex with multiple partners reported that he used to drink alcohol before meeting the prospective sexual partners, because alcohol gave him the courage to propose to women at the bar. However, one young man reported that alcohol dampens his sexual desire and delays his ejaculation. Whenever he plans to have sex he avoids drinking too much alcohol; he preferred to be sober. The key leaders and young men reported that alcohol had negative effects on the user because alcohol hampers the young men’s thinking and they forget to use condoms. One young man reported:

You may have intended to use a condom, but due to alcohol consumption, condoms do not matter, what matters most is to have sex. You start thinking and regretting when the alcohol is out of your system, when friends tell you that you had such and such a woman the previous day. Alcohol is bad, why we drink it, only Satan knows.

3. **Substance use disorder**

We noted that the data revealed that for some young men substance use has become a major focus of their lives. Observers reported that many young men drank large amounts of alcoholic beverages, and that some drank alcohol in the morning hours. They also reported to have encountered many young men who were so
drunk they staggered and couldn’t walk properly. Key leaders perceived that many young men using substances were probably dependent on a substance, and in some cases some of them were dependent on alcohol, marijuana, and sex. They indicated that such young men would never do their work without using substances. Three young men in this study reported that they were dependent on alcohol and that their bodies could not do without alcohol. They depend on it to get through the day, and without it, working at the market would be hard. These descriptions identify substance use disorder according to DSM-V. One young man said:

I started to drink alcohol when I was young, I used to be in the company of my elder brothers, and they were using marijuana, so they convinced me to try it and after testing it, I discovered that it was nice. That was the beginning of using marijuana. For alcohol, I had friends who introduced me to drinking it. Now my body is used to both alcohol and marijuana, I cannot do without these substances, and if I tell you that I will try to stop using it, then that will be a lie. I have the money, my wife does not mind, and I go home after drinking, so what is the problem?

C. Factors Associated with Risky Behavior

1. Context of the market

There was congruence between our observations and the perceptions of both key leaders and young men that a number of factors made the market an environment that supported risky behaviors. Three subthemes emerged: a) availability of resources, b) norms supporting risky behaviors, and c) lack of restraint on the part of the young workers.

a. Availability of resources at the market

The key leaders and young men reported that availability of many resources such as cash, substances, places to buy both alcohol and marijuana,
inexpensive rooms where young men could go for sex and many willing young women were influencing young men to engage in risky behaviors.

The observers reported that the market had a variety of drinking venues where young men, mainly in their late teens and early twenties, frequented. They were seen consuming different kinds of alcoholic drinks throughout the day. Drinking venues were never short of customers. Men and women, who looked older than the young men in this study, were also ever present at these drinking venues. Women were either serving alcohol, drinking or dancing with the men. Intimate interactions between young men and women were noted. The rooms at the rest houses cost K500-850 ($3.0-5.0) per day. Three dollars is relatively affordable to young men working at the market, but not in comparison to people in the villages. Some alcohol selling venues were also selling resting rooms, usually located behind the alcohol selling venue. I saw two young women in their late teens who were barely dressed leaving the rest house at 7 am, and one of them was drinking from a bottle of Carlsberg (beer).

i. **Availability of cash**

All the participants in this study, both young men and key leaders, attributed young men’s drinking, smoking and sexual activity with multiple partners to the available cash at the market. They perceived that having cash was influencing young men to buy substances and sex.
Young men working at the market reported that they had regular access to cash. The market gives young men the opportunity to get jobs at different levels and to progress from the lowest level of market jobs, like selling plastic carrier bags, to the highest job level that of owning an individual business and hiring other unskilled labor from the market. Based on this scenario, it is likely that workers could make as much money as possible. The market also offers young men a chance to get away from poverty in their homes and poverty in their own communities. The highest paid casual worker can take home MK10, 000 ($40.00) per day on a good day and MK6, 000 ($24.00) on a slow day. As reported by one young man:

It is easy to get money at this market, any type of job you do is money. My daily earnings range between K1, 500-5,000 ($5.45-18); I earn up to K8, 000 ($48.0) in a week and that is enough money for my family to meet our needs and for me to spend some of it on buying alcohol. I can afford to buy it [alcohol] every day, however the amount of alcohol I drink depends on the cash I have on that day. If I have little money on a particular day then I drink according to what I have. If I have no money then I go home for rest.

Only two young men perceived that it was hard to earn enough money because business at this market was more favorable to the people who were old timers and for a few who had special relationship with the members of the market committee.

ii. Availability of substances

Observers, key leaders, and young men reported that two types of substances were readily available at this market, namely alcohol and marijuana. The observers reported that alcohol was readily available in all the bars and other venues that sell alcoholic beverages and even in some grocery stores. The bars were within the
market setting. Local brew was available in designated homes inside the market and surrounding the market. Alcohol was in abundance which enables young men to purchase alcoholic drinks. All the participants in the study perceived the availability of a variety of alcoholic products and the close proximity of venues selling those products influenced young men to drink alcohol, including the very young. They reported that the many bars and other alcohol outlets within the market were influencing young men to drink. As one key leader reported in the following excerpt:

Young men drink too much because they get alcohol from within the market. If Government banned the sale of alcohol at this market, young men would not be drinking at all, and that could save our young men.

All the young men reported that it was easy for them to get alcohol because it was readily available and that they could get it even if they were busy, as stated by one young man:

I get alcohol from several places within the market; we have houses near the market and makeshift local brew bars within the market. Alcohol is found all the time at this market, it is not a rare commodity, even now if you had time to go around the market you would find people drinking alcohol; different types of alcoholic drinks, which is what is good about this market.

The proximity of venues selling alcohol encourage young men to use alcohol whenever they have a craving for it and some young men buy alcohol and keep it in their pockets and drink it as they do their work. This behavior is a mental health risk because it can lead to addiction.

The observers witnessed young men buying marijuana at the potato market and at the bars, during the data collection exercise. Marijuana was readily
available at the market. It was also perceived as affordable and less costly than alcohol. These were some of the factors supporting marijuana use among young market workers.

All but two of the participants reported that marijuana was readily available at the market on daily basis. It was packaged in small affordable quantities (balls) which was enough for one complete smoke per person. Marijuana was also sold in many villages surrounding the market that were within walking distance. Marijuana users know the key people who sell it and agents that could easily link them with marijuana sellers:

It is easier to buy marijuana, you do not need to have plenty money to have access to it, all you need is K30 ($0.18) to K50 ($0.30) worth of marijuana to get satisfied. For one to drink alcohol you need at least K200 ($1.5—1, 000 ($6) to buy enough alcohol.

iii. **Availability of women for sex**

The observers reported that there were many women within the market square. They were available in the bars especially in the evenings and before the big market day. On the other days, observers saw some women sitting outside the bars and rest houses during the day, and at night, some of them were in the company of men drinking and dancing. All the participants reported that female sex workers were available within the market at the bars and rest houses and that the presence of female sex workers was influencing young men to engage in sex with multiple partners. All key leaders and seven young men reported that spending long periods of time at the market was a factor which lead young men to engage in sex with female sex workers. Young
men reported that they spent their time at the market so they would not miss any work opportunity that might be available at the market. They said this limited young men's option of going outside the market to get sex partners. At the same time, they perceived that young men did not deny themselves the sexual encounters because of their job. Women were available and young men had cash to pay for the sex. As one young man stated:

Women who trade in sex are plenty at this market, they are at the bars, rest houses and some have their businesses inside this market, they may sell vegetables during the day and sex at the same time.

Key leaders believed that young men engage in sex with female sex workers and multiple partners because:

Young men earn too much cash that they can afford to pay for sex; they pay anything between K500-1000. Some young men seem to take pride in reporting to have had sex with so and so and that they paid so much for the encounter.

All the participants perceived the presence of female sex workers at the market and access to disposable cash on a daily basis were influencing factors that lead young men to pay for sex whenever they had a desire for sex.

iv. **Availability of rest houses**

At the market, observers reported that rooms where people could go for sex were always available. Both the key leaders and young men attributed availability of rest houses also influenced young men to engage in sexual relationships at the market. Many participants also reported that for those who could not afford to pay for a room at the rest house, space was available where sex partners could go around
the market. This space was reportedly available at the nearby school, an abandoned house within the market, and even the bush surrounding the market. As reported by one key leader:

One reason why it is easy for young men to have sex with female sex traders is that rooms are always available at this market; you only need K500 ($3) to get a nice room at this market. Both young men and sex traders can afford a room at that price.

v. **Availability of condoms at the market**

Observers reported that condoms were available in bars only and not in grocery stores. All the participants reported that condoms were available at the market, where they were sold in some shops and bars. They reported that female sex workers keep condoms in their rooms in readiness for customers who wanted to use them. Female sex workers teach young men how to use condoms since there were no HIV programs at the market where young men could learn how to use a condom effectively. Female sex workers offered condoms to their clients; if the client refused to use a condom then sex was done without it. However, some participants reported that some female sex workers ask young men to have unprotected sex with them, citing that the men were too aroused so she agrees to risky sex. The general availability of condoms could be perceived as a protective factor, making it possible for those who have sex with multiple partners to use condoms. However, young men did not report consistent condom use.
a. **Norms supporting risky behaviors**

Social norms have a strong influence on behavior. Norms refer to an individual’s interpretation of what behaviors are practiced among a given social group (Cialdini et al 1990). Once the norms are established within a group, they tend to be reinforced by group members. Norms may influence individuals to change their behavior so that it is in line with the other people in their environment, or that it conforms to the perceived and expected norms. The research indicated that two norms supported risky behaviors: the belief that everyone is doing it, and the belief that using alcohol and marijuana is helpful for work.

Some young men perceived that to survive at the market one had to use substances and engage in risky sex. Thirteen young men reported that almost all casual workers use substances, as stated by one young man:

> It is like a norm at this market that we get money, spend it, get more money, and spend it on alcohol and women—young men envy each other and are eager to learn what their peers are doing, such as smoking marijuana to reinforce their strength for them to get more jobs and more money to spend on risky behaviors.

Thirteen young men working at the market, and ten key leaders who participated in this study seemed to share the view that the competitive nature of the work young men do requires them to use substances. All the participants believed that substances, especially marijuana, resulted in enhanced strength, making them feel energetic and able to carry heavy bags onto and off the vehicles and from one point to another in the market. Marijuana and alcohol drinking made the user feel high and that they felt able to do things they would otherwise not do given a sober mind. Also, they seem to be able to deal with customers and co-workers in a more aggressive manner in
order to get a job. All key leaders reported that more than half of the casual workers
loading and offloading heavy commodities smoke marijuana before and during their
work and many drink during and after work. As reported by one key leader:

    Young men use substances because this work requires strength, and I believe
that marijuana reinforces strength and young men are able to carry a heavy bag
twice their own weight, and most of them make a lot of money because they do
not tire easily, I think they need it [marijuana]. After carrying the heavy bags they
need a drink to get a relaxing feeling.

    Six young men who use substances and three former users of substances
reported that marijuana and alcohol give them strength and that without it they could not
do as much work. As reported by one young man, “The work we do is demanding, my
body needs marijuana and alcohol to get through with this work. Alcohol makes my
body feel light and marijuana gives me strength.”

    One other young man reported similarly that:

    I will start with the reasons why young men use alcohol. Young men who do
casual work use alcohol because they want to make their work lighter, the work
we do here is hard it requires strength and some young men drink alcohol to
relax so that the burden of the job is lighter.

    Two of the young men who have never used substances were the only
ones who reported the negative effects of substance use. They said that their peers who
used substances were painting substance use positively to validate their substance
abuse. One said, “There is nothing good that can come out of alcohol and marijuana.”
b. Lack of restraints

The young men in the market no longer experience the direct monitoring and the pressure of behavioral expectations that they would in their rural communities. In a rural Malawian setting, young men at the age of 18 to 25 are considered to be emerging adults and not children. They are still somewhat dependent on their parents. They are expected to assist the family in domestic activities, including, allocating their time to subsistence family farming. Young men are also expected to behave in a way that conforms to the local culture. Young men are expected to behave in a respectable manner when they are living with their parents; if some deviate from the expected norms they may do so privately. Traditionally, in rural Malawi, young men are expected to go to church with their families, and do as the elders say. For example, beer drinking is an accepted norm within the Ngoni culture, however, drinking beer is done on special occasions and not on a daily basis.

All the key leaders perceived that at the market there was a general absence of social pressure to restrain their risky behaviors. Nobody at the market opposed young men’s substance use or sexual behaviors. The members of the market committees and elders at the market felt they were not in a position to set rules of conduct for these young men. Four key leaders and two young men reported that parents had that responsibility and not the market committee. Peers would not act as eyes for the others since most of them were behaving the same way, as reported by one key leader:

Young men working as casual workers do more bad behaviors than good behaviors; the only thing I can cite as good is the fact that they help us offload
and carry heavy bags of goods. It is not our job as a committee to correct people who want to destroy their lives, by drinking, smoking and having sex. Maybe that is what they want to do with their money. After all, they do not listen to anybody, not even the chairperson of the market committee.

Key leaders reported that the market committee had no structure in place to restrain anyone from engaging in risky behaviors. Their duty was to protect the customer, as reported by one key leader:

The role of the market committee is to ensure peace at this market and to protect customers from unscrupulous workers. The committee does not really concern itself with what individuals do. The committee sets very basic rules on how we should behave towards our customers. The committee also sets prices for our work so that we have a standard rate for casual work. Members of the market committee can do nothing with these young boys. The younger boys are hard to teach, they are busy having sex with older women.

All the participants reported that there were no restrictions on opening or closing times of bars and other venues selling alcohol. These uncontrolled open hours make it easier for alcohol to be available any time within the market compound. This practice exists on both sides of the market as stated by a bar owner:

It [license] does stipulate the opening and closing time, but at this market, things are different. We open the bars 24 hours a day, people have money and they enjoy drinking alcohol, so we offer them that opportunity to drink. We do not want to deny them what they love to do.

Observers reported that there were no age restrictions on alcohol use in Malawi. Any person with money can purchase alcohol in Malawi. Therefore, young men at the market start to drink alcohol at an early age. When one bar owner was asked, “Does the license that you have stipulate the age limit?” He responded that “No, it does not, and I would not be willing to ask the age of my customers, it is impolite
to do that.” He went on to make the following comment when he was asked if he would sell alcohol to young boys, for example under the age of 18:

Yes, I would, because I have no way of knowing their age, and some may be younger than 18. And again, my interest is to make money, so I sell alcohol to every person who comes in my bar, maybe except very young boys if they are very young I would not, but there are times when these young boys are sent to buy alcohol by adults hence it is not easy to determine the use of the drink.

Observers reported that marijuana was available and sold to any person within the market and surrounding villages. All participants except two knew where marijuana was sold. One young man reported that, “Any person can buy marijuana at this market. Young or old, men or women, there is no restriction.” Members of the committee did not consider counseling or correcting young men who were engaging in risky behaviors to be their role. They categorically denied that responsibility. Two key leaders and three young men thought that young men, especially the new comers to the market, were actually learning risky behaviors from some key leaders, who were themselves engaging in those behaviors. The absence of role models or adult oversight at the market allows young men to do as they please:

Some of the young men are rude and ill-mannered, when you try to help them they start cursing you, so we let them do what they want to do with their money and their lives. Most of us are afraid of being belittled by these young men who think they know it all. Most of these young men are vulgar and rude, so to avoid that, we just leave them to do as they please, as for me when they come to my bar to buy beer I just thank them for bringing cash to me.

2. Home environment

Home environment refers to both family and community. They are the places where young men were raised and where they reside and return to at the end of each day. All the participants reported that many young men working at this
market came from their own homes in the nearby villages. Most of them go back to their homes at the end of each day. They remain in contact with their families and rural communities. However, some young men reported going back home late and leaving very early in the morning due to the nature of their work, drinking, or some other activities not disclosed. Only one young man reported that he spent his nights and days at the market because he did not have a home near the market. This young man came from another district, and he said he could not afford to rent a house. He also indicated that he wanted to make more money by doing his job at night as well.

There were differences among young men in their experiences growing up. Seven young men were from stable families. They had a parent or guardian who helped them to develop positive values in life. Those young men respected the views of their parents. Four young men, out of the seven, were raised by both parents but were very poor. They could not afford to provide for basic needs of their children. Three young men from these four reported that their parents never approved of using any substances in their homes or their lives. These young men reported that they had positive ties with their families and helped their parents now that they were earning some money. The young men who reported no engagement in risky behaviors, all indicated that their parents taught them values that were helping them to desist from engaging in risky behaviors. As stated by one:

I am lucky because my parents insisted on teaching us not to use any kind of substance in our home, my late father taught me that alcohol was a waste of money and marijuana caused mental illness. My siblings and I were raised in a Christian family, I follow what my father, and mother taught me.
Ten young men reported poverty as a factor which influenced their decision to work at the market. Working at the market gave them access and opportunity to pay for services they otherwise could not afford. Three young men reported to have been raised by both parents who were able to support them. These young men said they use to envy their friends who were making money at the market. Hence, they decided to drop out of school and came to work at the market. Eight young men reported that only their mothers brought them up. Young men in this group reported to be engaging in risky behaviors despite reporting that their mother did not approve of those behaviors. One young man in this group reported that his mother was against him working at the market, but as soon as he started providing basic needs to support their home his mother discontinued with her advice.

Participants perceived that some parents influenced young men directly or indirectly by not giving their child enough support. Two key leaders perceived that some parents had failed their duty to bring up their children properly because, some children did not take advice from their parents and they dropped out of school to work at the market. They believed that young men who fail to take counsel from their parents might not easily listen to other people who may try to help or correct their behaviors even if they were taking risks. As reported by one key leader:

Some young men left their homes despite their parents not allowing them to come and work at this market, but because of envy, they rebel against parents and come to the market to work. I know that most parents have lost their responsibility to guide these young men. I do not expect them to listen to their parents or wives on the use of the money they earn at this market. They use their money on drinking.
3. **Interpersonal relationships**

i. **Peers**

Observers noted that young men working at the market were often conducting their business in groups whether it was work, drinking alcohol, smoking marijuana or playing games. Key leaders perceived that young men influence each other to come to work at the market, drop out of school and engage in risky behaviors. Two key leaders perceived that young men involved in risky behaviors were the ones who had more influence on their peers' behavior. One key leader reported that peers socialize each other by modeling certain behaviors at the market:

Young men copy from each other. When a young man is working under the influence of marijuana, they seem to be strong and able to work under any circumstances. When others see that, they also try to use marijuana in the hope that they will do more work than what their bodies can manage, and that they will approach customers to get work with boldness. The other minor reason would be that, young men wish to be like their peers. They what to copy what their peers working at the market do, for example, buying beer and having multiple girlfriends, therefore, some young men get attracted to this market to be like others, but the main reason is that they want to work here to earn cash.

Young men reported peer influence as one of the main explanations for starting to work at the market, plus the access to marijuana and alcohol. Five young men reported that peers from their communities influenced them to start using substances and that some of them had learned to use substances from their peers at the market. Three young men perceived that it was a peer norm to use substances as a way of doing the work. However, three young men who admitted to engaging in sex with female sex workers did not mention peers as having influenced their decision. They attributed their decision to the presence of female sex workers at the drinking places and some appear to blame the women for their behavior.
I used to have sex with female sex workers whenever I was having a drink at the bar. These women are bad, they entice you to have sex with them, and get your money. They wear “see through” and short dresses, suggesting to us that they want sex. Being a strong man, more so with alcohol in the head, and money in the pocket, it [sex] happens. If these women were not here, especially at the bars, I would not have had sex with them. I regret. That is why I stopped drinking at the bars; I go to homes that sell alcohol.

Key leaders perceived that young men were influencing each other’s behaviors:

Most young men are weak minded and are easily influenced by what other people are doing. They copy bad behaviors from their peers as well as from some adults who are key leaders working at this market. I see an older man drinking and sharing beer with very young boys, and young men see older men going to the rest houses with female sex workers. Therefore, young men learn to drink and have sex with female sex workers. Young men think that is normal and they also do the same-- It seems to be easier to copy bad behavior than good habits.

Almost all participants indicated that young men influence each other to perform certain risky behaviors at the market. Only one young man admitted that peers influenced him to engage in sex with multiple partners. However, almost all participants in the study reported that peers influenced each other to engage in sex with multiple partners:

I had a friend who was teaching me these behaviors; drinking and sex with women, I no longer relate to that friend, I consider him bad influence on my life. I made wrong decisions because of him.

The results also show that nine young men in this study started working at the market at a young age, less than 15 years, and have graduated from selling carrier bags to their current jobs. At that age, they were easily pressured by the older men in the group to try using substances. It might have been difficult for them to
refuse its use at that age, since they were looking up to these young men as role models. As reported by one young man:

Many of us doing business and casual work today, started working at this market at a young age as sellers of plastic carrier bags, then we moved on to casual work and business. In that process we have learnt both good and bad behaviors from our friends, we have been initiated into alcohol drinking and marijuana smoking and sex with multiple or having different partners as a normal behavior at this market, these behaviors are accepted by people at this market, therefore, we continue doing them. Moreover, young men think that is a normal behavior or that it is what enjoying life is all about.

One young man reported his concerns:

The sad thing is that the older people introduce most of the young boys to sex with female sex workers. What happens is that some people send the younger boys as messengers to their sexual partners, in that process the younger boys get used to the sex worker and may have sex with her. It is then difficult for the same person who introduced the younger man to the sex worker to turn around giving advice on HIV prevention. We are responsible for what the young boys are doing at this market, because it is as if we taught them to engage in sex with sex workers.

4. Individual factors

i. Age

Observers believed that some young people working in various jobs at the market were younger than 18 years old. I saw a child less than ten years old selling in his father’s shop after classes. He was in his school uniform, and could not give details of the commodities sold in the shop. Most of the young men seen at this market could be regarded as emerging adults, who still required some degree of supervision. Some of them may have pulled away from their parents, or have no parents, and came to the market in search of their own identity where their friends become more important. It is also a time when young people begin to experiment with
their lives. Key leaders observed that very young boys and men work side by side at the market and some start working at a very young age. Three key leaders perceived that at that age young men learn bad behaviors from their older fellow workers and are easily influenced by them. One key leader said:

Most of us went through the same processes, it is part of growing up to do as your friends are doing. With time you learn that what you are doing is wrong and you stop.

One young man regreted engaging in risky behaviors:

I wish I could tell these very young boys not to engage in sex with female sex workers and not to use alcohol, because alcohol will put them at risk. Had I known then, I would not have done what I did, now I regret but it is too late. I was young and inexperienced then, and I don’t think I would have listened to advise anyway.

Young men cited several age related reasons they were influenced to engage in risky behaviors. Six young men reported that the reason for starting to drink was peer influence. They indicated that they started working at the market at ages 10, 12,15, 16, 17, and 19. The young men's quest to become independent is a normal part of development. Key leaders, however, observed that young men need parents for constant and consistent guidance. They insisted that parents should be available as a sounding board for the youth's ideas, without dominating the child's newly independent identity.

ii. **Educational level**

Nine key leaders perceived that most young men working at the market had no education or did not go very far with their education. They perceived lack of education as a risk because young men who have never been to school might not understand the how to use money, therefore, they may spend their cash on useless
things like alcohol and sex. All the young men in this study did not complete their education. Three of them reported that lack of education was putting them at risk. One said that:

Lack of education is killing young men from this area. We as young men fail to think and plan about the future, because nobody has taught us to do that.

Three young men who had a higher education seemed to be knowledgeable about the ill effects of risky behaviors, unlike those who never went to school or dropped out of school in lower classes. The three young men who had never engaged in risky behaviors did not complete their education and they all regretted dropping out of school. I noted in my notes during interviews, that these three young men could clearly talk about their future aspirations. They all expressed their future goals and their dreams of getting out of the market to do something better. They also had family and social goals. They were concerned about the future of their siblings and how they use their money in supporting their own families. They indicated that their goal of working at the market was to get out of poverty. These three young men were concerned about what happened to them due to not completing their education. It was apparent from their tone of voice and their facial expressions that they meant what they were saying. The overall impression from these three interviews was unlike the interviews with the other young men who were still drinking alcohol. The alcohol users would state that they were planning to stop drinking, but later on during the interview, they would state that alcohol was a basic need, just like food. There was no indication that they would actually change.
iii. **Potential for reduction of risky behaviors at the market**

Results from this analysis show that there are potential prospects for change in the young men’s behavior. Two key leaders reported that they had established a youth club for HIV prevention:

> There was a time when I thought that all the young men from this market would die from HIV; I decided to initiate a youth club. I approached one health worker from the nearby health facility (Biriwiri health center) that assisted us in forming a youth club. We set up regulations for the running of our club, some of which were that all young men holding any position in the club were to be role models to others. Therefore, we agreed that there should be no drinking, smoking, sex with female sex workers and multiple partners.

Some young men reported that they were concerned with their lives, and would welcome programs to help them. Reflecting their concern about the consequences of risky behaviors, ten out of the fifteen young men in this study had tested for HIV. Some wanted to know their status and some were tested because of the policy in Malawi that encourages pregnant women to go for the test with their husbands. One young man disclosed that he was HIV positive and on ARV drugs. He reported that he was open about his HIV status because he wanted his peers to go for HIV tests. He was also of the view that he would help his colleagues to reexamine their risky behaviors. The other five young men did not want to know their status because they were afraid. Some suspected that they already have HIV. One young man believed that since his wife had tested negative then he too should be negative. Thus, both key leaders and young men expressed concern about the risky behaviors leading to HIV infection for young men at the market.

In contrast to these expressions of possible ways to change, fourteen young men reported that there was nothing that could be done to prevent
transmission of HIV because most young men smoke marijuana, drink alcohol, and engage in sex with multiple partners. This group of participants felt that many young men working at the market were already infected with HIV and it was just a matter of time before they became ill and incapacitated. They blamed the presence of female sex workers as fueling the spread of HIV because some female sex workers operate their businesses at several different markets with different customers including truck drivers.
V. DISCUSSION AND IMPLICATIONS

This study examined the substance use, the HIV risk behaviors, the contextual protective and risk factors which impacts young casual male workers in a rural Malawi market. In this chapter, the major findings of the study will be discussed in relation to the study’s conceptual model and prior research. Study strengths, limitations, and the implications will also be discussed.

A. Discussion

1. Major findings in comparative perspective

The three findings of this study were: (i) There were three patterns of risky behavior among young men working at this rural market. (ii) Substance use was linked to HIV and risky behaviors. (iii) Contextual factors at multiple levels influence young men’s risky behaviors. These factors are contexts of the market where young men work, their community and home environments; and their interpersonal relationships with peers family; and other individuals.

a. Patterns of risky behaviors

Three patterns of risky behaviors were identified. Among the fifteen young men interviewed in this study, (i) three had never engaged in high risk behaviors, (ii) six had formerly engaged in high risk behaviors and (iii) six continued high risk behaviors. Alcohol use was a key factor involving risky behavior. It is the most common risk behavior and is an accepted norm of young working men at this market. In this small sample, marijuana use and risky sexual behaviors were also reported by half of
the young men. It was less common for people to admit that they smoked marijuana. Although some young men who drank claimed they did not engage in risky sexual activities, half of the young men in this study were currently or previously engaged in risky sex. The observations and descriptions of others suggest the use of marijuana, paired with risky sexual activities was more common among young men working at the market.

The first pattern, which was a small group of young men (three) never engaged in risky behaviors. This group of young men works at the same market but have resisted engaging in risky behaviors in spite of being encouraged by their colleagues. In this small sample, their experience of growing in a more stable family appeared to be a protective factor. The reasons for not engaging in risky behaviors ranged from a waste of money, afraid of alcohol and religious reasons. Only one young man in this group had formerly engaged in risky sex. He previously had two concurrent sexual partners, one of whom he married.

The second pattern, participants in the former risk behavior group were all former alcohol users. Participants in this group cited various reasons for discontinuing risky behaviors, including having had a bad experience from alcohol or marijuana use (such as road traffic accidents, hallucinations), being married, and having added responsibilities.
The third pattern was the continued high-risk behaviors group which included men who were currently engaging in risky behaviors. All six young men in this category were currently involved in polydrug use involving alcohol and marijuana concurrently. Four of these young men reported to have formerly used marijuana and engaged in risky sexual behaviors. Young men who were current substance users gave various reasons for their continued use of substances: that their bodies had developed a tolerance for alcohol, that they had an urge to take a drink, and that had become addicted to alcohol and marijuana and could not stop. One of them reported that his earlier schoolwork suffered because of heavy substance use. Four out of the six young men in this category demonstrated symptoms of substance use disorder according to DSM-V-R (2000). These young men use substances to alter their mood and that has led to psychological and physical dependence. They need the substance to adequately function. One young man who was a current alcohol user, however, had never used marijuana nor engaged in risky sex. That exceptional young man was observed to be future focused, and articulated his future aspirations in high terms. He reported that he drank occasionally to socialize with his peers.

The patterns of risky behaviors we found in our study are largely congruent with previous research. There are many different patterns identified in literature. Similar patterns were reported from a study conducted in Tanzania, where researchers identified similar patterns of alcohol use, namely, 17% of the study participants were current alcohol users, with only 0.6% marijuana users. This study used a random sample of 899, 15-49 year old males and females living in urban sites at
different levels of poverty (Mbatia, Jenkins, Singleton & White, 2009). In South Africa, a study profiling alcohol use found that alcohol use was common in the community and was linked to risky sexual activities (Morojele, Kachienga, Mokoko, Nkoko, Parry, Nkowane, Moshia & Saxena, 2006). In a secondary analysis of a randomized control trial testing a brief intervention at an academic, urban trauma center emergency department (ED) in the US, four different patterns were identified: i) daily marijuana and weekly alcohol users, ii) weekly alcohol and weekly marijuana users, iii) daily marijuana users, iv) daily alcohol users. Marijuana users were at the highest risk to experience negative consequences and engage in a broader spectrum of risky behaviors related to both substances than the other three types of alcohol and marijuana users (Hurrington, et al., 2010).

Consistent with our findings, O’Malley, & Buchanan, (2002), also found that alcohol was the most commonly used and abused substance in a national survey in the US among adolescents. The researchers found marijuana to be the most commonly used illicit substance and that adolescents used it because of the desired effects of intoxication like euphoria, relaxation enhanced sensory perception and sensation of slowed time. Similar to our findings, a national survey on drug abuse and health in the US, found that alcohol and marijuana have the highest rates of dependence or abuse as a primary substance, and the highest rate of treatment admissions for drug dependency or abuse (SAMHSA, 2011).

A few studies have looked at reasons for abstaining from alcohol use, Bernards, Graham, Kuendig, Hettige & Obot (2009) in an eight country study (Sri
Lanka, Nigeria, Uganda, Uruguay, Peru, Canada, Argentina and Sweden) examined differences in reasons for abstaining, including the association of reasons with country abstaining rate and drinking patterns. The reasons for abstaining differed significantly for lifetime abstainers compared to former drinkers. Lifetime abstainers gave reasons that included no interest, religion, and upbringing, while the former drinkers said they stopped because they were aware of its harmful effects on their relationships. The researchers also reported that norms restricting drinking might influence reasons for abstaining especially for women. More women reported to either abstain or stopped using alcohol compared to men. Similar reasons were found in our study between both young men who were former substance users and the substance non-users.

b. **Links between substance use and risky sexual behaviors**

Consistent with other research, our results make it clear that young men in rural Malawi are at risk of HIV based on: substance use, multiple sexual partners, and non-condom use. Drinking places are the central places where drinking and meeting up with sex workers occur, and nearby rest houses offer a low-cost place for having sexual relationships. Concurrency of sex partners within drinking places is a significant facet of HIV at this market. Our data suggest that alcohol use affects the likelihood of risky sex in a number of ways. Condom use was less likely when alcohol use occurred prior to sex with female sex workers; and sex with multiple sex partners was likely to occur when young men were intoxicated with substances. It is clear that participants perceived that there was a strong association between substance use and sex with multiple partners without using condoms. This belief is congruent with the
dominant explanation in published studies associating substance use and risky sexual activities. Alcohol and marijuana use increase sexual arousal, decrease inhibitions, increase confidence in approaching a woman, and impairs judgment in recognizing risky behaviors (Hanson, et al 2009).

Some authors question the causal link between alcohol use and sexual risk-taking (Vanable, McKirnan, Buchbinder, Bartholow, & Douglas, 2004; Cook & Clark, 2005). Our results, however, are consistent with two studies conducted in Africa, which also found that there was a strong link between alcohol consumption and sexual risk behavior. In their model describing linkages between alcohol use and risky sexual behavior, the researchers proposed that changes resulting from drinking, such as, increased sexual arousal, and reduced anxiety and inhibitions, give rise to a risky sexual encounter. In the same study, researchers reported that the men themselves reported having an increased desire for sex following drinking; their alcohol-related sexual encounters usually involved casual partners, who were at the drinking venues drinking with them (Morojele et al. 2006; LeBeau & Yoder, 2009). Young men in our study made similar observations. As noted by Weir (2003), alcohol and sexual partners are found in the same place, thus increasing the likelihood of young men’s opportunity to engage in risky sex.

Contrary to our findings, a study by Leigh, Vanslyke, Hoppe, Rainey, Morrison & Gilmore (2008), using data from diaries of alcohol use and sexual encounters, over 8 weeks, from college students and clients of STI clinics in the US
found that drinking was associated with increased condom use with casual partners among women. The sample characteristics were different from our sample in many aspects including norms about condoms. Therefore, the results may not be comparable. No similar study in Africa was found during our search.

It is clear that there is a relationship between substance use and risky sex. What is not clear is the level at which this relationship occurs (Leigh & Stall, 2008; Bazargan-Hejazi, Gaines, Bazargan, Seddighzaden & Ahmadi, 2012). We noted that determining the relationship between sex and alcohol is important and could contribute to preventive efforts. However, both substance use and sexual behaviors are complex, since there are other compounding factors that may play a role in this relationship.

c. **Factors related to risky behaviors**

All three sources of data in this study show that at the market, there are interlocking factors influencing young men to engage in risky behaviors. At the market level, there is availability of money, services, norms supporting risky behaviors and lack of restraining forces support risky behaviors among young men. Poverty in their community and home environment during their childhood and currently, encourage young men to go to the market for work. While home experience varied with young men, those who had more stable families also had fewer risky behavioral experiences. At the interpersonal level, peers and family, and at the individual level, lack of resources and role models influenced young men to engage in risky behaviors.
At the market level, our findings identified availability and accessibility of cash reinforced young men’s ability to buy substances and sex. Availability, accessibility and affordability of resources, such as, alcohol, marijuana, female sex workers and rest houses, create opportunities to engage in risky behaviors. Young men who live in this kind of environment have an increased likelihood of engaging in risky behaviors including HIV.

Our data also shows that the market context is conducive to risky behaviors because there are norms supporting these risky behaviors. Using substances is well established as a norm at the market, the behavior to be expected from young men working there. Our findings show that there is presence of a substance subculture at the market that believes that substance use helps them to do their work with less stress. The practice of drinking and smoking marijuana by casual workers at this market is considered an integral part of their life as workers at their work place. To most of them, it is part of the recreational experience and believed to be an energy reinforcer. Peers and colleagues in this community accept young men who use substances.

Lack of restraint at the market is another factor identified as influencing risky behaviors among young men. There are no policies that regulate alcohol and marijuana sales. Bar owners have also a role in creating an alcohol environment, since they are at the market to conduct business. Bar owners, as an example of key leaders at this market, do not accept the responsibility to consider how alcohol is affecting young men working at this market.
We noted from our data that availability of cash and substances, with the prevailing norms supporting risky behaviors, in an environment with no restrictions on its use, was a perfect environment for risky behaviors among young men. For example, we observed that there are policies affecting how alcohol is made available, however, they are not being enforced. Alcohol selling venues remain open 24 hours a day, and there were no age restrictions observed when selling alcohol. This influenced young men to drink at will. The lack of enforcement of legal policies has allowed alcohol venues to proliferate at this market.

Studies in both Africa and other countries, have found that context where substance use and unprotected sex co-occur result in high-risk behaviors among young people (Lewis, Garnet, & Mhlanga, 2002; Treno, Ponicki, Remer, & Gruenewald, 2008; Scribner, et al. 2008; Nardone, Frankis, Dodds 2001) These findings are congruent with our finding that availability and accessibility of bars at this market pose a risk to young men who drink and find sexual partners. Our findings identified that young men like to go to bars to drink, meet new sexual partners and have unprotected sex with different female sex workers.

Social norms for substance use were found to influence young men to use the substances. Similary, community tolerance of substance use and lack of a sense of cohesion among community members increased substance use among young people in Cape Town, South Africa (Morojele, et al., 2008). The researchers reported that peer norms promoting heavy drinking, easy access to alcoholic drinks, increased
alcohol use and alcohol related sexual behaviors generally resulted in risky behavior. Garcia (2007) found similar factors for engaging in risky behaviors among immigrant Mexicans in the US, including the absence of community deterrents to risky behaviors, the presence of drug use, availability of substances and witnessing of drug use. As noted by Scribner, et al., (2010), policies affecting how alcohol is made available tend to affect its use. For example, if there are no policies indicating operating hours and minimum age restrictions, alcohol consumption increases. In addition, UNICEF (2007) found that poor supervision in communities, such as the market in our case, compounded by other environmental factors, also shape cultural norms supporting risk and encourage risky behavior.

The other factor at the environmental level that could explain differences among the young men in their risk behaviors was the community and home environment where they grew up and in most cases continued to return to each evening. Two factors emerged from the data; poverty and family stability. Poverty at home was identified as an important factor affecting choices young men make about their lives. Findings from this study show that poverty in homes influenced young men to seek jobs at the market. The market environment offered various opportunities, freedoms (no restraints), peers, and a culture of substance use. We also found that in communities with high levels of poverty, young men left their homes at a young age to go and work at the market, where they were at risk of being influenced to engage in risky behaviors. In a broader perspective, all the young men in this study were from poor families, but some were poorer than others. In some families, parents encouraged
young men to drop out of school to go and work. Some of the young men in our study were orphaned or lacked father figures in their lives. In this study, nine out of fifteen young men experienced parental death or family dissolution at an early age due to HIV and other causes such as family instability because of poverty. Family experience exerted significant effects on young men's behavior. This resulted in lack of parental supervision at the most critical time of development in the young man's life. There were, however, variations in reporting stability and protectiveness of their families. Young men who reported greater parental support and disapproval of substance use were less likely to use substances and reported to be supporting their families as well.

Previous research support our findings regarding poverty. Studies in South Africa found that family support, and role modeling of acceptable behaviors from their families influenced resilience in youths (Dass-Brailsford, 2005; Bell, et al., 2008). Studies in Pakistan, the US and Australia have shown that parental style and monitoring are proven to be protective regarding adolescent’s use of alcohol and other drugs (Stewalt, 2001; Dishion, Nelson, & Kavanagh, 2003; Hayes, et al. 2004). One study found that parents who communicate clear norms about their child's use of alcohol results in the child not using it (Kosterman, 2000). In our study, we found a few young men who reported that their parents opposed the use of substances and that they had remained abstinent.

A study in South Africa, that used data from Cape Area Panel Study (CAPS), found that multiple factors affected risky sexual behaviors, especially the underlying factor of low socio-economic status. The study revealed that poverty at the
community-level had a strong negative impact on the sexual behaviors of young people in Cape Town, (Tenkorang, Maticka-Tyndale & Rajulton, 2011). Although poverty may be an underlying factor to HIV, a study by Fox (2010) found an inverse relationship between poverty and HIV. In most African countries, there is increasing evidence that wealthier individuals have higher risk of HIV prevalence. Poverty drives young men to make money. Once they earn money they become more affluent than their peers and are able to buy things, including sex and substances. This finding is relevant to our findings where young men gained cash and were able to buy alcohol and sex when they came to the market.

Our findings involving young people being orphaned at an early age also concur with studies in South Africa and elsewhere. We found that family supervision reduced the odds of young men drinking and using other drugs. In a study that was conducted among South African youths Double orphaned male youth have increased risk of alcohol use compared with non-orphaned ones (Meghdadpour, Curtis, Pettifor & Macphail 2012). Parents’ influence can buffer adolescents from the influence of negative peer norms that encourage risky sexual behaviors among American youth (Whitaker & Miller, 2000; Alaska Division of Behavioral Health, 2011). Guiao, Blakemore & Wise (2004) conducted a review of literature on adolescent high risk behavior in the US and found that parental monitoring, family involvement and conflict were found to be key factors in the development of adolescent problem behavior that included substance use and risky sexual behaviors. Lacking a close bond with the parent may result in a young man at adolescent stage not developing effective self-regulation and social skills
that will indirectly improve their ability to deal with life challenges (Brook, Morojele, Zhang & Brook, 2006). Our results are consistent with prior findings that young men who lived with two parents engaged in less risky behaviors (Haglund Fehring 2010; Aspy, Vesely, Oman, Rodine, Marshall & McLeroy (2007). These studies reported that living with two parents was more protective.

Our data has demonstrated that interpersonal processes influence substance use behavior among young men working at this market. The peer environment contributes to high risk substance use. Young men in this study acknowledged peer pressure as an influencing factor in the use of substances both at the market and in their own communities. Peer pressure was described as encouragement from friends to engage in risky behaviors. Our findings demonstrate that associating with deviant peers, those who engage in risky behaviors, influences young men to engage in risky behaviors. According to accounts of young men, peer encouragement influenced them to use substances. Associating with peers possessing similar attributes provides the context in which risky behaviors occur. Also, other young men in this study reported that associating with peers who never use substances helped them to abstain from engaging in risky behaviors. A few young men reported they never engaged in risky behaviors because their parents instructed them to abstain from risky behaviors.

Our study revealed that the less influence from family relations resulted in an increase in association with peers who use substances. Parental support
and their disapproval of substance use was associated with less involvement with peers who engaged in risky behaviors. Therefore, parental support was a protective factor.

Other studies reported finding peer influence to be significantly associated with risk of alcohol and drug use among youth in South Africa (Brook, Morojele, Zhang & Brook, 2006; Morejele et al. 2002). Garcia (2007) also reported a similar finding in their study on substance abuse among Mexican farm workers in southern Pennsylvania. Peer pressure was identified as one of the factors that make the migrant farm workers use alcohol and drugs. However, Meghdadpour, Curtis, Pettifor & Macphail (2012), in their study on factors associated with substance use among orphaned and non-orphaned youth in South Africa, it was found that peer influence in general was important but role modeling was a more important factor regarding substance use. Other studies report similar findings in which perceived peer norms about what behavior is considered appropriate in a given social context indirectly influenced drinking behaviors among peers (Borsari, & Carey, 2001; Bahr, Hoffman, & Yang, 2005; Fletcher, 2011; Di Franza & Guerrera 1990). Young men who perceived that their friends were engaging in risky behaviors were more likely to model their friend’s behaviors (Bachanas, et al., 2002; Barsari et al., 2001).

Contrary to the findings of this study, other studies reported that school attendance and religion exerted protective effects on risky behavior. (Samisa, Curtis & Stokes, 2010). We did not find similar results among the young men interviewed for this study, which may reflect the relatively older ages and low education across all participants.
2. **Congruence with conceptual framework**

The investigator used an ecological epidemiology of HIV risk developed by Scribner, Theall, Simonsen, & Robinson (2010) to guide this study. An ecological epidemiology of HIV risk implies a multilevel structure, including influences at the individual level, interpersonal level, neighborhood and societal level. This framework provides the basis for a conceptual model with specific risk factors at each of these levels, and cross-level associations. The nature of the association is also important in that there is an assumption that the neighborhood alcohol environment exerts its effects on HIV risk through both direct and indirect pathways. This framework was developed to explain that exposure to alcohol and the alcohol environment play an important role in regulating the risk of acquiring HIV and AIDS. We used this model to develop interview questions and organize the results.

The results from this study provided support to the conceptual model. The context of the market strongly supported risky behaviors through availability, accessibility and affordability of resources and services, norms supporting substance use and the lack of restraints on risky behaviors. We also identified community, family, and interpersonal levels which had varying influences on individuals. Figure 2 shows how we revised the model based on these findings.
Our study also showed that home environment was relevant for differentiating between young men’ behaviors, a factor that we had not expected in our original framework. The home and community environment experiences varied between young men who reported to have never engaged in risky behaviors and those who were currently and formerly engaging in risky behaviors.

The market as an environment exerts its effects on HIV risk in multiple ways. This context encourages risk in many ways. First, alcohol venues may affect risk of HIV through increased alcohol consumption. High alcohol densities have been associated with increased consumption of alcohol, which may in turn influence high-risk sexual behavior (Scribner et al, 2010; Gruenewald, 2007). Second, alcohol venues are important locations for social and sexual relationships, and each alcohol venue may be defined by its own norms which may attract young men to that venue. For example, young men may prefer to visit a particular alcohol venue because of the presence of a
certain type of female sex workers. Understanding the nature of influences on the patterns of youth risky behaviors will assist in the development of culturally tailored prevention strategies.

An interesting finding from our data is that risk factors, resources, substance use and sexual risk behaviors, cut across the three levels of influence, namely, market, interpersonal and individual. For example, the availability, accessibility, and affordability of resources at the market influence young men to engage in substance use and have sex with female sex workers. At the interpersonal level, peers influence each other to engage in risky behaviors and the presence of norms may influence young men’s risky behaviors. At the individual level, young men may have the money to pay for the resources but may lack knowledge about the ill effects of the behaviors they are doing. At the community and home environment level, lack of resources influences young men to work at the market, and the lack of a paternal figures makes it difficult for young men to learn protective behaviors.

Although we presented separate levels of influence, these factors are interrelated and interact over time. It is evident that more than one explanation applies to young men engaging in risky behaviors in this market setting. The young man may have experienced poverty at home that prevented him from continuing with his education and meeting his basic needs. This experience may influence him to secure employment at the market, because others he knows have seemed to accomplish financial independence. At the market, his peers may influence him to use substances as energy
enhancers so he can earn more cash. The young man may go to a bar within the market for a drink where female sex workers are present, and he may have unprotected sex while intoxicated with alcohol or marijuana. Knowing the crossover of the influencing factors may assist in explaining the complex relationship of substance use and risky sexual behavior and in the design of HIV prevention programs that are more comprehensive.

B. **Strengths and Limitations of the Study and Future Research**

One strength of this study is the use of multiple ways of collecting data, namely, observations followed by on-site interviews of key leaders and young male market workers. This approach gave the data richness and it allowed the researcher to crosscheck the results from different types of data. The investigator used purposeful sampling in choosing participants. Purposive sampling was chosen since it “enriches data by including participants who have a particular experience, characteristic or understanding to share” (Macnee & MacCabe, 2008, p 122). Procedures to enhance rigor and trustworthiness were established by keeping an audit trail, summarizing the observations, and interviews. This process helped to analyze the data as it was being collected. Ongoing analysis allowed emerging questions to be addressed in later data collection. In reporting the results, participants’ actual words have been used to enhance credibility. Transcripts were verified by listening to the recorded interviews and reviewing the transcripts to increase the accuracy of the data. As proposed by Lincoln & Guba, (1985), dependability was established by assessing intercoder reliability. Debriefing sessions with the research advisor and other committee members increased
the dependability of the results, because it helped the researcher to think through issues while in the field. This ongoing consultation with expert advisors helped to confirm an audit trail.

In spite of the revealing study findings, the study has limitations that should be noted. First, the researcher for this study was female; it could be possible that young men in this study were not comfortable discussing issues of sex with a woman. Culturally in Malawi, strangers, especially of the opposite sex, would not discuss issues of sex openly. The use of self-reported behavior is another limitation, because they are subject to social desirability bias, especially when discussing sensitive issues in Malawi (Smith & Watkins, 2005). It is proposed that a young male interviewer be engaged in further studies of this nature. Young men may be more apt to talk openly about personal issues with someone they consider their peer.

Using audio computer assisted interviews (ACASI) in responding to sensitive questions, should be considered as another option. Several studies have shown that disclosure of many sensitive risky behaviors was considerably high using ACASI. More respondents reported HIV risk behaviors than in face-to-face interviews (Des Jarlais et al. 1999; Metzger et al., 2001; Caldwell & Gryczynski, 2012).

In addition, more questions should focus on family dynamics to understand what went on in the life of the young men in order to identify risk and protective factors. A substance use questionnaire to assess the level of use would have been helpful in determining behaviors related to substance use. Future studies that examine in-depth
individual characteristics are required to identify the protective factors that can guide development of an intervention for young men working at the market. A mixed method approach to provide more certainty over the prevalence of substance use and risky sexual behaviors should be considered as an option in future studies.

It is noteworthy that this study was based on the self-report of sensitive behaviors, which accounted for some of the challenges met in researching young men. Key leaders and young men reported that many young men working as casual workers were engaging in risky behaviors, namely drinking, smoking and sex with multiple partners. In talking to the young men, however, many were willing to talk more about what others did and not so much about what they did personally. Issues of the degree of openness when discussing stigmatized behaviors like sexual partners and use of marijuana were noted in their responses. More young men reported to be drinking and to be former marijuana users and only one reported to be currently engaging in risky sexual activities. Attempts to decrease these challenges were made by building rapport, assuring the participants of confidentiality, and probing to find out more about issues that were stated vaguely, for example, what “former” meant for young men who reported to have stopped engaging in risky behaviors. Discrepancies, however, remained between personal risk behaviors reported and perceptions of behaviors of other young men.

C. **Study Implications**

Findings from this study imply that policies and programs to address factors at different levels are needed. Policies on substance use, especially alcohol, need to be
developed and existing policies must be enforced. This would help address issues raised in this study such as a lack of age limitations in accessing alcohol. The government of Malawi should recognize alcohol use as a public health issue based on the long term effects on the lives of young men. Wegenaar, Tobler & Kelli (2010) conducted a meta-analysis review on the effects of alcohol taxes and prices on alcohol-related morbidity and mortality to assess their public health impact. They found that public policies affecting the price of alcoholic beverages had significant effects on alcohol related disease and injury. Doubling the alcohol tax reduced alcohol mortality by an average of 35%, and sexually transmitted diseases by 6% in the US. Government surveillance on bars, and enforcing age limits, and increasing the price of alcohol are proposals identified in the literature to reduce alcohol use and its consequences (Xu, Chaloupka, 2011).

Mental health policies that address alcohol as a disease need to be developed. The current laws relating to mental health, such as the Mental Treatment Act, (MTA Cap 32:02), do not adequately cover alcohol use as a disorder that requires medical attention. Mental health issues should be part of a school curriculum so children are made aware of the problems of substance use from an early age. We need programs in Malawi that address issues of risky alcohol use.

At the level of the market, our findings show that some key leaders at this market recognize the magnitude of the problems, and expressed willingness to participate in HIV prevention and risk reduction programs. However, these programs need to be
designed with full participation of the market employers who have a vested interest in what occurs at this market. An example would be finding ways of ensuring that bar owners do not perceive that these programs will result in a loss of income.

At the community level, improving bonding, attachment, and connectedness dynamics within the community and reestablishing the adult protective shield and monitoring as proposed by Bell, Flay & Paikoff (2002), should be considered as one approach to reducing risky behaviors among young people. Parents should be informed that their guidance makes a difference even when their adolescents don’t appear to listen to them. Programs that have also been initiated in Malawi such as the Cash Transfer program should be extended to other areas so females and child-headed poor households can be supported. HIV in Malawi has had a negative impact on individual households due to AIDS mortality increasing to almost 51,000 in 2009 (CIA World Factbook, 2013). This epidemic has increased the number of orphans. There were 12.4%- orphaned children aged 0-17 years, 45% of them due to AIDS in 2009. The government needs to ensure that policies and programs are developed to help support orphans and keep them in school.

At the interpersonal and individual level, a policy that encourages and keeps children in school should be reinforced. In addition to being in school, children should be taught life skills that will empower them to resist risky environmental factors surrounding them, such as peer influence. Teaching young people about the dangers of substance use, money management and other life skills is also important. Targeting young men’s
personal attributes may be feasible in trying to bring change in this community. This
would be in addition to focusing on contextual factors as discussed in this study.
CITED LITERATURE


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WHO (2013). Process of translating and adaptation of instruments


APPENDICES


### Appendix A

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Appendix B

OBSERVATION GUIDE
Name of Observer: ___________________________ Date of Observation: ________________________
Time: Start ______________ Finish ______________
Site of the market: ________________________________

Instructions
Please remember that this guide is meant to remind us of the things to look for but should not limit our observations. Take note of the things that are related to our study including the following:
The right hand side has a section on comments, please enter all your comments in these spaces for different observations that need comments.

SECTION ONE (THIS WILL BE DONE ONCE)

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c) Type of commodities sold in the market (list as many as possible)
• ________________________________________________
APPENDIX B (Continued)

SECTION TWO: COMPLETE THE RELEVANT OBSERVATIONS AT EACH GIVEN OBSERVATION PERIOD

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<td>• Young men</td>
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Appendix C

University of Illinois at Chicago
Interview Guide Questions for Key Leaders

Introduction

Thank you for your willingness to participate in this study. I am interested in knowing what young men do at this market and your thoughts about risky behaviors that put young men at the risk of HIV in this market. The information you are going to share with us will give us insights into the experiences and perceptions of what young men do at this market. Your information will help us find ways of developing interventions to help young men protect themselves against HIV infection. Please remember that your name does not appear anywhere in this interview script and that everything you say is completely private and confidential. To protect other people's privacy, we will not mention people's real names in our interview, and if any names are mentioned we will erase them from the recorder.

Demographic Information

I would like to know your brief background

1. How old are you?
2. How far did you go with education?
3. What is your connection to the market?
4. Probe (if in business) how long have you operated your business at this market?--years. (If holding any position) How long have you been in that position?

Now I would like to hear your thoughts on what young men do in this market.

1. I have seen a good number of young men around the market in various parts of this market engaged in different activities.

   i). What kinds of jobs do these young men do at this market?
   ii). Can you tell me what you know about these young men and what they do here at the market?
   iii). (IF A POTENTIAL EMPLOYER) Have you ever had any of them work with/for you? If yes, Can you describe their work experiences that you have had with these young men? If no, why don't you engage these young men?
Appendix C (continued)

2. Why do you think young men come here rather than work elsewhere or remain in their villages as farmers?

3. Are these young men who work as casual workers like call boys and truck loaders operate as individuals or do they have an organization?

Probe (IF THEY HAVE AN ORGANIZATION)
- How are they organized?
- Do they have a leader?

4. Are there regulations or informal expectations about belonging to the organization that young men have at this market?

5. Can you share with me any good experiences you have had with young men at this market?

Probe
- How about those you have worked with?
- How else do you interact with the young men?

6. Have you ever experienced problems with young men who work at this market?

Probe (IF YES)
- What type of problems
- Why and how do the problems occur?
- Who are the perpetrators?
- How did that problem get settled?
- Who settles the disputes around here?
Appendix C (continued)

Now I would like to ask you a few questions about alcohol and marijuana use and sexual behavior among young men working at this market?

7. Have you seen any young men drinking alcohol like Carlsberg beer, gin, home brewed beer, in this area?

 Probe
  • Tell me the last time you saw this, where was it?
  • Was it a young man by himself or was it a group of young men? What did he/they seem to be doing? Describe their behavior that made you think he/they were drunk?

8. Can young men get alcohol around this market?

 IF YES
  i). Where can they get it?
  ii). Can young men afford to buy it frequently? If yes: How frequently can they afford to buy alcohol?
  iii). Is alcohol always available for young men to buy from this market and the surrounding areas?

9. Have you seen any young men using marijuana in this area?

 Probe
  • Tell me the last time you saw this, where was it?
  • Was it a young man by himself or was it a group of young men? What did he/they seem to be doing? Describe their behavior that made you think he/they were intoxicated?

10. Can young men get marijuana around this market?

 IF YES
  i). Where can they get it?
Appendix C (continued)

ii). Can young men afford to buy marijuana? If yes: How frequently can they afford to buy marijuana?

iii). Is marijuana always available for young men to buy from this market and the surrounding areas?

Now I would like to talk about the sexual relationships of young men.

11. Sometimes young men have more than one sexual partner at a time or have a number of partners over a period of time. Do you think young men in this market do that?

Probes:
- What kinds of things do you see that make you think this?
- Do young men have more than one partner at a time?
- Do they have more than one sexual partner over time?
- How often do you think they change partners?

12. Do you ever see young men meeting with their sexual partners?

Probe
- Tell me about the last time this happened
- Where did you see them?
- What other places have you seen young men who work in the market with their partners?

13. How do you think young men working in the market meet their partners for the first time?

Probe
- Do you think they meet their partners in their homes or communities outside the market?
- Do you think they meet their partners here at the market?
Appendix C (continued)

- What do you think are the reasons why young men have multiple sexual partners?

14. Is it easy for young men working in this market to get sexual partners? What makes you say so?

15. Where do young men go for sexual activities with their partners?

16. Are there women who you see hanging out in the market who seem to be looking for young men?

**Probe (IF YES)**
- What do you see that makes you think so?

17. Sometimes people have sex in exchange for favors. Do you think there are young people who have sex for money or favors around this place?
   i). What things do you see that suggests that?
   ii). Where does it take place?
   iii). Are there women who trade sex? Do you think young men do that?
   iv). How can one know the women who trade sex?

Let us now discuss issues concerning HIV and AIDS among young men

18. Do you think young men working at this market are at a risk of contracting HIV?

   i) What do you think puts young men at risk of HIV at this market?

19. What do you think is the relationship between alcohol and marijuana use and HIV infection?

20. Is there something you would want to share with me about HIV or AIDS at the market?

**Questions for the policemen/women ONLY**

21. Have you ever arrested a young man or a group of young men from this market?

   **IF YES: (IF NO GO TO Q.22)**
   - i) What were the reasons for the arrest?
   - ii) How often do the arrests happen?

22. Are there any places around the market that you sometimes have difficulty in keeping order?

   i) How do you handle such places?
   - ii) Are young men involved in the activities that take place at those places?
Appendix C (continued)

23. Can you tell me if there are security issues that we should expect from this place during our time here? If yes, can you specify what the issues are?

Probe
- Are there certain areas where this is more likely to be a problem?
- Do you have any suggestions about how we should protect ourselves?

For Health Worker ONLY

24. Tell me, what do you do as a health worker at this market and its surrounding community?

25. How do you interact with young men who work as casual workers at this market?

26. Can you tell me the kinds of health problems that young men present to you?

Probe
- Any problems related to drinking alcohol?
- How about marijuana related health problems?
- Any problems with HIV or sexually transmitted infections?

As I said earlier, our team is going to be looking and talking to young men who work as casual workers throughout this market.

27. Are there places you would recommend to us to visit to see what young men do at this market?

28. Are there any places that might be unsafe or things that might be unsafe for us to do?

Conclusion

29. Is there anything else you would like to tell me?

Thank you for sharing your thoughts with me. Do you have questions or any suggestions on what we have discussed?
Appendix D

Interview guide questions for young men.

Introduction

Thank you for accepting to participate in this study. The information you are going to share with us will give us insights into the experiences and perceptions of what young men do at this market. Please remember that your name does not appear anywhere in this interview script and that everything you say is completely private and confidential.

Part I: Demographic Questions Information

First, I would like to know your background.

1. What sort of work do you do at this market?
2. What other type of work do you do?
3. What is your tribe? ------
4. How old are you? -----
5. What is the highest level of education you have attended? ------
6. Do you regularly assist any of your relatives? ---
7. Does anybody regularly assist you with basic needs? -----
8. Have you ever worked in other markets? ----If Yes where?
9. How many children do you have?
10. Are you married? If yes, how long have you been married? -----years.

Part II: In-depth Interview guide questions

Introduction

Now I would like to know more about what it is like to be a young man and working in this market. I would like to learn more on the activities that you and your friends do at this market.

1. Can you describe to me what your life is like working in the market?

   i). How did you come to work at this market? How long have you worked here?
   ii). Why did you come to work here other than work elsewhere or remain in your village as a farmer?
   iii). Tell me a bit more about what you do every day in this market.
   iv). How do you go about looking for work?
   v). Is there a place in the market where you hang out looking for work?
   vi). When you are working, how many hours do you work in a day?
   vii). In a month how many days do you work? Does your work vary by season?
Appendix D (continued)

2. Can you describe to me the people you work with? (These are people who hire your services and those you hang out with).

3. I will show you a map. Please indicate the areas you like to hang out with your friends. Can you share with me your reasons for hanging out in that place?

Now let us talk about alcohol and marijuana use

4. Some young men drink alcohol including Carlsberg, Chibuku, locally brewed beers and/or any type of spirits when they are relaxing. Do any of your friends drink alcohol? How about you, have you ever drunk alcohol? (IF NO, GO TO Q. 8)

5. Can you describe to me the last time you drank alcohol.
   i). Who was with you?
   ii). What type of alcohol do you like to use?
   iii). What was the occasion?

6. Was the last time you drank alcohol a typical occasion? If it was not, what is it like when you usually drink alcohol?

Probe
   - Do you usually drink by yourself or with friends?
   - How do you choose your drinking friends?
   - Describe the places where you like to drink?
   - What are the reasons for choosing that/those places?
   - How often in a month do you usually drink alcohol?
   - What are the main reasons you drink alcohol?
   - Do you sometimes have problems related to alcohol?

7. Can you tell me where you get alcohol?

Probe
   - (If not in the market) can you also get it in the market?
Appendix D (continued)

- Why do you get it where you do?
- Is it always available for you to get it?
- Can you afford to buy it frequently?

8. Some young men use marijuana as a way to relax. Do any of your friends use marijuana?

**Probe**
At what sorts of occasions do they use marijuana?

i). Were they in a group?
ii). Is it all young men or some young women who use marijuana?
iii). Where do they do that?
iv). Do you think young men have problems related to using marijuana?

9. Can you tell me how people get marijuana?

**Probe**
- *(If not in the market)* can they also get it in the market?

- Is marijuana always available for young men to buy from the market and the surrounding areas?
- Can young men afford to buy marijuana? If yes: How frequently can they afford to buy marijuana?

10. Are there any other substances that you have heard or seen young men using around the market? If yes, what is it?

**Probe (IF YES)**
- At what sorts of occasions do young men use those other substances?

*Now let us talk about relationships with women.*

11. Some young men have more than one sexual partner at a time or over a period of time. Do any of your friends do that?
Appendix D (continued)

Probe
- Do they have more than one partner at a time?
- Do they change sexual partner over a period of time?
- How often do your friends change partners?
- What do you think are the reasons why young men have multiple sexual partners?

12. Is it easy for young men to get sexual partners in this market area? What about outside the market?

13. Now let us talk about you. Do you have a person you consider your most important partner? **IF YES**, tell me about her and your relationship. **IF NO, GO TO Q. 18.**

  i) Are you married or do you live together with your important partner?
  ii) Right now where does she live? *(If not clear; How near the market?)*
  iii) How often do you usually see each other?
  iv) Tell me a bit about how you met and where.
  v) How long have you been together?
  vi) What kinds of things do you usually do when you are together with her?
  vii) Did you use a condom the last time you had sex with your partner? Do you use a condom all the time you have sex with her?
  viii) Do you talk with her about sexual issues such as using a condom? **If yes**, tell me about your discussions. **If not**, why don’t you discuss sexual issues with your partner?

14. Do you ever drink alcohol when you are together with your partner?

**Probe (IF YES)**
- Does your partner drink alcohol also?
Appendix D (continued)

- Do you drink alcohol most of the time you are together with her, or only occasionally?

The next questions I am going to ask you about your other sexual partners.

15. Are you currently having sex with anybody else? (OR- Have you had sex with anybody else in the last 2 months.) (IF NO, GO TO Q. 21)

**Probe**
- How many other sexual partners do you currently have even if you had sex just one time?
- How many partners have you had in the past two years (NOT including your most important partner)?
- How often do you get together and have sex with someone other than your most important partner?
- How did you meet her/them?
- Did you use a condom the last time you had sex with her/them? Do you use a condom all the time you have sex with her/them?

Appendix D (continued)

- Where do you meet to have sex with her/them?
- How long was the longest relationship you’ve had?
- How long was the shortest relationship you’ve had?

16. When you have sex with someone (who is not most important partner), have you usually been drinking before sex?

**Probe**
- Do you drink together with your partner/s?
Appendix D (continued)

17. When young men have sex with someone, do they usually use marijuana beforehand or during their time together?

18. Do you think the money you earn is important to your partner(s)

**Probe IF YES**
- Can you tell me how it is important?
- Is there an association between having money and sexual activities for you and other young men who work in the market? Can you tell me more about it?

19. Sometimes people have sex in exchange for money or favors. Has this ever happened to you? Tell me more how it happened?

**Probe (IF YES) (IF NO, GO TO Q. 23)**
- Tell me about the last time it happened to you.
- How did you meet this woman?
- Where does it take place?
- How often does that happen to you?
- Are there women who routinely hang out there looking for young men?

*Now I would like to talk to you about your family, friends and the people you work for.*

20. Who influences you in making decisions about your life, for example in the following areas?
   i) Whether to continue to work at this market
   ii) Casual and multiple relationships
   iii) Decisions about serious relationship like marriage
   iv) Drinking alcohol and using marijuana

Appendix D (continued)

*Now, I would like to know more about HIV and AIDS?*

21. Since you work in this market, can you share with me some of the things that young men who work here do that can put them at risk of HIV?
Appendix D (continued)

How does that relate to you?

22. Do you and your friends discuss issues concerning HIV?

 Probe
 • What do you talk about?

23. Do you think there is any relationship between alcohol use and HIV infection?

 Probe (IF YES)
 • What is the relationship?

24. Do you think there is any relationship between marijuana use and HIV infections?

 Probe (IF YES)
 • What is the relationship?

25. Do young men who work in this market go for HIV test? What do they say about testing, why they go or don't go?

26. How about you, have you ever had HIV test?

 Probe (IF YES), {IF NO, GO TO Q.30}
 • What were your reasons for having the test?

 • When was your last test?

 • What do you think are the benefits and disadvantages of testing for HIV?

In conclusion:

27. Is there anything else you would want to share with me about alcohol and marijuana use, sexual issues or HIV as they relate to young men/people and this market?

28. Is there anything else you would like to tell me?

Thank you for sparing your time and for sharing with me your thoughts. Do you have any questions on what we have discussed?
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<td>Reference to a place where young men work and its surrounding communities.</td>
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<td>Availability of resources</td>
<td>Reference to available resources at the market that give opportunity for young men to use and engage in a variety of high risk activities.</td>
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<td>Access to resources</td>
<td>Reference to access to work and money, substances, bars, resthouses, and women for sex, and other materials and assets that may produce benefit to the individual.</td>
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<td>Affordability resources</td>
<td>Reference to having money (hard cash) every day that enables young men to buy substances that can alter their moods and perceptions or buy short stay room for sex.</td>
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<td>Home Environment</td>
<td>Community where young men come from and the surrounding villages; <strong>INCLUDES</strong> discussions of relationships with family, i.e., wife, parents, siblings, and steady girlfriend from his home/village.</td>
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<td>Reference to description of the type of work that young men do at the market; <strong>INCLUDES</strong> jobs that require heavy lifting and long hours at work.</td>
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<td>Support</td>
<td>Reference to the physical and emotional assistance and care given by someone in a young man’s social life such as financial and material support; parental care (provision of childcare); <strong>INCLUDES</strong> the absence of support.</td>
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<td><strong>Family</strong>- Discussion of family provision of physical, emotional and tangible care or lack of it.</td>
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<td><strong>Friends</strong>- Reference to friends/peers provision of physical, emotional and tangible care or the lack thereof.</td>
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<td><strong>Absence of support</strong>- Reference to specific instances where there is general lack of support.</td>
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<td>Peers</td>
<td>Reference to a friend who is similar to abilities, age, background and social status including those working at the market and outside the market.</td>
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<td>Influence</td>
<td>Description of anything relating to how people and environmental issues affecting young man’s ability to make decisions about using substances, having a job, going to school, sexual partners, and friends; can be positive or negative.</td>
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|    | [Subcodes]   | **Influence on risky behavior**- description of the effect or ability that people and other things have on young man’s life and ability to make decisions about using substances, and sexual partners.  
**Other Influence**- Reference to any other influence in a young man’s ability to make decisions other than decision about risky behaviors. |
|    | Substance use behaviour | Reference to the way young man conducts himself towards drinking alcohol and smoking marijuana, **INCLUDES** Use of both substances; Intoxication; Descriptions of being intoxicated with alcoholic drinks and/or marijuana. |
|    | [Subcodes]   | **Alcohol Use**: Description of drinking alcoholic beverages within the time that young men are working (job related alcohol consumption).  
**Amount of alcohol used**: Description of volume, alcoholic content and frequency of taking alcoholic drinks to make one intoxicated  
**Marijuana Use**: Reference to smoking marijuana within the time young men are working at the market |
|    | Types of Substance used | Reference to using alcohol and marijuana within the time young men are working at the market. **INCLUDES** ingestion of alcoholic beverages available at the market, e.g. chibuku, masese, lawidzane, sachet, zed, Carlsberg beers, kachaso. |
|    | Risky sexual behavior | Description of engaging in sex with multiple sexual partners and not using a condom, and affirmation of having sex and unprotected sex. **INCLUDES** fondling, fondling and kissing and suggestive dancing. |
|    | [Subcodes]   | **Multiple sexual partners**- Reference to having more than one sexual partner.  
**Risky condom use**- Descriptions of not using a condom with sexual partners; **INCLUDES** Inconsistent condom use.  
**Recurrence of STI**- Participants description of physical symptoms of STI. |
<p>|    | HIV Knowledge and prevention | Explanation of what participants know about HIV transmission, approaches that people use to protect themselves from HIV transmission, &amp; the benefits of HIV testing. <strong>INCLUDES</strong> other discussions on STI, HIV &amp; AIDS. |</p>
<table>
<thead>
<tr>
<th>No</th>
<th>CODE</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Misinformation on HIV and AIDS and HIV Testing</td>
<td>Having inadequate information on HIV and other STIs transmission, prevention, and testing.</td>
</tr>
<tr>
<td></td>
<td>Knowledge on effects of alcohol and marijuana</td>
<td>Explanation of what participants know about how alcohol and marijuana use influences change in behavior and on the human body.</td>
</tr>
<tr>
<td></td>
<td>Future</td>
<td>Expressions or references to young man’s views about his plans, expectations, visions and hopes about the future in terms of his job, the market and his life. <strong>INCLUDES</strong> other people’s views about the future of young men working at the market.</td>
</tr>
<tr>
<td></td>
<td><strong>[Subcodes]</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Positive Statements</strong></td>
<td>Expression of having positive views about his life, his work and life at the market in general.</td>
</tr>
<tr>
<td></td>
<td><strong>Fatalism</strong></td>
<td>Reference to attitude of resignation in the face of some future events that are thought to be inevitable.</td>
</tr>
<tr>
<td></td>
<td>Cultural/Social norm</td>
<td>Description of codes of conduct according to societal norms regarding behavior. <strong>INCLUDES</strong> parental responsibility or lack of it toward their children/ward.</td>
</tr>
<tr>
<td></td>
<td>Other Social relationships</td>
<td>Description of young man’s relationship with girlfriends/sexual partners whom young men interact with at the market.</td>
</tr>
<tr>
<td></td>
<td>Connections</td>
<td>Explanations on how participants perceived associations among substance use and sexual behavior and HIV. <strong>INCLUDES</strong> expressions of other associations for example money, sexual activities/behavior and any other negative consequences.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Explanations on how participants perceive the relationship between substance use behavior. <strong>INCLUDES</strong> relationship between alcohol use and risky sexual behavior; marijuana use and risky sexual behavior; substance use and HIV; Female sex workers and HIV.</td>
</tr>
</tbody>
</table>
Appendix F

UIC Initial Approval Letter

University of Illinois
at Chicago

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Polk Street
Chicago, Illinois 60612-7227

Approval Notice
Initial Review (Response To Modifications)

February 29, 2012

Diana Jere
Women, Child, & Family Health Science
Women, Children & Family Health Sciences
845 S Damen Ave, M/C 802
Chicago, IL 60612
Phone: (708) 383-1337 / Fax: (312) 996-8945

RE: Protocol # 2012-0105
“Contextual factors, substance use and HIV risk behaviors among young male workers in a Malawian market”

Please submit the IRB approval letter from Malawi as an amendment when available. Also please note that no recruitment or consenting can be started without OPRS acceptance of this approval letter.

Please submit translations of the consents and recruitment documents if the subjects may not be familiar with English. It is usual to wait until the research and English documents are approved by the IRB before submitting the translations with an Amendment form.
Translations must be accompanied with a signed statement or other documentation from the individual who performed the translation, attesting to their qualifications, the accuracy of the translation, type of translation utilized (e.g., back translation).

Dear Ms. Jere:

Your Initial Review (Response To Modifications) was reviewed and approved by the Expedited review process on February 22, 2012. You may now begin your research
Please note the following information about your approved research protocol:

**Protocol Approval Period:** February 22, 2012 - February 20, 2013

**Approved Subject Enrollment #:** 50

**Additional Determinations for Research Involving Minors:** These determinations have not been made for this study since it has not been approved for enrollment of minors.

**Performance Sites:** UIC

**Sponsor:** National Institutes of Health

**PAF#:** 2011-00687

**Grant/Contract No:** D43 TW01419

**Grant/Contract Title:** UIC AIDS International Training and Research Program

**Research Protocol(s):**

a) Contextual factors, substance use and HIV risk behaviors among young male workers in a Malawian market; Version 2, 02/20/2012

**Recruitment Material(s):**

a) Recruitment Script for Key Leaders; Version 2, 02/20/2012
b) Recruitment Script for Young Men; Version 2, 02/20/2012
c) Letter to Chairperson of Market; Version 1, 02/20/2012
d) Letter to DC; Version 1, 02/20/2012

**Informed Consent(s):**

a) Consent for Young men; Version 2, 02/20/2012
b) Consent for Key Leaders; Version 2, 02/20/2012
c) A waiver of documentation of informed consent has been granted under 45 CFR 46.117 and an alteration of consent has been granted under 45 CFR 46.116(d) for recruitment/screening purposes only (minimal risk; verbal consent to collect minimal screening data obtained; written consent will be obtained at enrollment)

Your research meets the criteria for expedited review as defined in 45 CFR 46.110(b)(1) under the following specific categories:

(6) Collection of data from voice, video, digital, or image recordings made for research purposes., (7) Research on individual or group characteristics or behavior (including but not limited to research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

**Please note the Review History of this submission:**

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<th>Submission Type</th>
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<th>Review Date</th>
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<tr>
<td>02/02/2012</td>
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<td>Expedited</td>
<td>02/02/2012</td>
<td>Modifications Required</td>
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<tr>
<td>02/20/2012</td>
<td>Response To Modifications</td>
<td>Expedited</td>
<td>02/22/2012</td>
<td>Approved</td>
</tr>
</tbody>
</table>
Please remember to:

→ Use your research protocol number (2012-0105) on any documents or correspondence with the IRB concerning your research protocol.

→ Review and comply with all requirements on the enclosure, "UIC Investigator Responsibilities, Protection of Human Research Subjects"

Please note that the UIC IRB has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact OPRS at (312) 996-1711 or me at (312) 413-1835. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

[signature]
Kathleen Loviscek, M.S.
IRB Coordinator, IRB #2
Office for the Protection of Research Subjects

Enclosure(s):

1. UIC Investigator Responsibilities, Protection of Human Research Subjects
2. Informed Consent Document(s):
   a) Consent for Young men; Version 2, 02/20/2012
   b) Consent for Key Leaders; Version 2, 02/20/2012
3. Recruiting Material(s):
   a) Recruitment Script for Key Leaders; Version 2, 02/20/2012
   b) Recruitment Script for Young Men; Version 2, 02/20/2012
   c) Letter to Chairperson of Market; Version 1, 02/20/2012
   d) Letter to DC; Version 1, 02/20/2012

cc: Rosemary C. White-Traut, Women, Child, & Family Health Science, M/C 802
     Kathleen F. Norr (faculty sponsor), Women, Child, & Family Health Science, M/C 802
     OVCR Administration, M/C 672
Approval Notice
Amendment to Research Protocol and/or Consent Document – Expedited Review
UIC Amendment # 1

July 9, 2012

Diana Jere
Women, Child, & Family Health Science
Women, Children & Family Health Sciences
845 S Damen Ave, M/C 802
Chicago, IL 60612
Phone: (708) 383-1337 / Fax: (312) 996-8945

RE: Protocol # 2012-0105
“Contextual Factors, Substance Use and HIV Risk Behaviors among Young Male Workers in a Malawian Market”

Dear Ms. Jere:

Members of Institutional Review Board (IRB) #2 have reviewed this amendment to your research and/or consent form under expedited procedures for minor changes to previously approved research allowed by Federal regulations [45 CFR 46.110(b)(2)]. The amendment to your research was determined to be acceptable and may now be implemented.

Please note the following information about your approved amendment:

Amendment Approval Date: July 5, 2012

Amendment:
Summary: UIC Amendment #1, dated 18 June 2012 and submitted to OPRS 25 June 2012, is an investigator-initiated amendment regarding the following: (1) submission of IRB approval from the University of Malawi (5/25/2012); (2) adding Rodwell Gundo and Richard Bwanali as key research personnel (Appendix P); and (3) submission of translations of instruments and recruitment/consent documents, with minor revisions to recruitment/consent documents requested by the University of Malawi IRB (Interview Guide for Key Leaders, Chichewa, version 3, 6/13/2012; Recruitment Script Key Leaders, Chichewa, version 3, 6/13/2012; Recruitment Script Young Men, Chichewa, version 3, 6/13/2012; Consent Form for Key Leaders,
Approved Subject Enrollment #: 50
Performance Sites: UIC, University of Malawi
Sponsor: National Institutes of Health
PAF#: 2011-00687
Grant/Contract No: D43 TW01419
Grant/Contract Title: UIC AIDS International Training and Research Program

Recruiting Material(s):
   a) Recruitment Script Key Leaders (Chichewa); Version 3; 06/13/2012
   b) Recruitment Script Young Men (Chichewa); Version 3; 06/13/2012

Informed Consent(s):
   a) Consent Form for Young Men; Version 3; 06/12/2012
   b) Consent Form for Young Men (Chichewa); Version 3; 06/13/2012
   c) Consent Form for Key Leaders; Version 3; 06/13/2012
   d) Consent Form for Key Leaders (Chichewa); Version 3; 06/13/2012

Please note the Review History of this submission:

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<td>Amendment</td>
<td>Expedited</td>
<td>07/05/2012</td>
<td>Approved</td>
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</table>

Please be sure to:

→ Use only the IRB-approved and stamped consent document(s) and/or HIPAA Authorization form(s) enclosed with this letter when enrolling subjects.

→ Use your research protocol number ( 2012-0105) on any documents or correspondence with the IRB concerning your research protocol.

→ Review and comply with all requirements on the enclosure, "UIC Investigator Responsibilities, Protection of Human Research Subjects"

Please note that the UIC IRB #2 has the right to ask further questions, seek additional information, or monitor the conduct of your research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact the OPRS at (312) 996-1711 or me at (312) 355-0816.
Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.
Enclosure(s):

1. **UIC Investigator Responsibilities, Protection of Human Research Subjects**
2. **Informed Consent Document(s):**
   a) Consent Form for Young Men; Version 3; 06/12/2012
   b) Consent Form for Young Men (Chichewa); Version 3; 06/13/2012
   c) Consent Form for Key Leaders; Version 3; 06/13/2012
   d) Consent Form for Key Leaders (Chichewa); Version 3; 06/13/2012
3. **Recruiting Material(s):**
   a) Recruitment Script Key Leaders (Chichewa); Version 3; 06/13/2012
   b) Recruitment Script Young Men (Chichewa); Version 3; 06/13/2012

cc: Kathleen F. Norr (Faculty Sponsor), Women, Child, & Family Health Science, M/C 802
    Rosemary C. White-Traut, Women, Child, & Family Health Science, M/C 802
Approval Notice
Continuing Review

January 30, 2013

Diana Jere
Women, Child, & Family Health Science
Women, Children & Family Health Sciences
845 S Damen Ave, M/C 802
Chicago, IL 60612
Phone: (708) 383-1337 / Fax: (312) 996-8945

RE: Protocol # 2012-0105
“Contextual Factors, Substance Use and HIV Risk Behaviors among Young Male Workers in a Malawian Market”

Dear Ms. Jere:

Your Continuing Review was reviewed and approved by the Expedited review process on January 29, 2013. You may now continue your research.

Please note the following information about your approved research protocol:

Please note that Investigator’s training for Judith Levy expired January 24, 2013 and 2 hours of continuing education are needed for her to continue in the research. Please see the link below for more information regarding UIC investigator training policies:
http://tigger.uic.edu/depts/ovcr/research/protocolreview/irb/education/continuing.shtml

Protocol Approval Period: February 20, 2013 - February 20, 2014
Approved Subject Enrollment #: 50 (Limited to data analysis from 35 subjects)
Additional Determinations for Research Involving Minors: These determinations have not been made for this study since it has not been approved for enrollment of minors.
Performance Sites: UIC, University of Malawi
Sponsor: National Institutes of Health
PAF#: 2011-00687
Grant/Contract No: D43 TW01419
Grant/Contract Title: UIC AIDS International Training and Research Program

Research Protocol:
   b) Contextual factors, substance use and HIV risk behaviors among young male workers in a Malawian market; Version 2, 02/20/2012

Recruitment Material:
   e) N/A – Data analysis only

Informed Consent:
   d) A waiver of documentation of informed consent has been granted under 45 CFR 46.117 and an alteration of consent has been granted under 45 CFR 46.116(d) for recruitment/screening purposes only (minimal risk; verbal consent to collect minimal screening data obtained; written consent will be obtained at enrollment)
   e) N/A- Data analysis only

Your research meets the criteria for expedited review as defined in 45 CFR 46.110(b)(1) under the following specific categories:

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.
(7) Research on individual or group characteristics or behavior (including but not limited to research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Please note the Review History of this submission:

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<td>01/29/2013</td>
<td>Approved</td>
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</tbody>
</table>

Please remember to:

→ Use your research protocol number (2012-0105) on any documents or correspondence with the IRB concerning your research protocol.

→ Review and comply with all requirements on the enclosure, "UIC Investigator Responsibilities, Protection of Human Research Subjects" [link](http://tigger.uic.edu/depts/ovcr/research/protocolreview/irb/policies/0924.pdf) [link](http://tigger.uic.edu/depts/ovcr/research/protocolreview/irb/jbvamc/Investigator_Responsibilities_Poster.pdf)

Please note that the UIC IRB has the right to seek additional information, require
further modifications, or monitor the conduct of your research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact OPRS at (312) 996-1711 or me at (312) 355-2764. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Betty Mayberry, B.S.
IRB Coordinator, IRB #2
Office for the Protection of Research Subjects

Enclosure:

4. UIC Investigator Responsibilities, Protection of Human Research Subjects

cc:  Barbara McFarlin, Women, Child, & Family Health Science, M/C 802
     Kathleen F. Norr, Faculty Sponsor, M/C 802
     OVCR Administration, M/C 672
Appendix G

Malawi Initial Approval Letter

CERTIFICATE OF ETHICS APPROVAL

This is to certify that the College of Medicine Research and Ethics Committee (COMREC) has reviewed and approved a study entitled:

P03/12/1196: Contextual Factors, Substance use and HIV Risk Behaviors among Young Male Workers in a Malawian Market by Mrs. D. Jere

On 25th May 2012

As you proceed with the implementation of your study, we would like you to adhere to the following guidelines, national guidelines and ethical principles:

Date: 25-05-12

Approved by

College of Medicine

Research 

Approved by: (COMREC)

25 MAY 2012

Committee

[Signature]

[Stamp]

[Stamp]
VITA

NAME: Jere Diana Linda

EDUCATION:

M.S. Nursing, University of Wales, College of Medicine, Cardiff, United Kingdom, 1990

Diploma in Nurse Education, Garamkuwa College of Nursing, Pretoria, Republic of South Africa, 1986

Diploma in Psychiatric Nursing, Sterkfontein College of Nursing, Sterkfontein, Republic of South Africa, 1982

Certificate in Registered Midwifery, Kamuzu College of Nursing, Lilongwe, Malawi, 1980

Certificate in Registered Nursing, Blantyre School of Nursing, Blantyre, Malawi, 1977

PROFESSIONAL EXPERIENCE:

Senior Lecturer, Community and Mental Health Nursing, Kamuzu College of Nursing, University of Malawi, 2006-Present

Dean, Kamuzu College of Nursing, University of Malawi, 2004-2008
  University HIV and AIDS Coordinator- Kamuzu College of Nursing, University of Malawi, 2002-2009

Deputy Dean, Kamuzu College of Nursing, University of Malawi, 2000-2004

Head of Department, Community and Mental Health Nursing- Kamuzu College of Nursing, University of Malawi, 1997-2000

Lecturer, Mental Health and Psychiatric Nursing Kamuzu College of Nursing, University of Malawi, 1993-2006

Coordinator for Mental Health Services for the Southern Region, Ministry of Health, Blantyre, Malawi, 1991-1993

Tutor, Zomba School of Nursing, Malawi, 1982-1988

Nurse Zomba Mental Hospital, Malawi, 1980-1981

Nurse/Midwife, Zomba Central Hospital, Malawi, 1977-1980
VITA (continued)

OTHER EXPERIENCE AND PROFESSIONAL MEMBERSHIPS:

American Public Health Association (USA)- Member.

Midwestern Nursing Research Society, USA

Member, Special Law Commission on enactment of Gender Related Laws in Malawi; Board Member Entrusted with assignment to draft laws that addressed the rights of women, 2008-2009.

Sigma Theta Tau

Malawi National AIDS Commission- Board Member, 2006-2009

East, Central & Southern Africa College of Nursing (ECSACON), Member & Fellow, Faculty of Education and Research.

Malawi Human Rights Commission- Human Rights Commissioner

National Association of Nurses in Malawi, Member, 1990-2008

Nurses and Midwives Council of Malawi- Member, 1978-Present

AWARDS:

Virginia M Ohlson Scholarship, 2013

Beverly J McElmurry Scholarship, 2012

Virginia M Ohlson Scholarship, 2010

Pre-doctoral Fellowship- John E. Fogarty International Center, National Institutes of Health, Grant AITRP D43 TW001419, United Stated of America, 2009

British Council Scholarship award to study at University of Wales, United Kingdom, 1988-1990.

RESEARCH FUNDING:

2001-07 “Mobilizing Health Wprkers for HIV Prevention in Malawi” National Institute for Nursing Research, R01 NR8058 ($2,270,357 total costs)
VITA (continued)

2003-05 "Mobilizing Hospital Workers as HIV Prevention Leaders in Malawi." World AIDS Foundation

SELECTED PEER-REVIEWED PUBLICATIONS, ARTICLES IN JOURNALS AND CHAPTERS IN MONOGRAPHS (in chronological order):


VITA (continued)

Chimango, J.L., Kaponda, C.P.N., Jere, D.L., Chimwaza, A., Crittenden, K.S.,
intervention on occupation-related behaviors for urban hospital workers in

sociocultural context. AIDS Care, 20 (8), 946-957.

Community consultation to develop an acceptable and effective adolescent HIV
prevention intervention. Journal of the Association of Nurses in AIDS care, 18
(4) 72-77.

Talashek,M.L., Kaponda, C.P., Jere D.L., Kafulafula, U., Mbeba, M., .., McCreary, L.,
HIV prevention leaders. Journal of the Association of Nurses in AIDS care, 18
(4) 41-50.

Norr, K.P., Kaponda, C.P.N., Crittenden, K.S., Dancy, B.L., Jere D.L.N., Kachingwe,
S.I., Kafulafula, U., McCreary, L.L., Mbeba, M., Norr, J.L., & Talasheck. M.
(2006) A primary health care intervention to mobilise health workers for HIV

PEER REVIEWED PUBLISHED ABSTRACTS
AND PRESENTATIONS:

Contextual factors and risky sexual behaviors for young men working at a
roadside market in rural Malawi. Poster presentation, 37th Annual Midwest
Nursing Research Society Annual Conference, March 7-10 2013 Chicago,
Illinois.

Substance Use by Young Male Causal Labourers in A Malawi Roadside Market.
Society for Prevention Research 21st Annual Meeting, The Science of
Prevention: Building a Comprehensive National Strategy for Well-being, May 28
– May 31, 2013, San Francisco, CA.

of alcohol use, substance use and risky sex in Malawian male youths. Poster
presentation, 36th Annual Midwest Nursing Research Society Annual
VITA (continued)


**VITA (continued)**


