HIV/AIDS Risk Status of Truck Drivers in Myanmar: Socio-economic Factors Affecting Sexual Behavior

A dissertation submitted to the Graduate Division of the University of Hawai’i at Mānoa
in partial fulfillment of the requirement for the degree of Doctor of Philosophy
in
Sociology
August 2012

by

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ACKNOWLEDGEMENTS

I owe tremendous gratitude to my advisor Dr. Patricia Steinhoff. I benefited greatly from her generous feedback and support. Her early comments on my research came to me written in long hand on several yellow pages attached to a draft of this dissertation. I cherish those hand-written pages. The comments on those pages were the key to my eventual success and made me what I am today.

Many thanks go to other committee members who have given their comments and helped me to improve the content, presentation and organization of my dissertation. I am grateful to Dr. D William Wood for his comments on the sensitive topics under discussion in this research; to Dr. Alan Katz for his suggestions for improvement in the health related passages; to Dr. Yean-Ju Lee for assisting me to improve my quantitative analysis; and to Dr. Katherine Irwin for all her comments related to sociological theories.

I also would like to express my thanks to East-West Center which generously gave me a fellowship to study for a Ph.D. in Sociology at the University of Hawaii at Manoa, and, in addition, for the field research grant that ultimately made this research possible. I am especially grateful to my friend Bryce Beemer, who spent many hours editing my drafts of chapters.

My greatest thanks go to my wife, my son and my daughter, who have never complained about my pursuit of education. This dissertation is dedicated to them.

Finally, I am also thankful to the other faculty members and friends from the Sociology Department who taught me how to think sociologically and write accordingly. What I learnt in the past seven years through formal discussions and informal
conversations directed me along the right path that ended in the writing of this
dissertation. My research would not have reached this level if I had not had these
valuable experiences. Should there remain errors and deficiencies, I am solely
responsible for them.
ABSTRACT

Myanmar has a concentrated HIV epidemic. HIV prevalence is high among high risk groups. The present study focuses on truck drivers and their assistants, a high risk group, because many of them have wide sexual networks: they have casual sex and engage in commercial sex on the road and at the truck terminals besides their regular sexual partners. Forming a “bridge population” linking the high risk group of female sex workers and the low risk group of their regular partners, truckers play an important role in the spread or the containment of the HIV epidemic.

This study uses both qualitative and quantitative methods to examine social and economic factors affecting truckers’ engagement in nonexclusive sex and utilizes the social psychological expanded Theory of Planned Behavior to predict their sexual behavior. A qualitative study of 29 semi-structured interviews found that truckers engage in commercial or casual sex because they have freedom due to extended periods away from home, and have relatively high incomes that make commercial sex accessible and affordable. Although truckers do not embrace a subculture which emphasizes fatalism or nihilism related to sex, they do embrace a subculture which considers engaging in casual or commercial sex as a norm.

Altogether 348 long distance truckers who had engaged in either casual or commercial sex in the past six months found that virtually all had engaged in commercial sex while 98 had engaged in non-commercial casual sex. Truckers who have higher incomes and had more sexual partners in the past six months are more likely to have engaged in casual sex in the period while those who are married and older are less likely
to have done so. In addition, respondents who have higher incomes and who have had
more years of schooling are more likely to have used condoms during their last casual
sex. Analysis of truckers’ involvement in commercial sex found that subjective norms
and perceived behavior control variables were significant predictors for the respondents
to use condoms during commercial sex. Intention and anticipated regret variables were
significant predictors of the respondents’ use of condoms during commercial sex.
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<tr>
<td>3DF</td>
<td>Three Diseases Fund (on HIV/AIDS, malaria and tuberculosis)</td>
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<tr>
<td>ART</td>
<td>antiretroviral therapy</td>
</tr>
<tr>
<td>BSS</td>
<td>Behavior Surveillance Survey</td>
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<tr>
<td>EFS</td>
<td>Epidemiological Fact Sheet</td>
</tr>
<tr>
<td>EIU</td>
<td>Economic Intelligence Unit</td>
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<tr>
<td>FHAM</td>
<td>FUND for HIV/AIDS in Myanmar</td>
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<td>HSS</td>
<td>HIV/AIDS Surveillance Survey</td>
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<td>ICG</td>
<td>International Crisis Group</td>
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<td>IDU</td>
<td>injecting drug users</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>NAP</td>
<td>National AIDS Programme</td>
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<td>NSP</td>
<td>National Strategic Plan (on HIV/AIDS)</td>
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<td>MSM</td>
<td>Men who have sex with men</td>
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<td>PSI</td>
<td>Population Services International</td>
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<td>STD</td>
<td>Sexually transmitted diseases</td>
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<td>STI</td>
<td>Sexually transmitted infections</td>
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<tr>
<td>UNGASS</td>
<td>United Nations General Assembly Special Session on AIDS</td>
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CHAPTER 1 **Why Study Truckers and HIV/AIDS in Myanmar?**

An estimated 4.5 -5.5 million people were living with HIV in Asia in 2009. No country in the region has a generalized epidemic. The most seriously hit three countries—Thailand, Cambodia and Myanmar—have concentrated epidemics. Thailand is the only country in the region in which the prevalence is close to 1%. Data show that its epidemic seems to be stabilized and the adult HIV prevalence was recorded at 1.3% in 2009. In Cambodia, the adult prevalence dropped to 0.5% in 2009 from 1.3% in 2001 (UNAIDS 2010). In Myanmar, UNAIDS estimated that the adult HIV prevalence was 1.3% in 2004 but the latest modeling projected that the adult HIV prevalence declined to 0.61% in 2009 (NAP 2006 and UNGASS Myanmar 2010).

In Myanmar HIV remains concentrated among high risk groups such as people who inject drugs, sex workers and their clients (in which sexually transmitted disease or STD patients are used as a proxy for modeling), and men who have sex with men. The main mode of new infections is through unprotected sex in all three countries. In Myanmar, HIV prevalence among injecting drug users in 2009 was 34.6%. HIV prevalence among female sex workers and their male clients was 11.2% and 4.85% respectively. HIV prevalence among men who have sex with men in the same year was 22.3% (Table 1).

The male clients of female sex workers include mobile populations who often move from their native places to other parts of the country. Sex work and buying sex are tolerated, especially in larger towns and cities, but they are stigmatized in the society. Therefore, when men visit sex workers or other entertainment places, they do it more or
less clandestinely, and it is more convenient for men to engage in such rather deviant behavior when they are out of the town. Mobile populations include truck drivers and their assistants, mining workers, transport workers, migrant workers and fishermen in the context of Myanmar.

The present study focuses on long distance truck drivers and their assistants, who not only move from one town to another and thus they enjoy the freedom of being away from home, but also have higher incomes due to their profession. They therefore have more opportunities to engage in nonexclusive sex—commercial or casual sex. Truckers around the world, especially from countries where the income disparity is wide and minimum wages are below subsistence levels, engage in commercial sex, keep mistresses, or have girlfriends along the routes they travel. As they may also have their wives or regular partners in their sexual networks, they are often described as ‘bridge populations.’ Serving as core transmitters of HIV, they may play an important bridging role for HIV transmission, linking a low prevalence population of spouses and other regular partners and other non-commercial sex partners to a high prevalence population of women in the sex industry (Apostolopoulos et al. 2011; Morris et al. 1996; Sunmola 2005; Wong et al. 2007).

As in many other countries, studies on the trucker population in Myanmar in the 1990s (Burrowes 1998) and the revelations of the respondents who participated in the present study showed that truckers are more likely to practice high risk sexual behavior as they tend to engage in commercial or casual sex more than other men. A few studies have been done on truck drivers and their assistants in Myanmar but they focus mostly on their
knowledge, attitudes, practices, and behavior (KAPB) related to HIV [Htoo et al. 1992 and Saw Hla Mu et al. 1993; cited in Burrowes (1998)]. Except for Porter (1995) cited in Burrowes (1998), the studies rarely touched on which social, economic and cultural factors have impacts on their lifestyle to engage in nonexclusive sex.

The most recent estimate showed that around 238,000 people were living with HIV in Myanmar in 2009 (UNGASS 2010 Myanmar) but the figure was a drastic decline compared with 9 years ago in which UNAIDS then estimated the number of people living with HIV stood at 510,000 in 2000 (WHO 2001). There had been expectations that Myanmar might in a relatively short period become the country with the highest national HIV infection rates in Asia (MAP 2004). Some of the reasons why the disease spread so fast, were attributable to lack of political will in the earlier stages of the epidemic; low per capita public spending on health and limited receipt of aid from external sources on health issues including HIV/AIDS compared with other countries facing the same situation and having similar state of economic development; people’s lack of awareness of the nature and spread of the disease and serious stigma against people living with HIV.

The major mode of HIV transmission in the country is now heterosexual intercourse and there is a relatively high prevalence of HIV infection among sex workers and male STD patients. Myanmar is basically a patriarchal society and male chauvinism prevails. Therefore, when it comes to sex—marital, casual or transactional—men are commonly the decision-makers. They decide whether to practice safe sex or not. This mainly stems from women’s economic vulnerability and dependence on men as described by Kim et al. (2008). Therefore, settings where women have less power than men over
sexual decision-making contribute to the spread of HIV/AIDS and other sexually transmitted infections (STIs) because it is statistically more frequent that men engage in extramarital sex, casual or commercial, and are promiscuous. Several studies from a variety of regions demonstrate that it is much more frequent that men pass on their STI or HIV to their women partners than the other way round (e.g. Agha 2002; Alam et al. 2007; Brown et al. 1994; Bryan et al. 2001; Kilmarx et al. 2000; Podhisita et al. 1996; Sopheab et al. 2009).

In a situation when heterosexual sex is the predominant mode of transmission of the HIV virus and with limited resources to deal with the HIV epidemic like Myanmar and at a time when HIV vaccine is yet to emerge, it is most feasible for the country to pay greater attention to the prevention side of the epidemic. As the epidemic in Myanmar remains concentrated, priorities have been given to preventive measures among sexually active specific groups for the programs not only to be effective and efficient but also to be sustainable.

Among the sexually active groups, it would greatly contribute to control the spread of the disease if more effective preventive measures can be implemented among high risk populations. Among the high risk populations, truckers are critical agents in the spread or containment of the HIV epidemic since they constitute a “bridge population” on the issue of the disease.

This study argues that the freedom long distance truck drivers and assistants enjoy and the high disposable income they have through their profession; the minimum wages of the country; the affordability and accessibility of commercial sex and to a lesser
extent, peer pressure drive them to engage in risky sexual behavior. Commercial sex facilities that cater to truck drivers and their assistants operate near truck terminals to take advantage of the truckers’ high disposable incomes and time away from home. Brothels, KTV stations and massage parlors are located near the terminals and freelance sex workers search out clients in the areas as truck/bus drivers and their assistants are considered potential customers. Prevalent availability of casual as well as commercial sex increases the frequency of risky sexual behavior. This makes them vulnerable to infection with HIV/AIDS and other STIs and they therefore represent one of the key bridge population groups as regards the transmission of HIV/AIDS between low and high prevalence communities and geographical areas.

Therefore, the development of effective prevention strategies in the population would be a great contribution to the control of the epidemic. More effective prevention strategies can be worked out if the behavior of the truckers is studied on the basis of theory and the findings incorporated in the interventions. The paucity of published literature on the sexual behavior of truck drivers and their assistants in Myanmar on the basis of theories has been a driving force for me to take up this study.

Furthermore, I decided to study truck drivers and their assistants because they not only belong to a group of “mobile men with money” (MAP 2004) and therefore have a propensity to buy sex or engage in other risky sexual behavior, but also are willing to talk candidly about their deviant behavior. Myanmar truckers engage in both commercial and casual sex. However, their sexual networks have shrunk with the development in the transport sector in which more and more passenger buses ply between towns. This has
brought about structural change in the accessibility of casual sex by truck drivers due to
the alternative common mode of transportation for women petty traders. These women,
who used to hitch-hike on trucks with their wares, are travelling by passenger bus these
days.

Earlier published research on truck drivers in Myanmar paid less attention to why
truckers engaged in risky sexual behavior than to the behavior itself. The studies have
been limited to exploring their knowledge, attitudes and practices related to HIV/AIDS
and their risky sexual behaviors. Only univariate analysis or bivariate analysis was done
with the data collected. There was no theoretical background applied in the studies. No
in-depth interviews were conducted among the targeted population to find out the cultural
and sociological contexts of their engagement in such behaviors. It has been the purpose
of this study to fill the dearth of study on truck drivers and their assistants in Myanmar
regarding their sexual behavior from socio-psychological aspect and through the use of a
behavioral theory.

Among the behavior theories, the Theory of Planned Behavior has been applied
widely to explain a variety of health behavior including HIV prevention behaviors. To the
best of my knowledge there is no published study that applies the theory to study HIV-
related risk behaviors among Myanmar population in general and truck drivers and their
assistants in particular. Therefore, this study has applied the expanded Theory of Planned
Behavior in which in addition to the three variables of Attitudes, Social Norms and
Perceived Behavior Control of the Theory of Planned Behavior, other variables such as
Past Behavior, Anticipated Regret, Four Elements of Social Bonds and Social Learning
Theory are included. Furthermore, in a contribution to sociology literature, the research examines the HIV/AIDS situation in Myanmar, its health care system and common understanding of Buddhist teachings that lead the people to stigmatize people living with HIV.

The principal objectives of the study are to identify the main determinants in the risk behavior of truck drivers and their assistants who engage in casual or commercial sex. The practical aim of the study is to give recommendations for future interventions to reduce risky sexual behaviors among the target population of truck drivers and assistants in Myanmar.
CHAPTER 2 Literature Review

Studies on Trucker Populations

The study of truckers as at-risk population has been of sporadic interest to researchers over the last 20 years. This group of people travel widely around the country, have more disposable income than the general population they come across, and the male-dominated profession gives them opportunity to engage in practices that they do not normally do at other times. Their mobility keeps them away from their own families and communities, their higher earnings attract attention from people who live on minimum or low wages prevalent in the country and their male only environment allows them to carry out activities that are considered deviant and therefore do not conform to social norms. When they are on the road or sometimes even at terminals, many of them drink alcohol, gamble or engage in nonexclusive sex.

I would like to begin discussing research conducted in Africa where the study of truckers on HIV/AIDS is long standing. Prominent studies include (Gysels et al. (2001); Laukamm-Josten et al. (2000); Marck (1999); Orubuloye et al. (1993) and Sunmola (2005). Findings from Gysels et al. (2001) in south-west Uganda showed that most drivers claimed that their choice to use or not to use condoms during their commercial sex depended very much on the recommendation of middle men who had brokered the arrangement with these women: whether they will or will not vouch for their being ‘safe.’ Laukam-Josten et al. (2000) reflected the effectiveness of HIV prevention and condom promotion through peer education among truck drivers and their sexual partners in Tanzania. Marck (1999) compared the African and Asian literature on trucker population
in Zimbabwe, Kenya and Thailand and found their sexual practices to be highly heterogeneous. While many truckers reported that they refrained from commercial sex on the road, others reported that they have regular extramarital girlfriends or buy sex.

Orubuloye et al. (1993) found that most truck drivers in Nigeria had semi-permanent partners besides their wives at regular night stops and about 75 percent of them had casual sex at truck stops with barmaids, sex workers and other women working there. A little more than half of the drivers had ever used condoms, and only 15 percent used them on a regular basis. Sunmola (2005) made a similar study on the trucker population in the country and showed that among those who had sexual partners on their routes, the great majority of the participants used condoms inconsistently.

Studies on truck drivers in the U.S. and Brazil (Lichtenstein et al. 2008; Lippman et al. 2007; Malta et al. 2006; Stratford et al. 2000) showed that it is common for the respondents to buy sex, sometimes have relationships with non-paying partners (some associated with use of drugs) and often, the respondents engage in unsafe sex. Among the studies, Apostolopoulos et al. (2011) specifically mentioned that there are potential health risks that result from same-sex partnerships between truckers and truck chasers, men who specifically cruise for truckers.

Global research on the subject of HIV/AIDS and truckers points to three particular areas of concern for researchers. One--The freedom they enjoy from being away from home and the male-dominated or male-only environment in which they operate make them feel free from social control and allow them to carry out activities that are deemed ‘deviant’ in their respective societies. Two--Their relatively high earnings
and the stress they accumulate through their work of long hours of wheeling often drive
them or give them excuses for engaging in non-regular sex and heavy drinking when they
are off the road. They do not always practice safe sex during those nonexclusive sexual
encounters. Three--As they also have their regular partners when they are back home and
have sex with them without condoms, they often act as agents between partners in the
spread of STI or HIV. Therefore, these people are deemed a “bridge population” (Morris
et al. 1996; Pandey et al. 2008) or sometimes even a “core population” (Rao et al. 1999;

Studies from a neighboring country India, for example, have shown that HIV
prevalence among the trucker population was high due to their risky sexual behaviors.
Overall HIV prevalence among truckers in India was 4.6% (Pandey et al. 2008) and 1.7%
(Bhatnagar 2011), against 0.5% among adult population in 2007 (ESCAP 2010). The
1992 study among truckers in Myanmar showed that HIV prevalence among the
participants was 1.3% (Burrowes 1998) and HIV prevalence among pregnant women
attending antenatal care in the same year was 1.8% (HSS Myanmar 2009).

In Thailand, which lies to the east of Myanmar, the studies of truck drivers were
done more in the early stage on the HIV/AIDS crisis (Morris et al. 1996; Podhisita et al.
1996; Sawaangdee and Isarapakdee 1994). Findings showed that the participants engaged
in commercial sex and used drugs and that their use of condoms during commercial sex
was inconsistent. Wong et al. (2007) studied sexual behaviors of cross-border truck
drivers in Hong Kong and described that having extramarital relations is a norm among
the respondents and that majority of them reported risky sexual behaviors.
Studies on truck drivers in countries of South Asia such as Bangladesh, Pakistan and India (Agha 2002; Bhalla and Somasundaram 2006; Gibney et al. 2002; Gibney et al. 2003; Pandey et al. 2008; Rao et al. 1999) found that they not only engage in risky sexual behaviors but also lack knowledge related to HIV/AIDS and condom use compared to their counterparts in other areas. The findings showed that the truck drivers engage in premarital and extramarital sex with both commercial and casual partners, but more often with sex workers, and their use of condoms is irregular. Agha (2002) and Gibney et al. (2003) specifically mentioned in their study of truck drivers in Pakistan and Bangladesh that it is common for the drivers to have multiple sexual relationships with both men and women.

In Myanmar, one of the earliest studies on haulage truck drivers was carried out in 1993. The survey conducted among 300 long distance truck drivers in Mandalay, upper Myanmar, found 1.33% to be HIV-positive. In a similar study of 292 long distance truck drivers in Yangon, HIV seroprevalence was 0.68%. By contrast, in the same time period, HIV seroprevalence among 300 coastal seamen working along the southernmost Tanintharyi coastal areas in southern Myanmar was 1.67% (Kaldor 1994). Scholars concluded at that time that with HIV high prevalence among at risk groups, the disease could spread to the general population if appropriate measures were not taken. A behavior survey among truckers and inter-city bus drivers and assistants showed the high risk sexual behavior of this relatively higher income and mobile population.

A survey conducted in Myanmar in 2004 among 321 truck/passenger bus drivers and their assistants studied their sexual behaviors. Findings showed that 21% of them had
had sex with a non-regular, non-commercial partner in the last three months and of them, 74% used condoms in their last encounter and 49% applied condoms in every encounter of such sex. Overall the percentage of the respondents who had had sex with a commercial sex worker in the last three months was recorded as 25%. Among them, condom use in the last encounter of such sex represented 93% while condom use in every encounter of such sex was 63% (Department of Medical Research 2005).

In June 2006, I conducted a survey, under the auspices of Myanmar Red Cross Society, on HIV/AIDS knowledge of the truckers and others working at the truck terminals in Mandalay and in the town of Monywa, 50 miles west of Mandalay, which is on the India-Myanmar trade route. Altogether 175 bus/truck drivers and their assistants as well as managerial and clerical staff took part in the study. In August 2007, a similar survey was conducted in Mandalay again and in Lashio, 180 miles east of Mandalay, in Shan State and on the China-Myanmar trade route. The study population mainly comprised 357 bus/truck drivers and their assistants but there were also a few managerial and clerical staff who worked at the terminals.

The objectives of the survey were to make comparisons between the two cohorts on the levels of HIV/AIDS knowledge and to find out which socio-demographic variables could predict the participants’ involvement in commercial or casual sex. The independent t-test results showed that the 2007 truckers’ HIV/AIDS knowledge was significantly higher than their 2006 cohorts. Altogether 169 out of 532 (32%) respondents engaged in casual sex. The binary logistic regression results revealed that respondents who were 55 years of age and older were less likely to have engaged in casual sex but the level of
earnings were not a determinant factor in the respondents’ involvement in casual sex. Altogether 100 respondents (19%) reported to have engaged in commercial sex. Truckers who were away from home for more than eight days; who were between 25-34 years of age and who were either divorced or separated were more apt to have engaged in commercial sex in the past six months compared to truckers who were away from home a shorter period; who were between aged 15-24; and who were single. Married respondents were less likely to have bought sex in the period compared to their single peers (Aung 2007). Other HIV seroprevalence and/or studies such as Htoon et al. (1992) and Mu et al. (1993) cited in Burrowes (1998) showed similar risky sexual behavior among the population.

Although there has been some research on truck drivers and their assistants in Myanmar as described above, it has not approached the problem with any theoretical explanatory variables and has been primarily descriptive. The present study uses theoretical concepts to study the sexual behavior of truckers in Myanmar as considerable literature has shown the role of theory in developing effective health communications including HIV prevention programs (Fishbein 2000; Fishbein and Cappella 2006; Kaljee et al. 2005; Wulfert and Wan 1995).
Some Useful Theoretical Approaches

Key Concepts of Liminal Context, Deviance, and Subculture

When truck drivers are on the road, they are in transit: they are in a liminal state in which they are at a boundary or transitional point between different environments and therefore it is entirely up to them whether or not to adhere to norms, expectations and obligations of usual social networks and prescribed norms (Lippman et al. 2007). Under the “liminal environment,” truckers usually feel greater freedom and distance from conventional norms they are obliged to follow. Truck drivers and assistants have a feeling of decreased inhibition and increased freedom on the road and also at truck terminals, which normally are built on the outskirts of towns, and are away from home.

Often, they are at their liberty not to adhere to social expectations as they are not under the watchful eyes or within knowledge of family members or community members who would criticize, denounce or object to their deviant behaviors. As many of them engage in and most of them are permissive of deviant behaviors, the normative milieu allows truck drivers and assistants in Myanmar to engage in casual or commercial sex, gamble or drink alcohol to some extent. Some comparable contexts to the truck drivers are youth on vacation who are away from the social constraints of “home” and thus a subculture of sexual permissiveness is created (Rye and Meaney 2007).

Those in similar situations are male and female international tourists (Clift and Page 1996; Herold et al. 2001; Romero-Daza and Freidus 2008; Taylor 2001; Yokota 2006); private motorbike taxi-men in Uganda (Nyanzi et al. 2004); nightclub security staff in the United Kingdom (Monaghan 2002); migrant workers in a gold mining town in
Tanzania (Desmond et al. 2005) and peacekeepers assigned in post-conflict countries (Higate 2007). These people are thus in “backstage” presentations of self (Goffman 1959) as around them, there is no audience of people whom they care about and who are in a position to impose formal or informal sanctions on them for their breach of social norms and obligations.

Deviance means departure from conventional norms in a disapproved direction such that the deviation entails, or is likely to entail, if discovered, a negative social sanction (Clinard 1995: 37). An act is defined as deviant if it breaks the rules from the legalistic view or arouses negative reaction in others who are in the majority (Little 1989: 3).

Sex, like other forms of human activity, is also governed by norms that regulate the type of acceptable sexual behavior and general orientations. Sexual norms have been greatly influenced by traditional religious beliefs (Clinard 1995). Sexual norms for the Christians in the West are dominated by the principles and values embedded in the Victorian era which viewed sex negatively and created the subsequent need to contain or control a dangerous instinct (Foucault 1978). In Myanmar context, most are governed by Buddhist teachings as more than three-fourths of the country’s total population is Buddhist. In Myanmar society, premarital sex is still regarded as an act of deviance but it no longer brings stigma, especially on males. This is in contrast to buying sex and engaging in an extramarital affair which are considered acts of deviance and all people involved are stigmatized.
The truck drivers are in liminal conditions, women are ready to offer sex in exchange for their material or financial support, and the communities they travel in tend to be not simply permissive, but sometimes welcoming about their behavior. These conditions allow people to participate in behavior that some other subculture or the larger society labels as deviant. Truck drivers may engage in deviant acts because their peers, their reference groups and their normative contacts support or at least do not object to such deviant behavior. This is what Sutherland (1960) calls “differential association theory” in which people learn from each other through interactive contact with deviant norms. The truckers may be considered to have their own subculture in which the norms and values are different from those of the larger society.

If this is applied to the area of sex, they may promote or accept extramarital sex and/or engage in commercial sex. Findings from a variety of cultures in countries including China, Zimbabwe, Kenya and U.S. (Fung et al. 2009; Marck 1999; Orubuloye et al. 1993; Stratford et al. 2000; Wong et al. 2007) showed that truck drivers had a set of beliefs and values that emphasized distance from societal norms and gave importance to frequent sexual encounters or were permissive about extramarital relationships. Peer pressure has implications on the desirability of extramarital sex among the group (Edwards 1973; Vanlandingham et al. 1998 and Yokota 2006) but these groups usually confine their norms within themselves. For example, security staff or doormen of licensed nightclubs in the United Kingdom support the idea that “normal” men are those with multiple partners as it emphasizes the normative or naturalistic construction of male heterosexuality (Monaghan 2002). According to Goffman (1959), “These groups of
people usually keep their acts of “deviance” within their groups. Among members of the
group, “familiarity prevails, solidarity is likely to develop, and the secrets that could give
the show away (and thus reveal their true nature) are shared and kept” (p. 238).

However, it cannot be taken for granted that each and every member of a certain
subpopulation follows what the majority of the group does. For example, to return to the
example of UK doormen, there were certain doormen in the nightclubs in the United
Kingdom who showed no interest in doing nonexclusive heterosexuality (Monaghan
2002). Lichtenstein et al. (2008) mentioned that there are long-haul truckers in the U.S.
who disliked being stereotyped as drug users and sexually promiscuous people. There
were also some truck drivers in Myanmar who claimed that they do not engage in
premarital or extramarital sexual coitus or commercial sex liaisons. These people may
play counter-normative roles in the eyes of their peers.

Two Useful Conceptual Frameworks

I will approach my research from two conceptual frameworks. The first is a social
psychological approach using Control Theory. The second is a behavior theory called
Theory of Planned Behavior. Control Theory contends that elements of social bonds—
particularly attachment, commitment, involvement, and belief—can control and prevent
people from acting illegally and make them adhere to norms or expectations of the
society (Hirschi 1969). The Theory of Planned Behavior posits that attitudes, subjective
norms and perceived behavioral control can predict behavioral intentions and through
them behavior.
In this, I will first address Control Theory. Control Theory is the sociological explanation of people’s commission of deviant acts. The conceptual framework that guides this analysis is based on the general framework of control theory formulated by Hirschi (1969). The theory suggests that “any object outside one’s self whether it be the home town, the starry heavens, or the family dog, promotes moral behavior” (Hirschi 1969: 30). The theory assumes deviant acts are committed when individual’s bond to society is weak or broken. People restrain their behavior as long as they are subject to mechanisms of social control including not wanting to let others down, feeling guilty, fear of getting caught and the desire to maintain their image (Little 1989: 14).

Instead of emphasizing such factors as genetic predisposition, psychological shock, family nurture, or social pressure that might contribute to a person’s commission of acts of deviance, control theory stresses the importance of social mechanisms that keep people in check and thus prevent them from acting in deviant ways. The theory further states it is a person’s bond to the society that restrains him or her from committing deviant acts. He or she will adhere to the norms of the society as long as he or she has a “stake in conformity” (Toby 1957).

Hirschi (1969) describes four elements of bond—attachment, commitment, involvement and belief. According to Goffman (1959), people are continually engaged in “impression management.” They are like performers and they are acting before the audience but once they are out of the scene and away from the audience, or beyond the walls of the social establishment, they may be doing things that are not presentable to the
audience. In the next section, I will define the key terms used in this conceptual framework for Control Theory.

Attachment

Sociologists explain that people conform to conventional behavior because they do not want to hurt those who are near and dear to them (Hirschi 1969: 16). Attachment of persons to their groups means the degree of their adherence to the group norms through their affection, respect and socialization (Clinard 1995: 130). Control Theory assumes that the bond of affection for conventional persons is a major deterrent to criminal behaviors. In the Control Theory, which focuses on the causes of delinquency, attachment to parents is a central variable for the adolescents and youth not to commit delinquent acts. More communication between parents and child will deter the latter from becoming delinquent (Hirschi 1969: 83-86, 90). In the present study, I would hypothesize that the respondents’ attachment to their family members, wives or children, and parents for younger respondents, could deter them from engaging in deviant sexual behavior.

Commitment

Commitment is the extent of a person’s stake to conform to conventional behavior as his or her acts of deviance undermine other, more valued, conditions and activities. Concerns over the loss of one tangible or intangible asset such as a job or a good reputation are the examples of the forces that generate commitment (Toby 1957). Having a clear goal or a definite future plan will be used in the current study to gauge the existence and the extent of the respondents’ commitment.
Involvement

Involvement is a term to describe the extent of people’s engagement in their duty, work, obligations or other non-deviant acts to give limited time to others. Many people lead a life of virtue because they are too much involved with their conventional activities (Hirschi 1969: 21) willingly or otherwise and therefore are too busy to find time and have energy to engage in deviant behavior. When people are involved in physical activities of a non-deviant nature, they simply have little time for delinquency—violation of duty, right or social norms or committing an offence (Clinard 1995: 130).

Belief

Belief refers to personal allegiance to the conventional values of a group. Belief gauges the extent to which individuals have internalized these values and would not think about breaking them (Clinard 1997: 130). For some people the values and beliefs are consistent with their feelings and when that happens, there should be a tendency toward consistency (Hirschi 1969: 25). In the context of this study, I would like to use devoutness and religiosity as measurements of belief by the respondents.

A few studies in the US have shown relationship between the probability of extramarital involvement and lack of religious devoutness in Christian context (e.g. Edwards 1970; Stratford et al. 2000). The elements of the bond are more in a position to predict less serious forms of deviance than they are of the more serious forms. The element of commitment has stronger negative association with deviant behavior than either the element of belief or attachment (Krohn and Massey 1980). A study on
adolescents showed that strong social bonds indirectly reduce participant deviance over time (Erickson et al. 2000).

Further studies among Christians discovered the negative relationship between religiosity and deviation from social norms. A study showed a similar result in which regular church attendants are less prone to engage in extramarital sex (Liu 2000). There is an association between regular attendance at religious services and less probability of reporting extramarital partners (Trinitapoli and Regnerus 2006). In the contemporary American society, the two major institutions that directly influence sexual activity are religion and family (DeLamater 1981). The probability of extramarital involvement is also associated with socio-economic status and premarital experience, in addition to the intensity of religious devoutness, among others (Edwards 1973).

The present study, especially the structured interview portion, included only truckers who had engaged in nonexclusive sex in the past six months. Therefore, I will not be able to find out whether the elements—attachment, commitment, involvement and belief—keep the truckers at bay from engaging in extramarital or premarital sex. However, I want to explore whether the four elements of social bond can explain the practice of safe sex by Myanmar truckers, most of whom are Buddhists, and if there is an association, which element does so more than others.

The second part of the conceptual framework is to deal with psychological and socio-psychological determinants of truck driver’s decision of whether to practice safe sex. The most influential health behavior theories are the Health Belief Model (HBM),
the Theory of Reasoned Action (TRA)/Theory of Planned Behavior (TPB), the Trans-
theoretical model (TTM) and Social Cognitive Theory (SCT) (Burke et al. 2009).

The objective of the inclusion of this component in the study is for the agencies
that are to launch health interventions among the target population to understand those
determinants so that they will be in a better position to develop more effective HIV
prevention and behavioral change programs (Fishbein 2000; Wulfert and Wan 1995).
Below I will briefly describe each of these behavior theories.

Health Belief Model

The Health Belief Model (HBM) assumes that people are motivated to protect and
calculate costs and benefits rationally before taking up protection measures. The model
takes beliefs as its critical variable and its theorists identify four types of health beliefs:
Perceived susceptibility, perceived severity; perceived benefits and perceived barriers
(Glanz et al. 1990: 43)

The first two beliefs—perceived susceptibility and perceived severity—are
concerned with the threat people believe is posed by the disease. The second two focus
on coping strategies. In terms of risky sexual behaviors, the HBM hypothesized that
decisions concerning AIDS-protective behavior result from a function of perceived risk
of contracting the disease, perceived severity of the disease, and perceptions of benefits
and barriers to specific AIDS-protective behaviors (Glanz et al. 2008: 58). The
conceptual framework of the HBM might not be suitable for the HIV epidemic since it
does not take into account social conditions, which many researchers found important in
the context of the disease. Some studies that use the model to gauge risky sexual

Theory of Reasoned Action (TRA)/Theory of Planned Behavior (TPB)

The Theory of Reasoned Action (TRA) explains that three factors decide performance of behavior: 1) intention, 2) attitude toward the behavior and 3) subjective norms. Intentions play the most important role. Attitudes toward behavior are composed of two elements. The first is one’s beliefs about the consequences of putting the behavior into action. The second are the evaluation and one’s feelings about these consequences. The subjective norm is what a person is inclined to do in accordance with the opinions of people he respects and admires. It also has two components. The first is normative beliefs, or beliefs of the people one respects who recommend specific forms of behavior. The second is the motivation to comply which is defined as one’s desires to go along with what these people say (Perloff 2001: 18). The TRA contends that a person’s behavioral intention plays the most important part in determining his behavior and that a direct determinant of behavior intention is attitude toward performing the behavior (Kasprzyk and Monano 1998).

The Theory of Planned Behavior (TPB) is an extension of the TRA. The TPB extends the TRA by adding one additional construct—Perceived Behavioral Control (PBC). Perceived Behavior Control is derived from Bandura’s (1997) concept of self-efficacy, which refers to people’s appraisals of their ability to perform a specific behavior (Abraham and Sheeran 2003). TRA and TPB add a social dimension for performing the behavior with respect to Health Belief Model. The Theory of Planned Behavior contends
that a behavior can be predicted by a corresponding intention, which in turn is determined by the attitudes, subjective norms and perceived behavior control associated with the behavior in question (Ajzen et al. 2004).

TRA/TPB has been used to explain a variety of health behaviors including HIV/STD prevention behaviors. It has received substantial support for being able to predict health protective behaviors, including safer sex. The studies have generally supported that attitudes, norms and perceived control can predict behaviors as mediated through behavioral intentions. Studies have been done in the West, Africa and Asia and among different populations such as adolescents (Jemmott III et al. 2007); university/college students (Cha et al. 2008; Munoz-Silva et al. 2007); urban and rural males (Molla et al. 2007; Vanlandingham et al. 1998), sex workers (Gu et al. 2009; Sneed and Morisky 1998); drug users (Mausbach et al. 2009); gay men (Rye et al. 2001); and prison inmates (Bryan et al. 2003).

A study by Munoz-Silva et al. (2007) discovered that the Theory of Planned Behavior model better explained and predicted relating to intention compared with the Theory of Reasoned Action. Bennett and Bozionelos (2000), in an overview of research focusing on the utility of the Theory of Planned Behavior in predicting condom use, found that the theory has been able to predict both intentions to use condoms and actual condom use, that attitudes have more predictive power than social norms, and that efficacy judgments seemed to have more influence than other perceived control factors.

Sheeran and Taylor (1999) used research based on a meta-analysis conducted on 23 psychosocial predictors of intentions to use condoms through data from 67
independent samples. They concluded that knowledge about HIV/AIDS and perceptions of the threat of the disease were somewhat related to making decisions about condom use. Furthermore, attitudes and subjective norms from the Theory of Reasoned Action showed medium to strong effect sizes and perceived behavioral control from the Theory of Planned Behavior predicted behavioral intentions reliably and explained variance over and above the effects of attitudes and subjective norms.

The revised model, the Theory of Planned Behavior (TPB) suggests that one’s perceptions of the ease or difficulty of engaging in a behavior can affect behavioral intentions over and above the effects of attitudes and subjective norms (Sheeran and Taylor 1999).

Trans-theoretical Model Theory

The two theories discussed above are “point in time” theories; that is, they talk about the attitudes, beliefs, and decisions concerning behavior that take place as a single process. However, some scholars argue that in reality a series of processes may be involved for a person to change his or her behavior (Edberg 2007: 43). Hence, the Trans-theoretical Model (TTM) was developed as it uses stages of change to incorporate processes and principles of change across major theories of intervention. The theory was mainly used in initial studies of smoking, but the stage model was expanded and applied in the investigation of wide range of health behaviors including HIV/AIDS prevention (Glanz et al. 2008: 98).

There are six components in the Trans-theoretical Model. They are the “pre-contemplation stage” in which a person does not intend to change within six months. It is
followed by “contemplation stage” in which a person is thinking about change sometime within six months. Next is the “preparation stage” in which a person is ready to take action soon, say within 30 days, which is followed by the “action stage” in which a person has taken action bringing about change. The final two stages are the “maintenance stage” in which a person has adopted the new behavior and is seriously considering to keep it and the “termination stage” in which a person has truly completed the process of behavior change and has full confidence that there will be no relapse (Edberg 2007: 44 and Glanz et al. 2008: 98).

The use or non-use of condoms usually occurs as a result of social-psychological factors including HIV/AIDS knowledge and condom use skills, drunkenness or being high on drugs, and emotions towards a partner as well as long term goals. Yet, the processes of this particular behavioral change, that is, to always wear a condom in non-regular sexual encounters, may not necessarily be continual like those of smoking cessation. The applicability of the Trans-theoretical Model is very much contextualized. And it has been much more used in research on reducing risks than on preventing unsafe behaviors (Glanz et al. 2008: 116). Therefore, I do not intend to use this model in my current study with the truck drivers and their assistants.

*Social cognitive theory (SCT)*

All the theories discussed so far focuses on rational, cognitive decision-making processes and are individual-oriented. They talk mainly about individual decisions and do not take into account social and environmental factors. The social cognitive theory (SCT) has its specific focus on the interaction between individuals and their immediate
environment (Edberg 2007: 52). The theory states that human behavior is governed by the dynamic interplay of personal, behavioral, and environmental factors. According to the theory, individuals not only react to but help shape the environments in which they live to suit their purposes (Glanz et al. 2008: 170).

The key concepts of the theory are (1) psychological determinants of behavior, (2) observational learning, (3) environmental determinants of behavior, (4) self-regulation, and (5) moral disengagement. Individual-level psychological determinants identified by the theory are social outcome expectations, which correspond to the concept of social norms in the theory of planned behavior (TPB); self-evaluative outcome expectation, which deals with people’s expectations about how they will feel about themselves if they do or do not perform a certain behavior; and self-efficacy belief, which refers to people’s level of confidence about performing a certain behavior and corresponds to perceived behavior control in the theory of planned behavior (TPB). The concept of self-evaluative outcome expectations in SCT is similar to that of attitudes in TPB.

Observational learning, which the theory emphasizes, is what people get acquainted with from others and acquire from mass communications. Environmental determinants of behavior refer to structural support or discouragement concerning people’s behaviors. Self-regulation has to do with people’s ability to give up their immediate impulses or instant gratifications for the sake of long-term goals. Moral disengagement concerns the justification for committing a deviant act or doing a wrong to others (Glanz et al. 2008: 172-175).
The SCT goes beyond individual factors in bringing about change in health behavior and encompasses environmental and social factors (Bandura 1986). Due to the inclusion of social components and other relevant constructs originated in individuals, the social cognitive theory was able to explain more than 70 percent of the variance against less than 30 percent in the health belief model (HBM) and more than 60 percent in the theory of reasoned action in a study which explored the intentions to use condoms (Wulfert and Wan 1995).

In the current study, all the social and individual components of the social cognitive theory except the environmental determinants were used. Because the question here is the use of condoms, the environmental factors such as people’s attitudes towards a person’s carrying condoms, health personnel’s stigma against people living with HIV/AIDS and availability to and affordability of ante-retroviral treatments (ARVs) by people infected with HIV would not be directly relevant here.

The construct of observational learning was investigated through the variables which asked the participants’ access to mass media and other sources of HIV information and the influence of peers on their behaviors. The concept of self-regulation was explored through the components of the participants’ attachment to their family, ties to their community and the devoutness to their faith. The component of moral disengagement was discovered through the questions such as why the participants engaged in casual or commercial sex. For the present study, this aspect was explored through in-depth interviews with the truck drivers and assistants.
For all these reasons, it suffices to use the expanded theory of planned behavior to explain and predict the individual’s decision making process on the use of condoms in their above mentioned sexual encounters as far as SCT is concerned.

Ajzen (1991) encourages the investigation of new variables as he regards the Theory of Planned Behavior as “open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of the variance in intention or behavior after the theory’s current variables have been taken into account.”
Research Questions

The objective of this research was to explore the reasons why the truckers and their assistants engage in commercial or casual sex and why they use condoms during commercial sex. The study intended to find out the social, cultural and economic factors that create conditions for the truckers to engage in commercial and casual sex. The research explored which characteristics of the truckers encouraged them to practice safer sex during their last casual sexual encounters. It aimed to discover which factors make the respondents use or not use condoms during commercial sex. To achieve the purposes of the study, the following research questions were posed.

1. Why do the truckers and their assistants engage in commercial and casual sex?
2. Do they have their own subcultures about engaging in commercial or casual sex?
3. Are there truckers who do not engage in commercial or casual sex? If there are such people, what would be the reason behind their abstinence from involving in non-regular sex?
4. Is the expanded Theory of Planned Behavior applicable to the condom use during commercial sex by truck drivers and their assistants in Myanmar?
5. If the answer is ‘yes’ for the above question, which variables from expanded Theory of Planned Behavior are more significant than others in predicting the use of condoms during commercial sex by truckers in Myanmar?
CHAPTER 3 Myanmar and its HIV/AIDS Situation

Myanmar is a littoral country with the biggest land mass area in South-east Asia. While today it is primarily known as an impoverished nation, previously it was one of the prosperous countries in South-east Asia exporting the greatest volume of rice in the region until World War II. The country went through tumultuous years with the breakout of a civil war immediately following its regaining of independence from the British in 1948. This was followed later with the ousting of the civilian rule by the military coup in 1962 in the midst of weakening civilian government that had failed in its attempts to deter secessionist movements among certain ethnic groups within the Union. The country’s economy declined drastically in later years at the hands of the military government and it was designated a least developed country (LDC) in 1987. With dissatisfaction over their living conditions, people staged nation-wide demonstrations in 1988, but these movements for reform were silenced when factions within the military seized state control, further solidified the power of the military, and put an end to the demonstrations. This was an attempt on the part of the military to salvage the then unpopular and failed state. The move earned wide criticism from the international community. The military administration consequently suffered a series of diplomatic setbacks and the country suffered through increasingly tightening economic sanctions. This post-1988 government administered the country until very recently when it handed power over to the civilian government in 2010 under the new constitution approved through a referendum two years before.
HIV/AIDS Situation in Myanmar

Myanmar faces an HIV/AIDS epidemic and it is a national priority for Myanmar. The UNAIDS includes Myanmar along with two other Southeast Asian countries, namely Thailand and Cambodia, as countries most seriously affected by the disease (Theme Group on HIV/AIDS 2004). While Cambodia and Thailand successfully carried out strategies to reverse the spread of HIV in the 1990s, Myanmar’s limited prevention efforts had not been able contain the spread of the serious disease until the beginning of the new millennium. (Some general background on Myanmar is in Appendix 1)

The problem has not reached the stage which affects the life expectancy of the people, as it has in certain countries in Africa, but the epidemic could become very serious if the trends had not been reversed. Piper and Yeoh (2005) said that an HIV epidemic is likely to be serious in a country with widening socio-democratic disparities and a large scale of population movement. Myanmar has a wide (and still growing) gap of wealth between the rich and the poor due to the not well planned introduction of an open market economic system more than 20 years ago. Both internal and cross-border migration is common, mainly this is economic migration as people search out greener pastures, but thousands of people are also displaced due to the fighting between government troops and ethnic insurgent groups fighting the central government.

The major mode of HIV transmission in the country is heterosexual sex. Buying sex carries stigma, but a significant percentage of mobile populations engage in commercial sex, especially when they are out of their hometowns, or when the
towns and cities they live in are big enough for them to remain anonymous. In these situations ‘deviant behavior’ such as engaging in commercial sex becomes possible.

Myanmar has experienced high inflation rates in the last decade (Turnell 2011) and minimum wages that remain below subsistence level have driven many girls to turn to sex work. Similar economic circumstances are experienced in Thailand and Cambodia, which are in similar to Myanmar as regards the HIV epidemic. On the demand side, sufficient clients exist as the rich become richer and the nouveau riche have been fast emerging with the introduction of the open-market economy.

According to an official report, the first HIV positive person was believed to have been discovered in the country in 1988 and the first AIDS case was reported in an injecting drug user in 1991 (Thwe 2004). Later the disease spread among injecting drug users and through them to sex workers and via sex workers to their male clients. Since the detection of the first HIV case in the country in 1988, the number of people diagnosed with HIV increased every year and by December 1993, 7152 people had been found HIV-positive according to official figures (Kaldor 1994: S106). Rapid spread of the HIV was evidenced by the fact that over 80% of injecting drug users in Mandalay in upper Myanmar and Myitkyina in the north of the country were HIV positive while 75% in Yangon were found positive during a 1993 survey. In the same year, median HIV prevalence among sex workers in Yangon and Mandalay was 9%. In the same year, HIV prevalence among three measurable low risk groups (pregnant women attending antenatal care, blood donors and military recruits) was 1.4%, 0.5% and 0.4% (Table 1). The HIV prevalence among pregnant women attending antenatal clinics is used as a
proxy indicator for the percentage of young men and women aged 15-24 who are HIV infected (UNGASS Myanmar 2010).

UNAIDS estimates showed that more than 510,000 people were living with HIV/AIDS in Myanmar in 2000 (WHO 2001). The HIV epidemic in Myanmar moved rapidly. It passed through the levels of low level epidemic, moved to concentrated epidemic; and once appeared to be approaching the level of a generalized epidemic. This statement is deduced from the fact that that there had been a rise among low-risk groups such as blood donors and military recruits since 1992, which suggested that the virus had moved beyond high-risk groups and reached the general population (Expanded Theme Group on HIV/AIDS 2005).

The new millennium was a milestone in the country’s fight against the HIV epidemic. At that time a multi-sectoral approach was adopted, greater resources were invested and strong commitments were made by partners participating in combating the serious disease. As a result, there have been signs of decline in both prevalence and incidence of HIV from around 2000. The Ministry of Health estimated that 338,911 people, or 1.3% of the adult population, were living with HIV in 2004 (Expanded Theme Group on HIV/AIDS 2005). According to Thwe (2004), by 2004 the HIV prevalence was by then concentrated among high risk groups due to the strong political commitment in which both national and sub-national level authorities followed concrete actions and brought about successful implementation of HIV interventions.
Table 1 HIV prevalence among sentinel groups 1992-2009  (percentage)

<table>
<thead>
<tr>
<th>Year</th>
<th>Pregnant women</th>
<th>Blood donors</th>
<th>Military recruits</th>
<th>New TB patients</th>
<th>Male STI patients</th>
<th>Injecting drug users</th>
<th>Female sex workers</th>
<th>Men sex with men</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>1.8</td>
<td>0.3</td>
<td>0.0</td>
<td>9.0</td>
<td>52.8</td>
<td>4.3</td>
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<tr>
<td>1993</td>
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<td>0.5</td>
<td>0.4</td>
<td>6.9</td>
<td>74.3</td>
<td>9.0</td>
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<tr>
<td>1994</td>
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<td>0.5</td>
<td>5.7</td>
<td>72.4</td>
<td>16.5</td>
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<tr>
<td>1995</td>
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<td>0.5</td>
<td>7.1</td>
<td>54.5</td>
<td>18.0</td>
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<td>0.4</td>
<td>7.7</td>
<td>56.5</td>
<td>21.5</td>
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<td>8.9</td>
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<tr>
<td>1998</td>
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<td>50.9</td>
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<td>1.4</td>
<td>7.1</td>
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<td>38.0</td>
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<tr>
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<td>1.3</td>
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<td>5.3</td>
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<td>37.4</td>
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<tr>
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<td>0.3</td>
<td>1.63</td>
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<td>4.85</td>
<td>34.6</td>
<td>11.2</td>
<td>22.3</td>
</tr>
</tbody>
</table>

Source: National AIDS Programme
Status of the epidemic

New infections have been attributable mainly to heterosexual relationships. This is the same as in Thailand and Cambodia. HIV prevalence rose dramatically each year in the early part of the spread of the HIV epidemic and reached its highest point around 2000-2003 depending on different sentinel groups. The prevalence then started declining gradually as shown in lower overall HIV prevalence. According to the latest modeling estimate, HIV prevalence among adult population (aged 15-49) was 0.61% in 2009. Among high risk populations, survey data reflected that HIV prevalence was recorded at 11.2% in female sex workers, 4.85% in sexually transmitted infection (STI) patients, 28.8% in men who have sex with men and 36.3% in male injecting drug users (Table 1).

The number of people living with HIV in Myanmar is estimated at around 238,000 people in 2009 and 74,000 among them are expected to be in need of antiretroviral therapy. Approximately 17,000 people died in the same year and more than 10,000 people were believed to have contracted the disease (UNGASS Myanmar 2010). The current overall lower HIV prevalence compared to earlier years may be due to higher death rates then and lower incidence in more recent years.

A little more than a decade ago, HIV prevalence among adults was 1.3% in 2000. Among military recruits tested in Yangon and Mandalay, the prevalence of HIV infection increased from 0.5% in 1992 and reached its first peak at 2.5% in 1998. It then dropped to 1.4% in 2000, and climbed again to arrive at 2.1% in 2003. HIV prevalence among the population was recorded at 2.5% again in 2008. Among blood donors, HIV prevalence consistently increased till the initial years of the new millennium. HIV prevalence among
them was from 0.3% in 1992, to 1% in 2000, to 1.23% in 2003 (UNAIDS/WHO 2004) and declined consistently afterwards recording at 0.3% in 2009. Among sentinel groups, findings on HIV prevalence among injecting drug users indicated 52.8% in 1992, 62.7% in 2000, which was its peak year. It has declined since 2000 and has remained stable at approximately 34-37% in 2008 and 2009 (Table 1).

HIV prevalence among female sex workers rose from 4.3% in 1992, increasing slowly in later years and arriving at its highest point in 38.0% in 2000. The rate has been dropping afterwards to reach 11.2% in 2009. For male STD patients, HIV prevalence among them was 9.0% in 1992, hovered around 7.1-8.9% in the late 1990s and stood at 4.85 in 2009 (Table 1). In explaining why earlier HIV/AIDS national responses were not able to cope with the dynamics of the epidemic, Williams et al. (2008) reflected that the early HIV/AIDS plans were health focused, key population groups at risk of HIV transmission were not given due attention, and financial resources were also limited as funding from the public health system was not able to generate much-needed money needed to cope with the issue.

HIV infection takes place mainly in high-risk sexual encounters such as between sex workers and their clients, men who have sex with men and sexual partners of these sub-populations. Furthermore, the sharing of injecting equipment, done in an unsafe fashion, contributes to a high level of HIV transmission among injecting drug users and through them to their sexual partners. Behavior change has occurred in commercial setting. It is a norm these days for men to use condoms in commercial sexual relationships due to various HIV prevention measures and people having seen the AIDS-
related deaths of their peers and friends. Findings from behavior surveillance surveys and occurrence of lower common sexually transmitted disease, namely syphilis, among female sex workers have confirmed this finding (UNGASS Myanmar 2010). However, there is not sufficient data to support whether buying sex has become less common among men as in the case of Thailand and Cambodia (e.g. BSS Cambodia 2001 and 2003; Nelson et al. 1996; Saengwonloey et al. 1998). Next, important features of the national response to the HIV epidemic and factors that are conducive to or hinders Myanmar’s fight against the epidemic will be discussed.

Prevention of sexual transmission

Since the earliest years of the HIV epidemic in Myanmar, the most important mode of new infections has been sexual transmission (Burrowes 1998). Giving priority to preventive measures, especially among high risk populations, is a rational strategy to deal with the issue, especially for a country with limited resources like Myanmar, and daunting challenges ensue to provide universal access of antiretroviral therapy (ART) to people living with HIV in the country. Accordingly, the bulk of money was spent on prevention in earlier years (NAP 2005). It was only in recent years, 2007-2010, that expenditures on treatment, care and support started to equal and then surpass those on prevention when efforts to combat the epidemic had gained momentum (NAP 2010).

Interventions to reduce risky sexual behavior and improve knowledge and information as regards sexually transmitted infections and HIV targets both high and low risk groups such as sex workers, their male clients, injecting drug users, men who have sex with men, mobile populations and uniformed personnel as well as youth and school
children. Measures being taken to prevent sexual transmission include making condoms more affordable and accessible, improving services for the prevention and management of sexually transmitted infections and bringing about behavior change through peer education and outreach programs. Though sex work is illegal, it is commonly overlooked by the authorities, and thus entertainment businesses operate clandestinely, especially in cities and fairly big towns.

In order to reduce new infections as an important mode of transmission, safer sex has been promoted in commercial sex settings in Myanmar. These policies follow the models established in Thailand and Cambodia since the early phase of the anti-HIV efforts. In an effort to support the move, a directive was issued to the police in 2001 that carrying a condom was not to be used as evidence for prostitution. This law was intended to reduce counter-productive harassment by police of sex workers (NAP 2005).

The 100% targeted condom program was launched in four townships as pilot sites in 2001, but, by 2005, it has covered 154 priority townships out of total 325 townships in the whole country. A total of 35 million condoms were distributed in the country by the end of 2005 (Mya Oo 2006). Condom distribution, through free delivery and social marketing schemes, totaled 16 million in 2001 at the start of the condom promotion program, reached its peak at 49 million in 2006 and was recorded at 42 million in 2010 (NAP 2010). Many of the condoms were sold at highly subsidized rates through social marketing programs while the rest were given away for free. However, the condom promotion program sadly remained far short of its objective of universal condom use in commercial settings, especially in the earlier years of the launch of the campaign.
The 2003 Behavior Surveillance Survey data showed that men who used condoms consistently during commercial sex represented only 54%. The findings were in line with results from condom market surveys conducted by Population Services International among clients of sex workers such as trishaw drivers, taxi drivers, truckers, fishermen and miners as well as female sex workers (NAP 2005). Independent surveys showed similar results in which consistent condom use with female sex workers during the last five contacts were 51.5% and 74.1% in 2003 and 2007 respectively (PSI Social Marketing Research Series 2006). A 2008 behavior survey finding showed that condom use during commercial sex has increased in more recent years. Sex workers’ condom use with their last clients was more than 95%. The proportion of those responding to using condoms “always” or “almost always” in the last six months was 97% among female sex workers in Mandalay and 83% among their peers in Yangon (BSS 2008).

Research with clients indicated that the actual use of condoms might be significantly lower than reported, but the HIV prevalence of female sex workers and their clients, as mentioned earlier, suggested that condom use in commercial sex had reached levels that reduce incidence (NAP 2010). Female sex workers with the common sexually transmitted disease, syphilis, dropped from 25% in 2005 to 5.5% in 2008 (UNGASS Myanmar 2010).

By using peer-education based and outreach programs to bring about behavior change, an estimated 30,000 sex workers were reached through various aspects of this program in 2005 (NSP Operational Plan 2006). A total of 411 sex workers were involved in various projects as peer educators in the year. Since the programs were expanded,
various behavior change communication prevention programs were expected to reach at least 46,395 out of targeted 60,000 sex workers in 2010 (NAP 2010).

Injecting drug users practice risky sexual behavior in addition to sharing needles and equipment. A median of 32.25% of injecting drug users in the 2008 survey reported to having bought sex in the past six months while also reporting that their use of a condom during last sex during such relationship was 66.75% (BSS 2008). Condoms were made available to an estimated 56.5% of injecting drug users during the 2006-2010 plan period. Peer education and outreach programs were also implemented among the population to bring about behavior change (UNGASS Myanmar 2010).

Another group of people deserves attention as far as the HIV issue is concerned. This group is men who have sex with men (MSM). Due to a strong stigma associated with the group, they became part of the sentinel groups in HIV/AIDS surveillance surveys only as recently as in 2007. Surveys conducted in Yangon and Mandalay sites revealed that the median HIV prevalence in the MSM group was high with 29.3%, 28.7% and 22.3% in 2007, 2008 and 2009 respectively (Table 1). In recognition of the importance to be given to this group in tackling the HIV epidemic, international non-governmental organizations, especially those which work with hard-to-reach and/or hidden populations have been implementing programs that focus on this group of people. Services being provided to this population include peer education and outreach programs for bringing about behavioral change, condom and lubricant promotion and target-oriented sexually transmitted infection services and voluntary confidential counseling and training (UNGASS Myanmar 2010).
In 2005, 13 organizations reported having reached 22,000 men in the MSM group, about 8% of the estimated MSM population in Myanmar, through their outreach programs in which 77 trained MSM peer educators were reported to have been involved in those projects (NAP 2005). Three years later, the programs expanded their coverage and it was projected that 16% of the estimated men who have sex with men population throughout the country was accessed in 2008. However, a comprehensive package of services was made available only in certain areas where there are established drop-in-centers for the population. Services targeting this population were expanded and the beneficiaries in 2010 would come to more than 79,000 (33%) out of 240,000 estimated total number of men who have sex with men. These statistics may be somewhat faulty as there might be double counting of mobile MSM who travel between sites where this research was conducted.

Now, more men who have sex with men are involved in the programs that target them. Based on the formal groups they are already involved in, men who have sex with men have formed networks. These networks enable them to get involved in designing and implementing plans aiming at them. Because there is a strong stigma associated with this group, the National Strategic Plan (2006-2010) includes measures to reduce stigma and discrimination against MSM in health settings (NAP 2010).

Another group of people targeted for intervention are mobile populations that engage in unsafe sexual behaviors. They also form essential parts of the programs that intend to bring about behavioral change. They include people who are migrant workers and who have to move within an area or beyond due to their profession. Common mobile
populations in Myanmar are workers at mining sites and transport workers such as trishaw drivers, taxi and bus drivers, long distance truck drivers and assistants, train employees and seafarers. The National Strategy Plans on HIV/AIDS target these populations but programs aimed at these people have been done more or less on an ad-hoc basis (NSP Operational Plan 2006). Different non-governmental organizations work with specific groups. For example, Population Services International (PSI) works with transport workers. Myanmar Red Cross Society and Association François-Xavier Bagnoud (AFXB) Myanmar formerly had programs to work with truck drivers and assistants.

Among uniformed services personnel, police have been the main target population, but with the involvement of the Ministry of Defense in the drafting of the 2006-2010 National Strategic Plan on HIV/AIDS, the military would be provided with technical support in the future for the development of an appropriate HIV strategy for them (NSP Operational Plan 2006). For the targeted population, priority would be given to border areas, mining areas, transit points, military units and police units. Programs directed at the police focus not only on bringing about their behavior change but also on advocating and training them to be a partner in containing the HIV epidemic and thus creating an enabling environment for on-going programs related to HIV/AIDS (NAP 2005).

In an attempt to estimate the degree of risky sexual behavior among the general population and young people in particular, the 2007 survey conducted among the general population in three different areas found that 11.3% of male participants had sex with a
non-regular partner in the past 12 months. Altogether 80.7% among them reported consistent condom use during commercial sex and 17.2% during casual relationship. The 2008 study among out-of-school young people showed that 7.4% of young men (aged 15-24) reported having bought sex in the past 12 months and 70% among them claimed to always use condoms. A total of 2.3% the respondents reported ever had sex with another man. The National Strategic Plan 2006-2010 on HIV set reducing HIV-related risk, vulnerability and impact among young people as a high priority (UNGASS Myanmar 2010).

As regards youth, there has not been sufficient data to map efficient activities and more precise coverage. Beyond the National Strategic Plan document, there has not been a specific national youth strategy that clearly defines its direction (NSP Operational Plan 2006). Different prevention programs reached more than 322,000 out-of-school youth during the 2006 to 2010 period (NAP 2010). HIV prevention information to in-school youths are provided in the form of life skills training but figures are not available as regards the number of young people reached through this medium.

Since the early phase of the HIV issue, a great number of organizations have been implementing projects on health education for youth both in-school and out-of-school settings. Interventions aiming at young people focus on delivering prevention messages that are concerned with life skills, behavioral change communications, adolescent health information and HIV information, education and communication (IEC). An HIV education program at school is called School-based Healthy Living and HIV/AIDS Prevention Education (SHAPE) and has been jointly developed by the Government of
Myanmar and UNICEF since 1998. “SHAPE Plus” has been launched by a local partner based on the original model to reach out to out-of-school youth as well (NAP 2005). Now, I would like to discuss measures being taken prevent vertical transmission of HIV virus—from mother to child transmission.

Prevention of mother to child transmission (PMCT)

Myanmar’s ability to prevent mother to child transmission is very low as only about 32% of HIV mother-baby pairs received a complete course of antiretrovirals in 2010. However, it must be pointed out that this is an increase of nearly fourfold compared to six years ago. Prevention of mother-to-child transmission was introduced in the country in 1998 through UNICEF but now other UN agencies and international NGOs such as UNFPA, World Food Programme (WFP) and Médecins Sans Frontières (MSF)-Holland, MSF-Switzerland and Association Montessori Internationale (AMI) have joined the program by 2007 (Mya Oo 2007). When it was launched, the program covered only two townships, Kawthaung and Tachilek, both of which are located on the Thai-Myanmar border. But by 2004, the prevention of mother-to-child transmission program was implemented through community or hospital-based and comprised counseling and offered HIV testing, at this time it covered 74 out of all 325 townships. By 2010 the program covered 248 townships representing 76% of all townships. In 2004, there were only 3,850 people who received home-based care that includes psycho-social, food, financial or medical support, but in 2010 the number increased by nine fold to 34,713 (UNGASS Myanmar 2010). In the same year, the National AIDS Programme and
three NGOs provided antiretroviral therapy (ART) to 629 mother-baby pairs covering only 8% of HIV positive women who were in need of ART treatment.

With the provision of antiretrovirals to HIV positive mothers, mother-to-child transmission rate was a record 22.97% in 2009. The proportion is still high compared to Thailand. In Thailand the mother-to-child transmission in 2007 was recorded at 5.6%, even when dead infants were included in the calculations (UNGASS Thailand 2010).

An estimated 55.4% of HIV-infected pregnant women in Myanmar were given antiretrovirals to reduce the rate of mother-to-child transmission in 2009 (UNGASS Myanmar 2010). This can be compared with Cambodia where 32.3% of HIV-infected pregnant women received antiretroviral therapy (ART) (UNGASS Cambodia 2010) and Thailand where most of the infected pregnant women were administered ART in the same year (UNGASS Thailand 2010).

Access to treatment, care and support

Unfortunately, only a small portion of people living with HIV receive antiretroviral treatment in Myanmar. Altogether 21,138 AIDS patients, or 28.6% of people in need, were receiving ART in 2010. This is still far short of the total demand needed to fully cover 74,000 people who require ART in the country (UNGASS Myanmar 2010). This is because of the limited budget allocation for dealing with the HIV epidemic and until recently, priority has been given to prevention rather than to treatment, care or support.
An antiretroviral therapy was introduced jointly by MSF-Holland and the Department of Health in 2003. By the end of 2005, 2,527 patients were receiving ART treatment from the two sectors mentioned above. At that time this total represented only one in 20 persons receiving the much needed ART. An estimate 4,000 HIV patients were receiving the treatment from the private-for-profit sector in the same year (Mya Oo 2006). Four years later, the number of people who were receiving antiretroviral treatment from the non-profit sector increased more than eight fold. Among the 21,138 patients who were receiving ART in 2010, women and children constitute 43.3% and 7.26% respectively (UNGASS Myanmar 2010).

Besides care and treatment, a limited number of non-governmental organizations offer other forms of assistance. Psycho-social support is given to people infected with and affected by HIV/AIDS (NSP Operational Plan 2006). Programs related to care, treatment and support are operated on the principle that infected people themselves and their community leaders should be involved in the development of strategies that would enable them to have access to treatment, education and social support; and that there should be a caring, protective and a supportive environment for people living with HIV/AIDS and their families. Related projects employ people living with HIV/AIDS as counselors, health educators and outreach workers and more of them are expected to get involved in various capacities in the future.

Although a relatively recent initiative, self-help groups have been created with assistance from the National AIDS Programme, international non-governmental organizations, local NGOs and community-based organizations. The support these groups
provide may include socio-economic assistance such as the provision of food, loans for income generation and education support for children to people living with HIV/AIDS. People living with HIV are now represented on the Global Fund Country Coordinating Mechanism and on the ART selection committee. Nevertheless, people living with HIV/AIDS are generally reluctant to make known their HIV positive status to outsiders, and even to their family members, because of the stigma associated with how they have been infected with the disease in most cases. In Myanmar society, especially among Buddhists, which represent more than 75% of the people in the country, being a sex worker or a man who has sex with another man carries a stigma rooted in the people’s religious belief.

Therefore, stigma and discrimination against people living with HIV/AIDS pose a barrier for programs to reach out to them and for their greater involvement to improve their lives. Since this associated stigma is deeply rooted, much work must be accomplished in order to tackle the issue (Expanded Theme Group 2005). Steps have been taken by a number of organizations, yet stigma persists, especially in health settings. Many correctly believe that the confidentiality of their HIV status is not assured in the country’s health care system and/or that they will be discriminated against in seeking health care.

Stigma and discrimination

Stigma and discrimination against people living with HIV/AIDS is widely prevalent in Myanmar. Stigma arises from two factors: the first is the nature of the groups
that have been infected with the virus in the earlier part of the epidemic; and the second is prevailing attitudes toward the major modes of the disease’s transmission. As in Thailand, the earlier groups of HIV virus carriers were injecting drug users, followed soon after by female sex workers and then their male clients. As the recent findings show, HIV prevalence is high among men who have sex with men (MSM).

Stigma and discrimination takes place in health facilities, in the communities and at work places. Various programs have been carried out to reduce stigma and discrimination but it remains a major problem for people living with HIV as were reflected in the findings from the 2007 Behavior Surveillance among general population and the 2008 Behavior Surveillance for out-of-school youth. Although many respondents expressed their willingness to care for an HIV-infected family member, less than half of them said that they would buy food from an HIV-infected vendor (UNGASS Myanmar 2010).

At public health facilities, discrimination exists and the confidentiality of the testing results is not always assured (Expanded Theme Group 2005 and ICG 2004). In certain communities, especially in rural areas, the bodies of those who die of AIDS are not allowed to be carried into their communities before the burial or cremation. Therefore, organizations working to reduce stigma and discrimination make use of various means and occasions to get their message across in the communities.

For example, community gatherings, festivals, public video shows, traditional theatrical performances and days of significance such as World AIDS Day are used to raise HIV knowledge and awareness among general population (NAP 2005). These
organizations expect that there will be less stigma once misconceptions about HIV transmission are dissipated. Another measure being taken to reduce stigma includes improving empathy towards people living with HIV/AIDS in their communities and at work places. Many international non-governmental organizations including faith-based organizations are taking the lead in these efforts (Expanded Theme Group 2005; FHAM 2007). These organizations also employ peer counselors, health counselors and outreach workers to be able to reach out to and better provide services to the target groups (Expanded Theme Group 2005).

The government for its part has laid out guidelines and policies designed to help bring down stigma and discrimination against people living with HIV/AIDS (Expanded Theme Group 2005). This policy is specifically mentioned in the 2001-2005 National Strategic Plan on HIV/AIDS. The plans also outline community-based activities that aim at reducing stigma and discrimination toward not only people infected with and affected by HIV/AIDS, but also groups of people whose behaviors could be associated with HIV infection such as female sex workers, injecting drug users, and men who have sex with men (NSP 2006). The 2006-2010 strategic plan also addresses stigma and discrimination (UNGASS Myanmar 2010) and the 2010 guidelines on HIV counseling and testing calls for public health facilities to be user friendly and free of stigma against such marginalized groups as people who use drugs, men who have sex with men, transgender groups and sex workers (NAP 2010).

Stigma and discrimination are the main reasons for people’s reluctance to report about their being HIV positive even to their partners or immediate family members. The
risk of public exposure also inhibits people from trying to receive antiretroviral therapy (NAP 2005). Stigma also deters marginalized groups such as men who have sex with men to seek health care at public facilities (NAP 2010).

The people of Myanmar are predominantly Theravada Buddhist. As many HIV carriers are drug users, homosexuals and sex workers, it is valuable to understand how Buddhist teachings are interpreted in the society in relationship to these three groups. This understanding of religious values can help clarify why those people are stigmatized in the society. This will be the subject of the section below.

_Buddhist teachings about drug use, homosexuality and prostitution_

Many Buddhists observes the Five Precepts during the three-month Buddhist Retreat (Lent) period from July to September. They are: I shall not take any life at all; I shall not steal; I shall not commit adultery; I shall not lie and I shall not drink intoxicating liquor. The fifth vow, while specifically about alcohol is understood in the modern day to include not taking narcotic or synthetic drugs. According to Buddhism, the above-mentioned points are called precepts rather than commandments because people make a vow before a monk or a Buddha image (or by themselves alone) that they will not commit any of the above listed sins for that particular day or for a certain period.

In Myanmar, until very recently, consuming intoxicating liquor was a very shameful thing to do and it was unacceptable to drink or appear intoxicated in public. These days, however, it is quite acceptable in Myanmar to drink in public, especially for adult men. In steep contrast, of course, ingesting heroin or inserting it into veins using
hypodermic syringes carries a lot of stigma and discrimination not simply because it is against Buddhist teachings but also because it is an illegal act. Drug users are also scorned because people believe heroin users or intravenous drug users are causing their family to suffer in many ways, especially by squandering their parents’ money or lying to their family about their condition. If thievery is involved in obtaining money for the drug habit, this compounds the situation. It is for all the above-mentioned reasons that intravenous drug users are stigmatized and discriminated against for their deviant character.

Buddhism prescribes the rightful means of livelihood as well as the types of economic activities that are harmful to the society and should not be undertaken. Sinful economic activities include:

- Doing business in weapons: trading in all kinds of weapons and instruments for killing.
- Doing business in human beings: slave trading, prostitution, or the buying and selling of children or adults, that is, human trafficking (to use a modern term).
- Doing business in meat: "meat" refers to the bodies of living beings after they are killed. This includes breeding animals for slaughter.
- Doing business in intoxicants: manufacturing or selling intoxicating drinks or addictive drugs.
- Doing business in poison: producing or trading in any kind of toxic product designed to kill.
Participation and/or involvement in the business of illicit narcotics clearly contravenes many of the Buddhist teachings on the ‘right’ way to participate in the economy.

Moreover, as is the case in the sacred texts of Christianity, one can find passages in the sacred texts of Buddhism that can be used to perpetuate the stigmatization of homosexuality in Myanmar and other Buddhist countries. This is rooted in the Buddhist literature on “pandaka” a category of people who are not allowed to ordain as Buddhist monks. In the ancient literature of the Buddhist vinaya rules, the pandakas are a category of people that exist between the strict gender categories of male and female. The meaning of the word “pandaka” is imprecise and can be found in the literature to describe people corresponding to the modern category of homosexual, but also transsexuals and people whose sexual practices are considered lascivious. Cabezon describes the use of the term pandaka in Buddhist literature as follows: “The pandakas, who include homosexuals, are full of defiling passions; their lusts are unquenchable and they are dominated by their libido and the desire for lovers just like prostitutes and coarse young girls. This view of pandakas as lascivious, shameless, unfilial, and vacillating, is based on the social disabilities incurred by the pandakas as members of the stigmatized and outcast group” (Cabezon 1992: 205 and 206).

The Buddhist belief system is also based on the notion of reincarnation and karma, so the social position of someone in the present is related to their accumulated good or bad deeds in their past lives. These beliefs can have a compounding effect on social prejudice as it can lead to the idea that suffering in the present day was somehow ‘earned’ by bad behavior in the past. The stigma towards homosexuals could also be
rooted in a Buddhist teaching that they have committed adultery in their past lives. Other misdeeds include being a prostitute, sexually interfering with one’s children or being sexually irresponsible, such as a man not caring for a woman who becomes pregnant by him. Jackson argues in the context of Southeast Asia that “The ‘traditional’ view claims that homosexuality is the karmic consequence of past sexual misconduct but in itself is not sinful and does not have future karmic consequences (Jackson 1995)”. It can be said that many Thai and Myanmar people share the above-mentioned views on homosexuality.

Due to the strong stigma associated with them, men who have sex with men (MSMs) in Myanmar have their own secret places to meet to avoid public condemnation for their acts. Until a few years ago, in the eyes of the Myanmar government, homosexuals did not exist. They were not even considered part of the HIV/AIDS problem and accordingly there were no programs specifically related to them. It is for this reason that the figures for HIV prevalence and incidence among them are not available and, as mentioned earlier, they became part of the HIV surveillance survey only as recently as in 2007.

However, a few international non-governmental organizations have been implementing programs targeting them. Williams et al. (2008) mentioned that HIV prevention interventions for men who have sex with men are a relatively recent phenomenon and non-government organizations have been providing tailored health education by means of peer education and outreach programs among the sub-population.
Population statistics in Myanmar are largely unreliable, but we can fairly say that about 75% of the Myanmar population is Buddhist. Christians account for 15% while Muslims, Hindus and animists make up the rest. The teachings and principles of Buddhism have a great influence on the thinking and values on the majority of Myanmar people in their daily lives. It can be argued that in Myanmar, which has remained religiously traditional, Buddhist ethics and values continue to influence the behavior of people in all their cultural, social and economic spheres of interaction (Schober 2008).

By tradition as well as by law, there is no discrimination between men and women in Buddhist Myanmar. Under the law, Myanmar women have equal rights to men in all respects (property ownership, divorce, business and inheritance). Culturally, women are generally decision-makers in the family, especially on how the family’s money is to be spent, even where the husband is the breadwinner in the household (Mon 2000). There is little discrimination against boys and girls pursuing similar levels of education among the middle class and above. However, among the working class and lower middle class families, if there is a financial choice to be made, girls are the ones who remain in school because they believe that while boys can do any job, some jobs are not appropriate for girls, so they will be more economically vulnerable if their educational level is low.

While it is the case that gender parity exists in many aspects of Myanmar life, the existence of gender parity in some aspects of life does not indicate the absence of patriarchal values and chauvinism across the society. In many ways Myanmar can be described as a patriarchal society in which male chauvinism often prevails. Inequality is
evident, especially in religious sphere (Nwe 2003). For example, women are not allowed to go to the upper terrace of the pagodas. In Theravada Buddhist countries, such as Myanmar, Thailand, Laos and Cambodia, women are not fully ordained as monks so are unable to participate at the highest or most prestigious levels of the religion. However, it must be added that Buddhism does not discriminate against women in favor of men in their ability to obtain their ultimate goal of Nirvana, the end of the cycle of death and rebirth and thus the end of suffering. As in the case of religion, we see that in the world of secular politics, with some significant exceptions, that at the national level men are much more represented than women and have much more access to political power in all the countries where Theravada Buddhism is practiced.

Inequality in the relationship between men and women is prevalent when it comes to sex—marital, casual or transactional—because men are main decision-makers in these situations. They usually decide whether to practice safe sex or not. Therefore, in situations where women have less power in relation to men in any facet of sex, sexual decision making can have powerful implications for the spread of HIV/AIDS and other STIs. Statistically men more often engage in extramarital sex, casual or commercial, and are more sexually promiscuous. When their behavior is unmediated by their female partners, it is more dangerous for the spread of sexually transmitted disease. It is much more frequent that men pass on their STI or HIV to their women partners than the other way round as mentioned earlier. And yet interventions have succeeded by making use of condoms for commercial sex the requirement demanded by the female sex worker. It is
no longer a matter of gender inequality here because it is a condition of the financial transaction.

In Myanmar, soldiers tend to introduce sex to their peers through initiation with female sex workers, but this custom is less common among the general public. The behavior of visiting sex workers by Myanmar males is stigmatizing; it is socially tolerated but men usually do it anonymously. Ideal women are expected to be virgins until their marriage but with young people having more freedoms these days, men, especially urban ones, are no longer as strict as in the past to their would-be wives in this respect. Still, it would be very difficult for women to talk about using condoms in their marital or romantic relationship since this would amount to not trusting their husbands or boyfriends, or may be perceived as being unfaithful themselves. Myanmar people believe that children owe gratitude to their parents but it is not socially acceptable for the parents to ask children to repay them and earn merits by working as sex workers. Girls work as sex workers or call girls anonymously and parents may sometimes allow their daughters to do the job as they generally feel they have no alternative.

The growth of the economy and the widening gap between the rich and the poor are the critical factors for girls and young women entering the flesh trade these days. In Myanmar, prostitution carries a strong stigma and unlike in Thailand, it will be very difficult for a former sex worker to find a husband in her own village or town as being or having been a sex worker carries a very bad connotation. This may be related to Myanmar people’s orthodoxy as regards Buddhist teachings because the profession runs contrary to right livelihood.
Resource mobilization and strengthening partnership

The country is winning the battle against the HIV epidemic, but it is fair to say that more achievements could have been made if there had been more financial allocations from the national budget and greater commitment from the international community. In general, Myanmar is a donor-constrained country. The country receives less development per capita compared to Laos and Cambodia, the two countries in the region that are in a similar state of economic development. Myanmar total foreign aid receipts amounted to 1.9% of GDP in 1995 compared to 18.1% for Laos and 16.6% for Cambodia in the same year. More recently in 2008, the proportions were 3.0% for Myanmar and 9.4% and 6.6% respectively for Laos and Cambodia. In terms of per capita foreign aid receipts, Myanmar received $11.1 per person. At the same time, Laos was granted more than seven times that amount at $79.9 and Cambodia almost five times at $52.6 in the year 2008 (ESCAP 2011).

Myanmar receives notably less foreign aid than the countries which are on similar standing in terms of their relative development, or underdevelopment, and this is undeniably political in nature. The World Bank has extended no new loans to Myanmar since 1988, the year that mass uprising resulted in a military coup that brought the last government into power. In addition, until very recently, it did not receive any kind of financial support or technical aid from the World Bank, the Asian Development Bank and IMF. It was only in January 2012 that an IMF mission led by Meral Karasulu, the fund’s deputy division chief for Asia and the Pacific, visited the country to discuss changes that had taken place lately and the future of the country (gantdaily.com).
An earlier setback in the national response to HIV/AIDS occurred in mid-2005 with the pulling out of promised aid from a major health related donor. The Global Fund for TB, AIDS and Malaria announced in that year the withdrawal of a five-year grant totaling $98.4 million citing increased travel restrictions and heightened bureaucratic procedures imposed by the government. It reasoned thus that the prevailing conditions in Myanmar could no longer assure effective program implementation through its grants (Strefford 2006). Fortunately, another donor agency stepped forward with funding aimed at strengthening Myanmar’s health programs. The fight against HIV/AIDS and two other major diseases went on without much interruption because the Three Diseases Fund (3DF), a multi-donor mechanism established in 2006 to fill in the financial gap caused by the withdrawal of the Global Fund, provided necessary funding and support to deal with HIV, tuberculosis and malaria.

Seven donors—Australia, Denmark, European Commission, the Netherlands, Norway, Sweden and United Kingdom—pooled their sources to contribute to the 3DF. Initial commitment totaled $100 million out of which 60% were to be allocated to HIV. By the end of 2009, total contributions reached $129 million. The Fund has pledged to support programs until the end of 2011.

Meanwhile, the Global Fund returned with a pledge to resume its aid in 2009 by granting the Myanmar AIDS proposal to Round 9, funding from the donor agency in 2009, in responding to the proposal made by the Myanmar Country Coordinating Mechanism to the Fund (UNGASS Myanmar 2010). In the year 2010, the Three Diseases Fund board set to ensure a smooth transition from 3DF financed activities to
Global Fund financed activities. The specific aim was to make way for the reentry of the Global Fund and the exit of 3DF and to make sure that even a slightest disruption to vital treatments would not take place (3DF 2010).

Another source of significant support to deal with the HIV/AIDS epidemic came from the Joint Programme for HIV/AIDS in Myanmar (2003-2005). The Joint Programme was designed and established by the UN Expanded Theme Group to mobilize additional support for the Myanmar national response to AIDS, and to support the Fund for HIV and AIDS in Myanmar (FHAM) that was established in 2003 (NAP 2005). The financial resources supported the National Strategic Plan for HIV/AIDS in Myanmar (2001-2005) as well as the operational plans of implementing partners in this period (Expanded Theme Group 2005). Altogether $21.6 million was spent in 2005 and $30.8 million was available in 2006 in the national response to HIV/AIDS exclusive of the government’s contribution.

If the resources received were to be calculated on per capita for the year 2005, for example, the spending would be far less than $1 per person (UNAIDS 2008). The Myanmar government’s funding for the year to combat the HIV/AIDS epidemic was around 1% of total expenditures on HIV/AIDS (NAP 2005). However, contribution from the public sector to the national response could have been much higher if the services of public health personnel, who are extremely underpaid, were to be calculated in real value.

Two years later in 2008, approximately $31.3 million was available from external sources for the national response to HIV, yet this was just an increase of $0.4 million compared to the previous year, 2007. The contribution of the government of Myanmar
for the national response to AIDS was estimated in 2008 to an equivalent of $1.52 million including costs for preventive and treatment services (NAP 2010). Expenditures increased slightly in later two years: $32.4 million and $38.0 million were made available in 2009 and 2010 respectively (NAP 2010).

In Myanmar, leading players in the struggle to combat AIDS were of the opinion that resumption of aid from the Global Fund would change the scenario of Myanmar’s efforts to further contain the HIV epidemic. Total resources in the year 2010 included the Global Fund Round 9 Grants, and as it was expected that more resources would be flowing in the next few years, plans had been drawn to scale up activities in combating the HIV issue. The current National Strategic Plan on HIV/AIDS (2011-2015) has incorporated these positive developments and they are already part of the national framework to increase activities in achieving millennium development goals (MDG) and striving toward universal access to HIV prevention, treatment, care and support (Health in Myanmar 2011).

Following Myanmar’s first election in more than 20 years, a new government took office in early 2011. The change in government has brought many new developments including new initiatives, political reforms and conciliatory measures taken by the government that have combined to positively change the perceptions of Myanmar among those in the international community. This is especially true among those industrialized democracies that previously supported strong sanctions against Myanmar. Many of these countries now have an optimistic view of the current administration. Thus, there are promising signs that more aid will be flowing into the country in the next few
years and consequently more resources meant for health in general and the three diseases of national concern--HIV/AIDS, TB and malaria—in particular.

The U.S. Secretary of State, the British Foreign Secretary, foreign ministers from France, Canada and Japan and an EU Commissioner have all visited Myanmar in the past six months and the prospect of improving diplomatic relations and easing and/or lifting economic sanctions on the government ensues. It seems clear that if these positive perceptions about the Myanmar government continue Myanmar will cease to be considered a pariah state. The U.S. government already took steps to restore Myanmar’s diplomatic standing vis-à-vis the United States by announcing the restoration of the U.S. ambassadorial position in Myanmar (U.S. relations with Myanmar were demoted to charge-de’-affaires status in response to government crackdowns on democracy movements in the 1990s). This promised improvement in bilateral relations is in combination with a promised $27.2 million package of financial aid for 2013. In another example of warming relations, the EU has proposed 150-million euro aid package for the coming years (Irrawaddy News).

Discussion

The 1990s were marked by a limited national response to HIV and AIDS and a general lack of momentum although there was strong evidence that HIV prevalence was rising. This allowed HIV to spread rapidly among high-risk groups and later beyond them. The increased prevalence of HIV during the first years of the epidemic was attributable to a number of factors. Myanmar has limited financial resources and political
support to deal effectively with the issue (Williams et al. 2008). Public expenditures on health ranged between 0.8-1.5 percent from 1995 to 2009 and per capita expenditure was just $2 throughout the same period.

Cambodia’s and Thailand’s public spending on health in the same period were 7.1-9.3 percent and 9.7-14.0 percent of GDP with per capita spending of $7-32 and $75-261 respectively (ESCAP 2011). Since the 1990s, UNICEF, WHO and UNDP have been supporting the national response to the epidemic but the interventions were not able to cope with the rapid spread of the epidemic which went unabated before the turn of the millennium.

The new millennium saw more commitments coming from international non-governmental organizations (NGOs) and a few local and national organizations that were established through state support. These organizations became more vocal about the HIV and AIDS situation in the country. This led to changes and adaption to state policy. The National AIDS Programme, which used to give sole emphasis to health aspects of the disease, added non-health sector HIV prevention and awareness-raising activities to their program (Williams et al. 2008). The government also developed the National Strategic Plan on HIV/AIDS for 2001-2005. During the period, a program with a relatively large funding, the United Nations Joint Action Plan, was developed along with another organization with sizable financial resources, the Fund for HIV/AIDS in Myanmar (FHAM).

It was during this period that the prevalence and incidence of HIV began showing signs of decline. Most external funds were put into international NGOs, which managed
about two thirds of overall funding while United Nations organizations handled the rest (UNGASS Myanmar 2010). It was mainly through external resources that AIDS services were established and expanded; and also through them that services were made available to populations who would otherwise have had little or no access (Williams et al. 2008).

The government’s contributions were limited and international partners held the opinion that the government faced many challenges in terms of its operational matters. Nevertheless, international and national organizations implementing programs related to HIV prevention, treatment and care were able to carry out activities and achieved significant results (Global Fund Round 9). In this phase, the challenges cited by international organizations were concerned with the constraints on organizational projects by the Myanmar government due to its red tape system and other complicated bureaucratic procedures. Yet, at the same time they believed that these setbacks did not prevent international organizations from working in an accountable and transparent manner and in ways that would make their investments pay off (Williams et al. 2008).

Interviews with international partners suggested that two important factors may explain these successful outcomes. Most respondents who have taken part in interviews do not believe that the quantity of development aid siphoned off was greater than in other countries in the region, and may have been significantly less. Myanmar counterparts, both from the public health sector and non-government organizations, have also worked well alongside their expatriate counterparts (ICG 2004). Myanmar inherited a good education system from the British, and although the standard of education can be seen to
have deteriorated in the past few decades for a variety of reasons, it has not dropped to
the extent that the people are not able to perform their duties well.

In Myanmar, anti-HIV/AIDS measures are mainly donor-driven and the donors
are in principle, reluctant to make long-term financial commitments, as they were
formerly skeptical about the long-term political stability of Myanmar. Accordingly, the
country currently faces an obstacle in which funding commitments and allocations are for
relatively short duration. Access to longer-term funding remains an issue because its
absence hinders the development of longer-term programming (UNGASS Myanmar
2010).

The achievements that have been made so far—the decline in HIV prevalence
among both low and high risk groups, increased coverage of projects related to
prevention, and interventions on care, treatment and support—have encouraged the
government to show greater commitment and enlist more support in anti-HIV/AIDS
endeavors. For example, the government of Myanmar organized a roundtable discussion
highlighting the innovative and extensive use of various types of mass media to reduce
stigma and discrimination against people infected with and affected by HIV/AIDS, and to
reduce the risk of HIV transmission among high risk populations and youth. The plan
envisages achieving universal access to HIV prevention, care and treatment. It also sets
rather ambitious targets such as zero new HIV infection, zero discrimination and zero
AIDS-related deaths by 2015. The estimated budget to implement this strategy over a five
year period is $340 million, but the current budget available is $147 million (Xinhua News 2011).

More than two-thirds of new HIV infection in the country is attributable to sexual transmission. Gender norms have significant impact on an individual’s risk and societal vulnerability to HIV/AIDS. As in most societies, Myanmar women and girls face greater risk of HIV infection than men because of their diminished economic conditions and disadvantaged social and cultural status which limit their ability to choose safer sex and adopt healthier life strategies in relation to their sexual health. Therefore, it is clear that proposed programs that are directly dealing with the gender-related factors that heighten or lower men and women’s vulnerability to HIV would play an important role in successful future responses.

The holistic approach to HIV in which socio-economic factors such as poverty, gender inequality, internal and external mobility and acknowledgement of the real situation as well as the issue of stigma and discrimination against people infected with and affected by HIV/AIDS are taken into account and carried out in a coordinated manner will only ensure real successes. Such successes would be able to significantly reduce new infections and prolong the lives of people living with HIV so that they can lead meaningful lives. Stigma and discrimination occur in many settings—health facilities, communities and work places. More dissemination of accurate knowledge about HIV/AIDS is warranted and extensive advocacy among people, health personnel and local opinion leaders is called for to significantly reduce, if not, totally eliminate stigma against people living with HIV and those affected by it.
Another issue concerns operational matters. Although national median HIV prevalence among sex workers in 2009 was 11.2% for example, there were geographical differences in HIV prevalence. HIV prevalence was the highest in Lashio (16.9%) in eastern Myanmar followed by Mandalay (16%) in upper Myanmar, Myitkyina (9.4%) in northern Myanmar, Yangon (7.5%), and Taunggyi (7.1%) in eastern Myanmar (HSS 2009). The data suggest that female sex workers in Lashio in eastern part of the country are more vulnerable than their peers in other areas of the country. This demands specific attention in designing health interventions targeting this group and taking into account geographical component because sex workers in certain areas are at higher HIV/STD risk than others. These disparities may stem from regionally specific variables such as their lack of HIV knowledge, less negotiation skills on the use of condoms and/or having more partners. Sex workers there may also be less empowered to practice safer sex than their peers in other regions.

The same argument goes for HIV prevalence among injecting drug users. When data were collected at six sites among the population in a 2009 survey, again it can be seen that HIV prevalence among them differs from one region to another. The proportion ranges from 12.5% in Taunggyi in eastern Myanmar, to 53.8% in Myitkyina in northern Myanmar (HSS 2009). The data clearly show injecting drug users from certain geographical areas are much more vulnerable than others. They may have differences in HIV related knowledge, regionally different practices for sharing needles and other equipment, access to safe needles and other equipment, and the differing environments in which they perform illegal drug taking behaviors.
Myanmar appears to be showing greater commitment to improve the status of national health. The Minister for Finance & Revenue announced to the parliament session in March 2012 to the effect that public spending on health will be raised to 3.5 percent of gross domestic product in the financial years 2012 and 2013. This is an increase from 1.1 percent in the preceding financial year (Eleven Media News). This additional expenditure should allow Myanmar to better respond to the HIV epidemic and to continue to fight the epidemic in a more effective manner.
CHAPTER 4 Research Design and Methodology

In my study, I have used a combination of qualitative (semi-structured interview and observation) and quantitative (structured survey administered as interview) methods. The quantitative method studies the sexual behaviors of truck drivers and their assistants in which the measurement of appropriate sociological concepts and behavioral theories are also embedded. In the qualitative method, I have done an ethnographic study of truck drivers based on observation of trucker behavior at truck terminals where truckers congregate and spend their leisure time on the road, and where opportunities for commercial and casual sex arise. Semi-structured in-depth qualitative interviews have been conducted with 29 truck drivers and their assistants to help triangulate my findings.

Truck drivers in Myanmar have specific cultural, social and economic contexts in which they operate. The focus of my studies has been why the truck drivers and their assistants engage in such risky sexual behavior and, why not other less vulnerable practices. This may be related to their personal characteristics, the liminality associated with their profession, subculture that thrives among them, the country’s low minimum wages, relatively high earnings of truck drivers and assistants and income disparity between them and those whom they come across as well as the role of gender.

The questions in both the quantitative and qualitative instruments have been restricted to the issues in which the government or non-government organizations will have certain interest in developing strategies to control the spread of sexually transmitted infections and HIV/AIDS among the truck drivers and their associates. For example, studies have shown that dissatisfaction with one’s marriage has some relevance to people
having extramarital sex (Clinard 1995: 324; Edwards 1973 and Wong et al. 2007) but the issue has not been part of this study.

**Methodology**

*Data collection procedures*

The field work was done for two weeks in September 2011 at the truck terminals of Yangon and Mandalay. Yangon, the biggest city, is a domestic trade hub for lower Myanmar while Mandalay, 380 miles north of Yangon and the second biggest city, is the trade hub for upper Myanmar. Although the data were collected only in two towns, the respondents can be said to be representative of the long distance trucker population in general of Myanmar because some of them go to the southern part of the country while some others travel to the north and the eastern part of the country. The interviews with truck drivers and their assistants comprised two parts—semi-structured in-depth interviews and structured questionnaire survey.

Interviewers used in this study have rich experiences conducting social science surveys. They are staff of a local research company and they have been working with sub-populations such as female sex workers, clients of sex workers, injecting drug users and men who have sex with men on projects related to AIDS surveys. In the course of the training, their suggestions were sought on the appropriateness of the language used in the structured questionnaires as well as in semi-structured in-depth interview questions.

To be able to conduct the survey, the ages of the interviewers were chosen in such a way that the respondents would be less likely to refuse to take part in the study and to give socially desirable responses. The ages of the interviewers range from 30 to 40. They
are full-time male research assistants who underwent three-day training by the researcher at a local research company, Myanmar Survey Research. Past experiences and discussions with people who were involved with the target population have shown that truck drivers and assistants are seem to be less reluctant to talk about their sexual behaviors to people who are mature, but if the interviewers are too much older than the drivers, then the drivers can be reluctant to reveal their somewhat ‘deviant’ behavior.

In a reproductive health study by Huygens et al. (1996) in Uganda, the older informants (over 50) initially refused to give information to young interviewers (25 and under). Orubuloye et al. (1993) used some attractive young women to interview truck drivers in Nigeria but the present study deliberately excluded female interviewers as the respondents could have minimized or glorified their sexual behaviors in responding to questions from female interviewers in anticipation of making an impression on them. The structured questionnaire applied face-to-face interviews with the respondents. The interviewers read out questions and responses to the respondents but the interviewers filled out responses on the respondents’ behalf. This system was intended to reduce the number of non-responses and inconsistencies in responses. The system was used to suit the local context. Myanmar truckers are candid about their sexual behavior if they are given certain degree of privacy. Since the interviewers filled out their responses on the questionnaires, truck drivers and assistants were able to concentrate on their responses alone.

For the structured questionnaire, the sample size collected was 348 in total from the two cities combined. The recruitment was made through a convenience sample. The
respondents were recruited when they were found in an office, a restaurant or a tea shop, on a bench near their trucks, or at a truck at the respective terminals while their trucks were being loaded, unloaded, refueled or maintained. Since all trucks have to undergo the above-mentioned processes before they go on the next assignment, it is not expected that any particular bias would have occurred in recruiting the respondents in this way. The contacts took place between 8 to 11 o’clock in the morning and between 2 to 4 o’clock in the afternoon. These are the periods in which the respondents while away their time talking to their friends, sipping tea, reading journals or newspapers, watching TVs/videos or playing billiards. Trained staff approached the drivers and assistants. If they agreed to participate, the staff member obtained the formal consent, asked the questions in the structured questionnaire, and wrote down the responses.

Truckers do not have to work when their vehicles are at the terminals. Some drivers, who are paid on commission on the amount of money earned, may have to look for new jobs, and truck assistants have to look after the trucks, especially at night.

In the summer months of 2006 researchers under the auspices of the Myanmar Red Cross Society did a similar basic study with the truck drivers and their assistants in Mandalay and Monywa, a provincial town 50 miles west of Mandalay and on the highway route to the Indian border. For this reason, an elicitation survey was not considered a necessary part of this study especially with the first part of the questionnaire which deals with non-theoretical questions. Questions related to the practice of safe sex through the use of the Theory of Planned Behavior have been well-tested with various group populations and in different regions. Past behavior and
anticipated regret as well as the four elements of social bond have been added in the present study to test the significance of expanded Theory of Planned Behavior construct as determinants of condom use on their commercial sexual encounters.

The structured questionnaire was pilot-tested for one day at the Yangon main truck terminal at Bayinnaung, about 15 miles away from the center of the business capital Yangon, to ensure that the questions are properly worded and placed in logical order. Since no suggestions came from either the respondents or the interviewers to make changes in the questionnaire as a result of the pilot-study, no changes were made on the original questionnaire and completed questionnaires from the pilot study were also used for data analysis. All parts of the questionnaire were previously modified and adapted to ensure that all the questions and responses are culturally appropriate and relevant to the population under study.

Most of the participants were recruited directly by trained interviewers at the truck terminals. The interviewers briefly explained the objective of the survey and recruited truckers only when they responded that they had been engaged in either casual or commercial sex in the past six months. The objective was to get a large enough sample size to do regression analysis to test expanded Theory of Planned Behavior variables. A few participants were recruited by truck office clerical staff who had been briefed on the objective of the study by interviewers and who subsequently asked truckers who were registered with their offices to take part in the study. The majority of truck drivers and assistants agreed to take part in the interviews with two exceptions:—a few relatively old truckers who categorically denied having engaged in casual or commercial sex in the past
six months (and thus were not eligible participants); and those who claimed they were in a bad mood that was related to their business on the days of field work. Each staff person intended to conduct the questionnaire survey with truckers who had engaged either in commercial or casual sex recently and on average they came across about four people per day who denied having done that in the past six months. The rate of refusal from the targeted population was about 40%. At the end of each questionnaire administration, a towel and a few condoms were given to the participants in appreciation for having given their time for the study.

Generally speaking, truckers are willing to talk about their sexual activity so long as they are not too busy, not in a bad mood for various reasons, and they are fairly sure that the interviewer will not be judgmental about their behavior. The field staff reported that truckers and their assistants were more difficult to approach compared to female sex workers. This is likely because female sex workers have been exposed to a number of surveys conducted by various agencies and in most cases they are willing to respond to the interviews provided that their business is not affected.

Some truckers who were willing to talk more about the nature of their work and their involvement in casual or commercial sex as well as those who said that they did not engage in either casual or commercial sex were asked to participate in more in-depth interviews. Altogether 29 truck drivers and assistants were interviewed at the truck terminals by the researcher and interviewers in addition to the quantitative structured questionnaire survey. The recruitment of participants for the in-depth interviews took place in the same manner as that for structured interviews but their permission was
sought for the interviews to be tape-recorded. The interviews were semi-structured and informal. It took a respondent 30-45 minutes to answer the questions. The English translation of the interview guide for the semi-structured interviews is included in Appendix [2]. A range of topics include their age and the number of years they have been in trucking business, the nature of their work, recruiting process for truck drivers and assistants, their leisure activities, their engagement in casual and commercial sex, the main reasons for their peers to buy sex and their frequency of condoms during commercial sex.

**Ethical considerations**

The survey observed a strict set of ethical guidelines concerning informed consent, confidentiality and anonymity. Prior to the interview, an interviewer or the researcher explained the objective and method of the study to the participant, his right as a participant which includes voluntary nature of participation and withdrawal from it at any point without bringing any adverse effects to him or his community (Seal et al. 2000). Verbal consent to participate was then obtained. In Myanmar context, the prospective participant could have been threatened if he had been asked to put his signature on a consent form as ordinary Myanmar people do not want to get involved with legal conflicts or any other government offices. A study on informed consent showed that the signature requirement by respondents to take part in a survey increased non-response rate (Singer 1978). Both structured questionnaire and semi-structured interview questions have been arranged in such a way that sensitive questions come at a
later part when there is some rapport gained between the interviewers and the respondents.

To ensure absolute anonymity of the respondents, no variable that could identify them was included in the questionnaire and no question whose response could identify the respondent was asked during the course of interviews. The prospective respondents were told that each of their responses would be completely confidential and that the information they gave the interviewers would only be summarized into broad categories.

Except for questions regarding HIV/AIDS knowledge, questions have been phrased in a neutral, non-judgmental manner, and therefore without apparent right or wrong answer. In addition, questions that are unduly invasive, humiliating, biased or accusatory are excluded as recommended by Ringheim (1995) even if the results from responses to those questions would help to answer a research question. A private corner or space was chosen to ensure maximum privacy at the given situations. A vacant table in a teashop would be chosen for interviews and if a few truckers were sitting in an area, all would be kept occupied by different interviewers.

This research study was reviewed and approved by the Institutional Review Board at the University of Hawaii at Manoa. No findings that could help identify the respondents have been reported and all names in quotes from interviews are pseudonyms.

**Variables and Measurements in the Structured Questionnaire**

Questions in the structured questionnaire explored basic information about the respondents and their sexual behavior. Variables used in the study have been well tested
and applied in similar studies in other regions and among other study populations. Their use in the present study is aimed at their applicability in Myanmar context and among this specific population. Regarding sexual behavior, the study specifically intends to find out the predictability or explanatory power of each of the expanded Theory of Planned Behavior variables.

**Individual characteristics**

Demographic characteristics, knowledge (Bandura 1997: 283; Bryan et al. 2001) first sexual partner (Gibney et al. 2003; Podhisita et al. 1996; Vanlandingham et al. 1998), liminality/mobility (Agha 2002; Lippman et al. 2007; Pandey et al. 2008; Romero-Daza and Freidus 2008; Saggurti et al. 2008) and perceived HIV risk (DeHart and Birkimer 1997), past behavior (Ajzen 1991; Ajzen 2002; Smith et al. 2007) and substance use and drunkenness (DeHart and Birkimer 1997) have been found to have association with an individual’s behavior in general and sexual behavior in particular and accordingly these variables have been used in the present study.

**Demographic characteristics and HIV knowledge**

Demographic characteristics such as age, marital status, educational level, occupation (driver or assistant), months on average the participants return home in a year, average monthly income and religion were assessed. Questions related to HIV knowledge include whether they have heard of HIV, their source of information (multiple choice answers given), the likelihood of getting infected with STI/HIV through a single act of sex, with the withdrawal of the genital organ before ejaculation and douching (washing one’s genitals) after sex. Questions further explore their perception about a healthy-
looking person’s HIV status and misperception about a mosquito bite and sharing meals with a HIV-positive person as potential ways to contract HIV/AIDS. Two questions are related to stigma and discrimination: The questions ask whether they would be willing to take care of a HIV-positive family member and work with a HIV-positive colleague. One question asked how much they perceive they are at risk of HIV and one of the responses is “I am HIV positive.”

**Sexual behavior**

The questionnaire asks the participants’ age at first sex (continuous variable) and first sexual partner (categorical answers—wife, girlfriend, casual partner, sex worker and others). They are then asked whether they had casual or commercial sex (categorical answers—‘yes’, ‘no’ and ‘I don’t know’) in the past six months. For each type of sexual encounter, the questions explore the frequency of condom use (responses in five-point Likert scale—*never, rarely, sometimes, often and always*), condom use during last sex, the frequency of condom use during last five times, frequency of drunkenness and on drugs (responses on frequency same as mentioned above). The questionnaire asks the number of sexual partners the participants had in the past six months. All the scales are uni-polar and responses are coded from 1 to 5 with five-point Likert scale questions. When responses are recoded into dummy variables, the code is ‘1’ for response ‘yes’ and ‘0’ for all the others.
**Expanded Theory of Planned Behavior Constructs**

*Condom use intention*

Intentsions have often been considered “exertive component of attitude” and it has been usually conceptualized that this exertive component is associated with the attitude’s affective component. It is for this argument that there is the assumption of a strong relation between attitudes and intentions. Many studies that are concerned with the relation between attitude and behavior have used measures of behavioral intentions as their criteria in place of observed behavior (Fishbein and Ajzen 1975: 289).

In the current study, intentions to use condoms have two items: condom use intention in the next month and in the future. They were measured on a five-point unipolar scale from 1 to 5 with endpoints *extremely unlikely* and *extremely likely*.

(Adapted from DeHart and Birkimer 1997 and Bosompra 2001).

*Attitudes*

Fishbein and Ajzen (1975: 222) argued that a person’s attitude is a function of his salient beliefs and his attitude is determined by a set of beliefs as regards a behavior. The present study has seven items on beliefs and an evaluation of value attached to each of the outcomes. The participants were asked to respond to the degree of their beliefs about different aspects of condom use and their associated outcome evaluations on them.

A direct measure of attitude was obtained by adding up seven five-point unipolar scales of condom use during commercial sex. A real effect of attitude is to be determined by both belief and its associated outcome evaluation. Therefore, the total degree of
attitudes are calculated by summing up the product of each belief and its associated outcome evaluation and is called indirect measures (Fishbein and Ajzen 1975: 223) The seven belief items are: condom use “ruins sex”, “reduces pleasure”, “gives me as much pleasure as without using it”, “protects me from HIV”, “protects me from AIDS” and “I have had negative experiences with condoms” and “I would always have a condom with me to have commercial sex (Adapted from DeHart and Birkimer 1997).” Responses were structured on five-point unipolar scales marked from 1 to 5 and endpoints were “totally disagree” and “totally agree.” Responses for the outcome evaluation scale were “extremely bad” and “not bad at all”; “not important at all” and “extremely important” and “extremely unlikely” or “extremely likely.”

Subjective Norms

The subjective norm is the person’s perception about what his significant others think he should or should not perform the behavior in question (Fishbein and Ajzen 1975: 302). In this study, subjective norms were operationalized as behaviors, attitudes or encouragement by referent groups such as female sex workers, friends, and health and non-governmental organization staff or volunteers in the truckers’ engagement in commercial sex (Sneed and Morisky 1998). Subjective norms are divided into two— injunctive social norms and descriptive social norms. Injunctive social norms reflect the respondent’s potential to get approval or receive sanction from referent groups for engaging in an act and/or in a certain manner while descriptive social norms mention perception or perceived act of referent groups for engaging in an act and/or in a certain manner (Sheeran and Taylor 1999).
In a similar manner, the indirect measure of subject norms is calculated by adding up the products of normative beliefs from and behaviors of referent groups and the motivation to comply with those expectations and behaviors as recommended by (Fishbein and Ajzen 1975: 302). Earlier surveys with the trucker population in Myanmar identified “partners,” “friends” and “health/NGO staff” as salient referent groups (Aung 2007; Department of Medical Research 2005). Measures of subjective norms comprise three items (injunctive norms) such as condom use encouragement from each of the salient referent groups and the fourth item (descriptive norm)—condom use behavior of the participants’ friends/peers. The items also have a five-point uni-polar response scale described by “totally disagree” to “totally agree.” The corresponding motivation to comply measure was explored through the question “How much are you motivated to comply” and responses ranged from “extremely unlikely” to “extremely likely.” (Adapted from Basen-Engquist et al. 1990 and Bosompra 2001).

**Self-efficacy (Perceived behavioral control)**

Perceived behavioral control is determined by control belief strength which describes ease or difficulty of performing a behavior weighted by perceived power or probability of each circumstance that facilitates or inhibits the behavior (Ajzen 2002). For the present study, the control dimension was included to ask participants how sure they were about the use of condoms in ‘adverse’ conditions such as being drunk or under strong impulse to have sex (Munoz-Silva et al. 2007). The participants’ perceived behavioral control was measured through three aspects/circumstances—their power to persuade themselves to wear a condom, their likelihood of wearing a condom even when
they are drunk and their strong impulse to have sex—with three items: “If I wanted to, I
could easily persuade myself to wear a condom,” “If I wanted to, I could easily persuade
myself to wear a condom even if I am drunk,” and “If I wanted to, I could persuade
myself to wear a condom even if I am so eager to have sex,” (Adapted from Wulfert and
Wan 1995 and Smith et al. 2007).

Past behavior

Past behavior plays a role in addition to the variables of the Theory of Planned
Behavior in predicting a behavior (Ajzen 2002; Smith et al. 2007). For the present study,
the participants’ use or not of a condom during their last commercial sex has been used as
the variable for the past behavior of the respondents when regression analyses were done
on condom use behavior during commercial sex.

Anticipated regret

A meta-analysis by Sandberg and Conner (2008) showed that anticipated regret
significantly increased the prediction of intentions over and above the Theory of Planned
Behavior constructs. The present study includes two items—feeling of regret and upset
about not wearing a condom—in measuring anticipated regret. Responses will be coded
in five-point Likert scale—from “totally disagree” to “totally agree.”

Constructs from social cognitive theory

Observational learning is measured through participants’ exposure to and access
from different sources of HIV information. Dichotomous variables have been coded for
multiple choices given.
Social learning variables assess encouragement from or involvement of peers to engage in commercial sex. Two aspects of social learning are differential association and differential reinforcement. The current study uses four-point Likert scale for a differential association item and a three-point Likert scale and a four-point Likert scale for two differential reinforcement items. Findings of the survey by Akers et al. (1979) on adolescents of their drinking and drug behavior found that differential association, differential reinforcements, definitions, and imitation explained more than two-thirds of the variance in marijuana use and more than half of the variance in alcohol consumption by adolescents. Krohn and Massey (1980) found that that three elements of social bond, attachment, commitment and belief, explained 18% to 24% of the variance in the equations related to four separate measures of deviance—alcohol and marijuana use, minor delinquency, hard drug use and serious delinquency—among adolescents.

All the items used in the study were recoded as necessary so that a high score would reflect a favorable attitude, high intention or actual behavior toward the use of condoms (Munoz-Silva et al. 2007).

Elements of social bond

Among four elements of social bond, the questionnaire includes four variables that measure the extent of attachment. They are the frequencies the participants communicate and have meals with their family as well as the extent they share experiences with their family, enjoy living with their wife/girlfriend and children. The questionnaire explores the degree of participants’ commitment through two variables: the frequency of their chance to participate in community/religious affairs (Four-point Likert
scale—never, rarely, sometimes and often)—and whether they have plans for the future
and if they do, whether they are fairly broad or definite ones. The questionnaire assesses
the participants’ level of involvement by asking them various types of non-sexual leisure
activities the participants engage in.

Belief can be interpreted as one’s internalization of or conformity to conventional
activities and thus one’s departure from committing an act of deviance. In the context of
truck drivers in Myanmar, variables showing their devoutness or religiosity were used to
describe the concept. They are: “the frequency of visiting pagodas/monasteries” (Five-
point Likert scale—once a week, once a month, once 2-3 months, twice a year and once
a year or less), “listening to Buddhist sermons” and “participating in religious
discussions.”
CHAPTER 5 Truckers’ Lifestyles, Attitudes and Behavior

The Value of Qualitative research

Some studies suggest that qualitative research will not only be complementary but pivotal to help us understand socio-behavioral aspects of HIV disease, which forms an important part of this study (Power et al. 1998). The qualitative part of this study has been able to explain why and how the participants behave in a certain way. The qualitative techniques that included face-to-face interviews, some of which were informal, and participant observation, allowed the study to explore the thinking behind participants’ engagement in commercial sex and how they sought sex in the absence of their regular partners and while they were away from social controls.

The informal in-depth interviews were able to find out whether they have their own subcultures, especially as regards their involvement in extramarital or premarital sex and other somewhat ‘deviant behavior’ in Myanmar context resulting from their liminality and their profession, which is male only, and which is sometimes associated with being adventurous and stressful in certain societies. These techniques could be called ethnographic because they deal descriptively with cultures of this specific group.

The ethnographic method was used with the Chicago women and children with AIDS project to explore topics including sex and risk-taking (Herdt and Boxer 1991); with the study of nightclub security staff in the United Kingdom to identify social risks associated with HIV transmission (Monaghan 2002); with the research on long-haul truckers in Florida (Stratford et al. 2000) and with the study of Thai males’ engagement in extramarital sex to explore key social dynamics (Vanlandingham et al. 1998).
The objective of the ethnographic study was also to collect information that could not be obtained in any other way such as the revelation by participants of their sexual or other risk behaviors (Herdt and Boxer 1991). People under study are generally reputed to have a few mistresses along the routes they regularly travel, have casual sex with women petty traders, who travel along the main trade routes, and hawkers and restaurant staff at the truck terminals or engage in commercial sex. The ethnographic study was able to find out whether these stereotypes about the population under study are true or not.

The qualitative study was able to explore what are the main reasons for them to be engaging in such deviant behavior: whether it is their liminality in which they spend a lot of time belonging to no specific community, and thus they do not have to observe conventional norms of the respective community; their high disposable incomes compared to those whom they come across; gender norms of the society, or their differential association in which people learn from another through long-term relationship, or a combination of some or all of them. There were counter-normative persons among them who do not engage in nonexclusive sex and the study was able to explore why these people act in such a way and how their peers regard them.

The study discovered that the participants do not have a macho type subculture or any “ism” related to their sexual and other behaviors. Few respondents mentioned hedonism or fatalism for their engagement in nonexclusive sex and the manner in which it was performed. Most of them said that their buying of sex was just to attain their proximal goal of fulfilling their sexual desire and therefore they had quick sex only. But
they do have a subculture which encourages or at least is permissive about engaging in commercial or casual sex.

The findings reported below also occasionally introduce simple percentage data from the larger structured questionnaire sample in order to contextualize these patterns from the small interview sample.

The contemporary context of long distance trucking in Myanmar

The trucking business in Myanmar has expanded since the legalization of cross-border trade with neighboring countries in late 1980s, shortly following the seizure of state power by the military. Sanctions regimes imposed by various western trading partners motivated the new government to search out new revenue sources and alternative means of trade by expanding cross border trade with neighboring countries. Roads that span across the country have either been improved or new ones built. In addition, more vehicles, both haulage trucks and passenger buses have been imported. Consequently, the movement of freight by road saw significant increases in the past two decades. The total length of roads increased by 34% from 14,951 miles in the 1990-91 financial year to 19,999 miles in the 2008-2009 year. In the same period, the number of heavy duty trucks rose by 53% from 22,188 to 33,928. The number of buses climbed nearly 10% from 17,941 to 19,683. A significant increase was recorded in movement of goods by road. Freight ton-miles was recorded as 76,841 in 1990-1991 but boosted to more than threefold to 314,909 in 2008-2009 (Myanmar Statistical Year Book 2009).
New forms of reliable services for the movement of goods also came into being. This has had a pronounced effect on the lives of many people, especially women who trade their wares between towns or between towns and rural areas. These combined developments have brought about social change in the lifestyle of truck drivers and assistants as well as women petty traders who do businesses away from their home towns or villages as only a small fraction of these women now hitch-hike on trucks since it is more convenient for them to travel by passenger bus. The decline of hitchhiking female petty traders has effectively changed the sexual networks of the average Myanmar truckers from those studied only a decade ago.

In the country, long distance trucks are not owned by big companies but by small-scale business people. Trucks are registered with transport service offices in respective terminals. Individual owners operate them on their own or some of them form an association among themselves. These associations usually have 10-15 trucks registered and, in general, an individual family may own three or four trucks at a maximum. It is for this reason that drivers and assistants are recruited not through a formal hiring process but via personal contacts. Usually drivers begin their trucking career as helpers or driver’s assistants. This is also true for people who belong to the family that owns the truck unless they have had previous driving experiences.

In the case of drivers, unless they come from a family in the trucking business, many of them have a rural background. It is frequently the case that when they first migrated from the countryside, they got a job that had links to the trucking business, for example as a manual laborer at a wholesale center or a warehouse. Soon after, this recent
migrant was likely to become friendly with one of the truck men, usually the driver. Some others got their jobs through the contacts of friends or relatives who were already in the trucking business. Still some others explained that they were working in other driving or automobile repair businesses, for example, they were driving either inter-city buses or taxis or working as a mechanic at a garage and became friendly with a truck owner or a driver, who later brought them into the trucking industry. It usually occurs on a one-to-one basis.

In Myanmar, only men can become truck drivers or assistants. Usually there is a driver and an assistant in each truck. They are usually the people upon whom their owners can place trust as there is no proper insurance system for the trucks or for the goods loaded on them. Should there be a traffic accident or they meet with some other unexpected misfortune on the road, the owner will incur the brunt of the economic cost. In addition to the driver, the assistant also plays an important role to ensure safety on the road. Myanmar now practices right-hand drive, but most trucks are reconditioned and were imported from Japan and therefore the steering is on the opposite side, creating a great number of blind spots for the driver to deal with. An assistant who sits on the left of the driver has to give a clear signal to the driver if he wants to overtake a vehicle in front of him. Furthermore, it is also the assistant who must make sure that the truck does not roll back on its steep climb by swiftly placing wooden brakes just behind one of the wheels as soon as it moves backward. In addition, he is the one who has to look after the truck when it breaks down and at other times when it is not being loaded, unloaded or maintained.
The trucking business requires long hours of driving and a truck may break down in the middle of nowhere. A truck may be stuck on the road at a location which is far away from a town or a village. The trouble for the truck crew can get worse if the incident takes place during heavy rainfall. For these reasons it is considered a challenging and potentially dangerous profession. Despite these disadvantages, many people in Myanmar want to enter this profession and those who are already in the business remain with it because they earn much more than many other jobs that require equal or more skills and time involvement. Findings from the present study show that on average, a driver earns more than 260,000 kyat ($325) per month while an average assistant makes about one-half of a driver’s salary. Their earnings are much higher than the average because per capita GDP of Myanmar in 2009 was only as high as $419.5 (ASEAN Statistics 2009).

In addition to the driver’s salary there is included a 5,000 kyat ($6.25) daily food allowances while they are on their mission. If a man works as a manual laborer, he could earn as much as 3,000 kyat ($3.75) per day, which is below the average daily food allowance for a truck driver. Their earnings can also be compared with the salary of a sales girl at a local general store or a supermarket that can only be as high as 40,000-50,000 kyat per month (or roughly between $60.00 and $80.00 dollars per month) which is below subsistence level, especially in an urban area.

Hence long distance truck drivers and assistants in Myanmar belong to a fairly high-income group. Because of the nature of their work, they are on constant move and thus they can be away from home for weeks, if not months. Due to this situation, they are
in a liminal state, in other words once they are on the road they are living outside of their normal social environment (Lippman et al. 2007). This is also true when they are spending time in trucking terminals that are distant from their own residences. Therefore, they have frequent opportunity to do things that they do not normally do in their home towns for fear of social sanctions.

*Truckers’ routine at terminals and on the road*

Many truck drivers and their assistants in Myanmar travel along the same route or routes. For truckers in Myanmar having to take different routes is rare. They usually get back home at least once a month. They can normally spend 4-5 days at home in a month or more during the rains which last for about six months as the business is not as hectic as in the remaining dry season. Those who are single or have their families in rural areas or in small towns outside their normal business routes may not be able to get home every month.

Truckers are paid on the number of business trips they make each month. Both truckers and their owners want to keep their days at the terminals to a minimum. Since staying at the terminals is unproductive in principle, truckers usually do not spend more than three days at a terminal. However, when business is not good, it may take several days to get new jobs that can fill their trucks. Yangon-Mandalay is about 400 miles and a trucker recounted that it usually requires two night stops to reach the destination and they are back to their starting point in seven days. Truckers can be found at the terminals because they are waiting for another job or because their vehicles are being maintained. Unless their trucks are being repaired, truck drivers and their assistants are relatively free.
In Myanmar, tea culture is prevalent. Men usually go to tea shops to drink tea and eat snacks, watch satellite movies and soccer games, and discuss matters relating day-to-day life including internal politics. This practice is also common among the trucker populations. Truckers usually start their morning with tea. Teashops are found all throughout Myanmar. They are like Western coffee shops and are also places where breakfasts and light lunches are served. The truckers drink tea at teashops, chat with their colleagues usually on topics related to European or world soccer matches, internal politics, their day-to-day life, and other topics. Some people may prefer to read newspapers or vernacular periodicals alone after having a cup of tea. Still others watch videos being shown on the tea shop’s televisions.

Truckers usually have lunch at the restaurants located within the terminals. Depending on their preferences, they may choose those that sell food alone, or those restaurants that serve beer and other forms of alcoholic drinks. Many restaurants have girls who usually are from the country side as waitresses. They are the cheapest form of labor and are known by owners to attract male clients. After having their lunch, truckers may have a nap, play cards or billiards or chat again with their colleagues. In the evenings, truckers usually drink at restaurants within the terminals. Drivers sleep at the guest houses, or some other places of their preference but assistants have to sleep on the trucks.

Truckers spend their leisure time drinking alcohol with their friends, watching TV or videos, playing cards, checkers or billiards and visiting karaoke stations, KTV bars, or massage parlors. In Myanmar context, karaoke stations mean that karaoke machines are
made available and food and drinks are served but girls to entertain customers may not be available. KTV bars imply that in addition to making karaoke machines, food and drinks available, these places have girls entertain clients by serving them food or drinks, singing in duet with the clients or offering sexual services to the clients on a one-to-one basis.

**Commercial sex available for truck drivers and assistants**

Opportunities for commercial sex are readily available for these truckers on the road who have ample disposable income. There are many different kinds of sex workers available, under varying conditions of price, location, and social environment. Truck terminals in Myanmar are usually located in the outskirts of cities or towns. With the exception of those women employed within the truck stop—female restaurant operators, sales girls and waitresses—women are very rarely seen at truck terminals. Truck terminals are crowded with offices and small businesses. Each truck terminal usually has a government office that records the movement of trucks and truckers, several small private offices in which trucks are registered, small guest houses, restaurants, tea shops, mini stores, betel quid shops and billiard corners. Most restaurants sell liquor.

Operating near the terminals, but outside the truck stop compound, are businesses that operate fully or partially within the sex trade, such as massage parlors and KTV bars/Karaoke lounges. However, some terminals have restaurants that keep female vocalists to entertain the clients in the evenings through their songs and by chatting with customers while waiting for their next turn to sing. These vocalists usually approach male customers who come alone or with their male friends seeking female company and
sometimes, though not necessarily sex. Men usually order soft drinks and snacks for these women when they chat (a singer usually gleans a percentage of these sales as part of her salary). It is possible to negotiate sex with these vocalists on a one-to-one basis, though this is at the discretion of the singer, as she is not employed as a sex worker. Singers may choose to supplement their income in this way, and the potential sexual availability of these women is part of the draw for male clientele.

However, the prices negotiated by these female vocalists are most often at the higher range of prices charged for prostitution in Myanmar, so these women are beyond the affordability of most truckers. They belong to the highest status among women who are available for sex under the present study. They usually have had more years of schooling, will demand the highest service fees, are selective about their clients and could be demanding about the use of condoms. Truckers may go to this kind of establishments on an individual basis.

Another category of sex worker, or occasional sex worker, encountered by truckers are women from massage parlors and KTV bars and in fact many truckers also cannot afford to visit these sex workers regularly. These entertainment places are located outside the terminals and truckers usually go to these establishments in groups after drinking in the evenings. This is one of the popular social activities among trucker populations in Myanmar. This tier of the sex trade is relatively expensive but less than that with vocalists at the restaurants. These women are also strict about condom use.

The majority of the drivers and assistants have sex with female sex workers who come to the terminals to offer their services. Most of these girls have rural agricultural
backgrounds or they are new migrants in the town. Over the past two decades, rising commodity prices and relatively rigid wages, especially for the lowest strata of laborers, have driven quite a few girls from poor families to take up the oldest profession for their survival. These women may come in groups or individually and with or without pimps to the truck terminals. No matter the circumstance of their arrival, it is found that they universally insist on the use of condoms, and apply them as part of the service arrangement. These women belong to the lowest strata of sex workers, who normally ask for 2,000-5,000 kyat ($2.5-6.25) for a sexual act. Truckers usually have quick sex with these women. For the purposes of this study, this buying of sex within the study population is considered an “individual” act and not a “social” one because individual truckers who wish to have sex go to these points in the terminals.

It is in the late afternoon when the sun sets that the buying of sex takes place. Female sex workers come to the terminals at dusk and stay there until late at night. There is no established location for the sexual encounters to take place. Sex usually occurs in places around the terminal that are shielded from sight, such as a place where small bushes grow and other enclosed areas. There are also makeshift huts where betel quid shops operate in the daytime and these may be used for sexual encounters in the evening. Truckers who want to buy sex go to places in the terminals where these women loiter to make contact and negotiate the exchange.

On the road, truckers buy sex from two varieties of sex workers: sex workers who hitchhike on trucks; and women from brothels that operate under the guise of restaurants or guesthouses. Sex workers who hitch-hike on trucks do business individually and often
they are young divorcees in their 20s. According to some interviewees, they are most
desperate and are less strict about condom use than other categories of sex workers. They
often try to strike a deal with truck drivers to sell sex.

Numerous brothels, which are often are fronted by restaurants or guest houses,
operate on the outskirts of towns and along the highways. These places signal the
availability of women to the vehicles traveling on the roads by blinking torch lights to the
approaching vehicles. Truckers may stop at these places to have to food, drinks and
purchase sex. Rules regarding the use of condoms are strict in these establishments.

_Casual sex available for truck drivers and assistants_

In addition to these types of commercial sex, truckers also have many
opportunities to engage in casual, non-commercial sex with women who are accessible to
them because of the nature of the truckers’ life on the road. It is important to note that
recent economic changes in Myanmar have increased the rate of certain kinds of sexual
exchanges by truckers while decreasing others. One form of sexual exchange that is
rapidly disappearing is between truckers and traveling female petty traders. In the recent
past it was common for truckers to engage in sexual relationships with women petty
traders who traveled by hitch-hiking on their trucks. Women petty traders might even act
as ‘temporary’ wives of the truck drivers during their journeys that may take a few days.
These women often have their own families and their relationship with the drivers is
usually limited to the time they travel for a business trip. Economic development
beginning in the 1990 gradually brought into existence more private bus companies and
the introduction of other efficient ways for moving goods around the county. As a result, traveling female petty traders now often travel in passenger buses. They no longer make an important part of the casual sexual networks of truck drivers.

There has been considerable shift since the 2006 study (Aung 2007) from casual to commercial sex. That study of truckers in Mandalay and Monywa showed that 169 (31.5%) out of 532 total respondents engaged in casual sex while the present study revealed 98 out of 348 participants (28.2%). Although the earlier sample included respondents who did not engage in either type, the percentage of people who participated in casual sex was higher than the present study in which respondents had engaged in either commercial or casual sex. That earlier study found that 18.8% of truck drivers engaged in commercial sex, and 31.5% engaged in casual sex in the previous six months. The questionnaire sample in the present study shows that 346 out of 348 respondents (99.4%) bought sex against 98 (28.2%) out of 348 respondents who had engaged in casual sex in the past six months. In other words, in the questionnaire sample composed only of men who reported that they had engaged in either commercial or casual sex in the past six months, virtually all had engaged in commercial sex and a quarter of those men had also engaged in casual sex. This is a substantial shift in a relatively short period of time.

Another group of women who are partners of the truck drivers and their assistants for their casual sex are girls and women working at restaurants, mini-stores or betel quid shops at or near truck terminals. Those who work at restaurants are provided with lodging food, and sometimes even clothing. However, they receive a meager salary, most of
which is sent back to their families. Sales girls and other workers at mini-stores and betel quid shops receive minimum monthly wages, which often are below subsistence levels. The casual sex in this sense creates a kind of relationship that is more substantial than a one-night stand encounter but not as committed as a girlfriend or mistress for whom the trucker would have to provide regular financial support.

Truckers usually establish relationships with these girls and women by eating at the restaurants a number of times or buying things from the shops where they work. The relationship may begin with short conversations at the girls’ work places and later progress to going on a date on their days off. This type of relationship involves a romantic component, at least for one party, and it is possible for this relationship to develop into a long-term one.

How Truckers Describe their Behavior

Among the 29 interviewees, a few drivers interviewed said that they belong to the truck owner’s family. Some drivers are from the second generation of the family while some others said that the family bought a truck when they grew up as the families concerned wanted to enter into new business or the man himself showed great interest in the new undertaking.

“When I failed twice in the matriculation exam, I tried to look for a job in the town. I got a job as a truck assistant as the driver was my relative. He taught me how to drive and after having worked for four years, I became a driver. It is not that I like the job so much but I earn fairly well now and it is not that exhausting. (Maung Maung, 38, married)
“Our family has a truck and it carries goods between the nearest town and its neighboring villages but when I grew up we decided to ply the truck between our town and Yangon. (Soe Soe, 37, unmarried)

If drivers and helpers are to spend the money on two main meals and tea, it won’t cost them more than 3,000 kyat ($3.75) from the money of 5,000 kyat ($6.00) they are given as food allowance. Drivers and assistants are not given fixed salaries but instead are paid on the basis of their trips. Some other drivers get paid on commission of the money earned. A few assistants who are on their apprenticeship may get fixed initial monthly salaries of 15,000 kyat ($18.75) but are given the same amount of money as the driver for daily food. Apprenticeship means on-job training and it usually lasts about six months.

The respondents do not glorify the nature of their job as one in which only adventurous people or tough guys can survive in the trade. But their job is tough in the sense that it requires long hours of driving, especially if they are carrying perishable items; their trucks can break down in the middle of nowhere under heavy rains or the sweltering sun and that could take up to a few days if a mechanic does not arrive soon or parts for replacement are not readily available. According to in-depth interview respondents, the main reasons they take up the job and stay with it is that they earn more money than many other jobs and it is not that tiring or demanding.

“I earn quite well from this job. The truck belongs to my uncle.” (Ko Ko, 42, married)

Many respondents during in-depth interviews said that drivers buy more sex compared to assistants and the quantitative results show that drivers earn twice as much as assistants on average. Cross tabulation results from the quantitative sample in the
present study did not show any difference between the drivers and the assistants in their engagement of commercial sex. A few in-depth interview respondents said that it is not as common among friends in the community to buy sex as it is among their trucker peers. Behavior Surveillance Survey (2003) mentioned that 4% of men who participated in the study bought sex in the past year. The survey report did not explain the setting in which the interviews were conducted. It can be expected that the percentage was under-reported as another survey result showed a slightly higher percentage of men having engaged in commercial sex. Altogether 7% of over 3,500 men in Myanmar reported having bought sex in the preceding year (MAP 2004). Thus the percentages are substantially higher for truckers than for the general population.

Most respondents in the study mentioned that they usually go for quick sex, which is more accessible and affordable, and only a few respondents recounted their experiences about visiting KTV bars and having sex with the female entertainers there. A KTV girl could cost 15,000-20,000 kyat ($18.75-25) to stay with her for the whole night.

“I usually go for sex with girls that come to the terminal. They have condoms with them. We don’t need to pay for condoms. A sexual act costs 2,000 kyat.” (Aung Aung, 23, single)

“My friends in the community rarely engage in commercial sex. Only my trucker peers do it. I think it is because we are away from home and thus have freedom to do things.” (Win Oo, 37, married)

Truckers from other countries cited similar reasons for their engagement in commercial sex. A qualitative study described loneliness for truckers to have engaged in commercial sex from Brazil (Malta et al. 2006). Croatian truck drivers described fatigue (Bacak and Soh 2006). Truck drivers from a study in the U.S. cited as loneliness and
freedom from social norms (Stratford et al. 2000) while a later study in the country mentioned loneliness, stress, social isolation and geographic mobility (Lichtenstein et al. 2008) as reasons for engaging in sex on the road.

No interview respondents in the present study talked about unprotected sex in transactional sex and few recounted emphasizing sexual pleasure from the encounters as they mainly mentioned quick sex. Only a few respondents said that they use pills to delay an ejaculation.

“On the road, I had sex because I was too eager to have it. There was no question of whether I got pleasure from it. I always used condoms during those actions.” (Hla Maung, 44, married)

“I buy sex when I feel lonely or have a strong impulse to do it. When I have done it I feel really relaxed.” (Win Zaw, 25, married)

If compared with sexual behaviors of truck drivers in other parts of the world on the use of condoms during commercial sex, a qualitative study among truckers in Brazil showed that respondents having unprotected sex with female sex workers was common (Malta et al. 2006); a study of truck drivers in south-west Uganda revealed that most respondents (60/63) used condoms with paid partners (Gysels and Bwanika 2001); all Croatian truck drivers who reported buying sex said that they used condoms (Bacak and Soh 2006). An earlier study in U.S. also found that one third of the 71 men interviewed had multiple partners but few ever used condoms. However, 31 of them who had been termed old hands and had a mean age of 46 years reported to have constrained their risk behaviors due to health reasons, family concerns and a decline in stamina (Stratford et al. 2000).
In the present interview sample, most respondents said that they always use condoms. Sex workers have them and encourage the use of condoms. Only one respondent specifically mentioned that some sex workers who hitch-hike on their trucks allowed unprotected sex.

“I always use condoms during commercial sex. We have to protect ourselves from HIV/AIDS. The sex workers don’t allow unprotected sex.” (Khin Oo, 38, married)

“Some sex workers come with us along the highway. They are in their early 20s and many of them are divorcees. They allow unprotected sex. They might be having a hard time or feel too shy to buy condoms.” (U Thein, 45, married)

Quite a few interview respondents in this study talked about having a desire to have sex when they are under the influence of alcohol but most of them said that they try not to get dead-drunk so that they maintain all their rational thinking, especially on the use of a condom during commercial sex.

“I feel like swimming (visit a massage parlor) or going horseback riding (have sex) after a few drinks. I usually use condoms when I engage in commercial sex but I can’t really recall whether I used condoms or not when I became too drunk.” (Nyunt Win, 30, unmarried)

“I drink liquor but I try not to get too drunk. When I am soused I don’t feel like going to sex workers anymore.” (Maung Myint, 28, single).

All the respondents said that they do not use drugs. This is different from the studies in Brazil in which half of the respondents said they used methamphetamines and other stimulants (Malta et al. 2006). Two qualitative studies of truck drivers in Thailand mentioned the common use of amphetamines partly to stay awake (Podhisita et al. 1996; Sawaandee and Isarapakdee 1991). A study in U.S. found truck drivers using legal drugs such as No-Doz, caffeine pills (‘black ice’), cigarettes and other ‘stuff they can buy over
the counter to relax and stay alert’ (Lichtenstein et al. 2008) as they had to undergo regular drug and alcohol testing and testing positive would cost the loss of licenses and livelihoods. An eight-year earlier study by Stratford et al. (2000) revealed that about 20 of the 71 who participated in the survey and who were identified as highway cowboys used drugs primarily to stay awake during driving and to relax and sleep during layovers and rest periods.

The interview respondents in current study mostly talked about chewing betel quid (pan) to stay awake and consuming energy drinks to refresh their energy. One of them said that he used amphetamine when he was young but had given it up. A few of their counterparts in Taiwan have the habit of betel-nut chewing (Hung 2009).

The in-depth interviews also explored their exposure to HIV-related information. In responding to the question, participants said that they receive HIV-related educational information through both print media and electronic media as well as from volunteers and NGO staff specifically working with high-risk populations. They also believe that condoms protect them from STIs and HIV/AIDS. Some respondents explained that they had lost some of their peers to AIDS and therefore they dared not have sex with sex workers without condoms.

“I was really alarmed when one of my friends died of HIV/AIDS. He was known among us for not using condoms.” (Wai Lin, 41, single)

Most interview respondents remarked that many of them had changed their sexual behavior with the spread of HIV/AIDS in Myanmar. Many of them said that their peers are engaging less in commercial sex and are using condoms consistently in those encounters. But a few respondents stated that there are still people who do not use
condoms consistently or do not use them at all during their commercial sexual relationships. According to them, these people do not seem to care about getting infected with sexually transmitted infections (STI) or HIV but think about sexual pleasure alone. They might be able to do that because most of the girls they deal with are freelance sex workers and many may not have pimps with them, and therefore a few of them could be less rigid about condom use compared to those from brothels or massage parlors who have to follow a strict condom use policy of the establishments concerned.

Truckers explained that the freedom they enjoy is the main reason they engage in deviant acts. Truckers mentioned about the in-between environment they have on the road and at terminals where there is no one around to watch their behaviors on their adherence to social norms and criticize them if they deviate from those acts. Few really emphasized the set of values derived from the environment. Although they do have the sense that they are in the environments in which social bonds are temporarily cut off, many of the Myanmar truckers do not seem to have their own set of distinctive values and cultures, especially on perceptions about freedom as regards engaging in non-marital, non-regular sexual acts. Respondents just talked about the freedom they enjoy through their profession but no one mentioned about any specific idea or philosophy associated with it.

However, they did say that the purchase of sex is a norm among them and those who do not do it are exceptions. The points they emphasized were on the liminality of the environments in which they live and the freedom they enjoy at the truck terminals and on the road. The sharing of their nonexclusive sexual experiences, especially the buying of
sex, is usually confined within their circles and some respondents explicitly revealed the feeling of guilt in having engaged in commercial sex, which suggested that they understand the fact that it is not the norm of the wider society and the involvement in it could be stigmatized. As quantitative findings showed, more than three fourths (77.2%) of the respondents believe that the revealing of commercial sex experiences could lead to negative social relationships.

“Truckers usually buy sex. It is a normal thing among us. We don’t have any specific philosophy regarding that.” (Win Min, 23, single)

“Many truckers buy sex. The people who don’t do it are rare.” (Tun Naing, 46, married)

“We are men. We can’t refrain from doing it (engaging in commercial sex). I buy sex when I feel lonely or have a strong (sexual) desire.” (Min Min, 29, single)

“Truckers seek sexual pleasure. It is true for both drivers and assistants. What shall I say…., we engage in commercial sex because it is available.” (U Naung, 41, married)

“Sometimes I engage in commercial sex when I have a strong desire to do it. Then I know that I am doing something bad. I do it because I can’t control myself and because I am away from home.” (Maung Myint, 32, married)

“Many of the truck drivers and their assistants buy sex, drink liquor and do gambling. The main reason for their doing those things is their being away from home but some people do them more than others.” (Than Tun, 38, married)

In reasoning about their consistent use of condoms during commercial sex, some respondents described their concerns about their wives who could become infected with the disease due to their infidelity. Some participants from the studies in south-west Uganda (Gysels et al. 2001) and in U.S. (Stratford et al. 2000) expressed a similar idea.
According to the respondents in the present study, the use of condoms among them is a norm rather than an exception.

“Use of condoms is a must as the pimp doesn’t allow unprotected sex with his girls. The girls put on condoms for us.” (Min Soe Tun, 25, single)

“Since the spread of HIV/AIDS in the country, people have changed their behavior. When I am with a sex worker, I use condoms. I think at least 95 out of 100 among us use condoms. Otherwise, it will be like I am digging my own grave.” (Min Min, 35, single)

In discussing matters relating to women petty traders hitch-hiking on trucks, only a few of the respondents said that they had come across such women during these days. They recounted what they had experienced a few months or even years back. These women usually travel with their wares, which usually are betel nuts, vegetables or other products. Regardless of the women’s marital status, those women virtually act as the wives of the truck drivers throughout the trips. Usually the women are in their 30s and they live at home with their family. It is a new trend that these women do not make their trips in trucks. Passenger buses are much more convenient for women petty traders, especially for those who do not need to carry bulky items with them. With the government’s construction of new roads and improvement of existing ones as well as the imports of commercial vehicles, passenger-miles increased about 13 fold from 105,287,000 1991-92 to 1,356,351,000 in Yangon, the business capital, within a span of 12 years in 2003-2004 (EIU Myanmar country reports 1997 and 2007).

The construction of Naypyidaw, the new administrative capital, 240 miles north of Yangon, in 2005 and located along the highway to Mandalay, the second largest city, may have contributed significantly to total increased movement of people from and into
Yangon. Efficient private coach companies now serve on main highway routes too. A new Yangon-Naypyidaw-Mandalay highway has been built and it shortens travelling time for Yangon-Mandalay passenger buses to 8.5 hours from 14 hours in the past, for example, but long-distance trucks are not allowed on the road.

Due to those developments on improved road transport, only a few respondents said that they came across women petty traders nowadays. Although respondents agree in principle on consistent use with sex workers, they have different perceptions about condom use during their casual sexual encounters. Some people assume that the women they met would be safe to have unprotected sex while some others believe that those women could be as promiscuous as they are. The relationship between these women traders and the truck drivers are casual. They may make appointments for future trips but, in general, neither party expects long-term relationship through such experiences.

“I once met with such kind of woman in the past but I don’t come across women traders these days. They might be travelling on passenger buses.” (Myint Maung, 42, married)

“I didn’t use a condom when I had sex with one petty trader. I think she is much cleaner than sex workers. I believe I am the only one who is sleeping with her.” (Soe Soe, 37, unmarried)

The casual partners of the respondents include hawkers, shop staff and restaurant waitresses in addition to petty traders. Some respondents said that their friends have become romantically entangled with girls working at restaurants or liquor/betel quid shops at or near truck terminals. These girls might be given free food, lodging and clothing and paid about 30,000 kyat ($37.5) per month. As truck drivers and assistants earn much more money than these girls, they are easy target for the truckers while the
truckers are presumably a big catch for the girls. Often, those who have such girls as their girlfriends have more disposable income than those who buy sex according to a few in-depth interviewees. Men do not normally use condoms during sex with them.

“I once had a girlfriend who sells betel quid (pan) in Mandalay. I didn’t use a condom with her.” (Nyunt Win, 30, unmarried)

Despite all these responses from the in-depth interviewees, the researcher came across a few respondents who were not happy about truckers being stereotyped as people who engage in commercial sex. Most often, these people are married and relatively older than others and usually are above 45. Those people usually do not engage in extramarital sex. They are family type men and can be grouped into two. The first type is the owner-driver and the other is a driver who may have had humble background but wants to have upward social mobility. Their abstinence from nonexclusive sex stems from two reasons: high family responsibility and having high aims. The former has also to think about getting a new contract signed reaching a town in addition to his driving task and thus he is occupied with business matters. He carries a family burden and has to make sure that he brings back enough money for the family through his business undertakings. These people said that they had to make sure they have new contracts signed once they reach a terminal and that they take with them as much money as they can upon returning home, therefore they have no time or willingness to engage in non-regular sex. These people described having ‘commitment’ and ‘involvement,’ as two factors that deterred them from participation in commercial or casual sex, as we might expect according to social bond theory. The other type of persons is the drivers who could have had a humble beginning and is eager to bring about change in their social status.
This type of drivers usually comes from families of subsistence farming or belongs to an urban working class. As he is aiming for upward social mobility, he is eager to bring the family to town and provide better education for his children. With his current earnings, he can lead the lifestyle of a middle class family and if he is careful about his money and has visions to provide good education to his children, there is no barrier for his family to move further upward reaching the upper stratum among the middle class or even higher, especially during the time of his children.

Nowadays, an agricultural family typically earns about 100,000 kyat ($133) from an acre of paddy land after a four-month rice growing season. Therefore, for those people having had a chance to drive a long distance truck is a key to moving up their social status for themselves as well as for their future generations. Those people are less inclined to engage in high risk behavior such as buying sex or spending money on non-productive activities. Theoretically, in terms of the theory of deviance, these people have strong commitment to conventionacy (Clinard 1995:130).

“I don’t engage in commercial sex. I don’t drink either. My truck assistant drinks sometimes. I have three children. All of them are at school. I have five siblings. All my brothers are farmers. My sister is a school teacher.” (Myint Win, 45, married)

A qualitative study conducted in southeastern USA also found that some drivers did not like their being associated with ‘dope and sex’ and that older people among them were relatively abstemious men (Lichtenstein et al. 2008). An earlier study in the country revealed older married men avoiding sex on the road in which one of them said “I don’t like being labeled as a sex maniac or boozer. We are no different than other people (Owner-driver, 48, married) (Stratford et al. 2000).”
Respondents in the present quantitative study include only truckers who have had engaged in either commercial or casual sex. The data showed that among 18 owner-drivers, all of them reported having had commercial sex but there were only two who said that they had engaged in casual sex. This result might reflect the idea of one of the in-depth interviewees who said that he would rather buy sex than engage in casual sex to avoid potential problems in the future.

*Peer pressure*

The majority of the respondents talked about drinking alcohol with their friends but it is not common for them to buy sex with their peers, unlike male clients of sex workers in China (Yang et al. 2010) and those in Thailand (Vanlandingham et al. 1998). However, Sawaangdee and Isarapakdee (1991) found during their study among truck drivers in Thailand that the participants reported visiting brothels alone after heavy drinking. Peer pressure did not come up in the course of respondents’ discussion about buying sex, especially in or around terminals, but a few of them said that when they became drunk they felt like visiting KTV bars or massage parlors. On those occasions, seeking fun at entertainment places becomes a social act.

*Trucker subculture*

The combination of ready availability of both commercial and casual sex around truck terminals, plus the relatively high amount of disposable income that the truckers have when they spend time at the terminals, offers a potent combination of incentives and helps to create a subculture specific to this group in this environment. Price is an important factor for Myanmar truckers and assistants who engage in commercial sex.
Commercial sex is available and affordable to them and the social cost of engaging in commercial sex is mostly absent. The price of commercial sex is lower than many would assume. The cost of 2,000 kyat ($2.50) for quick sex is only slightly more than a standard bottle of beer. In addition to buying sex, drivers and assistants often discuss openly about drinking liquor and gambling because of the freedom they have at their terminals.

Truck drivers and assistants in Myanmar we can say have a social culture of leisure entertainment and drinking coupled with availability of different kinds of sexual situations. The environment encourages kinds of sexual behavior that the truckers do not engage in when they are at home. However, none of the respondents made reference to the existence of a macho sex subculture they have come to embrace. Nevertheless, the drivers and assistants who took part in in-depth interviews said that they engage in commercial sex, drink liquor and engage in gambling in the form of playing billiards or cards because they have free time, money and freedom.

Although they made no mention of a set of values and beliefs that they specifically came to adopt due to the environment in which they live and to the earnings they have, it is clear that they believe engaging in commercial sex is a very common practice among truckers. Data from the structured questionnaire sample bears this out, in the sense that truckers who participate in commercial sex perceive that such behavior is the norm. Three quarters (253 or 72.7%) out of 348 total respondents said that more than half of truck drivers and assistants engage in commercial sex. Only a fifth of the respondents (73 or 21.0%) responded that less than half of truckers do so. This suggests
that purchasing sex is a norm among them and that it is their routine. In addition, the very fact that many of them were frank in discussing their sexual behavior in which they had engaged in commercial or casual sex revealed that participating in that kind of activity is a part of their lifestyle at the terminals and on the road when they are away from home.

Nevertheless, in the same questionnaire sample of truckers who do engage in commercial sex, in responding to the question about whether engaging in commercial sex could bring about positive, neutral or negative social relationships, responses were mainly negative 278 (77.2%) or neutral 40 (11.2%), with a small minority saying that the consequences would be mainly positive 30 (8.4%). They perceive that such behavior could be harmful to their other social relationships, which implies that they would not generally talk about their engaging in commercial sex to people outside their circles as they assume that such act is a deviant behavior according to the social norms and could carry a negative connotation in the wider society. They do not describe a macho sex culture in which they gain status by such sexual behavior and boast about it openly. Similar normative constraints may operate in terms of some types of casual sex. In terms of their having casual sex with petty traders, truckers may confine such experiences to close circles within their colleagues. However, for their relationship with girls and young women within or near the terminals, truckers might not keep it a secret as it is usually considered a romantic experience and that could be something to boast about to their colleagues because it demonstrates how popular they are among women.
The interview data did not show a macho sex subculture for Myanmar truckers, but rather a distinct lifestyle that creates a situation conducive to nonexclusive sex. They also have social culture of leisure entertainment and drinking coupled with availability of different kinds of sexual situations and there are some visual shifts from casual to commercial as a result of a combination of factors which can be attributable to both economic and social conditions. Women petty traders are no longer an important part of the truck drivers because many of them are now travelling by passenger bus instead. Female sex workers are now more affordable and accessible because their service is inexpensive and they come to truck terminals or they hitch-hike on the road.
CHAPTER 6 Predictors of Truckers’ Sexual Behavior

Quantitative study

Through informal discussions, in-depth interviews and participant observations, I have come to know the lifestyle of the truckers of Myanmar. According to their stories, the majority of them engage in casual or commercial sex. In this chapter, I have tried to find out which factors lead them to engage in casual or commercial sex and which characteristics motivate them to practice safe sex. In order to do this, statistical analysis of the data from the structured questionnaire was conducted using SPSS 13.0, including bivariate analyses, binary logistic regressions and multiple regressions. The applicability of the expanded Theory of Planned Behavior variables in the context of Myanmar truckers was tested through the use of these regressions. Behavior intentions and actual behavior were regressed with expanded Theory of Planned Behavior variables. Reported consistent condom use was used as a variable for truckers ‘actual behavior’ in condom use during commercial sex.

Characteristics of the Questionnaire Sample

There were altogether 348 participants including 184 drivers (53%). The mean age of the participants was 32 (SD = 8.2). The youngest was 17 and the oldest, 61. Altogether 164 (47.1%) studied up to middle (lower secondary) school and there were only 30 participants (8.6%) who studied up to primary school and less. Monthly earnings ranged from 50,000 kyat ($62.5) to 900,000 kyat ($1,125) among the participants. The mean monthly income was 206,479 kyat ($250) with SD = 103,000 kyat ($129).
The mean age of sexual initiation among the participants was 19.38 years and the median age was 19 years. This is the same median age of first sex as found among the general population (Behavior Surveillance Survey 2003). Only 24 participants (6.9%) reported that they had their first sex at the age of 15 years and less. About half of the respondents (168 participants or 48.3%) reported that their first sexual partner was a female sex worker. Since participants were recruited only when they reported they had had either casual or commercial sex in the past six months, 98 participants (28%) reported they had casual sex in the past six months while 346 (99%) said they had bought sex in the same period. Altogether 96 respondents (28%) reported having engaged in both commercial and casual sex; two truckers said they had only engaged in casual sex and 250 respondents (72%) claimed having commercial sex only.

Based on the six questions related to HIV knowledge, the median and mode of those who gave correct answers was 5. The six questions were chosen based on previous surveys by the Myanmar Red Cross Society and only those which respondents in those surveys were most likely to give incorrect answers were included in the current study. Therefore, it can be concluded that the participants have been well exposed to HIV information by volunteers and staff from NGOs and public health departments and/or through different forms of media.

A cross-tabulation between age and the level of income showed that older respondents receive higher monthly incomes compared to their younger peers (Table 2). The value of chi-square ($\chi^2$) is 97.83 with df = 9 and $p < 0.001$. This is because, almost all the respondents have to begin their trucking career as assistants and only when they
gain their work experiences and favor from their drivers, they are taught and allowed to
drive the trucks. It is only when an assistant becomes a driver that he becomes a decision-
maker of the vehicle while on the road, has higher income and more leisure hours while
the vehicle is maintained or parked at a terminal. Therefore, many assistant respondents
said during the interviews that it was their aim to become a driver. Only those who are
content with their income as assistants or do not have the courage or skills to be a driver
remain as assistants until their relatively old age.

Table 2  Years of age and for monthly income Cross-tabulation (value in 1,000 kyat)

<table>
<thead>
<tr>
<th></th>
<th>50-130</th>
<th>140-200</th>
<th>210-270</th>
<th>280+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 years and younger</td>
<td>33</td>
<td>35</td>
<td>3</td>
<td>4</td>
<td>75</td>
</tr>
<tr>
<td>26-30 years</td>
<td>27</td>
<td>40</td>
<td>10</td>
<td>11</td>
<td>88</td>
</tr>
<tr>
<td>31-35 years</td>
<td>15</td>
<td>20</td>
<td>15</td>
<td>17</td>
<td>67</td>
</tr>
<tr>
<td>36 years and older</td>
<td>12</td>
<td>21</td>
<td>24</td>
<td>61</td>
<td>118</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>116</td>
<td>52</td>
<td>93</td>
<td>348</td>
</tr>
</tbody>
</table>

*Bivariate Analyses of Factors Related to Condom Use in Casual Sex*

Bivariate analyses (correlations) were calculated for respondents who reported
casual sexual encounters. Intentions to use condoms were correlated with socio-
demographic characteristics and other basic information that might influence their
consistent condom use. Correlations were also performed between consistent condom use
and all the above variables. This was because in terms of consistent condom use, more
variation (53 out of 98) was found during casual sex than (283/346) in commercial
encounters and therefore, socio-demographic characteristics would have more effect on the consistent use of condoms.

First, correlations between intentions to use condoms and socio-demographic characteristics such as age, level of education, the number of months participants return in a year, monthly income as well as age at first sex, HIV knowledge, frequency of condom use and the number of sex partners were calculated for those who reported that they had had casual sex in the past six months. The results are shown in Table 3. The mean of intentions to use condoms was quite high with 4.8 from the maximum of 5 but mean consistent use was fairly high with 3.79 out of 5. Because “often use condoms” is coded as “4”, the mean use of condoms is slightly less than “often.”

Only 53 (54.1%) out of 98 participants reported that they had always used condoms during their casual sexual relationships. None of the demographic variables—age, education level and monthly income—had significant correlations with intention to use condoms and neither did the number of months participants returned home have association with intentions to use condoms. HIV knowledge had no significant correlation with intention to condoms or consistent condom use during casual sex. According to the present study, the HIV knowledge did not play a role in the use of condoms during casual sex.

The findings did not go along with Sheeran and Taylor (1999) who found that younger people were more likely to intend to use condoms than older people and who also reported on the basis of findings from seven studies that knowledge of HIV/AIDS and intentions to use condoms had a small to medium average correlation confirming that
knowledge is a necessary but far from sufficient to intend to use condoms and thus engage in safe sex. In the present study, positive weak correlations existed between intention to use condoms and age at first sex ($r_+ = .24, p < 0.05$) and frequency of condom use ($r_+ = .31, p < 0.01$) while negative moderate correlations was reported between intention to use condoms and the number of sex partners ($r = -.43, p < 0.01$) (Table 3). The findings thus suggest that there is a weak association to the effect that respondents who have their first sex at later age have more intentions to use condoms. Those who have more sexual partners have less intention to use condoms.

When it comes to frequency of condom use, weak positive associations exist with intentions to use condoms and education level and weak negative association is shown with the number of sexual partners. There is a weak association of those who have more intention to use condoms and those who have had more schooling. Those who have had more schooling are more likely to use condoms consistently. In the same degree, those who have more sexual partners are less likely to use condoms consistently during casual sex.
Table 3 Correlations between consistent condom use in casual sex and demographic characters  (N = 98)

<table>
<thead>
<tr>
<th></th>
<th>Means</th>
<th>SD</th>
<th>Intention to use condoms</th>
<th>Age</th>
<th>Education level</th>
<th>Months of return</th>
<th>Monthly income</th>
<th>HIV knowledge</th>
<th>Age at first sex</th>
<th>Frequency of condom use</th>
<th>Number of sex partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentions to use condoms</td>
<td>4.81</td>
<td>.648</td>
<td>1</td>
<td>-.134</td>
<td>.133</td>
<td>-.100</td>
<td>.057</td>
<td>.146</td>
<td>.239(*)</td>
<td>.311(**)</td>
<td>-.431(**)</td>
</tr>
<tr>
<td>Age</td>
<td>31.83</td>
<td>8.375</td>
<td>-.134</td>
<td>1</td>
<td>-.136</td>
<td>.024</td>
<td>.462(**)</td>
<td>.205(*)</td>
<td>.114</td>
<td>-.083</td>
<td>.055</td>
</tr>
<tr>
<td>Education level</td>
<td>4.53</td>
<td>.876</td>
<td>.133</td>
<td>-.136</td>
<td>1</td>
<td>.062</td>
<td>-.026</td>
<td>.123</td>
<td>.106</td>
<td>.261(**)</td>
<td>-.122</td>
</tr>
<tr>
<td>Months of return</td>
<td>2.80</td>
<td>3.05</td>
<td>-.100</td>
<td>.024</td>
<td>.062</td>
<td>1</td>
<td>-.101</td>
<td>-.132</td>
<td>-.007</td>
<td>-.077</td>
<td>.086</td>
</tr>
<tr>
<td>Monthly income</td>
<td>229949</td>
<td>123142</td>
<td>.057</td>
<td>.462(**)</td>
<td>-.026</td>
<td>-.101</td>
<td>1</td>
<td>.320(**)</td>
<td>-.020</td>
<td>.037</td>
<td>.036</td>
</tr>
<tr>
<td>HIV knowledge</td>
<td>4.38</td>
<td>1.08</td>
<td>.146</td>
<td>.205(*)</td>
<td>.123</td>
<td>-.132</td>
<td>.320(**)</td>
<td>1</td>
<td>-.086</td>
<td>.011</td>
<td>.023</td>
</tr>
<tr>
<td>Age at first sex</td>
<td>18.54</td>
<td>3.19</td>
<td>.239(*)</td>
<td>.114</td>
<td>.106</td>
<td>-.007</td>
<td>-.020</td>
<td>-.086</td>
<td>1</td>
<td>.086</td>
<td>-.325(**)</td>
</tr>
<tr>
<td>Frequency of condom use in</td>
<td>3.79</td>
<td>1.5</td>
<td>.311(**)</td>
<td>-.083</td>
<td>.261(**)</td>
<td>-.077</td>
<td>.037</td>
<td>.011</td>
<td>.086</td>
<td>1</td>
<td>-.236(*)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of sex partners</td>
<td>7.30</td>
<td>5.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed)
Correlations were calculated between intentions to use condoms and the three Theory of Planned Behavior (TPB) constructs, expanded TPB variables and consistent condom use during commercial sex. Before the calculation of the correlations between variables, Cronbach’s alpha was obtained to find internal consistency between different items that belong to a factor (construct). As recommended by (Ho 2006: 243), items which accounted for less than 10% of the variance in the scale through “Reliability Statistics” processes as they showed less than 0.33 in corrected item-total correlation were deleted. Accordingly, three items from six of attitude variables and an item from four of subjective norms construct were deleted to obtain Crobach’s Alpha of 0.75, 0.64 and 0.62 for retained attitudes, subjective norms and perceived behavior control variables respectively. From among attitude constructs, the use of condoms “ruins natural sex act,” “reduces pleasure” and “the participants’ willingness to have a condom to have commercial sex” were retained. From among subjective norms variables, “encouragement from partners and health personnel” and “the friends’ use of condoms” were retained. All the analyses later were done with retained items. For the bivariate analysis, the mean-centered value of each variable that has more than one item under it was used to avoid multicollinearity (Smith et al. 2007).
Table 4 Correlations between consistent condom use during commercial sex and expanded Theory of Planned Behavior variables (N = 346)

<table>
<thead>
<tr>
<th></th>
<th>Means</th>
<th>SD</th>
<th>Intentions</th>
<th>Attitude</th>
<th>Subjective norms</th>
<th>PCB</th>
<th>Condom use in last sex</th>
<th>Anticipated Regret</th>
<th>Elements of social bond</th>
<th>Social learning variables</th>
<th>Frequency of condom use</th>
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<tbody>
<tr>
<td>Intentions</td>
<td>4.89</td>
<td>0.47</td>
<td>1</td>
<td>.284(***)</td>
<td>.585(***)</td>
<td>.511(***)</td>
<td>.499(***)</td>
<td>.750(***)</td>
<td>-.023</td>
<td>-.173(***)</td>
<td>.589(***)</td>
</tr>
<tr>
<td>Attitude</td>
<td>14.42</td>
<td>3.40</td>
<td>.284(***)</td>
<td>1</td>
<td>.240(***)</td>
<td>.206(***)</td>
<td>.143(***)</td>
<td>.261(***)</td>
<td>-.107</td>
<td>-.086</td>
<td>.228(***)</td>
</tr>
<tr>
<td>Subjective norms</td>
<td>20.18</td>
<td>5.17</td>
<td>.585(***)</td>
<td>.240(***)</td>
<td>1</td>
<td>.530(***)</td>
<td>.405(***)</td>
<td>.643(***)</td>
<td>-.014</td>
<td>-.200(***)</td>
<td>.497(***)</td>
</tr>
<tr>
<td>PCB</td>
<td>16.79</td>
<td>4.24</td>
<td>.511(***)</td>
<td>.206(***)</td>
<td>.530(***)</td>
<td>1</td>
<td>.351(***)</td>
<td>.605(***)</td>
<td>-.013</td>
<td>-.272(***)</td>
<td>.446(***)</td>
</tr>
<tr>
<td>Condom use in last sex</td>
<td>0.99</td>
<td>0.20</td>
<td>.499(***)</td>
<td>.143(***)</td>
<td>.405(***)</td>
<td>.351(***)</td>
<td>1</td>
<td>.466(***)</td>
<td>-.123(*)</td>
<td>-.025</td>
<td>.680(***)</td>
</tr>
<tr>
<td>Anticipated Regret</td>
<td>11.45</td>
<td>1.67</td>
<td>.750(***)</td>
<td>.261(***)</td>
<td>.643(***)</td>
<td>.605(***)</td>
<td>.466(***)</td>
<td>1</td>
<td>-.060</td>
<td>-.248(***)</td>
<td>.609(***)</td>
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<tr>
<td>Elements of social bond</td>
<td>3.82</td>
<td>1.47</td>
<td>-.173(***)</td>
<td>-.086</td>
<td>-.200(***)</td>
<td>-.272(***)</td>
<td>-.025</td>
<td>-.248(***)</td>
<td>-.060</td>
<td>1</td>
<td>-.159(***)</td>
</tr>
<tr>
<td>Social learning variables</td>
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<td>0.60</td>
<td>.589(***)</td>
<td>.228(***)</td>
<td>.497(***)</td>
<td>.446(***)</td>
<td>.680(***)</td>
<td>.609(***)</td>
<td>-.015</td>
<td>-.159(***)</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
The results for intention to use condoms are shown in Table 4. Small to large statistically significant correlations existed between intentions to use condoms and all the Theory of Planned Behavior variables and the three of its expanded variables—condom use in last commercial sex, anticipated regret and social learning variables. The correlations between intention to use condoms and the three Theory of Planned Behavior variables range from small to large with \( r_+ = .284, p < 0.01 \), \( r_+ = .585, p < 0.01 \) and \( r_+ = .511, p < 0.01 \) respectively (Table 4). The correlations between intention to use condoms and expanded TPB constructs—condom use in last commercial sex, anticipated regret and frequency of consistent condom use were \( r_+ = .499, p < 0.01 \), \( r_+ = .750, p < 0.01 \) and \( r_+ = .589, p < 0.01 \) respectively. Therefore, strong relationships existed between intentions to use condoms and expanded TPB constructs. A small negative correlation existed between intention to use condoms and social learning variables with \( r_+ = .173, p < 0.01 \). A small positive correlation existed between attitudes and subjective norms \( r_+ = .240, p < 0.01 \) and between attitude and perceived behavior control \( r_+ = .206, p < 0.01 \). A strong positive correlation was found between subjective norms and perceived behavior control with \( r_+ = .530, p < 0.01 \).

Therefore, the more the respondents had higher attitudes, subjective norms and perceived behavior control toward the use of condoms, the more they had used condoms in last sex and the greater they felt about anticipated regret, the more they were likely to have had higher intentions to use condoms. The more they reported using condoms, the higher they had intentions to use condoms. There was a weak correlation to the effect that
the less they had on social learning variables, the more they had higher intentions to use condoms.

Results for consistency of condom use are shown in Table 4 and are very similar. The positive correlations between frequency of condom use and the three Theory of Planned Behavior variables, that were statistically significant and ranged from small to large with ($r_+ = .228, p < 0.01$), ($r_+ = .497, p < 0.01$) and ($r_+ = .446, p < 0.01$) respectively. The correlations between frequency of condom use and expanded TPB constructs—condom use in last commercial sex and anticipated regret—, that were statistically significant and were large with ($r_+ = .680, p < 0.01$) and ($r_+ = .609, p < 0.01$) respectively. A small negative correlation existed between frequency of condom use and social learning variables with ($r_- = .159, p < 0.01$).

Therefore, the more the respondents had higher attitudes, subjective norms and perceived behavior control toward the use of condoms, the more they had used condoms in last sex and the greater they felt about anticipated regret, the more they were likely to have used condoms. There was a small correlation to the effect that the less they had on social learning variables, the more they had used condoms.

*Factors Predicting Engagement in Casual Sex and Condom Use*

The study has already identified engagement in casual sex as an area of high vulnerability, because effective campaigns among sex workers have increased the use of condoms when truckers engage in commercial sex. It is therefore important to examine what variables may predict who engages in casual sex, and for those who do, which
factors lead to safer sex practices. Two binary logistic regressions were performed to predict variables related to the respondents’ engagement in casual sex, and use of a condom during their last casual sex.

Table 5 Binary logistic regression analysis on engaging in casual sex (N = 348)

<table>
<thead>
<tr>
<th>Model</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>Monthly income</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>50,000-100,000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>110,000-200,000</td>
<td>2.310*</td>
<td>2.536*</td>
<td>2.499*</td>
<td>2.448*</td>
<td>2.465*</td>
</tr>
<tr>
<td></td>
<td>210,000 and above</td>
<td>2.111*</td>
<td>2.872*</td>
<td>3.255*</td>
<td>3.372*</td>
<td>3.350*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 2</td>
<td>Occupation</td>
<td>Driver</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Assistant</td>
<td>1.421</td>
<td>1.094</td>
<td>0.977</td>
<td>.994</td>
<td>1.026</td>
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</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
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<tbody>
<tr>
<td>Model 3</td>
<td>Age</td>
<td>25 years and younger</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>26-30 years</td>
<td>.641</td>
<td>.746</td>
<td>.737</td>
<td>.728</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31-35 years</td>
<td>.659</td>
<td>.839</td>
<td>.825</td>
<td>.835</td>
<td></td>
</tr>
<tr>
<td></td>
<td>36 years and older</td>
<td>.414*</td>
<td>.575</td>
<td>.583</td>
<td>.603</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 4</td>
<td>Marital status</td>
<td>Not married</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>.517*</td>
<td>.522*</td>
<td>.519*</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
<th>Odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 5</td>
<td>Education level</td>
<td>Up to primary school</td>
<td>1.000</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Middle school</td>
<td>1.512</td>
<td>1.606</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High school and above</td>
<td>1.455</td>
<td>1.552</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HIV knowledge</td>
<td>.922</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sex partners</td>
<td>1.038*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>.206***</td>
<td>.148***</td>
<td>.258*</td>
<td>.325*</td>
<td>.223*</td>
</tr>
</tbody>
</table>

*** = p < 0.001, ** = p < 0.01, * = p < 0.05

The first logistic regression (Table 5) was conducted on the full sample (N=348), with engaging in casual sex as the dependent variable and social demographic variables.
such as profession (driver or assistant), marital status (married or not married), age, monthly income and education level, HIV knowledge and the total number of sex partners in the past six months as independent variables.

In Model 1, monthly income was entered into the equation. There were three income groups. The lowest income group was used as the reference category. The higher the income, the more likely the respondents were to have engaged in casual sex. Respondents who belong to the higher income groups were statistically significant with (odds ratio = 2.310 and \( p < 0.05 \) and odds ratio = 2.111 and \( p < 0.05 \)) respectively. In Model 2, occupation was entered into the equation. The monthly income variable was controlled. The drivers were used as the reference group. In general, assistants were slightly more likely to have engaged in casual sex compared to the drivers but it was not statistically significant. Income variables were still significant.

This finding is also consistent with in-depth interview responses in which some truckers said that it could be less difficult for those among them who have more money to have casual sexual relationships.

In Model 3, age variables were entered into the equation. The monthly income and profession variables were controlled. Respondents were divided into four groups and the youngest were used as the reference group. The older the respondents, the less they were likely to have engaged in casual sex but only the oldest group was statistically significant with (odds ratio = .414 and \( p < 0.05 \)). Income variables still remain significant. In Model 4, marital status was entered into the equation. The monthly income, profession and age variables were controlled. The unmarried (single, divorced or
separated) was used as the reference group. Married respondents were less apt to have engaged in casual sex and it was statistically significant with (odds ratio = .517, \( p < 0.05 \)). Monthly income variables still remained statistically significant but age variables were no longer significant.

In Model 5, education level variables were entered into the equation. The monthly income, profession, age and marital status variables were controlled. Respondents who have had the least years of schooling (up to primary school) were used as the reference group. Respondents who had more schooling were more likely to have had casual sex but it was not statistically significant. Income and marital status variables were still significant as in the earlier equations. In Model 6, HIV knowledge and the total number of sex partners in the past six months were entered into the question. The monthly income, profession, age, marital status and education level variables were controlled. Only the number of partners was statistically significant. The increase in one unit of the total number of sex partners in the past six months contributed to increase by 4 percent the likelihood that a respondent had engaged in casual sex. Income and marital status variables were still significant as in the earlier equations.

These findings may be useful in identifying groups to be targeted for HIV prevention efforts related to casual sex: younger, unmarried men with higher income are more likely to engage in casual sex. To further investigate the applicability of the Theory of Planned Behavior in reducing risky behavior, a second binary logistic regression was done just with those who had participated in casual sex (N=98), using condom use during last casual sex as the dependent variable.
Table 6 Logistic regression analysis for condom use during last casual sex (N = 98)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Use of condoms (Count)</th>
<th>Odds ratio</th>
<th>95% C.I.</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driver</td>
<td>38/53</td>
<td>2.841</td>
<td>.340</td>
<td>23.727</td>
</tr>
<tr>
<td>Assistant</td>
<td>33/45</td>
<td>1.719</td>
<td>.330</td>
<td>8.942</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>38/49</td>
<td>1.425</td>
<td>.147</td>
<td>13.835</td>
</tr>
<tr>
<td>Not married</td>
<td>33/49</td>
<td>4.450</td>
<td>.035</td>
<td>5.600</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 years and less</td>
<td>19/26</td>
<td>4.204</td>
<td>.491</td>
<td>35.997</td>
</tr>
<tr>
<td>26-30 years</td>
<td>21/24</td>
<td>7.949</td>
<td>.324</td>
<td>195.026</td>
</tr>
<tr>
<td>31-35 years</td>
<td>15/20</td>
<td>44.762*</td>
<td>.007</td>
<td>2.937</td>
</tr>
<tr>
<td>36 years and older</td>
<td>16/28</td>
<td>40.702*</td>
<td>1.677</td>
<td>987.929</td>
</tr>
<tr>
<td><strong>Monthly income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50,000-130,000</td>
<td>8/15</td>
<td>4.0702*</td>
<td>.251</td>
<td>1.115</td>
</tr>
<tr>
<td>140,000-200,000</td>
<td>30/39</td>
<td>1.406</td>
<td>.174</td>
<td>10.806</td>
</tr>
<tr>
<td>210,000-270,000</td>
<td>6/10</td>
<td>4.450</td>
<td>.035</td>
<td>5.600</td>
</tr>
<tr>
<td>280,000 and above</td>
<td>27/34</td>
<td>44.762*</td>
<td>.007</td>
<td>2.937</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to primary school</td>
<td>1/6</td>
<td>1.036</td>
<td>.901</td>
<td>1.191</td>
</tr>
<tr>
<td>Middle school</td>
<td>32/48</td>
<td>1.032</td>
<td>.970</td>
<td>1.098</td>
</tr>
<tr>
<td>High school and above</td>
<td>38/44</td>
<td>40.702*</td>
<td>1.677</td>
<td>987.929</td>
</tr>
<tr>
<td>HIV knowledge</td>
<td>.529</td>
<td>.251</td>
<td>1.115</td>
<td>.094</td>
</tr>
<tr>
<td>Number of sex partners</td>
<td>1.036</td>
<td>.901</td>
<td>1.191</td>
<td>.623</td>
</tr>
<tr>
<td>Attitudes</td>
<td>1.032</td>
<td>.970</td>
<td>1.098</td>
<td>.319</td>
</tr>
<tr>
<td>Subjective norms</td>
<td>.912*</td>
<td>.844</td>
<td>.986</td>
<td>.020</td>
</tr>
<tr>
<td>Perceived Behavior Control</td>
<td>1.293*</td>
<td>1.028</td>
<td>1.626</td>
<td>.028</td>
</tr>
<tr>
<td>Anticipated regret</td>
<td>3.895*</td>
<td>1.005</td>
<td>15.094</td>
<td>.049</td>
</tr>
</tbody>
</table>

*** = p < 0.001, ** = p < 0.01, * = p < 0.05

This logistic regression (Table 6) was performed to predict respondents’ use of condoms during their last casual sex while controlling for social-demographic
characteristics, their HIV knowledge and the total number of sexual partners in the past six months in addition to expanded Theory of Planned Behavior variables—attitudes, subjective norms, perceived behavior control and anticipated regret. Of the 98 respondents who reported having engaged in casual sex, 71 (72%) said they had used condoms during their last sex while 56 (57%) reported having used condoms on last their five casual sexual encounters.

Among socio-demographic variables, only income and education level variables were statistically significant. The results showed that the highest income group and the respondents who have had most years of formal education were most likely to have used a condom during their last casual sex with (odds ratio = 44.762, CI 2.094-957.067, \( p < 0.05 \)) and (odds ratio = 40.702, CI 1.677-987.929, \( p < 0.05 \)) respectively. The number of sex partners in the past six months and the level of HIV knowledge were not able to predict condom use during last casual sex.

Among the expanded Theory of Planned Behavior constructs, the more the respondents had more positive Attitudes, greater Perceived Behavior Control and higher level of Anticipated Regret, the more they were likely to have used a condom during their last casual sex. All the above variables were statistically significant except for the Attitudes. Respondents with slightly less supportive norms were also more apt to have used a condom during their last casual sex.

These findings suggest that the Theory of Planned Behavior constructs may be useful in developing successful interventions to increase the regular use of condoms and thereby reduce the risk of HIV/AIDS in casual sex encounters. A similar logistic
A stepwise multiple regression was used to examine the predictive power of the Theory of Planned Behavior constructs. The present study does not add background information into the multiple regression equations as background variables indirectly influence behavior intention and consequently behavior by having an impact on the three constructs of Theory of Planned Behavior--behavioral, normative and control beliefs—according to (Ajzen and Albarracin 2007). The extent of HIV knowledge was obtained by adding up all the correct answers. Sources of HIV information were also summed to get total means of sources of information to be used as the variable for the total number of sources from which the respondents had had access to HIV information. For small sample sizes, there is more possibility for fluctuations to occur and consequently, R tends to be overestimated. For this reason, I will use “adjusted R^2” where adjustment has been made for over estimation in sample R (Tabachnick and Fidell 2007: 153).

Intention to use condoms was hierarchically regressed with TPB variables, past behavior, anticipated regret, four elements of social bond and some constructs from social cognitive theory (SCT) (Table 7). The objective was to find out how much TPB variables explained regarding condom use intention and how much percentage in increase could be found in each of the further stages of stepwise regression analysis. All the β were
observed to see which variable contributed most to the model even after all the other variables are controlled for.

Table 7 Five-step multiple regression to predict intentions

<table>
<thead>
<tr>
<th>Variables</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( \beta )</td>
<td>( \beta )</td>
<td>( \beta )</td>
<td>( \beta )</td>
</tr>
<tr>
<td>Attitude</td>
<td>0.13**</td>
<td>0.12**</td>
<td>0.08*</td>
<td>0.07</td>
<td>0.08*</td>
</tr>
<tr>
<td>Subjective norms</td>
<td>0.41***</td>
<td>0.33***</td>
<td>0.13***</td>
<td>0.12**</td>
<td>0.13*</td>
</tr>
<tr>
<td>PBC</td>
<td>0.27***</td>
<td>0.22 ***</td>
<td>0.05</td>
<td>0.05</td>
<td>0.06</td>
</tr>
<tr>
<td>Past behavior</td>
<td>0.27***</td>
<td>0.17***</td>
<td>0.17***</td>
<td>0.06***</td>
<td></td>
</tr>
<tr>
<td>Anticipated regret</td>
<td>0.55***</td>
<td>0.55***</td>
<td>0.56***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Elements of social bond

| Attachment                           | 0.03 | 0.04 |
| Commitment                           | 0.03 | 0.01 |
| Involvement                          | 0.07*| 0.07 |
| Belief                               | -0.02| -0.01|

Constructs from social cognitive theory

Observational learning

| Access to mass media | -0.03 |
| Influence of peers on engaging in commercial sex | 0.10* |

Adjusted \( R^2 \)           | 40.8% | 46.7% | 60.4% | 60.5% | 60.9% |
R\(^2\) change           | 40.8% | 5.9%  | 13.7% | 0.1%  | 0.4%  |
Model F               | 80.4  | 76.68 | 106.12| 59.81 | 45.82 |
Significance          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

*** = \( p < 0.001 \), ** = \( p < 0.01 \), * = \( p < 0.05 \)

All the TPB constructs (attitude, subjective norms and perceived behavior control) predicted the intention to use condoms. The strongest predictor among them was subjective norms with \( \beta = 0.41 \) and attitude was the weakest predictor on intention of condom use with \( \beta = 0.13 \). The first stage of the stepwise regression equation with TPB
constructs alone explained 40.8% of the variance for the intention of condom use. When past behavior was added to the regression equation, it increased the amount of variance explained by 5.9%.

Past behavior had a relatively strong and significant $\beta$ with 0.27 but subjective norms, although its predictive power slightly declined, continued to be the strongest contributor to the model with $\beta = 0.33$. In the next step, anticipated regret entered the regression adding significantly (13.7%) to the amount of variance explained by earlier variables alone. It was the strongest contributor ($\beta = 0.55$). The contribution of attitudes, subjective norms and anticipated regret dropped with $\beta = 0.08$, 0.13 and 0.17 respectively while perceived behavior control became no longer significant. The adding of elements of social bond and observational learning variables in the next two steps increased minimally in explaining variance to the model. Anticipated regret remained the strongest contributor with ($\beta = 0.55$) and ($\beta = 0.56$) in the fourth and fifth step regression equations respectively.

In step 4 stepwise regression, attitude was no longer significant but it was significant in step 5 again. There was not much change in significance and contribution from subjective norms and perceived behavior control in steps 4 and 5 models compared to step 3 model. The contribution of anticipated regret did not change in step 4 model compared to step 3 but it increased slightly to ($\beta = 0.56$) in step 5 model.

Among elements of social bond and social learning variables, there was a small contribution of involvement ($\beta = 0.07$), which is statistically significant, in step 4 of the
model and of influence of peers on engaging in commercial sex (β = 0.10) in step 5 of the model.

In the next stepwise regression (Table 8), frequency of condom use during commercial sex was used as the dependent variable to study behavior. Codes for reported frequency of condom use (1 to 5) were used as the variable for behavior, dependent variable, for the regression. In the model to predict behavior as regards consistent use of condoms during commercial sex, only two of the TPB constructs—subjective norms and perceived behavior control—were significant contributors accounting for 29.5% of the variance in behavior. Subjective norms was a more significant contributor (β = 0.35, p < 0.001).

The inclusion of intention in step 2 accounted for a further 8.8% of the variance while attitude was not a significant contributor to the model. The strongest predictor among them was intention with (β = 0.39, p < 0.001) and perceived behavior control was the weakest predictor (β = 0.14, p < 0.01) with the behavior. The second step of the stepwise regression equation with TPB constructs and intention to use condoms alone explained 38.3% of the variance for consistent condom use.

When past behavior was added to the regression equation in step 3, it increased the amount of variance explained significantly by 18.2%. In the next step, anticipated regret that entered into the regression added slightly (1.5%) to the amount of variance explained by earlier variables alone. It was a moderate contributor (β = 0.22, p < 0.001). Past behavior remained the strongest contributor with (β = 0.47, p < 0.001). None of three TPB variables were significant any more.
Table 8 Six-step multiple regression to predict behavior

<table>
<thead>
<tr>
<th>Variables</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$\beta$</td>
<td>$\beta$</td>
<td>$\beta$</td>
<td>$\beta$</td>
<td>$\beta$</td>
</tr>
<tr>
<td>Intention</td>
<td>0.39***</td>
<td>0.23***</td>
<td>0.13*</td>
<td>0.12*</td>
<td>0.13*</td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>0.095</td>
<td>0.04</td>
<td>0.05</td>
<td>0.04</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Subjective norms</td>
<td>0.345***</td>
<td>0.18**</td>
<td>0.10*</td>
<td>0.06</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>PBC</td>
<td>0.243***</td>
<td>0.14**</td>
<td>0.09*</td>
<td>0.04</td>
<td>0.05</td>
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<td>Past behavior</td>
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<td>0.49***</td>
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<tr>
<td>Anticipated regret</td>
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<td>0.22***</td>
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<td>Elements of social bond</td>
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<td>Attachment</td>
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<td>-0.03</td>
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<td>Commitment</td>
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<td>Constructs from social cognitive theory</td>
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<td>Access to mass media</td>
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<td>-0.04</td>
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<tr>
<td>Influence of peers on engaging in commercial sex</td>
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<tr>
<td>Adjusted $R^2$</td>
<td>29.5%</td>
<td>38.3%</td>
<td>56.5%</td>
<td>58.0%</td>
<td>58.6%</td>
<td>58.7%</td>
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<td>$R^2$ change</td>
<td>29.5%</td>
<td>8.8%</td>
<td>18.2%</td>
<td>1.5%</td>
<td>0.7%</td>
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<tr>
<td>Model F</td>
<td>49.20</td>
<td>54.63</td>
<td>90.45</td>
<td>80.42</td>
<td>50.02</td>
<td>41.88</td>
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<tr>
<td>Significance</td>
<td>0.000</td>
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*** = $p < 0.001$, ** = $p < 0.01$, * = $p < 0.05$

The adding of elements of social bond and observational learning variables in the next two steps did not increase much in percentage of the variance the model explained. The two sets of variables increased variance in behavior by 0.7% and 0.1% respectively in steps 5 and step 6 of the model. The contribution and significance of each of the earlier variables remained almost the same in respective models. Only belief variable from among elements of social bond contributed to some extent, though statistically significant, to the last two models with ($\beta = 0.08$, $p < 0.05$) and ($\beta = 0.09$, $p < 0.05$) respectively.
Thus the stepwise regressions confirm the predictive and explanatory value of the expanded Theory of Planned Behavior for both intentions and actual behavior of this sample of truckers in Myanmar. Condom use is fairly high but somewhat inconsistent in this sample, largely due to effective interventions with sex workers. These constructs suggest effective pathways for further interventions with the truckers themselves to increase safe sexual behavior.

In sum, quantitative analysis of data from this ample of truckers in Myanmar who reported engaging in commercial and/or casual sex during the past six months has identified key factors associated with engagement in casual sex, as well as factors affecting use of condoms in casual sex. It has further demonstrated the utility of concepts from the expanded Theory of Planned Behavior to explain both intentions to use condoms and the frequency of their actual use. Although the level of HIV knowledge among this population is already high, these constructs suggest avenues for effective intervention to reduce risky sexual behavior.
CHAPTER 7 Discussion and Conclusions

The study finds that many of the truckers, both drivers and assistants, engage in nonexclusive sex. More of them engage in commercial sex than casual sex for two reasons. One is that because of their mobility, it is more difficult for truckers and assistants to establish the type of relationship which is more than transactional. For some respondents, the other reason is that due to their commitment to their regular partners, they do not want to have any problem by having a ‘romantic relationship’ with other women. In the present study 346 out of 348 (99%) reported having had commercial sex while only 98 out of 348 (28%) reported having had casual sexual encounters in the past six months.

As for condom use, many of them, 283 out of 346 (81.79%) respondents, reported consistent condom use during commercial sex and the finding is similar to that of (PSI 2006) with 74.13% participants claiming consistent condom use in the last five incidents of sex during commercial relationships. According to sex workers, consistent condom use by clients was 97% in Mandalay and 83% in Yangon (BSS Myanmar 2008).

However, among the 98 respondents who reported having casual sex in the past six months, only half (53 or 54.08%) reported the use of condoms consistently. This clearly indicates that many of them were engaging in risky sexual behaviors and their decision not to use condoms was based on the assumption that their casual partners would not have other intimate partners or that the women looked safe to have unprotected sex with. This reason was made known to the researcher and the interviewers during informal
comments during administration of the structured questionnaire and in the qualitative in-depth interviews.

Their having multiple partners, median = 5 and mean = 6, in the past six months as reported in the structured questionnaires were also in line with responses from in-depth interviews in which the respondents said that they had commercial sex 1-2 times a month or once every 2-3 months. Their having multiple partners and inconsistent condom use exposed themselves and others in their sexual networks to sexually transmitted infections and HIV. But the present study showed that unlike some counterparts in certain parts of Africa (Mark 1999; Orubuloye et al. 1993) and Asia (Wong et al. 2007), few reported their peers having girlfriends or mistresses outside their marriage. Unlike their counterparts in Nigeria (Sunmola 2005), their common partners in nonexclusive sex were not petty traders but female sex workers.

Only a few out of 29 in-depth interviewees reported that they had encountered women petty traders who hitch-hiked on their trucks with their wares and who would assume the role of virtual wives of the drivers along the road. Respondents cited that better transportation in which more passenger buses ply between towns and cities and the introduction of reliable services for the movement of goods between towns as the main reasons for a decline in hitch-hiking petty traders. This could have contracted the size of sexual networks among the study population as unprotected sex is more likely to occur during those encounters. In this way, the extent of risk of their infection of sexually transmitted infections and HIV might have been reduced.
Although drug use does not appear to be an issue among the study population, only 28 (28.57%) out of 98 respondents and 133 out of 346 (38.44%) [Not shown in tables] reported that they were never or rarely drunk during casual and commercial sex encounters respectively. During the in-depth interviews, many respondents said that they drink alcohol with friends and have it before engaging in commercial sex. Although many of them mentioned that they make sure that they do not get too drunk so they will be sure to use condoms during commercial sexual encounters, this can be a cause of alarm in the prevention of HIV. Numerous studies done among different populations in various countries have shown that drunkenness inhibits the ability to make rational choices in general and to engage in safer sex in particular. A few studies conducted among the trucker population in Brazil, Thailand and the U.S. (Malta et al. 2006; Sawaangdee and Isarapakdee 1991; Stratford et al. 2000) and male respondents in Thailand (Belk et al. 1998; MacQueen et al. 1996; Vanlandingham et al. 1998) have revealed those findings.

Among the many reasons for the truck drivers and assistants to engage in premarital or extramarital sex is the fact that they are in liminal state, or being away from their normal social environment (Lippman et al. 2007) and thus they have the freedom to do things that they normally do not do. In that situation, they believe they are not under the control of social bonds, which regulate people’s behaviors. None of the truckers and assistants explicitly mentioned the existence of a subculture associated with their profession and the environment in which they operate. Although no one talked about having come to embrace a set of beliefs and values that stress freedom from societal
norms and gave emphasis on nonexclusive sex as described by Straford et al. (2000) or engaging in extramarital sex as a norm (Orubuloye 1993; Wong et al. 2007), there is a lifestyle that makes commercial or casual sex a common part of their behavioral routine at the truck terminals. Truckers do appear to have a subculture which encourages or is permissive of engaging in commercial or casual sex. Through in-depth interviews with the trucker populations, I have come to know that they do not have the particular kind of macho, sex-oriented group subculture that may be described in some other studies of truckers in other countries. However, their stories revealed that there is a trucker lifestyle that is quite different from the trucker’s own everyday life when they are home with their families, and that this lifestyle creates a situation conducive to commercial and casual sex.

The Myanmar trucker subculture is formed at the truck stop. It is centered around convivial leisure such as drinking alcohol, having tea or playing billiards. Drivers and assistants gather at teashops sipping tea in the morning and during day time, play billiards in the afternoon and drink liquor with friends in the late afternoon and in the evening. Casual attitudes towards sex, though not necessarily macho ones, form in this environment. For the truck drivers and assistants, they have high income, the sex is cheap, and the women are available. The environment in which they live makes it more likely that they will engage in nonexclusive sex.

The very fact that they are candid about their sexual activity reveals that they have a distinct perception about getting involved in casual or commercial sex. For the truck drivers and their assistants, buying sex and engaging in casual sex is simply part of their
life at the terminals and on the road when they are away from home. Through their revelation of what their life is like on the road, and what they actually do when they get to a terminal, and how they talk about their sexual activity and rationalize what they are doing, I have found that there is definitely a lifestyle that makes commercial or casual sex a very likely part of their behavioral routine at the truck terminals. Truckers in Myanmar do embrace a subculture in which they assume that engaging in commercial or casual sex is part of their lifestyle. But for most respondents, engaging in commercial sex does not seem to be a social act. The purchasing of sex at the terminals takes place in certain sections of the compounds, and those who wish to have sex with sex workers usually go to those places individually.

For men of some groups such as students or factory workers, migrant workers, military conscripts or northern males in Thailand, buying sex is a social act and these people go to brothels in groups (Belk et al. 1998; Ford and Chamrathrithirong 2007; MacQueen et al. 1996; Vanlandingham et al. 1998) and in such situations, instances of peer pressure to engage in commercial sex were often mentioned. But few respondents in the current study talked about buying sex as a group action. This could be for two reasons. For those who participated in the study, they usually have quick sex with girls who come to the terminal and therefore, their engagement in commercial sex constitutes more like an individual action. Another point is that the above-mentioned groups have to go to brothels or other entertainment places, which require more voice or power in striking a deal or solving a problem should it occur there. In the current study, only a few
respondents who were willing to spend more than others on commercial sex reported visiting brothels or KTV bars in groups.

Although none of the respondents specifically mentioned, another reason for the truck drivers and their assistants to buy sex is that it is cheap and easily available and they themselves are relatively well off. Sex workers come to the terminals or hitch-hike on their trucks and a sexual act costs only as little as 2,000-5,000 kyat ($2.50-6.25) while a bottle of 750-ml beer costs only a little less 1,500-2,000 kyat ($1.8-2.5). Therefore, the truckers may not have second thought about buying sex, especially a quick one, as they can satisfy their sexual desire, the strongest among the desires according to Buddhist literature. Only when the minimum wages are raised, will these girls tend to move to less risky and more decent jobs and until that is realized, the truckers will not spend their money and time on other forms of entertainment such as drinking liquor or visiting karaoke bars which ensure less risky behaviors.

Truckers engage in both commercial and casual sex. During commercial sexual encounters, female sex workers generally provide condoms and it is part of their service package. Sex workers are reached by organizations for them to practice safe sex. It can be assumed that condoms are used in commercial sex settings. However, one notable issue to consider are those truckers who also engage in casual (non-commercial) sex because they do not normally use condoms in those types of encounters. Compounding this problem, the sexual partners with whom the truckers have casual sex are more difficult to reach through HIV/AIDS related interventions because they exist outside of traditionally targeted communities. This is a cause of concern in the fight against HIV/AIDS because
truckers who engage in casual sex in an unsafe manner are more likely to either pass on their STI or HIV virus, or to be infected during those encounters. Truckers can then become vectors or the agents in the spread of STI or HIV to their regular sexual partners and, to the partners of their casual partners. In the present study, about a quarter of the respondents 96 out of 348 or (28 %) engaged both in commercial and casual sex in the past six months. These sub-populations should be specifically targeted by organizations working with high-risk groups on HIV/AIDS even among trucker populations so that their probability of acting as a bridge population in the spread of the HIV/AIDS epidemic is kept to a minimum. More condom sex in casual sex should also be encouraged by organizations working with this sub-population.

The absence of a macho type of subculture as regards engagement in nonexclusive sex suggests that the population take part in that kind of sex because the opportunity prevails: on the road they are all alone and at terminals only those who they do not care about are around. They have not come to adopt specific way of thinking about involvement in extramarital or premarital sex and therefore it could be assumed that they will forego their risky behavior of engaging in commercial sex once the opportunity no longer prevails or they encounter certain critical events that lead to their behavior change.

Although many of them engage in commercial sex, there are a few outliers too. These people usually are relatively old and they have become more committed to the well-being of their families. These people usually have to bear greater burden toward their families or they have definite plans about the future. But their peers do not consider them wayward people.
The second part of the study used quantitative methods with the structured questionnaire data. A binary logistic regression analysis revealed that respondents who had higher income and who had had more sexual partners in the past six months were more likely to have engaged in casual sex while those who were married were less apt to have engaged in casual sex. These findings deserve the attention of organizations working with truckers in the sense that they pay more attention to higher income earners and unmarried peers among the truckers so that these people practice safer sex during their casual sexual relationships.

Another binary logistic regression analysis showed that truckers who belong to the highest income group, who have had more years of formal education, who had higher perceived behavior control and who would be more upset about not having used condoms had more tendency to have used condoms during their last casual sex. The results suggest that organizations working with the population should focus more on truckers who have relatively low incomes, fewer years of schooling, lower perceived behavior control and less degree of anticipated regret. These organizations should focus more on promoting safer behaviors during casual sexual encounters among these groups.

Stepwise regressions were used to predict intention to use condoms and consistent condom use behavior among truck drivers and assistants in Myanmar. To the best of my knowledge this is the first study to examine the predictive power of the Theory of Planned Behavior related to condom use intention and behavior among a particular group in Myanmar. The study supports the use of the theory to predict condom use intention and behavior among truck drivers and assistants in Myanmar.
The three Theory of Planned Behavior variables alone explained 40.8% of the variance in respondents’ intention to use condoms (Table 7) and contributed 29.5% of the variance to predict consistent condom use behavior (Table 8) in the present study. Sandberg and Conner (2008) found Theory of Planned Behavior variables predicted 30% of the variance in intentions. Each of the Theory of Planned Behavior variables predicted both behavior intention and/or behavior itself as in (Cha et al. 2008; Bennett and Bozionelos 2000; Gu et al. 2009; Smith et al. 2007). Among the three, ‘subjective norms’ was the greatest predictor in both models. An education program that promotes condom use during commercial sex among the target population should place emphasis on bringing about changes in subjective norms of the group relative to two other variables although they are also significant.

Next, behavior intention was added to the model to predict behavior as step 2 (Table 8). Intention increased by 8.8% in variance to predict behavior after controlling for attitudes, subjective norms and perceived behavior control. When intention was entered into the model, thus expanding the Theory of Planned Behavior model to predict behavior, it became the greater predictor. Subjective norms and perceived behavior control still remain significant but no longer the attitude.

When past behavior was entered into the regression equations, thus further expanding Theory of Planned Behavior models, it also contributed significantly to both. The role of past behavior was the strongest among additions to the Theory of Planned Behavior as found in Smith et al. (2007). It was the strongest predictor in the model on behavior although it posed the second largest predictor in the model to predict behavior.
intention. All the three Theory of Planned Behavior variables remain significant after controlling for the effects of past behavior in the model to predict intention. The addition of anticipated regret to the models showed that it increased significantly in the percentage (13.7%) of the variance explained of intention (Table 7) and raised slightly (1.5%) of the variance that predicts behavior (Table 8). Abraham and Sheeran (2003) also found that anticipated regret acted as a moderator between intention and behavior and that it increased participants’ ability to put into action their exercise intentions into behavior when the Theory of Planned Behavior variables and the past behavior had been controlled.

The entry of the elements of social bond and constructs of social cognitive theory into the models did not increase much (less than 1%) in variances that explain of intention or behavior (Tables 7 and 8). Only involvement of the elements of social bonds contributed slightly ($\beta = 0.07, p < 0.05$) in step 4 of the model on intention (Table 7) and influence of peers on engaging in commercial sex predicted in the same manner ($\beta = 0.10, p < 0.05$) in step 5 of the model. In the regression to predict behavior (Table 8), only belief contributed slightly in the model in steps 5 and 6 with ($\beta = 0.08, p < 0.05$) and ($\beta = 0.09, p < 0.05$) respectively.

The Theory of Planned Behavior provides a framework to identify behavioral, normative, and control beliefs that have influence on behaviors and thus interventions to ensure changes in beliefs and values related to them are to be designed. Then they will have an effect on attitude, subjective norms and perceived control that bring about changes in intentions and behavior (Glanz et al. 2008: 76).
All the three variables of the Theory of Planned Behavior predict the use of condoms during commercial sex, but they may also extend to intentions and behavior in the context of casual sex. Therefore, it is advisable for organizations working with the population to make efforts for bringing about change in attitudes, subjective norms and perceived behavior control among the population for them to practice safer sex, during both commercial sex and casual sex. In-depth interview respondents revealed that sex workers generally provided condoms. The organizations should also make sure that sex workers have continuous supply of condoms through social marketing or giving them for free. Because one of the factors of perceived behavior control is about the level and confidence in their skills in the use of condoms, the organizations should have more programs to improve the skills of condom use among truckers and assistants so that they are more comfortable using them when they are not being provided and applied by a professional sex worker.

The very fact that 332 out of 346 (95%) used condoms during their last commercial sex suggested that the NGO interventions had already had impact on the sexual behavior of truckers. The prevention programs that involve both educating the men and the commercial sex workers have been effective.

Elements of social bond have been important in predicting deviant acts in many studies in the West among different populations and in different contexts but the present study shows that those variables play minimum role in explaining the respondents’ practice of safer sex during commercial sex, an act of deviance.
Elements of social bond have been important in predicting deviant acts in many studies in the West among different populations and in different contexts but the present study shows that those variables play minimum role in explaining the respondents’ practice of safer sex during commercial sex. The elements of social bond have to do with deterring people from engaging in deviant acts. Since the present study participants included only truckers who had been involved in casual and commercial sex in the past six months, it could have been the reason for the variables not to have been significant. A study with a broader sample of truckers is warranted to explore whether these four elements could help explain variations in engagement in nonexclusive sex by truckers and assistants in Myanmar.

Limitations of the study

The study does not touch on having sex between men. This study used face-to-face administration of a structured questionnaire by trained interviewers, in order to facilitate good response rate on questions regarding their non-exclusive sexual behavior in a heterosexual context. Although respondents were open in answering these questions, the study did not attempt to explore sex with men thought to be a more sensitive issue. If participants had been given privacy during the study through self-administered questionnaires they might have revealed their experiences of having sex with men, but there is a tradeoff in completion rates and the inability to follow up with ambiguous responses. However, Behavior Surveillance Survey (2003) reported that only 1% of men reported having sex with men. To the truck drivers and their assistants, it is not
embarrassing for a researcher to ask them whether they have sex with female sex workers but it would be quite embarrassing to ask them whether they have sex with a man.

Having sex between men is not punishable by law but the practice is a taboo among the study population. One thing is that female sex workers are available and their services, affordable to them. Due to stigma in the society, men are much more reluctant to talk about their being gay or bisexuals. Nevertheless, one respondent who completed the structured quantitative questionnaire specifically mentioned that he had had his first sex with his driver, when he was his assistant. Having sex between a driver and his helper (assistant) and the truckers having sex with other men may exist but it is not as common or a topic of discussion as findings from studies in Bangladesh (Gibney et al. 2003) and Pakistan (Agha 2002). In the context of Myanmar truckers, those sexual encounters are thought to be rare and they are not of a transactional nature.

The analysis has been done on self-reported data by the respondents, who could have given socially desirable responses, such as consistent condom use and not doing drugs. But utmost care was taken to make sure that they felt comfortable or less reluctant about expressing their sexual behavior and their other somewhat ‘deviant’ habits such as drug use. First, six male interviewers used in the study are in their 30s-40s, are well-trained and have good experiences in face-to-face interviews. They also belong to similar social classes with the respondents. Their training also emphasized being matter of fact about asking the questions and non-judgmental about responses. The use of men in the study should have minimized “social desirability” bias through the use of same-sex
interviewers, as was done in the survey of truck stand workers in Bangladesh (Alam et al. 2007).

Second, the respondents were assured of anonymity about their responses and confidentiality as to how the data would be used. Third, time and space were chosen at their convenience. Interviews took place when their trucks were being loaded or unloaded in which their vehicles were being take care of by other people and they were sitting alone chewing betel quid (pan) or smoking or chatting with friends to while away their time. Friends who agreed to take part in the survey were separated by interviewers, who filled out the questionnaire responses privately for each of them.

Given all these situations, it can be assumed that responses given by truckers were not socially desirable ones but were authentic, especially on their perceptions about condoms and the use of condoms. The reasons are that the truckers have been exposed to various HIV prevention programs in which the danger of unprotected sex was explained and were provided with means to protect them from STIs and HIV. The epidemic appears to be stabilizing now but Myanmar once nearly reached a state of generalized epidemic in which HIV prevalence among adult population was 1.99% and the number of people living with HIV totaled 510,000 in 2000 according to UNAIDS estimates (WHO 2001). Therefore, the respondents might have seen their friends and colleagues died of AIDS. This could also have discouraged the truckers from having unprotected sex, especially during their encounters with sex workers. Furthermore, most in-depth interview participants said that female sex workers provided condoms.
One aspect of the limitations of the study was that it was not able to apply randomized method in recruiting participants for the study in order to minimize sampling biases. But the recruiting process of this study should have not produced any form of bias as those who were found in the places where participants were recruited would not be restricted to any particular type of people associated with the degree of risk of sexually transmitted infections or HIV. Furthermore, the study took place in only two towns, Mandalay and Yangon, and therefore, the generalization of the findings should be made with care. Nevertheless, terminals from two cities were main domestic transport hubs, Yangon, for lower Myanmar and Mandalay, for central and upper Myanmar. These drivers and assistants reach all areas of the country. Their demographic characteristics, monthly earnings, attitudes and other variables that could have effect on sexual behaviors should not differ much than their counterparts in other truck terminals in the country. They could be representative of all truckers and assistants of the country in terms of condom use behavior intention and actual behavior during commercial sex.

Therefore, findings from this study can be of use for organizations which would like to design interventions to promote consistent condom use among truck drivers and assistants in Myanmar.
Appendix

General Background on Myanmar

Myanmar shares a common border with China on the north and northeast, with Laos and Thailand on the east and southeast, with Bangladesh and India on the west. It has a total land area of 261,228 square miles (667,000 square kilometers), extending 581 miles (936 kilometers) from east to west and 1,275 miles (2,051 kilometers) from north to south (Myoe 2009: 2). Administratively, it is divided into seven states and seven divisions. States and divisions are roughly equivalent to provinces in other countries. States/divisions are sub-divided into districts, and districts into townships. Administrative units are called “divisions” when the majority of the residents are Burmans, the majority race, while “states” are regions in which a specific minority group is the demographic majority. “States” are named after the ethnic groups that form the majority residents in the respective regions. Myanmar is an ethnically diverse nation. Broadly speaking, eight ethnic groups—Kachin, Kayin, Kayah, Chin, Burman, Mon, Rakhine and Shan—make up the nation. These major indigenous groups are sub-divided into 135 recognized ethnic groups.

The population of Myanmar in 2008-2009 was estimated at 58.38 million with a growth rate of 1.52 percent. About 70 percent of the population resides in rural areas whereas the rest are urban residents (Statistical Year Book 2009). In 2008, mean density for the whole country is 86 persons per square kilometers and it ranges from 666 persons per square kilometers in Yangon Division, the business capital, to 15 persons per square kilometers in Chin State, the northwestern part of the country near the border of India.
(where Chin people make up the majority). Myanmar has a young population as 0-14 year-olds make up about one-third (32.32 percent) of the population while people over 60 year-olds represent only 8.79 percent of the total population. Retirement age for public servants is 60 years. Those aged 65 years and above account for 5.9 percent of the whole population. The sex ratio between male and female is 98.91 and 100 (Myanmar Health Statistics 2010).

**Health care in Myanmar**

The country experienced a drastic change in the health care system following the 1988 military coup as the government retreated from the socialist policies instituted after the approval of the 1973 Constitution, introduced the market-oriented economic system, and withdrew government subsidies significantly in many sectors including public health care. Since then, a private-for-profit health care system has grown significantly and has been fulfilling the health needs of the rich and the nouveau riche, while at the same time the majority of the people have a hard time in seeking health care. In the current post-socialist system average people are able to receive free medical advice at public health facilities, but have to pay the majority of costs for diagnosis and medicines from their own pockets in many cases. The country’s health infrastructure remains backward especially when compared to Thailand, a much more economically developed neighbor. Yet some health indicators are positive for example the ratios of physicians per population in Burma are comparable with Thailand. An overriding setback of the health
care system in Myanmar has been limited allocation of the state budget on health in the post-1988 era.

According to WHO World Health Statistics (2010), total health expenditures in Myanmar came up to 2.02% of the gross domestic product for the year 2009 and the general government’s spending on health as percentage of total health expenditures represents 9.72 percent. Total health expenditure and general government health expenditure per capita in purchasing power parity dollars are 23 and 2 respectively in 2009 (ESCAP 2011).

In Myanmar, there were around 846 public hospitals in 2009. The government built 185 new public hospitals over a span of 20 years between 1990 and 2009. Myanmar has approximately 39,060 hospital beds at public facilities. On average, there are 67 hospital beds per 100,000 people at public health facilities. There are 23,709 total doctors: 9,593 are in the public sector and the rest are in the private sector (Statistical Year Book 2009 and Myanmar Health Statistics 2010). The number of physicians per 1,000 people is 0.5 in 2008. It is slightly better compared with 0.3 physicians per 1,000 people in Thailand (2004) and 0.2 physicians per 1,000 in Cambodia (2008) (ESCAP 2011). The 2006 report of Ministry of Health indicates drastic health manpower development in the country from 1988 to 2006.

The number of doctors increased by more than 50% from 12,668 to 18,725 while that of nurses climbed by a factor of almost 2.5, from 8,349 to 19,922. The growth in the number of midwives was also significant: it increased two fold from 8,121 to 16,699. In addition to allopathic medicine, there are also 14 traditional medicine hospitals run by the
government to supplement numerous traditional medicine clinics operated by individuals across the country (Myanmar Health Care System 2011). The Ministry of Health takes charge of services in the prevention, promotion, cure and rehabilitation at all levels through seven departments and hospitals and clinics and other health centers at various levels (WHO 2008).

The departments are Department of Health Planning, Department of Health, Department of Medical Science, Department of Medical Research (Lower Myanmar), Department of Medical Research (Upper Myanmar) and Department of Traditional Medicine. Each of the departments is headed by a director-general (Health Infrastructure 2011).

The Department of Medical Sciences is responsible for turning out health personnel through its four medical colleges, two nursing colleges and two colleges of medical technology, two institutions on pharmacy, two dental medicine faculties and 43 nursing and midwifery training schools (NAP 2006). The University of Traditional Medicine was established in 2001 and the University of Public Health founded in 2007. Basic training on indigenous medicine is now included in the curriculum for undergraduate courses at medical colleges (WHO 2008). Traditional medical practitioners are trained at public traditional medical institutions. With the establishment of public traditional medical institutions, the quality of traditional medical practitioners is standardized and their licenses, regulated. However, the real impact to the lives of the people as regards their health care was the reforms introduced in the public health sector by the recent government soon after its assumption of power after 1988.
There were great changes in the quality of health and medical services and people’s accessibility to them when the government introduced the market-oriented economic system in the country in 1989. These changes heavily cut the state’s contributions to public health services and allowed private entrepreneurs to open up private-for-profit health facilities. With the introduction of the new economy, the sector has seen immense growth as many people who gained wealth in the changing economic environment sought to purchase quality health care, a demand which can hardly be fulfilled by the public sector. A few private hospitals and clinics which are equipped with modern equipment and laboratories now play a great role in providing health services. The private-for-profit sector health care currently accounts for an estimated 70-80% of ambulatory care but their contribution to public health programs is still very limited (WHO 2008).

In contrast with the private-for-profit health sector, provision of public health services has shrunk and there are quite a few instances in which medicines, medical supplies and medical equipment face shortage at public facilities. The Myanmar government’s allocation for public health is lower compared to two other countries that are also facing a similarly serious HIV/AIDS epidemic. The governments of Myanmar, Cambodia and Thailand spent 2.0%, 5.8% and 3.4% on health from their respective gross domestic product in the year 2009. The absolute values of per capita expenditure in terms of purchasing power parity were $23, $119 and $345 respectively in the same year (ESCAP 2011).
Due to the government’s limited funding, the public health sector in Myanmar suffers a setback: its infrastructure cannot be continually developed, maintained or updated. Its personnel have also been chronically under-resourced as well and hospitals often face shortage of commodities and medicines (NAP 2006). One of the main reasons may be that the government has been undergoing annual budget deficits (Turnell 2011) due to the implementation of numerous public infrastructure projects in combination with the minimal annual revenues it receives.

Public health centers, especially in the periphery of the country, are under-staffed and the workers are under-paid. Overwork and relatively low remuneration are the two main reasons that sometimes make personnel at public health facilities lose interest in rendering their services. Health personnel in the public sector therefore practice their profession in the private sector to supplement their income. Due to these conditions, there has been lack of motivation for the fresh medical graduates to join public health service and those who are already in it are less inclined to remain for a long time. For these reasons, not many fresh graduates are willing to join the public health sector as many could make more money as private general practitioners, but for the latter, their turnover is not high. Because the country can at present turn out more doctors than it requires in the public health sector, the old requirement of medical graduates having to serve the government for three years is no longer mandatory.

For more experienced public doctors and those with advanced degrees from the West, the high social status they enjoy as government officials give them competitive advantage over private professionals in the number of patients they can serve. Some of
the advantages their patients receive are having access to advanced diagnostic equipment and certain efficacious imported medicines at public facilities usually at much cheaper rates compared to private facilities and favorable treatment from junior staff at the hospitals.

Another factor that hinders the improvement of the health status of people in the country is the absence of a universal health insurance scheme. The majority of the people are not covered by a health insurance system. Only people working at some government departments and international organizations are entitled to one form of health insurance scheme or another. Employees at work establishments in both public and private sectors with more than five workers are eligible for the government’s social security system. Therefore, when it comes to health services, it is often the case that the private sector’s share has to be exclusively funded through ‘out-of-pocket’ payments and this imposes a great burden on less fortunate households (NAP 2006). This out-of-pocket payment has become the norms even in public hospitals since the introduction of the market-oriented economy.

In order to help those in need, certain public hospitals have been urged to raise and establish trust funds whose annual interests are used to support the less advantaged in accessing necessary medicinal support and diagnostic services where user charges are mandatory. The total amount of such fund established in hospitals throughout the country was recorded at 5,494 million kyat ($7.14 million) in October 2009 (Myanmar Health Statistics 2010). Despite all these disadvantages in the public health sector, the general health status of Myanmar people is not much lower compared to that of its more
economically advanced neighboring countries. One reason may be due the existence of traditional medicine which fulfils the health needs of the people.

Traditional medicine plays an important role in the country’s health system. For many of urban dwellers, general practitioners are their first contact point, but for rural residents it is a norm for them to go to a midwife, who is a primary health care giver in most rural areas, or a traditional medical practitioner depending on the type of illness, preference of individuals or availability of health practitioners. Midwives being deployed at the peripheral level interact with the communities to deliver essential primary health care services such as vaccinations, antenatal care, child birth, directly observed treatment short course (DOTS) and home care. These midwives also act as an initial point of referral of sick people to secondary and tertiary medical treatment (NAP 2006).

In spite of many adversities, the general health standards of people have improved compared with 20 years ago. Female’s life expectancy at birth rose from 60.2 years in 1990 to 65.0 years in 2009 while male’s life expectancy at birth increased from 57.5 years to 62.1 years in the same period. In terms of certain vital health statistics, the proportion of people aged 60 among the population rose from 2.61% in 1991 to 8.79% in 2009. The infant mortality ratio fell slightly from 47 per 1,000 live births in 1990 to 43.4 in 2007 (Myanmar Health Statistics 2010). Maternal mortality ratio per 100,000 live births dropped from 420 in 1990 to 240 in 2008 while births attended by skilled health personnel rose from 46% in 1990 to 64% in 2007 (ESCAP 2011).

These successes were attributable to strong political commitment of the government, efficient implementation of the programs by health personnel, especially
from the public health sector, and earnest cooperation from UN agencies, international non-governmental organizations and local non-governmental organizations which have undertaken their interventions mostly through external funding. The fact that the government has developed and implemented successive national health plans and specific plans under them with the collaboration of its partners may also have been conducive to improved general health status of the people. Recently, the country has implemented its health programs under National Health Plan 2006-2010 with the health system goals of raising average levels and reducing inequalities; improving responsiveness to people’s expectations and ensuring fairness in the distribution of financial contributions (WHO 2008).

The government continued to face sanctions from advanced democracies until very recently, but the bulk of funding still comes from external sources for many of its major health programs. Nevertheless, greater collaboration between different partners and increased investment of international sources brought about successful implementation of interventions. In the field of HIV programs, international and national organizations were of the opinion that despite hindrances caused by the red-tape system in the government, travel restrictions on expatriates and other issues related to public policy in executing programs, their interventions have paid off (Global Fund Round 9 and Williams et al. 2008). Two important reasons for the successes of health programs in Myanmar could have been the efficiency of health personnel from both public and non-governmental sectors and the relative lack of resources that goes unaccounted for in the course of delivering health services to the target population (ICG 2004). The report specifically
described that most of their informants found no evidence that official development assistance funds had been siphoned off more compared to any other country in the region but they even believed it was significantly less. In spite of the successes achieved in this particular sphere of HIV/AIDS, Myanmar still faces serious challenges in terms of the HIV epidemic.
Appendix 2

(i) Semi-structured questions for in-depth interviews with truck drivers and assistants

1. Please tell us your age and the number of years you have been in trucking business.

2. Please tell us something about the nature of your work. Which highway routes do you take? How many days you are on travel on each trip? How many days of rest do you have between one trip and another and how many months on average you are at home?

3. Please tell us something about the nature of work during your travel. What are the constraints in your work? What kind of difficulties do you sometimes meet and how do you solve them?

4. How do you describe the nature of cooperation between the driver and the assistant? Does the truck assistant play a very important role? How and why?

5. How do you usually recruit drivers and truck assistants? Through how many ways can a person become a driver or an assistant? Among them who form the majority? What kind of skills, knowledge or any other aspect do you expect from a driver or an assistant?

6. Please tell us something about your family life. How often do you communicate with your family? How often do you have a chance to have meals with them? Do you carry out leisure activities with your family?

7. What kind of hobby do you have or what kind of leisure activities do you carry out? (watching TV, doing sport, reading newspapers/journals)

8. How often can you do them? How long can you spend on it each time?

9. Do you have a chance to engage in communal or religious activities? If ‘yes’ what are they and how often can you do them?

10. Now I would like to ask you something about the leisure activities some of you engage in with your peers. What kind of leisure activities do you carry out with your peers? How often do you do that?

11. Could you tell us something about casual sex experience some of you come across? Please tell us who they are, when you encounter these women and why they are doing this.
12. Now I would like to ask you something about your peers’ use of commercial sex. 
Please tell us something about commercial sex some of you engage in.

13. What do you think are the main reasons for your peers to buy sex?

14. Where do you think they meet these women and what do you think is their sexual 
behavior in dealing with these women? [Do you usually use condoms?]

15. Do you go to commercial sex establishments in groups or by yourself? If you go 
there in groups, how?

16. Do your peers recount sexual experiences with one another? When do they 
usually do that?

17. How much do you allow your casual or commercial sex partner talk about the use 
of a condom? If they ask you to use a condom, do you think you will comply with it?

18. Do you usually introduce sexual experience to your new recruits through casual or 
commercial sex? If ‘yes’ how and why?

19. What is your perception about HIV/AIDS? Do you think you are at HIV risk and 
that you should be taking every care not to get infected with it? Why, why not?

20. I would like to ask you your opinions about STI/HIV prevention message. Who 
do you think an agency should use to pass on those messages? How can they do 
that? What should be the messages?

21. What is your opinion about an organization recruiting some of you as peer 
educators in their STI/HIV prevention programs? Why?
Appendix 2

(ii) Structured questionnaire for one-to-one interviews with truck drivers and assistants

HIV/AIDS knowledge and sexual behaviors of truck drivers in Myanmar
(Questionnaire for One-to-one Survey)
Myanmar Survey Research

<table>
<thead>
<tr>
<th>Interviewed</th>
<th>Interviewer</th>
<th>Quality Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Day</td>
<td>Initial &amp; No.</td>
</tr>
<tr>
<td>Monday</td>
<td>1</td>
<td>___________________</td>
</tr>
<tr>
<td>Tuesday</td>
<td>2</td>
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<td>Wednesday</td>
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<td>Thursday</td>
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<td>Friday</td>
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<td>___________________</td>
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<tr>
<td>Saturday</td>
<td>6</td>
<td>___________________</td>
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<tr>
<td>Sunday</td>
<td>7</td>
<td>___________________</td>
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</tbody>
</table>

Greetings

I am ____________________.

We are conducting a social survey on HIV/AIDS knowledge and sexual behaviors of truck drivers in Myanmar.

We would be very grateful if you could give some of your time to answer our questions.

The study is conducted to develop a health intervention by non-government organizations to prevent HIV/AIDS among truck drivers and their assistants in Myanmar and will also be used in a doctoral dissertation at the University of Hawaii by San Tun Aung.

Your participation will be anonymous and your responses will be confidential.

Thank you.
## A. Socio-Demographic Characteristics

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>A1. How old are you? (completed years)</td>
<td>__________ years</td>
</tr>
</tbody>
</table>
| A2. What is your marital status?                                         | 1. Single  
2. Married  
3. Separated  
4. Divorced  
5. Widowed  |
| A3. How many years of schooling did you have?                            | 1. Illiterate  
2. Literate  
3. (Monastic) Primary school  
4. Middle school (lower secondary school)  
5. High school (higher secondary school)  
6. College education  
7. University/college graduate |
| A4. What is your occupation?                                             | 1. Truck driver  
2. Truck conductor/assistant  
3. Bus driver  
4. Bus conductor  
5. Others (please specify)  |
| (For those who belong to 2 to 5 go to A6)                                |                                                                         |
| A5. If you are a driver, what type are you?                              | 1. Driver/owner  
2. Work as a family basis  
3. Work on contract basis  
4. Work on salary basis  
5. Others (please specify)  |
| (For those who belong to 5 skip to A9)                                   |                                                                         |
| A6. How did you get this job?                                            | 1. My family business  
2. Through family/friend contact  
3. Got the job as a driver  
4. Began as an apprentice  
5. Got as an assistant/conductor  
6. Other (specify)               |
| (For those who belong to 5 go to A9)                                     |                                                                         |
| A7. How long have you been in trucking industry? (Number of years)       | __________ years                                                       |
| A8. How long does your round trip take on average?                       | 1. __________ days or  
2. __________ months                                                      |
| A9. How many weeks per month do you sleep at home? (1 to 4)              | __________ weeks                                                       |
| A10. In a year, how many months are you at home on average? (0 to 12 months) | __________ months                                                      |
| A11. What is your monthly average income?                                | __________ kyat per month                                              |
| A12. What is your religion?                                              | 1. Buddhism  
2. Christian  
3. Hindu  
4. Islam  
5. Spirit worship  
6. No religion  
7. Other                       |
**B. HIV/AIDS KNOWLEDGE AND PERCEPTIONS ABOUT THE DISEASE**

B1. Have you ever heard of HIV?
- 1. Yes
- 2. No

B2. From where did you hear about it? (Multiple answers)
- 1. Public health staff
- 2. NGO staff/volunteers
- 3. Friends/relatives
- 4. Colleagues (co-workers)
- 5. Pamphlets, magazines (printed materials)
- 6. TV/Radio/Video

B3. Do you believe one can get infected with STI/HIV through a single unsafe (with no condom) sexual act with an STI/HIV-positive person?
- 1. I believe he can get infected
- 2. I believe he cannot get infected
- 3. I don’t know/I’m not sure

B4. Do you believe one cannot get infected with STI/HIV if one ejaculates outside the organ of a partner?
- 1. I believe he can get infected
- 2. I believe he cannot get infected
- 3. I don’t know/I’m not sure

B5. Do you believe one cannot get infected with STI/HIV if one washes oneself after sex?
- 1. I believe he can get infected
- 2. I believe he cannot get infected
- 3. I don’t know/I’m not sure

B6. Do you believe that a healthy-looking man or a pretty woman with a beautiful physique can have HIV?
- 1. I believe he/she can be infected
- 2. I believe he/she won’t be infected
- 3. I don’t know/I’m not sure

B7. Do you believe that a person could be infected with HIV if he is bitten by a mosquito that has taken blood from another person who is HIV-positive?
- 1. I believe he will be infected
- 2. I believe he won’t be infected
- 3. I don’t know/I’m not sure

B8. Do you believe that a person will be infected with HIV if he shares a meal with another person who is HIV-positive?
- 1. I believe he will be infected
- 2. I believe he won’t be infected
- 3. I don’t know/I’m not sure

B9. Do you believe you can take care of an HIV-positive family member?
- 1. I believe I can
- 2. I believe I can’t
- 3. I don’t know/I’m not sure

B10. Do you believe that you can work with an HIV-positive person/colleague?
- 1. I believe I can
- 2. I believe I can’t
- 3. I don’t know/I’m not sure

B11. How do you position yourself on the risk of getting infected with HIV?
- 1. I am HIV-positive
- 2. High risk
- 3. Medium risk
- 4. Low risk
- 5. No risk at all
### C. SEXUAL BEHAVIOR

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1. When did you have your first sexual encounters? (complete years)</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>C2. Who was your first partner?</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>1. wife</td>
<td></td>
</tr>
<tr>
<td>2. girlfriend</td>
<td></td>
</tr>
<tr>
<td>3. casual partner</td>
<td></td>
</tr>
<tr>
<td>4. commercial sex worker</td>
<td></td>
</tr>
<tr>
<td>5. other (specify) ……………………….</td>
<td></td>
</tr>
</tbody>
</table>

**Casual sex in the past six months**

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>C3. In the past six months, did you have casual sex?</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>1. Yes</td>
<td></td>
</tr>
<tr>
<td>2. No (If answer is ‘no’ go to C8)</td>
<td></td>
</tr>
<tr>
<td>3. Don’t know/don’t want to answer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4. If your answer is ‘yes,’ how often do you use condoms in those encounters?</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>1. never</td>
<td></td>
</tr>
<tr>
<td>2. rarely</td>
<td></td>
</tr>
<tr>
<td>3. sometimes</td>
<td></td>
</tr>
<tr>
<td>4. often</td>
<td></td>
</tr>
<tr>
<td>5. always</td>
<td></td>
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<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>C5. Did you use a condom during the last time when you had casual sex in the past six months?</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>1. Yes</td>
<td></td>
</tr>
<tr>
<td>2. No</td>
<td></td>
</tr>
<tr>
<td>3. Don’t know/don’t want to answer</td>
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</tbody>
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<thead>
<tr>
<th>Question</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>C6. In the past six months, how many times did you use a condom in the last five times you had casual sex?</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>1. once</td>
<td></td>
</tr>
<tr>
<td>2. twice</td>
<td></td>
</tr>
<tr>
<td>3. three times</td>
<td></td>
</tr>
<tr>
<td>4. four times</td>
<td></td>
</tr>
<tr>
<td>5. all five times</td>
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</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>C7. How often were you drunk or on drugs when you had sex with someone who is not your wife, girlfriend or commercial sex worker in the past six months?</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>1. never</td>
<td></td>
</tr>
<tr>
<td>2. rarely</td>
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</tr>
<tr>
<td>3. sometimes</td>
<td></td>
</tr>
<tr>
<td>4. often</td>
<td></td>
</tr>
<tr>
<td>5. always</td>
<td></td>
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</tbody>
</table>

**Commercial sex in the past six months**

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>C8. Did you have sex with a commercial sex worker in the past six months?</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>1. Yes</td>
<td></td>
</tr>
<tr>
<td>2. No (If answer is ‘no’ go to C14)</td>
<td></td>
</tr>
<tr>
<td>3. Don’t know/don’t want to answer</td>
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<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>C9. If your answer is ‘yes,’ how often do you use condoms in those encounters?</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>1. never</td>
<td></td>
</tr>
<tr>
<td>2. rarely</td>
<td></td>
</tr>
<tr>
<td>3. sometimes</td>
<td></td>
</tr>
<tr>
<td>4. often</td>
<td></td>
</tr>
<tr>
<td>5. always</td>
<td></td>
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<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>C10. Did you use a condom during the last time when you had sex with a commercial sex worker in the past six months?</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>1. Yes</td>
<td></td>
</tr>
<tr>
<td>2. No</td>
<td></td>
</tr>
<tr>
<td>3. Don’t know/don’t want to answer</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>C11. How many times did you use condoms during your last five commercial sex encounters?</td>
<td>□ □ □ □ □</td>
</tr>
<tr>
<td>1. once</td>
<td></td>
</tr>
<tr>
<td>2. twice</td>
<td></td>
</tr>
<tr>
<td>3. three times</td>
<td></td>
</tr>
<tr>
<td>4. four times</td>
<td></td>
</tr>
<tr>
<td>5. all five times</td>
<td></td>
</tr>
</tbody>
</table>

1 Casual sex –Sex with someone who is not your wife, girlfriend or commercial sex worker in the past six months

165
C12. How often were you drunk or on drugs when you had sex with a commercial sex worker in the past six months?
1. never
2. rarely
3. sometimes
4. often
5. always

C13. What are the main reasons for you to have sex with a commercial sex worker?
(multiple answers)
1. To relieve stress
2. To respond to boredom
3. To respond to loneliness
4. To enjoy freedom
5. To seek pleasure
6. To show one’s masculinity
7. Give in to peer pressure
8. Others …………………

C14. Who do you discuss matters relating to your casual or commercial sex experiences with? (Multiple answers)
1. with co-worker (driver/conductor)
2. with friend
3. with nobody
4. with others (specify) …………………

C15. Who do you discuss matters relating to your marital affairs or sex with regular partners with?
(multiple answers)
1. with co-worker (driver/conductor)
2. with friend
3. with nobody
4. with others (specify) …………………

C16. How many sex partners have you had in the past six months?
………………

D. HIV BLOOD TEST, SEXUALLY TRANSMITTED INFECTION (STI) SYMPTOMS AND TREATMENT RECEIVED

D1. Have you ever had blood test for HIV or STI?
1. Yes
2. No
3. Don’t know/don’t want to answer

D2. Have you ever had STI symptoms?
1. Yes
2. No
3. Don’t know/don’t want to answer

D3. What are they?
1. Lower abdominal pain
2. Genital discharge
3. Foul-smelling discharge
4. Burning/pain during urination
5. Swellings in groin area
6. Itching/Reddening
7. Warts
8. Skin rashes

D4. What kind of treatment did you undergo?
1. I went to a hospital/clinic
2. I just bought medicines from stores
3. I used herbs and received treatment from indigenous medical practitioner
4. Others …………………
### E. ELEMENTS OF SOCIAL BOND

<table>
<thead>
<tr>
<th>E1. How often do you communicate with your family?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Once a week</td>
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</table>

<table>
<thead>
<tr>
<th>E2. How often do you have meals with your family?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Once a week</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>E3. I share things/my experiences with my family</th>
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<table>
<thead>
<tr>
<th>E4. I enjoy living with my wife/girlfriend</th>
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</thead>
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<table>
<thead>
<tr>
<th>E5. I enjoy living with my children</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>E6. I have a chance to participate in community/religious affairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. never</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E7. How long do you spend on average at work each day?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>E8. What kind of plans do you have for the future</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have no plans</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E9. What do you do during your leisure time? (multiple answers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Various activities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E10. On average, how long do you spend doing those things per week?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. One activity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E11. How often do you have a chance to spend your leisure time with your family members?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Once a week</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E12. How often do you visit a pagoda or monastery?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Once a week</td>
</tr>
</tbody>
</table>

1.67
E13. How often do you listen to Buddhist sermons?
1. Once a week
2. Once a month
3. Once every two-three months
4. Once every six months
5. Rarer than that

E14. How often do you engage in religious discussions?
1. Once a week
2. Once a month
3. Once every two-three months
4. Once every six months
5. Rarer than that

F. EXPANDED THEORY OF PLANNED BEHAVIOR CONSTRUCTS

**Intention**

<table>
<thead>
<tr>
<th>F1. If I were going to engage in commercial sex next month I would use condoms.</th>
<th>F2. If I were going to engage in commercial sex in the future I would use condoms.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Extremely unlikely</td>
<td>1. Extremely unlikely</td>
</tr>
<tr>
<td>2. Fairly unlikely</td>
<td>2. Fairly unlikely</td>
</tr>
<tr>
<td>3. Neither likely or unlikely</td>
<td>3. Neither likely or unlikely</td>
</tr>
<tr>
<td>4. Fairly likely</td>
<td>4. Fairly likely</td>
</tr>
<tr>
<td>5. Extremely likely</td>
<td>5. Extremely</td>
</tr>
</tbody>
</table>

**Attitude**

<table>
<thead>
<tr>
<th>F3. I think using a condom ruins the natural sex act.</th>
<th>F4. The ruining of sex act is</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. totally disagree</td>
<td>1. Extremely bad</td>
</tr>
<tr>
<td>2. fairly disagree</td>
<td>2. Fairly bad</td>
</tr>
<tr>
<td>3. Neither disagree nor agree</td>
<td>3. Neither good or bad</td>
</tr>
<tr>
<td>4. Fairly agree</td>
<td>4. Not that bad</td>
</tr>
<tr>
<td>5. totally agree</td>
<td>5. Not bad at all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F5. I think using a condom reduces pleasure.</th>
<th>F6. The reduction in sexual pleasure is</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. totally disagree</td>
<td>1. Extremely bad</td>
</tr>
<tr>
<td>2. fairly disagree</td>
<td>2. Fairly bad</td>
</tr>
<tr>
<td>3. Neither disagree nor agree</td>
<td>3. Neither good or bad</td>
</tr>
<tr>
<td>4. Fairly agree</td>
<td>4. Not that bad</td>
</tr>
<tr>
<td>5. totally agree</td>
<td>5. Not bad at all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F7. I don't like condoms because I had negative experiences with them.</th>
<th>F8. The negative experiences with condoms were</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. totally disagree</td>
<td>1. Extremely bad</td>
</tr>
<tr>
<td>2. fairly disagree</td>
<td>2. Fairly bad</td>
</tr>
<tr>
<td>3. Neither disagree nor agree</td>
<td>3. Neither good or bad</td>
</tr>
<tr>
<td>4. Fairly agree</td>
<td>4. Not that bad</td>
</tr>
<tr>
<td>5. totally agree</td>
<td>5. Not bad at all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F9. Condoms protect us from STI</th>
<th>F10. Protecting oneself from STI is</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. totally disagree</td>
<td>1. Not important at all</td>
</tr>
<tr>
<td>2. fairly disagree</td>
<td>2. Not that important</td>
</tr>
<tr>
<td>3. Neither disagree nor agree</td>
<td>3. Neither important nor unimportant</td>
</tr>
<tr>
<td>4. Fairly agree</td>
<td>4. Fairly important</td>
</tr>
<tr>
<td>5. totally agree</td>
<td>5. Extremely important</td>
</tr>
<tr>
<td>F11. Condoms protect us from HIV</td>
<td>1. totally disagree</td>
</tr>
<tr>
<td>2. fairly disagree</td>
<td></td>
</tr>
<tr>
<td>3. Neither disagree nor agree</td>
<td></td>
</tr>
<tr>
<td>4. Fairly agree</td>
<td></td>
</tr>
<tr>
<td>5. totally agree</td>
<td></td>
</tr>
</tbody>
</table>

| F12. Protecting oneself from HIV is |
| 1. Not important at all |
| 2. Not that important |
| 3. Neither important nor unimportant |
| 4. Fairly important |
| 5. Extremely important |

| F13. I get as much pleasure with a condom as without condoms. |
| 1. totally disagree |
| 2. fairly disagree |
| 3. Neither disagree nor agree |
| 4. Fairly agree |
| 5. totally agree |

| F14. Getting as much pleasure with condoms is |
| 1. Extremely unlikely |
| 2. Fairly unlikely |
| 3. Neither likely or unlikely |
| 4. Fairly likely |
| 5. Extremely likely |

| F15. I would always have a condom with me to have commercial sex |
| 1. totally disagree |
| 2. fairly disagree |
| 3. Neither disagree nor agree |
| 4. Fairly agree |
| 5. totally agree |

| F16. Having a condom with me to have commercial sex is |
| 1. Extremely unlikely |
| 2. Fairly unlikely |
| 3. Neither likely or unlikely |
| 4. Fairly likely |
| 5. Extremely likely |

| F17. Partners encourage me to use condoms |
| 1. totally disagree |
| 2. fairly disagree |
| 3. Neither disagree nor agree |
| 4. Fairly agree |
| 5. totally agree |

| F18. How much are you motivated to comply with them? |
| 1. Extremely unlikely |
| 2. Fairly unlikely |
| 3. Neither likely or unlikely |
| 4. Fairly likely |
| 5. Extremely likely |

| F19. Friends encourage me to use condoms |
| 1. totally disagree |
| 2. fairly disagree |
| 3. Neither disagree nor agree |
| 4. Fairly agree |
| 5. totally agree |

| F20. How much are you motivated to comply? |
| 1. Extremely unlikely |
| 2. Fairly unlikely |
| 3. Neither likely or unlikely |
| 4. Fairly likely |
| 5. Extremely likely |

| F21. Friends use condoms |
| 1. totally disagree |
| 2. fairly disagree |
| 3. Neither disagree nor agree |
| 4. Fairly agree |
| 5. totally agree |

| F22. How much are you motivated to do it? |
| 1. Extremely unlikely |
| 2. Fairly unlikely |
| 3. Neither likely or unlikely |
| 4. Fairly likely |
| 5. Extremely likely |

| F23. Health personnel and NGO staff encourage condom use |
| 1. totally disagree |
| 2. fairly disagree |
| 3. Neither disagree nor agree |
| 4. Fairly agree |
| 5. totally agree |

| F24. How much are you motivated to comply? |
| 1. Extremely unlikely |
| 2. Fairly unlikely |
| 3. Neither likely or unlikely |
| 4. Fairly likely |
| 5. Extremely likely |
### Self-efficacy (Perceived behavior control)

<table>
<thead>
<tr>
<th>Control beliefs</th>
<th>Perceived power</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G1.</strong> If I wanted to, I could easily persuade myself to wear a condom</td>
<td><strong>G2.</strong> Persuading myself to wear a condom would be</td>
</tr>
<tr>
<td>1. totally disagree</td>
<td>1. extremely difficult</td>
</tr>
<tr>
<td>2. fairly disagree</td>
<td>2. fairly difficult</td>
</tr>
<tr>
<td>3. Neither disagree nor agree</td>
<td>3. Neither easy nor difficult</td>
</tr>
<tr>
<td>4. Fairly agree</td>
<td>4. Fairly easy</td>
</tr>
<tr>
<td>5. totally agree</td>
<td>5. Extremely easy</td>
</tr>
<tr>
<td><strong>G3.</strong> If I wanted to, I could easily persuade myself to wear a condom even if I am drunk</td>
<td><strong>G4.</strong> Getting drunk before engaging in commercial sex ------ occurs</td>
</tr>
<tr>
<td>1. totally disagree</td>
<td>1. always</td>
</tr>
<tr>
<td>2. fairly disagree</td>
<td>2. often</td>
</tr>
<tr>
<td>3. Neither disagree nor agree</td>
<td>3. sometimes</td>
</tr>
<tr>
<td>4. Fairly agree</td>
<td>4. rarely</td>
</tr>
<tr>
<td>5. totally agree</td>
<td>5. never</td>
</tr>
<tr>
<td><strong>G5.</strong> If I wanted to, I could easily persuade myself to wear a condom even when I am so eager to have sex</td>
<td><strong>G6.</strong> Getting very excited before engaging in commercial sex ------ occurs</td>
</tr>
<tr>
<td>1. totally disagree</td>
<td>1. always</td>
</tr>
<tr>
<td>2. fairly disagree</td>
<td>2. often</td>
</tr>
<tr>
<td>3. Neither disagree nor agree</td>
<td>3. sometimes</td>
</tr>
<tr>
<td>4. Fairly agree</td>
<td>4. rarely</td>
</tr>
<tr>
<td>5. totally agree</td>
<td>5. never</td>
</tr>
</tbody>
</table>

### Anticipated regret

| **H1.** If I did not use a condom in my next sex with a commercial sex partner, I would feel regret | **H2.** If I did not use a condom in my next sex with a commercial sex partner, I would feel upset |
| 1. totally disagree | 1. totally disagree |
| 2. fairly disagree | 2. fairly disagree |
| 3. Neither disagree nor agree | 3. neither disagree nor agree |
| 4. Fairly agree | 4. fairly agree |
| 5. totally agree | 5. totally agree |
Social Learning

Differential Association: Social Learning Variable subset I

11. To the best of your knowledge, about how often does each of the following people usually engage in commercial sex? (multiple answers)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Truck drivers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Truck assistants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Best friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Friends with whom the respondent most frequently associates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Longest time friends</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. Proportion of truck drivers or truck assistants who usually engage in commercial sex is?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>less than half</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>more than half</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>all</td>
<td></td>
</tr>
</tbody>
</table>

Differential Reinforcement: Social Learning Variable Subset II

13. Engaging in commercial sex affects one social relationship and enjoyment in a ...... way

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mainly positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Mainly negative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. How do you normally feel when you have had commercial sex?

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>It helps me relax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>It gives me a satisfying feeling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>It makes me feel guilty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>It makes me feel regret</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Variables were taken from the following article with some adaptations.

References:
MEMORANDUM

July 25, 2008

TO:       Sun Tse Aung  
           Principal Investigator  
           Sociology Department

FROM:     William H. Dendle  
           Executive Secretary

SUBJECT:  CTR 416148: Research Proposal on HIV/AIDS Prevention Among Truck Drivers in Myanmar

Your project identified above was reviewed and has been determined to be exempt from Department of Health and Human Services (DHHS) regulations. 45 CFR Part 46. Specifically, the authority for this exemption is section 46.101(b)(2). Your Certificate of Exemption (On-Going Form 100) is enclosed. This certificate is your record of DHEHS review of this study and will be effective as of the date shown on the certificate.

As exempt status signifies that you will not be required to submit annual renewal applications for full Committee review as long as that portion of your project involving human subjects remains unchanged. If, during the course of your project, you intend to make changes which may significantly affect the human subjects involved, you should contact this office for guidance prior to implementing these changes.

Any unanticipated problems related to your use of human subjects in this project must be promptly reported to the CHS through this office. It is required that the CHS be informed of any adverse events which may be related to the study. In addition, under the University's Assurance with the U.S. Department of Health and Human Services, the University must report certain situations to the federal government. Examples of these reportable situations include deaths, injuries, adverse reactions or unanticipated findings in human subjects. These reports must be made regardless of the source funding or exempt status of your project.

University policy requires you to maintain, as an essential part of your project records, any documents pertaining to the use of human subjects in your research. This includes any information or materials conveyed to, and received from, the subjects, as well as any records containing data and analysis results. These records must be maintained for at least three years after project completion or termination. If this is a funded project, you should be aware that these records are subject to inspection and review by authorized representatives of the University, State and Federal government.

Please notify this office when your project is completed. We may ask that you provide information regarding your experiences with human subjects and with the CHS review process. A CHS review process. Upon notification, we will close our files pertaining to your project. Any subsequent reutilization of the project will require a new CHS application. Please be aware that unless we are notified otherwise, this will automatically expire 5 years from the approval date.

Please do not hesitate to contact me if you have any questions or require assistance. I will be happy to assist you in any way I can.

Thank you for your cooperation and efforts throughout this review process. I wish you success in this endeavor.

Emilie
TO: Sar Tun Aung  
Principal Investigator  
Department of Sociology

FROM: Nancy R. King  
Director

Re: CHS #18161 - "HIV/AIDS Prevention Among Truck Drivers in Myanmar"

This letter is your record of CHS approval of this study as exempt.

On May 19, 2010, the University of Hawai’i (UH) Committee on Human Studies (CHS) approved this study as exempt from federal regulations pertaining to the protection of human research participants. The authority for the exemption applicable to your study is documented in the Code of Federal Regulations at 45 CFR 46 (2, 4).

Exempt studies are subject to the ethical principles articulated in The Belmont Report, found at http://www.hawaii.edu/irb/html/manual/appendices/A/belmont.html

Exempt studies do not require regular continuing review by the Committee on Human Studies. However, if you propose to modify your study, you must receive approval from CHS prior to implementing any changes. You can submit your proposed changes via email at irbinfo@hawaii.edu. (The subject line should read: exempt Study Modification.) CHS may review the exempt status at that time and request an application for approval as non-exempt research.

In order to protect the confidentiality of research participants, we encourage you to destroy private information which can be linked to the identities of individuals as soon as it is reasonable to do so. Signed consent forms, as applicable to your study, should be maintained for at least the duration of your project.

This approval does not expire. However, please notify CHS when your study is complete. Upon notification, we will close our files pertaining to your study.

If you have any questions relating to the protection of human research participants, please contact CHS at 956-5007 or irbinfo@hawaii.edu. We wish you success in carrying out your research project.

1560 East-West Road, Center for Health Studies, Honolulu, Hawaii 96822 2321
Telephone: (808) 956-5007, Fax: (808) 956-5008, Website: www.hawaii.edu/irb
An Equal Opportunity/Affirmative Action Employer
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World Health Organization 2000 “Country Health Profile--Myanmar”


