

พฤติกรรมเสี่ยงต่อการติดเชื้อเอชไอวี/เอดส์ในชาวพม่าที่อยู่ในกรุงเทพมหานคร



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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต

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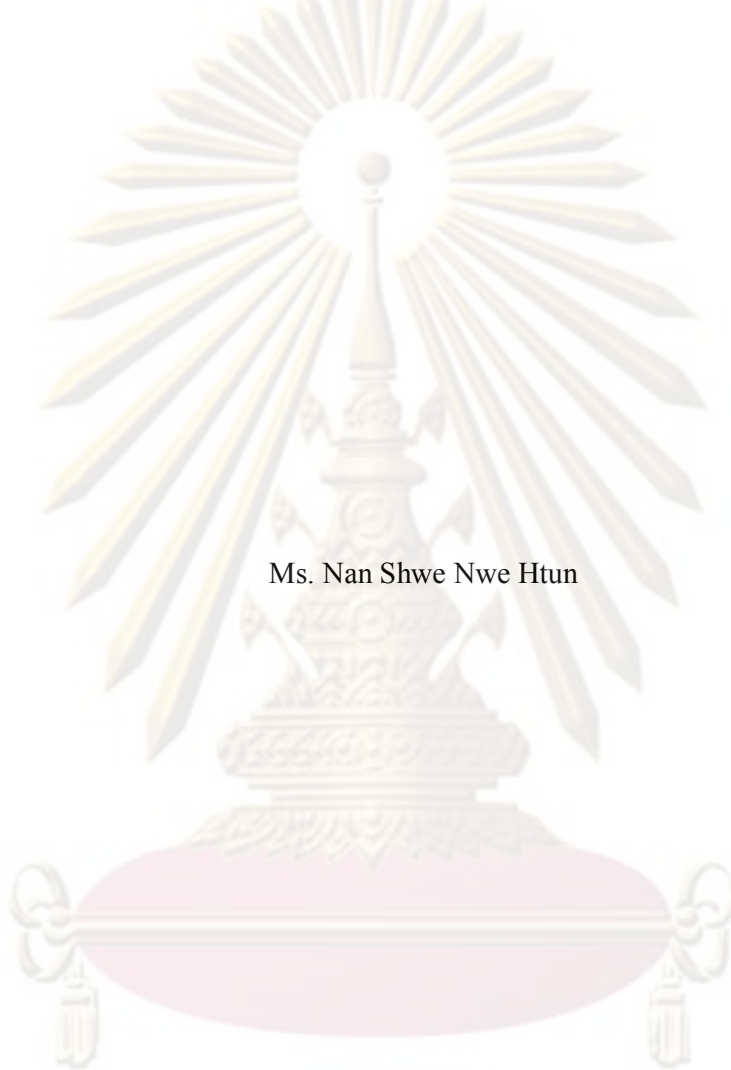
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HIV/AIDS RISK BEHAVIOURS AMONG MYANMAR MIGRANTS  
IN BANGKOK, THAILAND



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A Thesis Submitted in Partial Fulfillment of the Requirements  
for the Degree of Master of Public Health Program in Health Systems Development

College of Public Health Sciences

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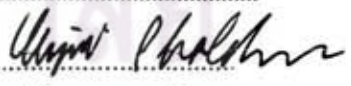
นาน ชเว หน่วย ทุน: พฤติกรรมเสี่ยงต่อการติดเชื้อเอชไอวี/เอดส์ ในแรงงานย้ายถิ่นชาวพม่าที่อยู่ใน กรุงเทพมหานคร (HIV/AIDS RISK BEHAVIORS AMONG MYANMAR MIGRANTS IN BANGKOK, THAILAND) อาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก: นายแพทย์วิฑูร ฑูลเจริญ, M.D, M.P.H. อาจารย์ที่ปรึกษาวิทยานิพนธ์ร่วม: นางสาวอุษณีย์ ฝั่งปาน, M.A. , 104 หน้า


การศึกษาแบบภาคตัดขวางเพื่อหาพฤติกรรมเสี่ยงในการติดเชื้อเอชไอวี/เอดส์ เพื่อหาแนวทางในการป้องกันการติดเชื้อเอชไอวี/เอดส์ในกลุ่มแรงงานพม่าที่ย้ายถิ่นที่ถนนข้าวสาร แหล่งท่องเที่ยวในกรุงเทพมหานคร คัดเลือกประชากรจำนวน 210 คน (ชาย 108 คน หญิง 102 คน) อายุระหว่าง 18-35 ปี และเก็บข้อมูลด้วยวิธี Snowball technique หรือการเลือกตัวอย่างแบบลูกโซ่ โดยใช้แบบสอบถามตนเอง วิเคราะห์ข้อมูลด้วยการใช้สถิติเชิงพรรณนา และไคสแควร์ (Chi-square test), อัตราออด Odds Ratio ที่ค่าความเชื่อมั่น 95% เพื่อหาค่าความสัมพันธ์ระหว่างปัจจัยที่ศึกษา

ผู้ตอบแบบสอบถามส่วนใหญ่เป็นผู้ที่มีอายุระหว่าง 25-29 ปี (อายุเฉลี่ย 26.4 ปี) เกือบทั้งหมดเป็นพม่า และมอญ ครึ่งหนึ่งเป็นโสด เกือบร้อยละ 70 ไม่จบการศึกษาภาคบังคับ และทำงานช่วยขายของในร้านในถนนข้าวสาร สามารถพูดและเข้าใจภาษาไทย ผู้ตอบรายงานว่าได้ข้อมูลเรื่องการติดเชื้อเอชไอวีจากสื่อต่างๆ อย่างไรก็ตาม การศึกษานี้พบว่าผู้ตอบมีความรู้เกี่ยวกับการติดเชื้อเอชไอวี/เอดส์ในระดับปานกลาง ด้วยค่าเฉลี่ย 9.73 (ค่าต่ำสุด 0 ค่าสูงสุด 14)  $SD \pm 2.54$  ทั้งนี้พบว่าไม่มีความแตกต่างกันทั้งเพศชายหญิง แต่ชายมีพฤติกรรมการดื่มสุรา และใช้สารเสพติด ซึ่งเป็นพฤติกรรมเสี่ยงที่นำไปสู่การติดเชื้อโรคเอดส์มากกว่าหญิง ผู้ชายร้อยละ 13.6 ซึ่งเคยมีเพศสัมพันธ์รายงานว่าไม่ได้ใส่ถุงยางเมื่อมีเพศสัมพันธ์กับหญิงขายบริการ ประมาณครึ่งหนึ่งที่มีเพศสัมพันธ์กับหญิงขายบริการและดื่มสุรา หรือใช้สารเสพติดรายงานว่าไม่ได้ใส่ถุงยาง ไม่มีรายงานการฉีดสารเสพติด พบความสัมพันธ์อย่างมีนัยสำคัญระหว่างสถานภาพการย้ายถิ่น (p-value 0.027) อาชีพ (p-value 0.005) และการเที่ยวหญิงขายบริการ และความสัมพันธ์ระหว่างกลุ่มอายุ (p-value 0.004) เพศ (p-value <0.001) รายได้ต่อเดือน (p-value <0.001) และการดื่มสุรา และความสัมพันธ์ระหว่างอาชีพ (p-value 0.002) รายได้ (p-value 0.041) การส่งเงินไปให้ครอบครัว (p-value 0.037) และการใช้สารเสพติด

ผลการศึกษานี้แสดงให้เห็นชัดว่า มีความจำเป็นที่จะต้องให้ข้อมูลสุขภาพเกี่ยวกับโรคเอดส์ ทั้งนี้เพื่อเพิ่มความรู้เกี่ยวกับเอชไอวี/เอดส์ และการมีเพศสัมพันธ์อย่างปลอดภัย ในกลุ่มแรงงานย้ายถิ่นชาวพม่าที่อยู่ในถนนข้าวสาร กรุงเทพมหานคร

สาขาวิชา..... การพัฒนาระบบสาธารณสุข..... ลายมือชื่อนิสิต..... 

ปีการศึกษา..... 2551..... ลายมืออาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก..... 

ลายมืออาจารย์ที่ปรึกษาวิทยานิพนธ์ร่วม..... 

## 5179114553: MAJOR HEALTH SYSTEMS DEVELOPMENT

KEY WORDS: HIV/AIDS RISK BEHAVIORS/ MYANMAR MIGRANTS/ KHAO SAN ROAD BANGKOK

NAN SHWE NWE HTUN: HIV/AIDS RISK BEHAVIORS AMONG MYANMAR MIGRANTS IN BANGKOK, THAILAND. THESIS ADVISOR: WIPUT PHOOLCHAROEN, M.D, M.P.H., THESIS CO-ADVISOR: USANEYA PERNGPARN, M.A, 104 pp

This cross-sectional study examined HIV/AIDS risk behaviors and modifiable factors for prevention of HIV/AIDS among Myanmar Migrant labors in Khao San Road tourism area in Bangkok. 210 participants (Male 108, Female 102) age between 18 to 35 years were selected and a self-administered questionnaire was utilized to collect data of this study with snowball sampling technique. For data analysis, descriptive statistics was used for all variables and chi-square test, odds ratio and 95% CI were used to describe association between studied factors.

Majority of the respondents were at the age of between 25-29years (mean age was 26.4 years). Most of them were Myanmar and Mon. Half of respondents was single. Nearly 70% had not completed compulsory education and worked as shop helpers in Khao San road. They could speak and understand Thai language. Those respondents got HIV information from mass media. The findings in this study suggested that the majority of participants had a moderate level of HIV/AIDS knowledge, mean score 9.73 (minimum 0 to maximum 14),  $SD \pm 2.54$ . There was no statistically significant difference among male and female respondents about HIV/AIDS knowledge. But male were more risky in sexual behaviors, alcohol and drug related risks than female. Male 13.6% who had with sex in this study reported they didn't use condoms when having sex with commercial sex workers (CSW). There were nearly half of respondents who had sex with CSW after drinking alcohol/taking drug answered they had no history of condom use. No injected drug users were found in this study. There were significant associations between migrant status (p-value 0.027), occupation status (p-value 0.005) and visiting to sex workers, between age of respondents (p-value 0.004), gender (p-value <0.001), monthly average expenditure (p-value <0.001) and alcohol drinking and between occupation status (p-value 0.002), monthly income (p-value 0.041), monthly support to family (p-value 0.037) and drug use.

Based on the results of this study, it can be convinced that there is still need to spread HIV health information for improvement of HIV/AIDS knowledge and safer sexual behavior among Myanmar migrant workers in Khao San Road, Phra Nakorn District, Bangkok Metropolitan.

Field of study....Health Systems Development....Student's Signature.....*Shwe*

Academic Year .....2008..... Advisor's Signature.....*Wiput Phoolcharoen*

Co-advisor's Signature.....*Usaneya Perngparn*

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## CONTENTS

	Page
<b>ABSTRACT IN THAI</b> .....	iv
<b>ABSTRACT IN ENGLISH</b> .....	v
<b>ACKNOWLEDGEMENT</b> .....	vi
<b>CONTENTS</b> .....	vii
<b>LIST OF TABLES</b> .....	x
<b>LIST OF FIGURES</b> .....	xii
<b>LIST OF ABBREVIATIONS</b> .....	xiii
<b>CHAPTER I INTRODUCTION</b> .....	<b>1</b>
1.1 Background and Rationale of the study.....	1
1.2 Research objectives .....	10
1.3 Research questions.....	10
1.4 Operational definitions .....	11
1.5 Conceptual framework.....	12
<b>CHAPTER II LITERATURE REVIEW</b> .....	<b>13</b>
2.1 Risk sexual behaviors .....	13
2.2 Risk sexual behaviors in Migrants .....	14
2.3 Association between socio-demographic characteristics and risk behaviors.....	17
2.4 Association between Knowledge to health education and high risk behaviors .....	20

	Page
2.5 Association between Knowledge about HIV/AIDS and risk behaviors.....	21
2.6 Alcohol related risk behaviors .....	23
2.7 Drug related risk behaviors .....	26
<b>CHAPTER III RESEARCH METHODOLOGY.....</b>	<b>32</b>
3.1 Research design.....	32
3.2 Study area.....	32
3.3 Study period.....	32
3.4 Study population.....	32
3.5 Sampling technique.....	32
3.6 Sample size.....	33
3.7 Reliability .....	33
3.8 Validity .....	34
3.9 Data collection.....	34
3.10 Data analysis.....	34
3.11 Limitations of the study.....	35
3.12 Expected benefits and outcome of the study.....	35
3.13 Ethical consideration .....	36
<b>CHAPTER IV RESULTS.....</b>	<b>37</b>
4.1 Univariate analysis.....	37
4.1.1 Related socio-demographic characteristics of the sample population.....	37



	Page
4.1.2 Knowledge of health information and knowledge about HIV/AIDS .....	44
4.1.3 High risk behaviors of subjects regarding HIV/AIDS.....	51
4.2 Bivariate analysis.....	55
4.2.1 Socio demographic characteristics and visiting to commercial sex workers .....	55
4.2.2 Socio demographic characteristics and alcohol drinking.....	58
4.2.3 Socio demographic characteristics and drug use.....	61
<b>CHAPTER V DISCUSSION AND RECOMMENDATION.....</b>	<b>64</b>
5.1 Discussion .....	64
5.2 Conclusion and Recommendation.....	77
<b>REFERENCES.....</b>	<b>79</b>
<b>APPENDICES.....</b>	<b>88</b>
<b>Appendix A:</b> Questionnaire.....	89
<b>Appendix B:</b> Schedule of activities.....	101
<b>Appendix C:</b> Budget.....	102
<b>Appendix D:</b> Informed consent form.....	103
<b>CURRICULUM VITAE.....</b>	<b>104</b>

## LIST OF TABLES

	Page
Table 4.1: Number and percentage distribution of respondents by Socio-demographic characteristics.....	42
Table 4.2: Numbers and percentage distribution of respondents by source of information about HIV/AIDS .....	48
Table 4.3: Numbers and percentage distribution of respondents showing level of knowledge about HIV/AIDS.....	50
Table 4.4: Numbers and percentage distribution of respondents on total HIV knowledge score.....	53
Table 4.5: Association between knowledge of respondents and gender on HIV/AIDS .....	50
Table 4.6: Number and percentage distribution of respondents showing sex with spouse * gender * use of condom .....	51
Table 4.7: Number and percentage distribution of respondents showing sex with boyfriends/ girlfriends * gender * use of condom .....	52
Table 4.8: Number and percentage distribution of respondents showing sex with commercial sex workers* gender * use of condom .....	52
Table 4.9: Number and percentage distribution of respondents showing Condom use after drinking alcohol*gender* partners when alcohol drinking before sex .....	54
Table 4.10: Number and percentage distribution of respondents showing condom use after drug * partner when using of drug * gender .....	54
Table 4.11: Association between Socio-demographic characteristics and visiting to CSW.....	56
Table 4.12: Association between Socio demographic characteristics and alcohol drinking.....	59

Table 4.13: Association between Socio demographic characteristics and  
drug use .....62



ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย

**LIST OF FIGURES**

	Page
Figure 1: Conceptual framework.....	12



ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย

## LIST OF ABBREVIATIONS

AIDS	Acquired Immuno-deficiency Syndrome
ARCM	Asian Research Center for Migration
ART	Anti-Retro-Viral Treatment
CDC	Centers for Disease Control and Prevention
DALYs	Disability Adjusted Life Years
HIV	Human Immuno-deficiency Virus
IDUs	Injected Drug Users
IVDU	Intravenous Drug Users
MSM	Men who have Sex with Men
NGO	Non Governmental Organization
PMTCT	Prevention of Mother to Child Transmission
SPSS	Statistical Package for Social Sciences
STDs	Sexually Transmitted Diseases
UNAIDS	Joint United Nations Programme on AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNODC	United Nation Office on Drugs and Crime
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
WVFT	World Vision Foundation of Thailand
YRBS	Youth Risk Behavior Survey

# CHAPTER I

## INTRODUCTION

### 1.1 Background and Rationale

Acquired Immunodeficiency Syndrome (AIDS) is caused by a virus known as the human immunodeficiency virus, or HIV and this disease, deadly and complicated diseases worldwide was first recognized in the United States in 1981. It presents threats to human life and causes significant morbidity and mortality in human societies throughout the world. HIV infection and AIDS affect physical, mental, emotional, social and spiritual dimensions of human life. HIV and AIDS reduce the life expectancy of infected persons, increasing the number of orphaned children, creating turbulence in health care system, and contributing to economic insecurity, potentially leading to political instability (Sowell, 2004).

Although the AIDS began in the 1980s, it expanded into a pandemic in the 1990s. Global summary of HIV epidemics according to 2007 HIV epidemic update by UNAIDS. Globally, there were an estimated 33 million [30.3 million–36.1 million] people living with HIV in 2007. The annual number of new HIV infections is 3.0 million in 2007. Overall, 2.0 million [1.8 million–2.3 million] people died due to AIDS in 2007, compared with an estimated 1.7 million [1.5 million– 2.3 million] in 2001 (UNAIDS/WHO, 2007). While the percentage of people living with HIV has stabilized since 2000, the overall number of people living with HIV has steadily increased as new infections occur each year, HIV treatments extend life, and as new infections still outnumber AIDS deaths. Southern Africa continues to bear a disproportionate share of the global burden of HIV: 35% of HIV infections and 38%

of AIDS deaths in 2007 occurred in that sub region. Altogether, sub-Saharan Africa is home to 67% of all people living with HIV. Women account for half of all people living with HIV worldwide, and nearly 60% of HIV infections in sub-Saharan Africa. Over the last 10 years, the proportion of women among people living with HIV has remained stable globally, but has increased in many regions. Young people aged 15–24 account for an estimated 45% of new HIV infections worldwide. Globally, an estimated 370 000 [330 000–410 000] children younger than 15 years became infected with HIV in 2007 (UNAIDS, 2008). Almost 90% live in sub-Saharan Africa. In sub-Saharan Africa alone, the epidemic has orphaned nearly 12 million children aged less than 18 years (UNAIDS, 2008).

### **1.1.1 HIV/AIDS problem in Asia**

In Asia, an estimated 5.0 million [4.1 million–6.2 million] people were living with HIV in 2007, including the 380 000 [200 000–650 000] people who were newly infected that year. Approximately 380 000 [270 000–490 000] died from AIDS-related illnesses. National HIV infection levels are highest in South-East, where there are disparate epidemic trends (UNAIDS, 2008). The epidemics in Cambodia, Myanmar and Thailand all show declines in HIV prevalence, with national HIV prevalence in Cambodia falling from 2% in 1998 to an estimated 0.9% in 2006 (UNAIDS/WHO, 2007). However, epidemics in Indonesia (especially in its Papua province), Pakistan, and Viet Nam are growing rapidly. In Viet Nam, the estimated number of people living with HIV more than doubled between 2000 and 2005 (Ministry of Health Vietnam, 2005). New HIV infections are also increasing steadily, although at a much slower pace, in populous countries such as Bangladesh and China.

### **1.1.2 HIV/AIDS problem in Thailand**

The AIDS epidemic has taken its toll in Thailand. In Thailand, estimated total population, 2008 are 65,493,000. Estimated number of people living with HIV, end 2007 are 610,000, Adults (15+) 600,000, Women (15+) 250,000, Children (0-15) 14,000. Estimated adult HIV prevalence rate is 1.4%. Estimated numbers of AIDS deaths in 2007 are 31,000. The majority of Thailand's HIV infections (around 80%) occur through heterosexual (USAIDS 2005). HIV affects more men than women in Thailand; the male-female ratio is 7:5 (UNAIDS 2008). An estimated 1 in 5 new HIV infections in Thailand are attributable to unprotected sex between men (UNAIDS, 2008). Fifteen to twenty thousand 15,000-20,000 Thais are becoming HIV positive each year (Thailand A2 Team, 2005). HIV sentinel surveillance prevalence rates (CDC, 2007) for sex workers in major urban areas are showing signs of an increase: 2.6 in 2002, 3.6 in 2003, 4.3 in 2004 (UNAIDS/WHO, 2006). Prevalence rates among IDUs (injecting drug users) in and outside of major urban areas continue to be unacceptably high (UNAIDS/WHO, 2006a: 6). This fact, coupled with a "crackdown" on alleged drug dealers, is setting the stage for a new spread of the virus (UNDP, 2004). Some evidence indicates that the majority of drug injectors that purchase sex in Thailand use a condom but many do not. Consequently, the spread of the HIV virus from IDUs to the general population remains a serious threat.

### **1.1.3 HIV/AIDS problem in Myanmar**

The HIV/AIDS epidemic in Myanmar is one of the most serious in the South East Asia region. Approximately populations of 55 millions of people live in Myanmar and the national adult prevalence of HIV infection is between 1% to



2%. Myanmar is thus characterized as having a "generalized" epidemic. According to an HIV/AIDS Projection and Demographic Impact Analysis Workshop in September 2007, Myanmar had 240,000 people, including children, living with HIV/AIDS. However, the spread of the HIV infection across the country is varying widely by geographical location and by population sub group (UNAIDS, 2006). The spread of HIV infection in Myanmar continues to increase. Among military recruits tested in Yangon and Mandalay, the prevalence of HIV infection has increased from 0.5% in 1992 to 1.4% in 2000, to 2.09% in 2003. Among blood donors, HIV prevalence has consistently increased from 0.3% in 1992, to 1% in 2000, to 1.23% in 2003. The prevalence among ANC women was 2% and 0.5% in Yangon and Mandalay, respectively in 2003 and has remained somewhat constant over the past five years in these major urban areas. Outside major urban areas, the median HIV prevalence in 2003 was 1%. Among IDUs, the median HIV prevalence in six sentinel sites in 2003 was ranging from 23% to 77%. Among commercial sex workers the HIV prevalence in Yangon and Mandalay was 33% and 53.6% respectively in 2003. Among male and female STD patients, median HIV prevalence in the same year was 6% and 12.55%, respectively (UNAIDS, 2008).

#### **1.1.4 Migration and HIV/AIDS**

It is important that HIV problem is examined within a board global context in which issues such as migration form an integral part. Socio-economic and political circumstances in both Myanmar and Thailand have contributed to a massive, illegal migration form Myanmar into Thailand. In July 2004, 1,276,837 migrants including laborers and their family members attempted to register under the state registry of Thailand. Of that number, 1,161,013 migrant workers officially completed

their registration. Estimates by Government and NGOs, however, point to the actual number of migrants present, including those registered, as possibly exceeding two millions (not including the 117,000 official refugees). Of those migrants working in Thailand, 849,552 registered for a work permit in 2004 and 60,123 were registered for sea and freshwater fishing (Ministry of Labor Thailand, 2005). Many more migrant laborers do not have work permits, and new migrants are crossing the border for work every day. Migrants in Thailand predominantly come from the neighboring countries of Myanmar (Burma), Cambodia and Lao PDR. Ten provinces along Thai-Myanmar Border are Chiang Mai, Chiang Rai, Mae Hong Son, Kanchanaburi, Phetchaburi, Prachuap Khiri Khan, Ranong, Chumphon, Ratchaburi and Tak.

Migration is one of the structural factors associated with HIV infections, and the dynamic and complex role of migrant situations as determinants of HIV-related vulnerability is still a major issue (Soskolne V, 2002). It includes the association of migration with structural macro factors, socio-economic status and limited power in the new society; intermediate structural factors, limited social capital and bi-directional interaction of cultural norms; and individual-level factors unique to the migration context, depleted psychosocial resources, loss of cultural beliefs and low use of health services. The main reason is the search for better job opportunities from rural to urban population or from poor nations to industrialized countries (Guillies, Tolley & Wolstenholme, 1996). All these factors affect risky sexual behavior and transmission of HIV. There is also some evidence that the working and associated social life of, coupled with economic difficulties of the female population has contributed to the spread of sexual transmitted diseases including HIV (Orubuloye, 1993).

Migrants' vulnerability to HIV/AIDS is increased by a complex set of factors. Foremost, there is still a large amount of misunderstanding or lack of proper knowledge about HIV among migrant populations. While there is limited access to condoms, there are numerous opportunities to engage in risky behaviors. Even when migrants have a clear understanding of HIV prevention, condom use is still inconsistent, especially among spouses and also indirect sex workers. These behaviors are risk factors for several diseases. Preventing risk behaviors among adolescents is important because behaviors are formed during this time and later affect health and health behaviors (Hetzel B. and McMichael T, 1989).

Unfortunately, in many cases, migrants have also returned home with HIV/AIDS, and many of these source communities are now disproportionately suffering from high rates of HIV compared to other parts of their country. Although migrants with symptomatic HIV/AIDS are supposedly able to receive palliative care at hospitals, the ability of migrants to actually receive these services is confounded by issues of documentation and payment. Moreover, ARV treatment (ART) at subsidized cost is not available to migrants, making ARVs prohibitively expensive for migrants. Although ARV for prevention of mother to child transmission (PMTCT) is supposedly available to all pregnant mothers, including migrants, actual numbers of migrant women in this program are low. Moreover, once the child is delivered, neither the migrant mother nor the child is currently eligible for ART at a subsidized price. Complicating issues of PMTCT is the fact that voluntary counseling test is only available in Thai language unless an NGO or trained volunteer assists in translation.

Numerous barriers limit migrants' access to health services and increase migrants' vulnerability to HIV/AIDS and reproductive health problems. Some of the most prominent barriers to accessing health services include:

- Ø “Language barriers that frustrate proper treatment (explaining symptoms or receiving instructions on treatment)
- Ø Health insurance regulations, such as the requirement of going to “assigned health providers,” may not be explained to migrants
- Ø Assigned health service providers (to obtain flat fee of 30 Baht) may be inconvenient to reach or far away, adding the expense and arrangement of transportation
- Ø Time of service provision by health providers may conflict with working hours of migrants
- Ø Many employers keep migrants' ID cards as a form of “insurance,” restricting migrants' mobility and making them reliant on their employers to receive the benefits of the health insurance they have paid for
- Ø Fear of arrest or harassment deters some migrants, especially those who are undocumented
- Ø Negative attitudes of health providers towards migrants make migrants reluctant to seek treatment from public service providers.” (PHAMIT, 2005)

Due to barriers in accessing public health services, migrants are generally unable to seek proper testing and treatment of STIs and HIV. Even when migrants do access counseling services, ART (Anti-Retro-Viral Treatment) is currently unavailable at subsidized rates, placing treatment out of reach of migrants.

### **1.1.5 Background of Myanmar Migrants in Thailand**

Migration to Thailand has become institutionalized by government policies, local officials, employers and private-sector recruitment agents. A study carried out between January and May 2003 by the World Vision Foundation of Thailand (WVFT) and the Asian Research Center for Migration (ARCM) on labor migration to Thailand attempted to rank the causes of migration. It concluded that the five main reasons for persons to migrate from Myanmar were (a) low earnings in Myanmar, (b) unemployment in Myanmar, (c) family poverty, (d) experiences, such as forced labor, and (e) a lack of qualifications for employment. Among registered 1,280,000 workers from neighboring countries in July 2004, there were 98,308 of Myanmar migrant workers in Bangkok, 511,798 in regions excluding Bangkok, total of 610,106 and 6267 of Myanmar migrants worked as professional in Bangkok (Department of Employment, Ministry of Labor, 2004).

Khao San is a short road in central Bangkok. It is located in the Banglamphu neighborhood Phra Nakhon district about 1 km north from the Grand Palace with Wat Phra Kaew. Khao San means 'raw rice' in Thai. Before it became a tourist hotspot, the street was a major rice market for Bangkok. It has developed over the years with relatively cheap accommodation compared to other areas of central Bangkok. Many tourists use Khao San road as their base for exploring the rest of Thailand as there are many direct coaches from the street to virtually all major tourist destinations in Thailand. Many visitors will also take advantage of the abundance of relatively cheap travel agents to arrange visas and transport to surrounding countries such as Vietnam, Cambodia, Laos and Malaysia, though many. Crafts, paintings, clothes, CD, DVDs, fake educational diplomas, fake driver's licenses, food, second hand books and many

other items useful to back packers are among the common goods traded along the road. There are so many shops and 24 % of all migrants to sell the things at that road and it looks like a foreign community of present day. No study was reported on high risk behavior of HIV infection among migrants especially Myanmar migrants in Khao San Road tourism area. Therefore, it is felt deemed necessary to implement research among Myanmar migrants in that area. So, a set of behavioral study needs to be undertaken among migrants at Khao San road in order to evaluate their behaviors and to find the related factors.

#### **1.1.6 Impact of HIV**

The HIV epidemic continues to be very serious on the individuals, households and nations, reducing by more than half the GDP of severely infected countries and reducing by 480 million people the UN estimate of global population by year 2050 (ILO, 2004). In the countries, most heavily affected, HIV has reduced life expectancy by more than 20 years, slowed economic growth, and deepened household poverty. Life expectancy has dropped from 65 years in 1995 to 56 years in 2000 and is expected to 39.7 years by 2005 (Naik, 2003). Other projections show that by the year 2010 the life expectancy of 10 Sub-Saharan countries (most affected by HIV/AIDS) will be reduced by more than 20 years (Piot and Aggleton, 1998). According to the United Nations Development Programme (UNDP), HIV has inflicted the “single greatest reversal in human development” in modern history (UNDP, 2005). HIV causes a greater loss of productivity than any other disease, and is likely to push an additional 6 million households into poverty by 2015 unless national responses are strengthened (Commission on AIDS in Asia, 2008). Controlling global HIV infection is a challenging public health goal. Since HIV

knowledge is a rapidly changing subject, must receive accurate and updated scientific knowledge about HIV infection, HIV risk reduction.

## **1.2 Research Objectives**

### **1.2.1 General objectives**

To attain HIV risk behaviors and modifiable factors for prevention of HIV among Myanmar Migrated labors in Khao San Road tourisms area in Bangkok.

### **1.2.2 Specific objectives**

- 1) To describe social determinants among Myanmar Migrants in Khao San Road tourism area, Phra Nakhon district, Bangkok.
- 2) To describe HIV/AIDS knowledge of Myanmar Migrants in Khao San Road, Bangkok.
- 3) To describe sexual, alcohol consumption and drug related risk behaviors among Myanmar Migrants in Khao San Road, Bangkok.
- 4) To describe association between socio-demographic characteristics and sexual, alcohol and drug related risk behaviors among Myanmar Migrants in Phra Nakhon district, Bangkok.

## **1.3 Research questions**

- 1) What are the social determinants (socio-demographic factors) influencing HIV risk behaviors?
- 2) What is knowledge level about HIV/AIDS among Myanmar Migrants Khao San Road, Bangkok?
- 3) What are (sexual, drug abuse and alcohol related) high risk behaviors of Myanmar Migrants in Khao San Road, Phra Nakhon district, Bangkok regarding HIV?

4) Do relationships exist between social determinants and high risk behaviors (sexual, alcohol and drug) related HIV among Myanmar Migrants in Khao San Road, Bangkok?

#### 1.4 Operational definitions

- **Social determinants** are the economic and social conditions under which people live which determine their health. It consists of age, gender, marital status, educational status, income and social status, employment, living condition, duration of stay in Thailand and language skills.

- **Knowledge on HIV** means the basic facts about HIV/AIDS and its preventive methods known by person.

- **Sexual behavior** includes all those activities that produce sexual excitation include solidarity and interpersonal activities such as kissing, touching, sexual intercourse (Steinberg L., 1989).

- **Risky sexual behaviors** refers behavior engaging in unprotected premarital sexual activity with more than one sexual partner, which paves the way for the contraction of STDs including HIV/AIDS, unwanted pregnancies and illegal abortions that all pose serious health, social and psychological trauma.

- **Safer sex** is considered as taking precautions that decrease the potential of transmitting or acquiring sexual transmitted infections (STIs), including HIV, while having sex using condoms correctly and consistently during sex (UNAIDS,2007).

- **Drug addiction** is "a state of periodic and chronic intoxication detrimental to the individual and to society, produced by the repeated consumption of a drug (natural or synthetic). Its characteristics include: (1) An overpowering desire or need (compulsion) to continue taking the drug and to obtain it by any means; (2) A



tendency to increase the dose; (3) A psychic (psychological) and sometimes a physical dependence on the effects of the drug" (WHO, 1964).

### 1.5 Conceptual Framework

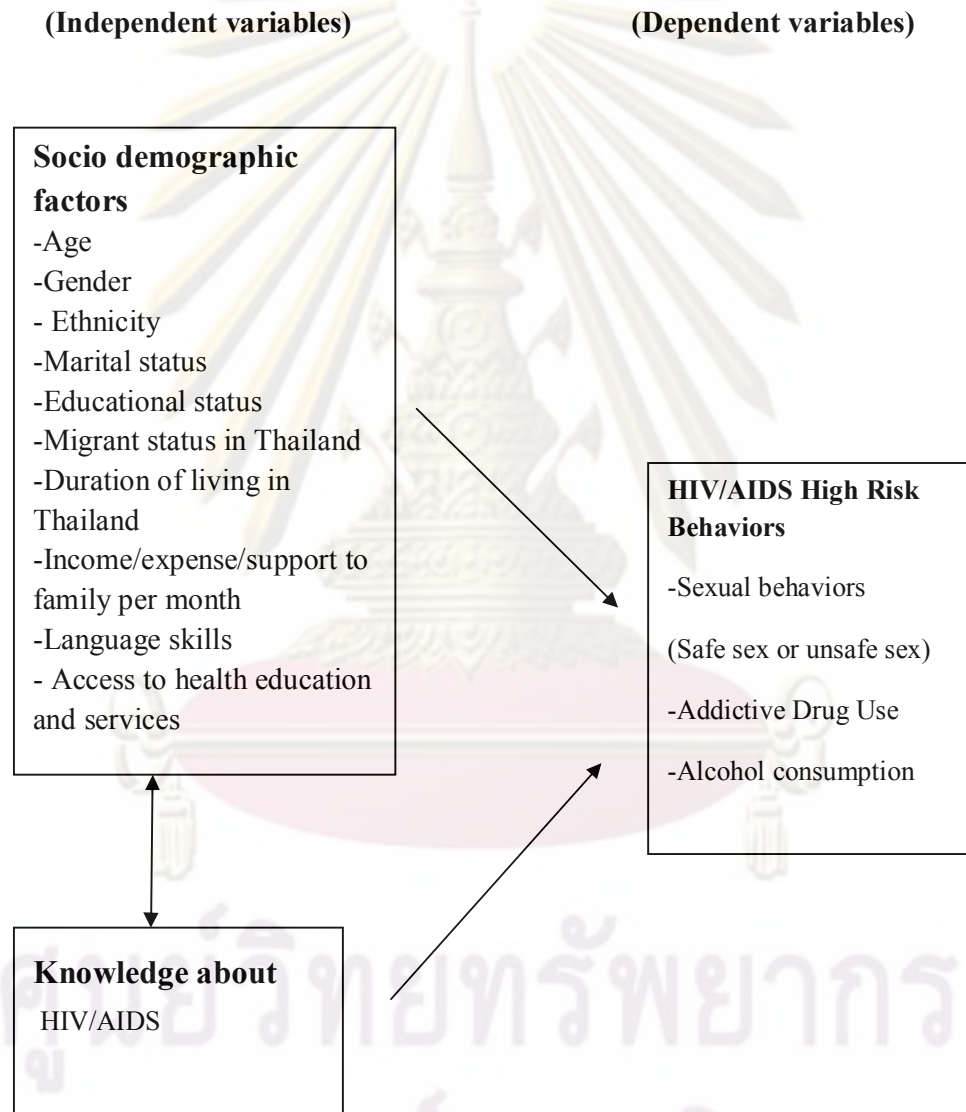


Figure 1 Conceptual Framework

## CHAPTER II

### LITERATURE REVIEW

#### 2.1 Risk sexual behaviors

The healthy young people are the precious resource and manpower, which will bring the country to sustainable development in future. Due to the social change and physical changes, the young people have the highest risk of diseases or health problems. Most of the causes come from individual's health behaviors and way of living. AIDS is the 6<sup>th</sup> leading cause of death among people 25-34 years old (Anderson, 2002). Although young people in general are often perceived as constituting a 'risk group' due to their inexperience, lack of knowledge and propensity towards experimentation with potential risk behaviors.

Sexual behavior is a major determinant of sexual and reproductive health. Population patterns of sexual behavior are major determinants of conception rates, sexually transmitted infections (STI) and HIV transmission, and other sexual health outcomes. While the majority of students used a condom the last time they had sexual intercourse, a substantial percentage did not use a condom (HIV/AIDS epidemiology highlights, 2001).

Unprotected heterosexual sex is the most important risk factor for the spread of HIV in several parts of Asia. Sex-trafficked women and girls face especially high risks of HIV infection. In India, a significant proportion of women with HIV have probably been infected by regular partners who paid for sex (Kumar, 2006).

In the context of the global AIDS epidemic, sex between men is significant because it involves anal sex – a practice that, when no protection is used, carries a

higher risk of HIV transmission than unprotected vaginal sex. Historically, AIDS was first discovered among self-identified young gay men in the USA, and throughout the course of the global epidemic, consistently high levels of HIV infection have been found among MSM in many countries. In the U.S., their HIV prevalence is 60 times higher than the general population. An estimated 62% of adult and adolescent American males living with HIV/AIDS got it through sexual contact with other men. HIV prevalence among men who have sex with men rose from 17% in 2003 to 28% in Thailand, 2005 (Van Griensven F et al., 2006), and it is estimated that as many as one in five (21%) new HIV infections in Thailand in 2005 were attributable to unprotected sex between men (Gouws et al., 2006). Men who have sex with men faced a disproportionate risk of exposure to HIV in diverse settings throughout the world.

In many countries however, MSM are not so visible. Sex between men is stigmatized, officially denied and criminalized in various parts of the world. This adds to the vulnerability of MSM, making it difficult to monitor them, and making it near impossible to carry out relevant HIV prevention campaigns in some countries. In places where homosexuality is not tolerated, MSM often hide their same-sex relations from their friends and families to avoid persecution. Many have wives, or have sex with women as well as men, and this means that they may transmit HIV to their female partners if they become infected. The significant impact that HIV is having on MSM is therefore not an isolated problem, but one that is very much linked to countries' wider HIV epidemics.

## **2.2 Risk sexual behaviors in Migrants**

Making the movement of individuals and populations is an important factor in the spread of the HIV virus (Haour-Knipe & Rector 1996). Using data from the 1993

Kenya Demographic and Health Survey, results indicate that migration is a critical factor in high-risk sexual behavior and that its importance varies. Independent of marital and cohabitation status, awareness of AIDS, and other crucial influences on sexual behavior, male migrants between urban areas and female migrants within rural areas are much more likely than non migrant and counterparts to engage in sexual practices conducive to HIV infection. In rural areas, migrants from urban places are more likely than non migrants to practice high-risk sex. Given the predominance of men in urban migration and the large volume of circulatory movement between urban and rural areas, these results have serious implications for HIV transmission throughout Kenya (Brockerhoff M, 1999).

The link between migration and STD/HIV risky sexual behavior has been well documented. Using data from a probability survey in China examined the link between migration and risky sexual behavior of individual and community correlates of risky sexual behavior. Being a temporary migrant was associated with significantly more risky sexual behaviors. Risky sexual behavior was further influenced by family and peers and conditioned by community contexts (Xiushi Yang, 2008). Rate of having sex with sex workers was much higher among international migrants (19.8%) than among non-migrants (4.3%). The use of condom among international migrants was 37.1% whereas among non-migrants was 63.9% (Marga, R. Pul, K., 2002).

A survey carried out by the IPSR that covered 2,590 male migrant workers in 24 locations in Thailand found that they had an average of four non-regular sex partners (many of whom were sex workers) in the past year and that only 5 per cent of the respondents ever used condoms. While the number of non-regular sex partners

varied substantially by marital status and occupation, the average implies considerable risk of STDs among male migrant workers (Chamrathirong, 2004).

A group of international organizations and NGOs, including UNICEF and UNODC, formed the Thailand Seafarers Research Team in order to carry out an in-depth study on the fishing industry and the vulnerability of its workers in Ranong to HIV and drug use. The Research Team identified numerous factors influencing the risk behavior of seafarers and their families. They included the following: (a) married seafarers want to satisfy their sexual desires when their wives are away from the port, (b) the wives of the seafarers also want to satisfy their sexual desires when their husbands are at sea for long periods of time, (c) single seafarers have no place to deposit their money, so they often spend it on drinking and sex, (d) some foremen encourage fishermen to take their earnings from particularly valuable catches in the form of liquor and sex, (e) seafarers often develop relationships with service girls in port and neither partner wants to use a condom, (f) men feel that using a condom reduces the pleasure of sex and (g) some seafarers use methods of penis enlargement that make them prone to sexually transmitted infections, including HIV (Thailand Seafarers Research Team, Undated).

Two studies by World Vision Foundation Thailand in 2000 and 2002 highlighted that Myanmar migrants had several sexual networks with sex workers and service girls, men who have sex with men (MSM) and also revealed that they had abnormal sexual behaviors, wrong beliefs about sexual pleasure (Naing, 2006). About 60% of the Myanmar migrants especially fishermen had admitted to having multiple partners and visited commercial sex workers while away from home (Wongkhomthong & Ohsawa, 1998).

The study also found that sex workers and fishermen were most likely to have unsafe sex and use drugs than other groups. Many of migrants travel without their sexual partners, but being of an age of high sexual drive, they have to seek their satisfactions and needs for companionship and sexual contract (Wolfers, I., 1999). In response to their sexual desire, they tried to develop new sexual relationships in the host countries. These relationships are formed apart from their traditional social networks and cultural values and may involve increased level of exposure to HIV (Fernandez I., 1998). The linkage between mobility and HIV/AIDS is related to the conditions and structure of the migration process, including poverty, exploitation, separation from families and partners, and separation from the socio cultural norms that guide behavior in stable communities.

### **2.3 Association between socio-demographic characteristics and risk behaviors**

In the United States, 45.6 percent of high school students and 79.5 percent of college students' ages 18-24 have had sex, and the median age at first marriage is 28.6 years for men and 26.6 years for women. Sexual intercourse may be influenced by many factors, including socioeconomic status, ethnicity, family structure, educational aspirations, age, and life experiences. One study conducted among Myanmar migrants in Samut Sakhorn province, Thailand reported that men who were single or apart from their wives were more likely to have multiple partners and sex with prostitutes, while women were not (Thu, 2003). Ahmed (2001) has assessed HIV vulnerability among a sample of seafarers and seafood-processing workers from Myanmar in Samut Sakhon Province. He concluded that the workers in Samut Sakhon had a moderate level of vulnerability overall, and that differed significantly by key socio-economic

characteristics. As might have been expected, he found that males, single persons and younger persons were significantly more risk behaviors to HIV.

Migrant workers from Myanmar possess low levels of education. Seventeen per cent of the respondents in the WVFT/ARCM survey did not report any education. Over 60 per cent had studied for 1-8 years and only 20 per cent had studied for 9 or more years. Persons with only primary education, as opposed to secondary education and workers with higher incomes, were more likely to engage in such risky behavior as having multiple sex partners. A study on Myanmar migrants in Thailand notes that the migrants are valuable for a range of reasons: away from their family for long periods, living as illegal aliens, limited access to health care, limited knowledge on HIV/AIDS and low literacy in destination or place of origin (Beesey, 2000). But one study concluded that high incidence and some risky sexual behaviors like early sexual debut, multiple sexual partners were common in low educated women (Hargreaves, 2007). However, two studies done among Myanmar migrants workers in Thai-Myanmar border areas stated that education level and income had no association with their risky behaviors (Paw, 2006; Thu, 2003).

Most of Myanmar migrants worked in fishery processing, agriculture and construction, manufacturing and domestic services (Department of Employment, Ministry of Labor, 2004). The studies carried out by research institutes in Thailand for IOM and ILO on specific sectors of employment for migrants collected information on the wages of migrant workers (Martin, 2004). Farm workers growing fruits and vegetables in Kanchanaburi Province earned 60-70 baht per day for working 8 hours a day, 6-7 days a week. Migrants performing pre-harvesting work in sugarcane fields in the same province earned about 80 baht per day. Migrants who worked on hog farms

in Nakhon Pathom or Lop Buri provinces earned 120-130 baht per day for working 8-10 hours a day, 7 days a week. The WVFT/ARCM study found that 50 per cent of the respondents in Mae Sai had received less than 50 baht per day and 24 per cent had earned between 50 and 80 baht daily. Eighty six per cent of the migrants in Mae Sot and 90 per cent of those in Ranong reported earning less than 50 baht per day.

Migrants' duration of stay in Thailand is relatively long. The majority of the migrants had been in Thailand for three or more years. Ahmed (2001) found that duration of stay in Thailand was a significant factor in HIV vulnerability, with those persons residing for at least two years demonstrating reduced vulnerability, probably because of greater exposure to information about HIV/AIDS. Thu, 2003 study showed that the longer duration of stay in Thailand, the more visiting to commercial sex workers. But both studies considered low knowledge of HIV/AIDS, having multiple sex partners, visiting risky entertainment venues, having sex without condoms and having a sexually transmitted infection as factors contributing more risks to HIV.

Myanmar migrant workers in Thailand tend to have all these characteristics, which are compounded by limitations in Thai language and their illegal migration status in the country (Chantavanich et al, 2000). Besides, Youth risk behavior survey: Bangkok, Thailand, the prevalence of risk behaviors in adolescents in Bangkok was significantly associated with low socioeconomic status, poor relationships and broken families, and parental substance abuse, environmental factors, peer pressure and several risk factors were identified (Suwanna Ruangchanasetr & Adisak Plitponkarnpim 2004).



#### **2.4 Association between Knowledge to health education and high risk behaviors**

Receiving mass media and personal media are the communicative ways to build values, attitude and interests of people, and able to change behaviors to the health or the risk one. Even though there are many approaches for health education in HIV/AIDS control, the ultimate goal is the positive behavior change because HIV infection is mainly due to risky sexual behavior (UNAIDS, 1999). Numerous study show that mass media is one of the contributing factors for HIV/AIDS control program. The people need useful information such as radio, television, newspaper, magazine as well as electronic media, which provide health information have the major effect on them. Especially health information from media has significantly correlation with behaviors (Pairoj Prompajai, 1997:141). One national qualitative evaluation study conducted in South Africa showed that access to health education using media shaped the potential for behavior change (Petersen et al., 2006) and many studies showed that exposure to entertainment based health education is associated with reduction in risk behaviors in normal community and also hidden community like intravenous drug users (IVDU).

One study showed that more than half of Myanmar migrants in the study got health education about HIV/AIDS prevention from cartoon/comic booklets and pamphlet/leaflet with Myanmar languages and the source of information was from friends, family and relatives, and a few percentage were from their community, NGOs and their workplaces (Win, 2007). Similarly, one study done in Bangkok, reported that more than 50% of Myanmar migrants received health information from mass

media, such as newspapers, magazines, television and radio, some got information from workplace and friends (Zaw, 2002).

Most of migrant workers face some kind of problems to health education and health care access due to their illegal migrant status and their occupation status. The main obstacle to receiving medical care and health education access that migrants face is that they are not permitted to be away from their jobs. Most employers make no provision for sick leave; if a worker is absent the wages for the day are not paid. Workers in town may be able to seek medical care after work hours, although that can also be difficult when working 12 hours or more a day. Domestic workers and agricultural workers generally live at their place of employment and are often not allowed to be away elsewhere. Language differences often serve as a barrier to communication between Thai health workers and migrant clients, and hospital forms are generally available only in the Thai language.

In a study of domestic workers from Myanmar, Panam and others (2004) reported that such workers feared arrest and harassment from local authorities. Eighty per cent of them had poor access to health services because their employers were reluctant to allow them to leave the house and most employers required the workers to pay for their own medical care. IOM, 2004 suggested that lack of access to health and social services among migrants was one of determinant factors that increased risk for HIV infection.

## **2.5 Association between Knowledge about HIV/AIDS and risk behaviors**

One study of Chinese undergraduates' results indicated that the majority of undergraduates had a moderate level of HIV and AIDS knowledge, acceptance and attitudes towards people with HIV and AIDS. Boys had more acceptance and positive

attitudes towards people with HIV and AIDS than girls. Most students did not know HIV VCT centers and most students did not show their confidence for controlling of HIV and AIDS in China. Students' knowledge about HIV/AIDS was uneven (Xiaodong Tan, Jingju Pan, Dong Zhou, & Chunhong Wang, 2007). South African Demographic and Health survey conducted in 1998 stated that while socio-demographic inequalities in risky behaviors were ignored, there was less knowledge about HIV/AIDS in women in poor households (Booyseen Fle, 2002). Knowledge, attitude and beliefs of sexual behaviors regarding HIV/AIDS are important part in controlling of HIV epidemic and setting in prevention programs. Among them, condom use is the only reliable method of HIV/STD prevention for those who choose to be sexually active. Differences in Scio-demographic characteristics of a person cause differences in knowledge on HIV transmission of that person directly or indirectly. Among various occupational groups of migrant workers, construction workers had significantly low knowledge of HIV/AIDS (Chantavanich et al, 2000). A study conducted to determine socio-demographic, social network characteristics, knowledge and attitude towards HIV transmission among Myanmar migrants working in Tak province, Thailand by Myanmar Medical Association and National Health and Education Committee (NHEC). The results showed that there was significant knowledge level between male and female migrants factory workers, males having more knowledge than female (Mullany L C, 2000). Thu, 2003 study in Samut Sakorn suggested that there was no significant difference in knowledge about HIV/AIDS between male and female.

Zaw, 2000 study discovered that knowledge level of Myanmar migrants in Bangkok was moderate level and that was higher than determined by a previous study

in Sangkhlarburi and Ranong and proved that knowledge and risk behaviors relating to condom use were significant.

## **2.6 Alcohol related risk behaviors**

Harmful use of alcohol adversely affects the lives of the users and their families, along with widespread health and socio-economic impact and burden on communities (Alcohol Control Policies in the South-East Asia Region, 2008). In 2002, World Health Organization (WHO) estimated in its World Health Report (WHO, 2002) that there were about 2 billion people worldwide who consume alcoholic beverages, of whom 76.3 million suffered from alcohol use disorders. Globally, alcohol use causes 3.2% of all deaths (1.8 million deaths) and 4% of Disability-Adjusted Life Years (DALYs) (58.3 million). These proportions are much higher in males (5.6% deaths and 6.5% of DALYs) than females (0.6% deaths and 1.3% DALYs) (World Health Report, 2002). About 5% of all deaths of young people between the ages of 15 and 29 are attributable to alcohol use (Fact Sheet, School Health and Youth Health Promotion – WHO, 2001). Alcohol use is associated with certain types of sexual activity. Sexual risk behavior accounts for a large number of opportunities for acquiring HIV infection, and alcohol use has been shown to increase high-risk sexual behavior (unintended or unprotected sexual contact) and the spread of sexually transmitted infections (STIs), including HIV infection. However, generally men have more social liberties than women, with respect to alcohol use as well as sexual activities. Furthermore, the literature shows that the age for initiating alcohol use and experimenting with sex is on the decline, but the age for marriage is on the rise (e.g. the Russian Federation, India). There is generally an increase in alcohol use by teenagers and women and teenage pregnancies are also on the rise.

Crime often plays a role in unprotected casual sex, group sex and anal sex when participants in these activities are under the influence of alcohol. Alcohol is commonly used as a sex facilitator, a symbol of masculinity, and a means of relaxation, recreation, socializing and improving communication skills (e.g. in Mexico and Romania). Alcoholic beverages are also used as a facilitator in approaching the opposite sex. Among women, alcohol use increases involvement in risky sexual encounters, exposing them to the risk of unwanted pregnancies and STIs.

Alcohol use and sexual risk behaviors are particularly prevalent in settings such as nightclubs, bars, dark houses, highway eating joints and motels, and brothels. (Weiret al.2003) mapped the linkages among places where people meet new sex partners and places where people drink alcohol. Weir et al. demonstrated over 85% of the locations where people met sex partners were also alcohol serving establishments. Weiret al. also found that 92% of alcohol serving establishments never had condoms available on site. Results also showed that individuals who had met sex partners at shebeens were significantly more likely to report having been diagnosed with a sexually transmitted infection and were more likely to have engaged in sexual exchange. With regard to sexual behaviors, having met sex partners at shebeens was associated with having had two or more sex partners in the previous month and reporting more unprotected vaginal intercourse during that time period (Seth C. Kalichman, 2007).

In general, alcohol use and engagement in sexual risk behaviors are more common among males, adolescents, the mobile population (truck drivers, migrant workers), commercial sex workers and prison inmates than among other groups. Nightclubs, bars and pubs are emerging as places for alcohol use and initiation of

sexual activity at an early age. These venues attract young people. The most studied drinking places in relation to HIV risks in Africa are beer halls. Sixty percent of men and 41% of women who have multiple current sex partners report drinking at beer halls (Lewis et al. 2005). Lewis et al. also reported that HIV prevalence was associated with drinking at beer halls. For men, 27% of those who went to beer halls were HIV positive compared to 16% of men who did not go to beer halls.

One study, Youth Risk Behavior Survey (YRBS) was implemented in Ohio that developed by the Centers for Disease Control and Prevention (CDC). The survey contains multiple choice questions addressing health related behaviors, drug use, sexual behaviors, HIV infection, and other sexually transmitted diseases (STDs). This survey suggested that high school students were engaging in behaviors that might put them at risk for HIV infection and other sexually transmitted diseases. A substantial proportion of students consumed alcohol or drugs prior to sexual intercourse. While the majority of students used a condom the last time they had sexual intercourse, a substantial percentage did not use a condom (HIV/AIDS epidemiology highlights, 2001). One study in United States, 2007 described that there was 27.5 percent in males and 17.7 percent in females' students who were currently sexually active and drank alcohol or drug used before last sexual intercourse. People who abuse alcohol are more likely to engage in behaviors that place them at risk for contracting HIV/STD, for example, rates of injection drug use are high among alcoholics in treatment and increasing levels of alcohol ingestion are associated with greater injection drug-related behaviors, including needle sharing. A history of heavy alcohol use has been correlated with a lifetime tendency toward high-risk behaviors, including multiple sex partners, unprotected intercourse, sex with high-risk sexual partners

(injected drug users, prostitutes), and the exchange of sex for money or drugs. Studies conducted in Ranong, Mae Sai, and Chain Mai showed that drinking alcohol/beer, visiting Karaoke and massage rooms and meeting commercial sex workers and casual partners were common means of recreation among male migrants. Men and their peers usually went together to visit sex workers, after taking alcohol (Archavanitkul et.al., 2000). One study described that sex after drinking alcohol was significantly associated with older age group than adolescents, being male, longer duration of stay in Thailand, living alone (Thu, 2003). There is growing recognition that alcohol consumption is one of the major risk factors to public health. Thus, alcohol use and abuse requires greater attention from the public health experts than it is currently receiving.

## **2.7 Drug related risk behaviors**

The nexus between substance abuse and spread of HIV/AIDS is now well established. Substance abuse with its mood altering impact leads to deviant behaviour and lifestyles with greater possibilities of relations with multiple sex partners. Substance abuse leads to loss of self-control and unsafe sex (NACO, 2006). Injecting drug use through needle and sharing of injection paraphernalia leads to spread of HIV/AIDS. Drugs, such as heroin, opium and amphetamine – type substances, have been illegal for decades, and one consequence of this has been to a large extent, treated within the criminal justice system for using drugs. Half of the world's 16.5 million opiate users (9.3 millions) live in Asia, including an estimated 4.5 million people who inject drugs (UNODC drug report, 2008). Drug users have been stigmatized, discriminated against and punished for their behaviors. When HIV/AIDS first appeared in the middle of 1980 modified the conceptual and physical dynamics

of 'high risk behavior' so that drug users have become significant vectors of the spread of global, incurable HIV, and another 40 millions are currently infected. Though risky behaviors associated with IDU, such as sharing infected syringes and injection equipment, IDUs have rapidly spread the epidemic among themselves, and further to their sexual partners and into the general population at large. Unsafe injecting drug use, of mostly opiates, is a significant factor in determining the course of HIV epidemics of several Asian countries, particularly early on in the epidemic. In South Asia the HIV epidemic is driven by HIV transmission among vulnerable groups, including people who inject drugs, sex workers and men who have sex with men. Despite overall low rates of national HIV prevalence, several countries in the Asia region report high HIV prevalence among people who inject drugs. HIV prevalence exceeding 40% has been reported among people who inject drugs in Indonesia, Myanmar and Nepal. In Cambodia, China, India, Malaysia, Pakistan, Thailand and Viet Nam, there are reports of overall HIV prevalence ranging from 5% to 35% among people who inject drugs (IHRA's 19<sup>th</sup> international conference, 2008). In Thailand, at present, there are many drug addicts in Thailand, especially in large cities such as Bangkok, Chiang Mai, and Phuket. The preferred drugs used are as heroin, methamphetamine, Ecstasy, opium, marijuana, *Mitragyna Speciosa*, toluene, cocaine, codeine.

Myanmar has one of the highest HIV infection rates among intravenous drug users in Asia. It is estimated that between 300,000 to 500,000 IDUs are living in the country. Among them, 150,000 to 250,000 are injected drug users. Urban centers are most affected by HIV infection among drug users and also particularly important due to seasonal internal immigrants especially in the Northern Shan State. The rates of



sharing injection equipment exceed 60% among heroin users. HIV prevalence among IDUs was 37% in Yangon, 58% in Mandalay, 76% in Lashio, 90% in Myitkyeena (Reid G. and Costigan G., 2002).

The relationship between injecting drug use and HIV/AIDS was relatively well researched. There is evidence of sexual transmission of HIV from married men who inject drugs to their wives, an estimated 60,000 wives and 40,000 children are vulnerable and at risk of HIV transmission and drug use related harms in Pakistan. These numbers could drastically increase (Salman, 2008).

The study on Knowledge Attitude and Practices of drug users in India conducted people who inject drugs, buprenorphine and cocktail of pharmaceuticals. 40% and 33% reported not having cleaned injection equipment before sharing. On last occasion 76% had shared injecting equipment. Prescription opiates and other drugs are common drugs of misuse by women throughout the country. Women substance users have very little knowledge of harm minimization and women partners and women substance users are unable to negotiate safe sex. A study of HIV in partners of drug users (Panda et al., 2005) explored sexual transmission of HIV from and among men who inject drugs and their sex partners, India. The study found a 16% HIV prevalence among the regular sex partners of HIV positive men who inject drugs (heroin or buprenorphine injectors).

Another study in Yunnan province, China although basic knowledge of modes of transmission is high; this report indicated that IDUs were continuing to engage in unsafe injecting behaviors. A few factors indicated that a comprehensive understanding of HIV is still lacking. Many IDUs believed they can judge who is HIV-positive when deciding whether to share needles/syringes, and their judgments

are often based on familiarity with a person. Risk perception is also low, with some IDUs believing sex workers are more likely than IDUs to be HIV-positive to justify a continuation in practicing unsafe injecting (Eleanor Morrison, 2007).

There is emerging evidence that the use of cocaine, crack and amphetamine-type stimulants increases sexual risk taking behavior related to HIV transmission. Some IDUs believed sex workers are more likely than IDUs. Yan Yao, Ning Wang, 2008 study also showed that HIV infection was associated with older age (27 years), early drug initiation (at 20 years of age), and frequent injection (once a day). Thirty-seven percent reported multiple sexual partners. Consistent condom use rates were lowest with regular partners (23.8%), followed by 42.5% with casual partners, and 57.3% with female sex workers. Ninety-eight percent of subjects received high 'HIV knowledge' scores.

Many of the participants from other research reported that their decision to start injecting was influenced by peers' descriptions of the benefits of injecting, injecting gives a 'comfortable feeling' or a 'fragrant smell,' curious. Injecting drug users' friends were almost always present the first time the participants' injected heroin and often helped the participants how to inject. Some IDUs said they were discouraged by their friends from injecting the first time but many were encouraged, either directly or indirectly, by watching others inject, being verbally encouraged to inject, or by being told about positive aspects of injecting.

Previous studies in the USA and China have found high rates of multiple sexual partnering among IDUs (Kapadia F, 2000; Li X, 2000). In China, 30—75% of drug users reported having multiple sexual partners (Yang H, Li X, Stanton B, 2005).

Previous studies have shown that condom use rates were particularly low with regular

partners: 67.2% and 68.1% of IDUs never used condoms with their regular partners, and only 15.94% always used condoms with their regular partners. IDUs used condoms only slightly more often with non-regular partners: 50% and 29.4% of IDUs never used condoms with non-regular partners, and only 13.2% always used condoms with their non-regular partners. It has also been found that IDUs were more likely than non-injecting drug users to have multiple sexual partners and exhibit relatively lower condom use. Because high-risk injecting and sexual behaviors of IDUs make them a 'dual risk' group, they are considered a key bridge population for spreading HIV from high-risk groups to the general population (Liu H, 2006).

High-risk sexual behaviors declined after treatment among clients in the National Treatment Improvement Evaluation Study (NTIES), 2001. High risk behaviors, including having ten or more sexual partners, engaging in prostitution, and engaging in the exchange of sex for drugs, declined from intake to follow-up among clients in three age groups (adolescents, young adults and adults). The findings from this analysis suggest that substance abuse treatment has a positive impact on high-risk behaviors among clients in all age groups. One study in Ranong province showed that 40.9 percent of Myanmar migrant fishermen who inconsistently used condoms with CSW reported to have tried addictive drugs during the past 12 months. This research reported that using addictive drug could be one of reasons for enhancing sexual risk behavior among respondents who had sex with CSW. The study in Samut Sakorn province proved that using IVD was associated with longer duration of stay in Thailand and known as a way of stress reducing.

Significant difference knowledge among never tested, non-HIV and HIV positive in Bangkok was found in one study conducted in Bangkok about Knowledge

on HIV/AIDS among Drug Users (Usaneyarn Perngparn and Chitlada Areesantichai, 2005).

An understanding of the risks for further HIV transmission may inform dual risk reduction interventions targeting such populations. Behavior related to transmission by HIV-infected IDUs is an important area of study in examining the epidemiology of HIV/AIDS in this sub-population. In summary, this literature presents compelling evidence of the relationship between the social determinants of health and risk behaviors regarding HIV/ AIDS. The different social determinants influence a person's vulnerability to HIV infection, the speed with which HIV infection will progress to AIDS. This research aims to understand social (interpersonal) and behavioral (personal) factors driving the HIV/AIDS epidemic. We need to think of behavior change as a process that takes time, and often involves repeated attempts (Yu, 2000). We use this knowledge to develop and test behavioral HIV interventions that are theory-based and directed at prevention of HIV infections in both the general public and people living with HIV/AIDS (PLWHA). Sexual behavioral changes, mainly resulting from a variety of interventions to prevent transmission, might have partly explained the observed decline in HIV prevalence. This study may be useful for the young people, educational institutes, families, and health organizations to change their behaviors in order to make them human resources and man power in national development.

จุฬาลงกรณ์มหาวิทยาลัย

## CHAPTER III

### RESEARCH METHODOLOGY

#### **3.1 Research design**

Cross-sectional exploratory study with quantitative approach was used to access social determinants and high risk behaviors of Myanmar Migrants regarding HIV/AIDS.

#### **3.2 Study Area**

The study was done Phra Nakhon district about 1 km north from the Grand Palace among young people in Myanmar migrants in Bangkok.

#### **3.3 Study Period**

This study was done between Feb 1 and 14 of 2009 after getting approval from ethical committee of Chulalongkorn University.

#### **3.4 Study Population**

Young aged between 18 to 35 years of age, male and also female, registered and unregistered, from different backgrounds, with different types of education were included in the study population.

#### **3.5 Sampling Technique**

The subjects in Khao San road were collected purposively because there were many migrants including Myanmar and other migrants. In that area, data were collected with snow ball technique in their residential areas and some at their workplaces because of their different work nature and hours, registered and unregistered workers of target population.

**Exclusion criteria**

- The participants who didn't match ethical considerations
- Health staffs from government and NGOs
- Less than 3 months of stay in Bangkok
- AIDS / HIV patients
- Under 18 yrs or over 35 yrs of age

**Inclusion criteria**

- Myanmar migrants who can speak Myanmar language.
- The young people who are between 18 to 35 yrs of age.

**3.6 Sample Size** (By using Daniel formula, 2005)

Sample size for this research is calculated by the following formula

$$n = \frac{Z^2_{(1-\alpha)/2} \times p \times q}{d^2}$$

where,

n = required sample size

Z = standard normal deviate, set as 1.96 which corresponds to 95% CI

p = 0.16 (proportion of young people with risk behavior in Bangkok)

(This proportion is from Youth Risk behaviors on HIV/AIDS by National Surveillance of Myanmar, 2004)

q = 1 - p = 0.84

d = 0.05 = Acceptable error

$n = (1.96)^2 \times 0.16 \times 0.84 / (0.05)^2 = 206$

### **3.7 Reliability**

To check for the reliability of research instrument, a pre-test of questionnaires was conducted among 30 Myanmar respondents in Phyathai district, Bangkok. The Alpha Cronbach's co-efficient of 0.8 for knowledge part of questionnaires. The questionnaires was revised and amended following the pre-testing, and final version of the questionnaires was used in main survey.

### **3.8 Validity**

To ensure the validity of content, it was done by reviewing previous literature and consulting with experts.

### **3.9 Data collection**

Because of geographically scattered distribution of migrant workers, different working nature and working hours, and their free time it was difficult to arrange for data collection. Data were recruited in both daytime and in the evening, and in their residences and their workplaces as well with snowball technique. Participants were inquired filling up of questionnaires with Myanmar language and the questionnaires were closed ended questions about demographic information, sexual practices, HIV/AIDS related knowledge items on HIV transmission, prevention, and the existence of a cure for HIV/AIDS in the general population, and also questionnaire about access to health education and health services, habits of alcohol drinking and also drug abuse. Questions included yes/no items, and true/false/ uncertain items.

### **3.10 Data analysis**

For data analysis Statistical Package for Social Sciences (SPSS) software was used. Descriptive statistics (Univariate analyses) were used to describe all variables.

The odds ratio and 95% confidence interval (CI) were used to determine the

association between the studied factors (referred to independent variables, dependent variables). Data analyses utilized were standard descriptive statistics and chi-square analyses.

### **3.11 Limitations**

Limitations of this study were as follows:

- 1) The study utilized a cross-sectional design; therefore, causal inferences could not be made.
- 2) The results of this study might not be generalized able to other samples of other migrants or Thai citizen. The result could be generalized only to migrants in Bangkok. They are not representative of all persons in this age group, working in Thailand.
- 3) Selection bias might have influenced our sample.
- 4) Results may not be generalized able to adolescents who do not attend high school or not.
- 5) Appropriateness of statistical analyses was limited by the relatively small sample size.
- 6) Other limitations of the study include information were relied on self-reports and limited information, also limited time and budgets.

### **3.12 Benefits and applications**

This study provide needed baseline information (assessment of knowledge, high risk practices and factors influencing them) for implementing community-based HIV/AIDS prevention programs, interventions to increase sexual behaviors practice and for further studies that target this socio cultural context in that study area. Based on these findings, targeted HIV prevention interventions can be developed for this population in Khao San Road, Phra Nakorn district, Bangkok Metropolitan. Research



findings for policy formulation against HIV infections and AIDS; for planning, implementing and monitoring intervention programs for the general population and special risk groups identify content, thrust and direction of educational messages so there will be cost-effective.

### **3.13 Ethical consideration**

With the guidance of College of Public Health Sciences, Chulalongkorn University, this study was done after getting approval from the ethical committee of Chulalongkorn University. Additional permission to conduct the study was granted at the regional, district, and provincial levels. The research assistants were given by the concepts of this study including of objectives, process, benefits and limitation of this study. Informed oral consent by all participants prior to administering the questionnaire was done. Also all the participants are informed about freedom of withdrawal, non discrimination and willing to participate.



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## CHAPTER IV

### RESULTS

This study examined to describe socio-demographic characteristics, knowledge level of HIV/AIDS, high risk behaviors regarding HIV/AIDS of Myanmar Migrant's population in Khao San Road in Bangkok Metropolitan. This study was conducted by 210 of Myanmar migrants in Phra Nakorn District, Bangkok Metropolitan with filling out of self administered questionnaires through Snowball technique. And data collection was done from Feb 1 to Feb 15 2009. The data analysis reported is divided into two parts.

The univariate analyses include:

- Part I: Related socio-demographic characteristics of the sample population
- Part II: Knowledge level of respondents regarding HIV/AIDS
- Part III: High risk behaviors of participants regarding HIV/AIDS

The bivariate analyses includes

- Part IV: Association between socio-demographic characteristics of respondents and risk behaviors

#### 4.1 Univariate analysis

##### 4.1.1: Related socio-demographic characteristics of the sample population

The socio-demographic variables covers age, ethnicity, occupation status, educational status, marital status, average income and expenditure per month, types of house and duration in Thailand, language skills of respondents. Table 4.1 represents the distribution of selected characteristics of the migrants in the sample.

The gender distribution of the respondents showed that 51.4 % of respondents (108) were male and 48.6% were female and nearly equal distributed and all the respondents were in reproductive age. Out of 210 respondents, 36.0 % were in the age group of 25 to 29 years, 27.0 % were in 20 to 24 years ,10% were aged less than 20 years, and only 7.6 % were aged 35 years and above. The mean age of the 210 participants was 26.4 years (standard deviation 5.15).

According to ethnic group, nearly half of them 43.0% was bamar/Burmese (Male=50 and female=41) and Mon and Karen were 20.0% and 16.0% of sample population respectively. Dawae, one of ethnicity of Myanmar was 9.5% and others: 10.5% were Chein, Karenbamar, Monbamar, gawlakhar, Kachin, Pa-oah, Rakhine and Shan etc. The marital status of the respondents was nearly equally distributed: 50 percent single and 50 percent married. The majority of participants were unmarried and lived alone (55.7%), followed by 15.9% who were divorced, 15.6% who were unmarried. Nearly half (46.2 %) of respondents married between 20 to 24 years of age and second most married between 25 years to 29 years.

Regarding educational level, most of the subjects 84.8% (Male 87 and Female 91) had not completed ten years of compulsory education. 11.4 % had finished compulsory education and interestingly they were trying to get degree and 3.8% are illiterate. In Migrants' status, 68.8% of subjects were legally employed; among those of 210 subjects 30.0% were illegally working. With regard to occupation status, more half of them were shop helpers 64.3%, 12.9% worked in hotels and restaurants, some were factory workers 8.5%, 6.7% were construction workers .A few 5.7% worked in hair dressing, tattooing, cooking, housemaid and tailors.

**Table 4.1: Number and percentage distribution of respondents by Socio-demographic characteristics (N=201)**

Socio demographic Characteristics	M		F		Total		
	n	%	n	%	n	%	
<b>Age</b>							
18-19	5	4.6	16	15.7	21	10.0	
20-24	29	26.9	28	27.5	57	27.1	
25-29	32	29.6	44	43.1	76	36.2	
30-34	31	28.7	9	8.8	40	19.0	
35	11	10.2	5	4.9	16	7.6	
Total	Mean=26.42,SD±5.15	108	100.0	102	100.0	210	100.0
<b>Ethnicity</b>							
Mon	18	16.7	25	24.5	43	20.5	
Myanmar	50	46.3	41	40.2	91	43.3	
Dawae	9	8.3	11	10.8	20	9.5	
Karen	21	19.4	13	12.7	34	16.2	
Other	10	9.3	12	11.8	22	10.5	
Total		108	100.0	102	100.0	210	100.0
Others include Monbamar, Karenbamar, Pa-oha, Shan, Gawlakhar and Chein.							
<b>Marital status</b>							
Single	52	48.1	54	52.9	106	50.5	
Married	50	46.3	42	41.2	92	43.8	
Divorced	2	1.9	1	1.0	3	1.4	
Separated	4	3.7	5	4.9	9	4.3	
Total		108	100.0	102	100.0	210	100.0
<b>Age of Marital Status</b>							
15-19	11	19.6	14	29.2	25	24.0	
20-24	20	35.7	28	58.3	48	46.2	
25-29	21	37.5	3	6.3	24	23.1	
≥30	4	7.1	3	6.3	7	6.7	
Total		56	100.0	48	100.0	104	100.0
<b>Time of Marriage</b>							
One time	49	87.5	41	85.4	90	86.5	
Two times	3	5.4	5	10.4	8	7.7	
Three times	3	5.4	1	2.1	4	3.8	
>Three times	1	1.8	1	2.1	1	1.0	
Total		56	100.0	48	100.0	104	100.0

**Table 4.1(continued): Number and percentage distribution of respondents by Socio-demographic characteristics**

Socio demographic Characteristics	M		F		Total	
	n	%	n	%	n	%
<b>Education Status</b>						
Illiterate	4	3.7	4	3.9	8	3.8
Compulsory school	87	80.6	91	89.2	178	84.8
Degree(Bachelor)	17	15.7	7	6.9	24	11.4
<b>Total</b>	<b>108</b>	<b>100.0</b>	<b>102</b>	<b>100.0</b>	<b>210</b>	<b>100.0</b>
<b>Migration Status</b>						
Studying	3	2.8	0	0.0	3	1.4
Legal work	72	66.7	72	70.6	144	68.6
Illegal work	33	30.6	30	30.6	63	30.0
<b>Total</b>	<b>108</b>	<b>100.0</b>	<b>102</b>	<b>100.0</b>	<b>210</b>	<b>100.0</b>
<b>Occupation Status</b>						
Shop helpers	67	62.0	68	66.7	135	64.3
Hotel/restaurant	11	10.2	16	15.7	27	12.9
Construction	11	10.2	3	2.9	14	6.7
Tourist guide	9	8.3	4	3.9	13	6.2
Factory workers	7	6.5	2	2.0	12	5.8
Others	3	2.8	9	8.8	12	5.7
<b>Total</b>	<b>108</b>	<b>100.0</b>	<b>102</b>	<b>100.0</b>	<b>210</b>	<b>100.0</b>

Most of Myanmar migrants' worker earned approximately about 5,000-7,000 bahts per month followed by 16.4% and 12.4% of respondents earned about 4,000-5,000 bahts and 7,000-8,000 bahts respectively. The lowest income rate was less than 4,000 bahts in 6.2% of respondents and the highest rate was more than 9,000 bahts in 8.6%. With expenditure statement, most of Myanmar Migrants 37.6% spent between 1,000-2,000 bahts and 27.6% spent between 2,000-3,000 bahts per month. 19.5% spent between 3000-4,000 bahts per month. The lowest rate of expenditure less than 1,000 bahts was found in 8.1% of respondents and the highest rate of expenditure

more than 5,000 bahts was found in 1% of respondents. Most of Myanmar migrants sent back money and supported their family in their native country. In this study, 40% of respondents sent back money to Myanmar about 2001-3000 bahts, followed by 3001-4000 bahts and 4001-5000 bahts respectively.

Regarding living condition, most of subjects in the study population lived in rent house (78.0%) around Khao San Road. Nineteen percent of respondents lived in room possessed from their boss. A few percentage stayed in permanent residents and religious school or building. 35.2% of subjects stayed with their spouse and some 29.0% stayed with their friends. 17.6% of migrants stayed with their relatives and some 13.3% stayed alone. Duration in Thailand is different from each other. They have been in Thailand 1-4 years in 40.0% of sample population. Myanmar migrants 35.2% stayed here for 4-9 years duration. Some of Myanmar migrants who have been more than 10 years, 13.8% and 11.0% have been here less than 1 year duration.

About Thai language skill, in speaking and listening, almost all migrants can speak Thai language and only a few percentage 8.1% can't speak. In reading skill of Thai language, more than half of the sample population 67.0% couldn't read and 24.8% could not read a little and only 8.1% couldn't read well. In writing skill, there was a large difference with speaking and listening skills. Nearly 70.0% of people in the study couldn't write Thai language. 25.2%, a little and only a few 5.7% could write well.

**Table 4.1: (Continued) Number and percentage distribution of respondents by Socio-demographic characteristics**

Socio-demographic Characteristics	M		F		Total	
	n	%	n	%	n	%
Monthly Average Income						
≤4,000 B	3	2.8	10	9.8	13	6.2
4,001-5,000 B	12	11.1	22	21.6	34	16.2
5,001-6,000 B	29	26.9	21	20.6	50	23.8
6,001-7,000 B	27	25.0	22	21.6	49	23.3
7,001-8,000 B	16	14.8	10	9.8	26	12.4
8,001-9,000 B	10	9.3	10	9.8	20	9.5
> 9,000 B	11	10.2	7	6.9	18	8.6
Total Mean=6750.48±1941.29	108	100.0	102	100.0	210	100.0
Monthly Average Expenditure						
≤ 1,000 B	3	2.8	14	13.7	17	8.1
1,001-2,000B	35	32.4	44	43.1	79	37.6
2,001-3,000B	33	30.6	25	24.5	58	27.6
3,001-4,000B	25	23.1	16	15.7	41	19.5
4,001-5,000B	11	10.2	2	2.0	13	6.2
>5,000 B	1	0.9	1	1.0	2	1.0
Mean=2659.52±1117.77	108	100.0	102	100.0	210	100.0
Monthly support to family						
≤2000	32	29.6	20	19.6	52	24.8
2001-3000	44	40.7	40	39.2	84	40
3001-4000	22	20.4	29	28.4	51	24.3
4001-5000	8	7.4	7	6.9	15	7.2
5001-6000	1	0.9	3	2.9	4	1.9
6001-7000	0	0.0	3	2.9	3	1.4
>7000	1	0.9	0	0.0	1	0.5
	108	100.0	102	100.0	210	100.0
Type of House						
Permanent residence	4	3.7	0	0.0	4	1.9
Room from owner	16	14.8	24	23.5	40	19.0
Rent	88	81.5	76	74.5	164	78.1
Other	0	0.0	2	2.0	2	1.0
Total	108	100.0	102	100.0	210	100.0

**Table 4.1: (Continued) Number and percentage distribution of respondents by Socio-demographic characteristics**

Socio-demographic Characteristics	M		F		Total	
	n	%	n	%	n	%
With whom do you live?						
Spouse	42	38.9	32	31.4	74	35.2
Relatives	14	13	23	22.5	37	17.6
Alone	10	9.3	18	17.6	28	13.3
Friends	42	38.9	19	18.6	61	29
Total	108	100	102	100	210	100
Duration in Thailand						
< 1 yr	12	11.1	11	10.8	23	11
1-4 yr	36	33.3	48	47.1	84	40
5-9 yr	38	35.2	36	35.3	74	35.2
≥10 yr	22	20.4	7	6.9	29	13.8
Total Mean=2.51±0.87	108	100	102	100	210	100
Duration in present house						
< 3 months	7	6.5	4	3.9	11	5.2
3-6 months	11	10.2	8	7.8	19	9
6-12 months	15	13.9	7	6.9	22	10.5
>12 months	75	69.4	83	81.4	158	75.2
Total Mean=3.56±0.86	108	100	102	100	210	100
Speaking Skill						
No	9	8.3	8	7.8	17	8.1
Little	48	44.4	50	49	98	46.7
Much	51	47.2	44	43.1	95	45.2
Total	108	100	102	100	210	100
Listening Skill						
No	9	8.3	8	7.8	17	8.1
Little	48	44.4	51	50	99	47.1
Much	51	47.2	43	42.2	94	44.8
Total	108	100	102	100	210	100



**Table 4.1: (Continued) Number and percentage distribution of respondents by Socio-demographic characteristics**

Socio demographic Characteristics	M		F		Total	
	n	%	n	%	n	%
Reading skill						
No	66	61.1	75	73.5	141	67.1
Little	31	28.7	21	20.6	52	24.8
Much	11	10.2	6	5.9	17	8.1
Total	108	100.0	102	100.0	210	100.0
Writing skill						
No	67	62.0	78	76.5	145	69.0
Little	32	29.6	21	20.6	53	25.2
Much	9	8.3	3	2.9	12	5.7
Total	108	100.0	102	100.0	210	100.0

#### 4.1.2: Knowledge of health care access and HIV/AIDS information

In Question: Have you ever sought the HIV/AIDS information? Two-third of sample population answered 'yes' and 21.9% answered they have never sought HIV/AIDS information.

Regarding numbers of health education access in their life, 28.6% accessed to get health education about more than 3 times and round about 20.0% of respondents, one to three times and 28.6% were no history of access to get health education regarding HIV information in their life.

In this study, source of knowledge of HIV/AIDS was investigated and found out that the main source of HIV/AIDS knowledge. Most of participants 33.3% of participants got by self study from newspapers/journals/magazines and 26.7% got health information from entertainment media (Radio/TV/VDO). 12.9% got health information from health staffs and non-governmental organizations and some 18.1% got from palm plats and leaflets. There was a gender difference in reporting the main

source of getting health education. Males tended to report that their main source of education was from friends, hospitals, private school and religious schools compared with females. This may reflect the greater freedom of male respondents to socialization with friends compared to young females.

In language that can access HIV related health education, 46.2% of participants can access with Myanmar language during their native country, 40.0% got HIV related health education with Thai language and some 13.0% were with Thai-Myanmar language from nongovernmental organizations.

**Table 4.2: Numbers and percentage distribution of respondents by source of information about HIV/AIDS**

Information on HIV/AIDS	M		F		Total	
	n	%	n	%	n	%
HIV information						
No	22	20.4	24	23.5	46	21.9
Yes	86	79.6	78	76.5	164	78.1
Source						
Radio/TV/VDO	27	25.0	31	30.4	58	27.6
Pamphlets, leaflets	23	21.3	15	14.7	38	18.1
Newspapers/journals	32	29.6	38	37.3	70	33.3
NGOs	12	11.1	15	14.7	27	12.9
Others	14	13.0	3	2.9	17	8.1
Total	108	100.0	102	100.0	210	100.0
Others include health education from friends, hospitals, education course, private school and religious school						
Languages						
Thai-Myanmar	12	11.1	16	15.7	28	13.3
Thai	42	38.9	42	41.2	84	40.0
Myanmar	54	50.0	44	43.1	98	46.7
Total	108	100.0	102	100.0	210	100.0

Over half (61.9%) of respondents answered 'yes' and 38.1% answered 'no' in Question: Do you know where to go to get tested for HIV? In history of taking test for

HIV, 31 out of 108 male respondents had history of testing for HIV and 15 out of 102 female respondents had history of testing for HIV and others did not. With the last date for HIV test, 73.9% was tested within 1 year and the remaining 19.5% was tested past years.

The main reasons for HIV test were as follow:

About 60.9% of reason were for labor registration and male is more than female. Other reasons were they just wanted to know or curious (13.0%), screening for antenatal care(14.1%), checking for work and let them examine for fever by clinic (6.5%), a few percentage of 4.3% and 2.2% were for being worried and to attend school.

To assess participants' current knowledge of HIV transmission, fifteen questions regarding HIV knowledge was dedicated to participants. The answers were categorized as 'yes', 'no'; 'don't know' .Correct answers were given 1 point each. Incorrect answers and uncertain answers or ' don't know' was evaluated as score '0' and all the scores summed to obtain the individual's 'knowledge score', which represents the subject's level of HIV knowledge. Depend on lowest and highest scores of respondents, knowledge level of respondents were divided into three levels: more than 10 answers (70%) in this part of the questionnaires were counted as 'good knowledge', 6 to 10 correct answers (40-70%) were considered as 'fair knowledge but need to improve' and less than 6 correct answers were judged as reflecting as 'poor knowledge'.

**Table 4.3: Numbers and percentage distribution of respondents showing level of knowledge about HIV/AIDS (N=210)**

Knowledge on HIV/AIDS	Male		Female	
	n	%	n	%
Can a person who looks healthy be infected with AIDS virus?				
True	77	71.3	68	66.7
False	23	21.3	19	18.6
Don't know	8	7.4	15	14.7
Can people reduce their chances of getting the AIDS virus by using condom correctly every time they have sex?				
True	69	63.9	61	59.8
False	7	6.5	9	8.8
Don't know	32	29.6	32	31.4
Do you think that a person can get infected with the AIDS virus through mosquito bite?				
True	71	65.7	61	59.8
False	17	15.7	33	32.4
Don't know	20	18.5	8	7.8
Can people reduce their chances of getting the AIDS virus having only one sex partner who has no other partners?				
True	67	62	61	59.8
False	34	31.5	26	25.5
Don't know	7	6.5	15	14.7
Can a person get infected with the AIDS virus by sharing a meal with a person who has HIV or AIDS?				
True	93	86.1	81	79.4
False	7	6.5	11	10.8
Don't know	8	7.4	10	9.8
Can people get the AIDS virus by kissing someone?				
True	85	78.7	83	81.4
False	12	11.1	8	7.8
Don't know	11	10.2	11	10.8

**Table 4.3: (Continued) Numbers and percentage distribution of respondents showing level of knowledge about HIV/AIDS**

Knowledge on HIV/AIDS	Male		Female	
	n	%	n	%
Can AIDS virus be transmitted for a mother to a child?				
True	86	79.6	84	82.4
False	10	9.3	12	11.8
Don't know	12	11.1	6	5.9
Can AIDS virus be transmitted for a mother to a child: During pregnancy?				
True	62	57.4	61	59.8
False	13	12	20	19.6
Don't know	33	30.6	21	20.6
Can AIDS virus be transmitted for a mother to a child at delivery?				
True	75	69.4	62	60.8
False	10	9.3	7	6.9
Don't know	23	21.3	33	32.4
Can AIDS virus be transmitted for a mother to a child through breast milk?				
True	93	86.1	76	74.5
False	7	6.5	4	3.9
Don't know	8	7.4	21	20.6
If a mother is infected with the AIDS virus, is there any way to avoid transmission to the baby?				
True	78	72.2	65	63.7
False	14	13	12	11.8
Don't know	16	14.8	25	24.5
ARV is a way to avoid transmission from mother to baby?				
True	79	73.1	62	60.8
False	5	4.6	16	15.7
Don't know	24	22.2	21	23.5

**Table 4.3: (Continued) Numbers and percentage distribution of respondents showing level of knowledge about HIV/AIDS**

Knowledge on HIV/AIDS	Male		Female	
	n	%	n	%
Caesarean section is a way to avoid transmission from mother to baby?				
True	69	63.9	65	63.8
False	12	11.1	20	19.6
Don't know	27	25	17	16.7
Breast feeding is a way to avoid transmission from mother to baby?				
True	79	73.1	70	68.6
False	10	9.3	7	6.9
Don't know	19	17.6	25	24.5

According to data in above table, 62.0 % of male respondents and 59.8 % knew they can reduce the chances of getting the AIDS virus having only one sex partner who has no other partners. Because they believed that they could use condoms to reduce chances of being infected HIV. Nearly more than half of respondents thought that HIV can be transmitted by mosquito bites (65.7% of males and 59.8% of females). But in the question of people can get HIV by having together with meal with AIDS patients, and by kissing each other, and HIV can transmitted from infected mother to child their knowledge level is high in males and females , nearly 80% in males and females. They knew that HIV can be transmitted from mother to child, but most of them didn't know how to transmitted and the most being infected time (at delivery). They thought that if mother is infected, baby have to get HIV. Similarly, in question of the way to avoid transmission from mother to child, they realized that there is a way, but they didn't exactly the way. In this phase, females got low scores than males. Males, 63.9% and 63.0% of females knew cesarean section delivery is a

way to avoid vertical transmission. In conclusion on knowledge of HIV/AIDS in Khao San Road, Phra Nakorn district, all the participants seemed they had to get more chance to access health education about HIV/AIDS because it depends on their jobs and freely communication, they had more knowledge than females.

**Table 4.4: Numbers and percentage distribution of respondents on total HIV knowledge score (N=210)**

Knowledge on HIV/AIDS	Male		Female	
	n	%	n	%
Poor (Less than 40% /correct answer 0-5 )	9	8.3	6	5.9
Fair ( 40-70% / correct answer 6-10 )	46	42.6	59	57.8
Good (more than 70% / correct answer 11-14)	53	49.1	37	36.3
Total	108	100.0	102	100.0

**Mean=9.73, SD ± 2.547**

This table showed total score and knowledge level of respondents about HIV/AIDS. 42.6% of male respondents had moderate knowledge and females, 57.8 %. Nearly half of male respondents, 49.1 % had good knowledge that was more than female respondents, 36.3%. Only a few percentage of male and female (5.6% and 5.9%) had low level of knowledge about HIV/AIDS.

The mean score for cumulative knowledge of all respondents was 9.73. The knowledge level, therefore, was in the medium range, fair but need to improve.

**Table 4.5: Association between knowledge of respondents and gender on HIV/AIDS (N=210)**

Knowledge level	Male (n(%))	Female(n(%))	Total(n(%))	Chi-square	p-value
Less than 40%	9 (8.3%)	6 (5.9%)	15(7.1)	4.887	0.87
40-70%	46(42.6%)	59(57.8%)	105(50%)		
More than 70%	53(49.1%)	37(36.3%)	90(42.9%)		

Table 4.5 proved that there was no statistically significant association between knowledge level about HIV/AIDS and male and female respondents at p value 0.87.

#### 4.1.3: High risk behaviors of subjects regarding HIV/AIDS

##### 4.1.3.1 Inconsistent use of condoms

In this section, pattern of condom use of respondents in the study area will be presented. The result in table 4.6 reflected that among of respondents with history of sex with spouse, more than 70.0% said that they had no exp in using condoms, 45(78.0%) of male did not use condoms when they have sex, and 34 (72.3%) of female subjects also did not use condoms. Their main reasons for not using condoms were sexual partner are their spouse and they believed each other and they also wanted to be signal partners. On a more positive note, among 25 subjects of using condoms, 9 of males and 8 females, they have known that condoms can be used for preventing of pregnancy. Other reason for using condoms was that they wanted to test how condoms were.

**Table 4.6 : Number and percentage distribution of respondents showing sex with spouse \* gender \* use of condom with spouse (N=104)**

Partners	Condom Use	M		F		Total	
		n	%	n	%	n	%
Sex with spouse	No	45	79	34	72.4	79	76
	Yes	6	10.5	4	8.5	10	9.6
	Sometimes	6	10.5	9	19.1	15	14.4
	Total	57	100.0	47	100.0	104	100.0

The following table showed that numbers and percentage distribution of condom use by gender when they have sex with their boyfriends/girlfriends. There were 35 subjects who had history of sex with their boyfriends/girlfriends. 42.8% of respondents (13 of males and 2 of females) did not use condoms when having sex



with their boyfriends/girlfriends. Main reasons were they trusted each other and thought that they did not need to use. About total 57.2% (15 male and 5 females), had history of condom use when having sex. On a more positive note, 42.5% realized that by using condoms they could prevent getting pregnancy. There were profound deficits in HIV prevention information. Only 14.3% of respondents reported that using condoms could reduce the chance of getting HIV.

**Table 4.7: Number and percentage distribution of respondents showing sex with boyfriends/ girlfriends \* gender \* use of condom (N=35)**

Partners	Condom Use	Male		Female		Total	
		n	%	n	%	n	%
Boyfriends/Girlfriends	No	13	46.4	2	28.6	15	42.9
	Yes	15	53.6	5	71.4	20	57.2
		28	100.0	7	100.0	35	100.0

Regarding with condom use with commercial sex workers, 3 of male (13.6%) out of 22 who committed with CSW, had no history of condom use when sex with CSW. They admitted that there was no need to use condoms. The remaining 19 of male (86.4%) had history of use of condoms because most of them claimed that they were afraid of being infected HIV.

**Table 4.8: Number and percentage distribution of respondents showing sex with \* commercial sex workers \* use of condom \* gender (N=22)**

Partners	Condom Use	Male		Female		Total	
		n	%	n	%	n	%
Sex with CSW	No	3	13.6	0	0	3	13.6
	Yes	19	86.4	0	0	19	86.4
Total		22	100.0	0	0	22	100.0

#### 4.1.3.2 Alcohol related risk behaviors

In the sample population, there was nearly two-third of subjects (36 of male and 95 of female) who had no history of alcohol drinking. In 49 of subjects, 42 of male (38.8%) and 7 of female (6.9%), they drank alcohol sometimes. In this case, females usually drank only wine and beer. 30 of males (14.3%) had history of alcohol drinking.

Table 4.9 described that condom use after drinking alcohol by gender by partner when drinking alcohol last one year duration. There were total of 8 males who had history of alcohol drinking before sex. They had used condom after drinking alcohol before sex. Among those who had exp in using condoms, 7 males were used condom at their last sexual intercourse. In response to the question of sexual partner at that time, almost all said that their partners were CSW but one respondent was with their girlfriend. The percentage with CSW was 87.5% and 12.5 % was girlfriend. They believed that there was no need to use condoms. The study reported 7 males had no history of condom use after drinking alcohol. 5 of them is with CSW and 2 with their girlfriend. When reasons for condom use were asked more than 80% answered that they were afraid of infection from their partners. When reasons for condom use were asked more than 80% answered that they afraid of infection from their partners especially CSW. The remaining answered that they used condom to prevent infection to their sexual partners and some are for contraception.

**Table 4.9: Number and percentage distribution of respondents showing partners when alcohol drinking before sex \*gender\* Condom use after drinking alcohol\*(N=15)**

Condom use	Partners	Gender(Male)	
		n	%
Yes	CSW	7	87.5
	Girlfriends	1	12.5
Total		8	100.0
No	CSW	5	71.4
	Girlfriends	2	28.6
Total		7	100.0

#### 4.1.3.3 Drug related risk behaviors

Stating in use of drug, the survey reported there were 24 subjects of male who had history of drug used and the types of drug used are Yabaa or W/Y (21 males) and the rest of 3 used cough suppressant drugs.

Table 4.10 stated that numbers and percentage distribution of condom use after drug by partner when using of drug last 6 months by gender. It was one important factor describing high risk behaviors regarding HIV. Among 6 subjects who having sex after drug, 5 males had history of taking drug with CSW and also not use of condoms. One of subject answered his partner was girlfriend when taking drug. There were no subjects who taking injection in this study population.

**Table 4.10: Number and percentage distribution of respondents showing condom use after drug \* partner when using of drug \* gender (N=6)**

Condom use	Partners	n (Male)	%
Yes	CSW	1	16.67
No	CSW	4	66.67
	Girlfriends	1	16.67
Total		6	100.0

In conclusion of condom use, the result showed that condom use was also related to their partners. If partner is not prostitute who are labeled as HIV/AIDS carriers, using condom were not common with their partners, most of respondents didn't use condom with their spouse.

Among other risky behaviors, blood transfusion without screening is one of acceptable risk of being transmitted HIV. So the participants were asked the status of blood transfusion either elective or emergency. There was one emergency case in male population in 2007 and he didn't know that the blood had been screened. 7 males and one female answered that they had history of elective status of blood transfusion with screening. Many cases were due to blood disorders.

## **4.2 Bivariate analysis**

### **4.2.1 Bivariate analysis of socio demographic characteristics and visiting to commercial sex workers**

Table 4.11 showed that in the whole sample, the subjects who were studying and work legally were 2.9 times more likely to visit commercial sex workers (CSW), OR = 2.90, 95% CI =1.09 - 4.70 and had significance at p-value 0.027. In addition, occupation status was found to be an important factor of visiting to CSW. In this group, respondents who worked in construction, factory workers, hotel and restaurants, tourist guides, tattooing and hair dressing were 3.4 times more likely to prefer to visit CSW as compared to shop helpers around Khao San road, at significant level of p-value 0.005. There was significant association between living condition: subjects who lived with friends were 4.7 times more likely to visit CSW than subjects who lived in a rent room with their spouse or relatives at p-value 0.002. The remaining

analyses indicated that age, gender, marital status, and education status, residence, income and expenditure rate, duration in Thailand, language skills and knowledge level were not associated with visiting to CSW.

**Table 4.11: Association between Socio-demographic characteristics and visiting to CSW (N=108)**

Socio-demographic characteristics	Sex with CSW			OR (95%CI)	p-value
	Yes n (%)	No n (%)	Total n (%)		
Age(year)					
18-24	15(22.7)	51(77.3)	66(100.0)	1.464	0.446
25-35	7(16.7)	35(83.3)	42(100.0)	(0.60-3.06)	
Ethnicity					
Myanmar and others	15(25.0)	45(75.0)	60(100.0)	1.952	0.136
Mon,Karen and Dawae	7(14.6)	41(85.4)	48(100.0)	(0.72-5.26)	
Marital status					
Single/ divorce/ separate	13(22.4)	45(77.6)	58(100.0)	1.316	0.570
Married	9(18.0)	41(82.0)	50(100.0)	(0.58-2.66)	
Time of marriage					
Two times and above	2(28.6)	5(71.4)	7(100.0)	1.560	0.622
One time	10(20.4)	39(79.6)	49(100.0)	(0.26-9.25)	
Migrant status					
Studying and legal working	11(33.3)	22(66.7)	33(100.0)	2.90	<b>0.027</b>
Illegal working	11(14.6)	64(85.4)	75(100.0)	(1.09-4.70)	
Education status					
Graduated	6(35.3)	11(64.7)	17(100.0)	2.557	0.096
Not graduated	16(17.6)	75(82.4)	91(100.0)	(0.82-7.92)	

**Table 4.11(continued): Association between Socio-demographic characteristics and visiting to CSW (N=108)**

Socio demographic characteristics	Visiting to CSW			OR (95%CI)	p-value
	Yes n (%)	No n (%)	Total n (%)		
<b>Occupation status</b>					
Construction, others	12(35.3)	22(64.7)	34(100.0)	3.49 (1.33-6.53)	<b>0.005</b>
Shop helpers	10(13.5)	64(86.5)	74(100.0)		
<b>Monthly average income</b>					
≤6000B	12(27.3)	32(72.7)	44(100.0)	2.025 (0.82-3.68)	0.140
>6000B	10(15.6)	54(84.4)	64(100.0)		
<b>Monthly average expenditure</b>					
≤3000B	16(22.5)	55(77.5)	71(100.0)	1.503 (0.59-3.25)	0.439
>3000B	6(16.2)	31(83.8)	37(100.0)		
<b>Monthly support to family</b>					
≤3000B	19(25.0)	57(75.0)	76(100.0)	3.22 (0.84-8.38)	0.066
>3000B	3(9.4)	29(90.6)	32(100.0)		
<b>Type of housing</b>					
Room from boss, others	9(45.0)	11(55.0)	20(100.0)	4.720 (1.63-13.61)	<b>0.002</b>
Rent room	13(14.7)	75(85.3)	88(100.0)		
<b>Stay with</b>					
Relatives/Friends/alone	15(22.7)	51(77.3)	66(100.0)	1.471 (0.54-3.97)	0.446
Spouse	7(16.7)	35(83.3)	42(100.0)		
<b>Duration in Thailand(year)</b>					
≤4	10(20.8)	38(79.2)	48(100.0)	1.042 (0.49-2.20)	0.915
>4	12(20.0)	48(80.0)	60(100.0)		
<b>Language skill</b>					
Fluently	12(23.5)	39(76.5)	51(100.0)	1.446 (0.63-3.69)	0.297
Basic	10(17.5)	47(82.5)	57(100.0)		
<b>Health information access</b>					
Yes	19(22.1)	67(77.9)	86(100.0)	1.796 (0.48-6.72)	0.379
No	3(13.6)	19(86.4)	22(100.0)		

**Table 4.11: (Continued) Association between Socio-demographic characteristics and visiting to CSW (N=108)**

Socio demographic characteristics	Visiting to CSW			OR (95%CI)	p-value
	Yes n(%)	No n (%)	Total n (%)		
Knowledge level					
>70%	12(22.6)	41(77.4)	53(100.0)	1.31	0.565
≤70%	10(18.2)	45(81.8)	55(100.0)	(0.51-3.37)	

#### 4.2.2 Bivariate analysis of socio demographic characteristics and drinking alcohol

The association between age group and alcohol drinking were presented in Table 4.12. The age groups of 25-35 years were 2.4 times more likely to drink alcohol than age group of 18-24 years at significance p-value 0.004, and OR = 2.47, 95% CI 2.08-2.98. There was significant association between gender and alcohol drinking. Males were 27 times more likely to have alcohol drinking than females, OR=27.143, 95% CI= 11.42-64.50 at p-value <0.001. As shown as table 4.12, there was highly significant difference between subjects of different expenditure rate ≤3000 Bahts and >3000 bahts per month (OR = 3.03, 95% CI = 3.01-4.61). Subjects who expensed >3000 Bahts were 3 times to drink alcohol than those with ≤3000 Bahts. Other remaining characteristics were not significant association with alcohol drinking.

**Table 4.12: Association between Socio-demographic characteristics and alcohol drinking (N=210)**

Scio demographic characteristics	Alcohol drinking			OR (95%CI)	p-value
	Yes n (%)	No n (%)	Total n (%)		
Age(year)					
25-35	30(53.6)	26(46.4)	56(100.0)	2.472	<b>0.004</b>
18-24	49(31.8)	105(68.2)	154(100.0)	(2.08-2.98)	
Gender					
Male	72(66.7)	36(33.3)	108(100.0)	27.143	<b>&lt;0.001</b>
Female	7(6.9)	95(93.1)	102(100.0)	(11.42-64.50)	
Ethnicity					
Mon,Karen and Dawae	39(40.2)	58(59.8)	97(100.0)	1.227	0.473
Myanmar, others	40 (35.4)	73(64.6)	113(100.0)	(0.70-2.14)	
Marital status					
Married	36(39.1)	56(60.9)	92(100.0)	1.125	0.399
Single, divorce, separate	43(36.4)	75(63.6)	118(100.0)	(0.50-1.56)	
Time of marriage					
One time	37(41.1)	53(58.9)	90(100.0)	1.745	0.279
Two times and above	4(28.6)	10(71.4)	14(100.0)	(0.50-5.99)	
Migrant status					
Studying and legal working	57(38.8)	90(61.2)	147(100.0)	1.180	0.597
Illegal working	22(34.9)	41(65.1)	63(100.0)	(0.85-1.32)	
Education status					
Graduated	13(54.2)	11(45.8)	24(100.0)	2.148	0.075
Not graduated	66(35.5)	120(64.5)	186(100.0)	(0.90-2.20)	
Occupation status					
Construction, Others	28(43.1)	37(56.9)	136(100.0)	1.530	0.168
Shop helpers,	45(33.1)	91(66.9)	65(100.0)	(0.83-2.80)	

\*Others include factory workers, hotel and restaurants, tourist guides, tattooing and hair dressing.



**Table 4.12: (Continued) Association between Socio demographic characteristics and alcohol drinking (N=210)**

Socio demographic characteristics	Alcohol drinking			OR (95%CI)	p-value
	Yes n (%)	No n(%)	Total n (%)		
Monthly average income					
>6000B	45(39.8)	68(60.2)	113(100.0)	1.226 (0.46-1.43)	0.285
≤6000B	34(35.1)	63(64.9)	97(100.0)		
Monthly average expenditure					
>3000B	32(57.1)	24(42.9)	56(100.0)	3.03 (3.01-4.61)	<0.001
≤3000B	47(30.5)	107(69.5)	154(100.0)		
Monthly support to family					
≤3000B	56(41.1)	80(58.9)	136(100.0)	1.552 (0.85-2.82)	0.097
>3000B	23(31.0)	51(69.0)	74(100.0)		
Type of housing					
Rent room	62(37.8)	102(62.2)	164(100.0)	1.037 (0.52-2.04)	0.916
PR, Room from boss, others	17(37.0)	29(63.0)	46(100.0)		
Stay with					
Spouse	29(39.1)	45(60.9)	74(100.0)	1.108 (0.61-1.98)	0.420
Relatives/Friends/a lone	50(36.7)	86(63.3)	136(100.0)		
Duration in Thailand(year)					
>4	44(42.7)	59(57.3)	103(100.0)	1.534 (0.95-1.75)	1.34
≤4	35(32.7)	72(67.3)	107(100.0)		
Language skill					
Fluently	41(51.9)	54(95)	95(100.0)	1.538 (0.94-1.64)	0.087
Basic	38(48.1)	77(115)	115(100.0)		
Health information access					
Yes	65(39.6)	99(60.4)	164(100.0)	1.500 (0.91-2.03)	0.167
No	14(30.4)	32(69.6)	46(100.0)		

### 4.2.3 Bivariate analysis of socio demographic characteristics and drug use

The association with socio demographic characteristics and drug use was observed (Table 4.13). There was significant association between occupation groups. Respondents who worked in construction, factory workers, hotel and restaurants, tourist guides, tattooing and hair dressing were 4.5 times more likely to use addictive substance than shop helpers, p-value 0.002, OR=4.511 and 95% CI= 4.11-6.02. There was association between monthly average income, monthly support to family and drug use. Respondents who earned  $\leq 6000$ B were 2.5 times more likely to use addictive drugs than respondents who earned  $>6000$ B at p-value 0.041. Respondents who sent back money  $\leq 3000$ B to their family in Myanmar were 3.6 times more likely to use drug than respondents who sent back  $>3000$ B per month at p-value 0.037, 95%CI= 0.94-9.18. Another significant association was found in whether they got health information access in their life or not. The significant p-value was 0.025, OR= 7.667, 95% CI= 0.97-60.28. One factor that associated with drug use was found in this study. Subjects who lived with friends in a room from their boss and others were 3.9 times more likely to use drug than subjects who lived in a rent room with their spouse or relatives at p-value 0.010, OR=3.981, 95%CI=1.40-11.28.

**Table 4.13 : Association between Socio demographic characteristics and drug use (N=108)**

Socio demographic characteristics	Drug Use			OR (95%CI)	p-value
	Yes n(%)	No n(%)	Total n (%)		
Age(year)					
25-35	10(23.8)	32(76.2)	42(100.0)	1.160	0.752
18-24	14(21.2)	52(78.8)	66(100.0)	(0.46-2.92)	
Ethnicity					
Myanmar and others	16(26.7)	44(73.3)	60(100.0)	1.818	0.214
Mon, Karen and Dawae	8(16.7)	40(83.3)	48(100.0)	(0.70-4.70)	
Marital status					
Married	13(26.0)	37(57.4)	50(100.0)	1.501	0.381
Single, divorce, separate	11(19.0)	47(81.0)	58(100.0)	(0.60-3.73)	
Time of marriage					
One time	14(28.6)	35(71.4)	49(100.0)	2.4	0.425
Two times and above	1(14.3)	6(85.7)	7(100.0)	(0.30-12.94)	
Migrant status					
Illegal working	9(27.3)	24(72.7)	33(100.0)	1.5	0.402
Studying and legal working	15(20.0)	60(80.0)	75(100.0)	(0.66-2.79)	
Education status					
Graduated	4(23.5)	13(76.5)	17(100.0)	1.092	0.888
Not graduated	20(22.0)	71(78.0)	91(100.0)	(0.32-3.72)	
Occupation status					
Construction, Others	14(41.2)	20(58.8)	34(100.0)	4.511	<b>0.002</b>
Shop helpers,	9(13.4)	58(86.6)	67(100.0)	(4.11-6.02)	

\*Others include factory workers, hotel and restaurants, tourist guides, tattooing and hair dressing.

**Table 4.13 (continued): Association between Socio demographic characteristics and drug use (N=108)**

Socio demographic characteristics	Drug Use			OR 95%CI	p-value
	Yes n(%)	No n(%)	Total n (%)		
Monthly average income					
≤6000B	14(31.8)	30(68.2)	44(100.0)	2.52	<b>0.041</b> (1.97-4.01)
>6000B	10(15.6)	54(84.4)	64(100.0)		
Monthly average expenditure					
≤3000B	19(26.8)	52(73.2)	71(100.0)	2.34	0.09 (0.80-4.87)
>3000B	5(20.8)	32(86.5)	37(100.0)		
Monthly support to family					
≤3000B	21(27.6)	55(72.4)	76(100.0)	3.69	<b>0.037</b> (0.94-9.18)
>3000B	3(9.4)	29(90.6)	32(100.0)		
Type of housing					
PR, Room from boss, others	9(45.0)	11(55.0)	20(100.0)	3.981	<b>0.010</b> (1.40-11.28)
Rent room	15(17.0)	73(83.0)	88(100.0)		
Stay with					
Spouse	13(31.0)	29(69.0)	42(100.0)	2.241	0.082 (0.91-3.75)
Friends/alone /Relatives	11(16.7)	55(83.3)	66(100.0)		
Duration in Thailand(year)					
>4	15(25.0)	45(75.0)	60(100.0)	1.444	0.438 (0.56-3.66)
≤4	9(18.8)	39(81.2)	48(100.0)		
Language skill					
Fluently	12(23.5)	39(76.5)	51(100.0)	1.154	0.757 (0.46-2.86)
Basic	12(21.1)	45(78.9)	57(100.0)		
Health information access					
Yes	20(26.7)	56(73.3)	76(100.0)	7.667	<b>0.025</b> (0.97-60.28)
No	2(4.5)	30(95.5)	32(100.0)		

## CHAPTER V

### DISCUSSION AND RECOMMENDATION

#### 5.1 DISCUSSION

This is the first study among Myanmar migrants in Khao San Road tourism area, Phra Nakorn district. This cross sectional study has examined to describe the HIV/AIDS high risk behaviors among Myanmar migrants in Khao San Road, Phra Nakorn district, Bangkok Metropolitan. Total respondents (N= 210); male (108) and female (102) in Phra Nakorn district were included in this study. Self administered questionnaires were used to fill out to describe high risk behaviors of Myanmar migrants. The main questions explored in this study concerned socio-demographic characteristics that related to risk behaviors, HIV knowledge and HIV related high risk behaviors. Analysis of each variables and chi-square test for knowledge of respondents regarding HIV/AIDS with gender, OR and 95%CI were used for data analysis. In this section, the findings will be discussed in the context of research questions and objectives.

##### 5.1.1 Socio demographic characteristics of respondents

Regarding descriptive information, studies in Thailand also suggested that changes in socio-economic circumstances have a direct influence on the youth's social and sexual lifestyle (Podhista & Pattaravanich, 1995; Ford & Kittisuksathit, 1996).

Age is one factor that might have an influence sexual activity. As Isarabhakdi (2000) found that sexual activity increased with age among rural Thai youth. In the most recent Youth Risk Behavior Survey in United States, male were significantly

more likely than female students to report having had sexual intercourse (Grunbaum JA *et al.*,2001). In this study, most of the respondents were in the age of 25 to 29 years and second most were 20 to 24 years and nearly half of them were single. Therefore, according to the studies mentioned above, this study population was in reproductive age and sexually active age.

Although there was a variety of ethnicity, majority of them were Bamar/Burmese and Mon. When the increase in levels of premarital sexual intercourse is coupled with the rising age at first marriage, this means that men and women are spending longer and longer periods of their sexual life outside of marriage (Laumann, Gagnon, Michael, and Michaels, 1994). More men and women have engaged in premarital sexual intercourse, they have become sexually active at earlier ages, and they have accumulated more sexual partners (Smith, 2006). In this study, half of respondents were single status, a few percentages were separate and divorce and the remaining were married. They got usually married at the age of 20-24 years. 80% of married people had one time of marriage.

Education level of Myanmar migrant workers varied from illiterate/basic to university level. WVFT/ARCM, survey; Zaw, 2000; Win, 2007 studies described that most of Myanmar migrants workers didn't finished compulsory education and not graduated. In this sample population, although more than 80% of subjects had not completed compulsory education.

According to Office of Foreign Workers Administration, Department of Employment, Ministry of Labor, 2004, most of Myanmar migrant workers worked in agriculture, second most were in household workers (includes domestic worker, home care), construction and seafood processing and related industries, others were in

general laborers and fishermen. In this study, nearly 70% were shop helpers around Khao San road tourism area and had income of 5,000 to 6,000 Bahts per month. Their average income rate were similar with migrants who worked on hog farms in Nakhon Pathom or Lop Buri provinces but more than migrants in farm workers growing fruits and vegetables in Kanchanaburi Province.

Besides, nearly two-third of respondents was legal workers and they were included in 30 bahts scheme of health care services. Therefore, migrants in this study area were more likely to get health care access than migrants in Ranong. Most of Myanmar migrants in Ranong were illegal workers who had no health insurance and they couldn't use easily health care access (Win, 2007). Those illegal workers usually went to private clinic and complained of high medical cost.

Regarding safety of workplace, in Chiang Mai, 88 percent of migrant workers, most of who worked in construction, had experienced an injury in the last six months. In another study, there were reports of deaths from accidents on construction sites (Pinprateep, 2001). In garment factories at Mae Sot, there were reports of noxious fumes and high levels of dust without proper ventilation or facemasks, causing respiratory problems and irritations of the eyes and throat (ANM, 2004). In Mahachai District, Samut Sakorn Province just southwest of Bangkok, migrants working as seafood processors regularly suffered skin irritation and infections related to having their hands submerged in cold, briny water for long periods of time without adequate protection. To compare workplace safety condition of migrants in that province, Myanmar migrants in this study worked as shop helpers and they had no chance of getting such experience and most of them complaints of minor health problems like headache and fatigue.

Living condition is one important protective factor against inappropriate sexual behaviors. As empirical research suggested that human behavior depends upon on the environment they live in. Youth living independently from family have more freedom and environment could lead them to sexual experiences (Galambos and Tilton-Weaver, 1998). Isarabhakdi (2000) also found that young males whose parents were presence in the family were less likely to have premarital sex in comparison with young males who lived with friends or relatives. Majority of Myanmar migrants lived in a rent room with spouse and some are with friends.

Concerning living condition, many health problems are also related to migrants living conditions. A survey done in 2000 showed that in Chiang Mai, most of them who worked on construction sites, the water provided for bathing and washing clothes was unsanitary, and often came from a shallow well dug on the site that may collect the run-off from construction. In 2001, another survey showed 47 percent of females and 59 percent of males from various Burmese ethnic groups working in different occupations and locations in Thailand had diarrhea in the past six months (Pinprateep, 2001). Nationally, acute diarrhea was the most common disease reported among migrant workers; with 6,270 cases reported in 2003 and 5,822 cases reported in 2004 (age of patients was not recorded). Provinces along the border of Burma that have refugee camps had the highest rates (Bureau of Epidemiology, 2004). Myanmar migrants in this study (Phra Nakorn district area), they can use proper water delivery and sanitary system and there was rare reported cases of diarrhea and Gastrointestinal problems.

Regarding environmental condition of Myanmar migrants, in factory dormitories at Mae Sot, reported of over-crowding and poor ventilation were



common. Migrants have reported that some factories had seven to twenty people living in a three and a half square meter room without windows. Most rooms made for two people may house up to ten or more. At Mahachai, Samut Sakhon province, over-crowding was also common place. Unmarried or single individuals of the same sex boarded together, sometimes dividing the room between day and night work shifts. The NGO clinic at Mahachai reported that in a sample month in January 2004, out of 532 clients seeking treatment, 14 percent sought treatment for respiratory tract infections, while another eight percent had ear/nose/throat problems (RTF/CARE, 2004). The lack of privacy and cramped or dirty living conditions, combined with their general circumstances, also caused stress. At the Mahachai NGO clinic, the primary complaint of those seeking basic services, almost 32 percent of clients (out of 532) reported suffering from psychological problems or stress, where in some cases this manifested as severe headaches (RTF/CARE, 2004). At construction sites, fishing ports, and slums, migrant communities are often exposed to effluent from industry or live over standing water, making them susceptible to flooding and mosquito-borne diseases, especially dengue fever. In this study, most of Myanmar migrant workers lived in a rent room with maximum of 4 family members or friends. Their rooms were well ventilated and not looking overcrowded condition.

The average duration in Thailand was for 1 to 4 years and this might be consistent with one study of Ahmed, 2000. So, migrants in this study might be reduced chance of HIV vulnerability and can access health information. More than 40% can speak and listening of Thai language well and easy to access to health services without language barrier.

### 5.1.2 Knowledge of health care access and information about HIV/AIDS

In my study, HIV/AIDS knowledge level of Myanmar migrants in Khao San road was evaluated as moderate level. But HIV/AIDS is a pandemic disease that is more terrible than any terrorist attack or activity in the world. So, more education on HIV/AIDS still need for the population of Myanmar migrants in Khao San road to obtain good level of knowledge. Education relating to HIV/AIDS has proved to be effective in increasing knowledge regarding HIV/AIDS (Yu, 2000). The result reported that nearly 80% of respondents got HIV information access in their life. They got mostly from mass media especially self study from newspapers, journals and magazines, also from TV/VDO and radio in their country and also in Thailand as well. A few of them reported receiving health information from hospitals and health staffs, NGOs, others from religious schools and from friends. This finding had been coincided with the study of among Myanmar migrants in Ranong, (Win, 2007). It should be noted that information received from friends or other adult relatives may not be equivalent. Information received from these is likely to be qualitatively different from information received in a setting, in which health professionals usually deliver the information. It is consistent with research study about misperception of infection and causes regarding HIV/AIDS (Chantavanich et al, 2000). Therefore, we should be careful to provide accurate and quality of health information about HIV/AIDS to the population.

As mentioned above, the knowledge of respondents about HIV/AIDS was moderate level and the mean knowledge score for all respondents in Khao San road was 9.73 and SD  $\pm$ 2.547. There were 14 set of questionnaires about HIV/AIDS and depend on lowest and highest score of respondents, it divided into 3 groups: 1) less

than 40% (correct answers 1-5), 2) 40-70% (6-10 correct answers), 3) More than 70% (11 to 14 correct answers). Nearly half of respondents had within 40%-70% of total knowledge score and one third of respondents represented as above 70% of total knowledge score. Only a few had less than 40% of total score. In analyzing answers response to each question, they knew that it can be transmitted from infected mother to baby. But most of them couldn't exactly identify the way to vertical transmission of HIV/AIDS. About nearly half of the subjects in the sample were not aware that mothers can pass the HIV virus to their babies through childbirth and through breast feeding. Some of subjects believed or unsure that kissing each other and mosquito bites could also transmit HIV virus. The previous study in border areas by Chantavanich et al, 2000 for provision of information on HIV/AIDS was not better results than this study, due to able to access easily information in urban Bangkok. Also Zaw 2003, one study conducted in Myanmar migrants in Bangkok in two Churches, their knowledge score about HIV/AIDS was lower than this study, because Khao San road, in Phra Nakorn district located in Central Bangkok and that area represented as foreign communities and has freely communication and access to health information and education than Myanmar migrants in other area of Bangkok Metropolitan and other provinces.

### **5.1.3 Risk behaviors regarding HIV/AIDS**

This section focused on specific risk behaviors of the respondents in Khao San road about their sexual behaviors and condom use, history of alcohol taking or drug use before sexual intercourse, identifying sexual partners, history of blood transfusion within last six months. In this study, about half of the sample were single and another half had experience of sexual intercourse. The findings of this study

indicated that the frequency of condom use varied among the sexually active participants. In general, condom use was quite low in migrants. Some participants in this sample were knowledgeable about the major modes of HIV infection and prevention and they usually used condom when they had sex with CSW who could be HIV carriers. But they were rare to use condoms with their spouse because most of respondents in this study including male and also females, they trusted their spouse and they relied on single partner. In this study, nearly 80 % of respondents didn't use condom when they had sex with their spouse. Sixteen percent of respondents answered that they had history of sexual experience with their boyfriends/girlfriends. 10.4 % in this study were reported history of contact with commercial sex workers last 6 months.

There were 46 out of 210 of participants reported having been tested for HIV, half of these in the last six months. Most of the reasons for examining of HIV test were due to labor registration and curious either they have or not. This finding was encouraging because it revealed that some subjects were thinking realistically about their risk of HIV infection.

Few participants 7% and 3% reported ever being under the influence of alcohol or drug before sexual intercourse; this risky behavior can lead to impairments in judgment and thus less frequent use of protective behaviors during intercourse. But this percentage was so quite low that compare with the study in youth risk behavior survey in US in 2007.

Only 4% of respondents had history of blood transfusion but majority of them did not know whether it had been screened or not before transfusion. Most of the

causes of blood transfusion were due to blood disorders and rare case for emergency blood transfusion.

#### **5.1.4 Association between socio demographic characteristics and high (sexual, alcohol and drug related) risk behaviors**

Several researchers suggested that sexual activity is increased with age (Ajayi et al., 1991; Xenos et al., 1993; Abraham & Kumar, 1999). Migrants workers study in other provinces showed that age distribution of their sample population were mainly between 15 to 35 years and similar with this study. Male constituted more than half of respondents and half of respondents were married in this study. Some studies (Ahmed, 2001; Thu, 2003) proved that males, single persons and younger persons were significantly more risk behaviors to HIV. Thus respondents in this study might be represented as population of other migrant workers and they were considered to be vulnerable group for HIV infection.

Regarding ethnicity, like other studies, no meaningful differences across ethnic groups were found for any items. With increase in levels of premarital sexual intercourse came a fall in the age of first intercourse. To compare with this study, there was rare case of premarital sex rather than other studies. This is because premarital sexual intercourse is not allowed in our Myanmar culture and norms. Besides this, among married population, most of them had one time of marriage because Myanmar migrants usually value their marital status. Thu 2003 study showed that respondents who were single/divorce/separated had more visiting to CSW and there was significant difference. But in this study, this variable was not significant difference.

Education plays an important role in sexual attitudes and behaviors. Youth with high educational attainment level were less likely to engage in sexual experience or initiated their first coitus at later age compared to those youth who have low education, particularly for male youth (Vanlandingham M., 1995). Furthermore, youth with low educational achievement and aspirations were associated being more sexually experienced (Eggleston et al., 1999) and with early onset of intercourse (Jessor et al., 1993). In this sample population, although more than 80% of subjects had not completed compulsory education, there were few cases that had sex with commercial sex workers and no significant difference. Therefore, this study is not consistent with above studies but consistent with two studies done among Myanmar migrants in border area of Thailand (Paw 2006, Thu 2003).

Migration status is associated with vulnerability to HIV infection. In this study, respondents who worked legally were more likely visit to sex workers than respondents who worked illegally (home care, housemaid, general labors) and there was significant association at p-value 0.027. For illegal migrants, they were afraid of being arrested and they didn't go outside and thus they were not familiar with outside communities.

Occupation status is one of important factors that associated with risk behaviors. Generally, such as truck drivers, traders and commercial salesmen, fishermen and seamen, all of whom are more likely to have a high patronage of sex workers, alcohol and drug use. In this study, respondents who worked as construction workers, factory workers, hotel and restaurants, tattooing and hair dressing were more likely to visit to sex workers than respondents who were shop helpers. According to their nature of work, the shop helpers were in their workplace almost all the time.

Therefore, it can be found that there was significant difference in occupation status at p-value 0.005.

Income rate per month of respondents in this study (5,000-6,000B) was quite higher than migrants in Mae Sot and fisherman in Ranong and Seafood processing workers in Samut Sakhon province (3,000-4,000B). The living condition and average expenditure rate were higher than migrants in farm workers growing fruits and vegetables in Kanchanaburi Province. It can be assumed that the more income rate and expenditure, the more risk behaviors they practiced. But there were many studies that showed no association between income and risk behaviors.

Respondents who lived in a dormitory or rent a house were more likely to engage in sexual activity than those who live with parents or family. In this study, most of respondents stayed in a room from their boss with friends. Thus, there was significant association between living style and frequency of sexual contact with commercial sex workers. Regarding to duration of stay in Thailand, one study in Samut Sakhon province reported that there was significant difference between duration of stay and frequency of visit to CSW. Factors related to visiting sex workers included marital status (more visits if not married), longer residence in Thailand, occupation of seafarer or seafood production migrant workers in southern coastal and northern areas of Thailand (Kathleen Ford and Aphichat Chamrathirong, 2004). These factors were not significant in this study.

In health education and information, this study is consistent with other studies (Win, 2007; Thu, 2003; Zaw, 2002). Most of respondents got health information from mass media such as magazines, journals, newspaper with Myanmar language and also from TV/ radio.

In this study, the knowledge level of respondents was moderate (Mean = 9.73) and higher than Myanmar migrants in Ranong province and Tak province. There was no significant difference of knowledge level among male and female respondents. It is not consistent with the previous study among Myanmar migrants in Tak province (Mullany L C., 2000) and study in India: women often experience unequal access to resources including health care information, resulting in a lack of knowledge about HIV-related risk and preventive strategies (Garg & Sharma, 2006; Weiss et al., 2000). These studies had significant difference of knowledge between men and women.

In this study, nearly 80 % of respondents didn't use condom among married population. Similarly, surveys among migrants from Myanmar at a couple of different locations in Thailand found that around 95 percent of married women had never used condoms with their husbands, whereas around 92 percent of men had reported never using condoms with their wives (Caouette 2000; WVFT 2003). At Samut Sakhorn province, a rate of around 74 percent was reported for never using condoms with a spouse (Tin, 2000). Condom use is also generally low with girl/boyfriends, with around 85 percent reporting that they never use condoms (RTF/CARE, 2002; WVFT, 2003). In condom use, Myanmar migrants in this study is consistent with Myanmar migrants in other provinces. Therefore, it can be concluded that overall status of condom use is still low among Myanmar Migrants.

More than 10.4 percentages of respondents answered that they had history of sexual experience with CSW but this percentages were quite low comparable with one study among fisherman in Ranong (60%)(Wongkhomthongn & Ohsawa, 1998; Phitaya, 2005). Similarly, at Phuket, migrants from Myanmar working as fishermen



reported less than 30 percent condom use in their last experience with migrant direct sex workers, and less than 18 percent condom use in their last experience with an indirect migrant sex workers.

According to school health and youth health promotion WHO, 2001, the risk between the ages of 15 and 29 years were attributable to alcohol use. In this study, there was significantly difference with age and alcohol drinking at p-value 0.004. It is consistent with one study in Samut Sakhon (Thu 2003) but not in duration of stay in Thailand.

As mentioned above, risk behaviors were associated with monthly average income and expenditure. The more income and expenditure, they have more chance to act risk behaviors. In this study, respondents who expensed more were more likely to have alcohol drinking and significant difference p-value <0.001. Most of migrants working in Thailand usually sent back money and supported to their family in native country. In this study, respondents who earned more and monthly support to their family were less likely to use drug than respondents who didn't. If they sent money back less, and earned more money, they have no self controlled mechanism and they might expense more and might have contact with sex workers or other risk behaviors.

There were associations between occupational status, access to health education, living condition and drug use of respondents in this study.

## **5.2 Conclusion and Recommendation**

The aim of this study is to identify possible risk factors that influence migrants' behaviors in relation to HIV/AIDS risk. The results of the study suggested that the migrants from Myanmar working in Khao San Road in Phra Nakorn district had moderate level of knowledge and exposure to the risk of HIV infection. Due to

absence of an effective vaccine and treatment to protect people from HIV/AIDS, issues concerned with intervention programs on high risk behaviors or preventive behaviors have received greater global attention. This indicates that a strong need for HIV prevention programs among this population. The most effective strategies must be directed to promote HIV/AIDS preventive behaviors and to remove risky behaviors of the people. Besides, HIV/AIDS/STI prevention and care service should be adjusted to be understandable and acceptable for migrants as well as the technique and means for transferring knowledge should be appropriated, especially in terms of simple language and directly education method.

Based on results, it can be determined that most of migrants got health education from self study from mass media, and there is still need to provide accurate information and awareness about HIV/AIDS from health staffs and NGOs role to avoid misconception. Besides, health care service providers, their employers and NGOs should be involved in reaching out of effective preventive programs.

In many HIV infected case, the infected source is through commercial sex workers. Most of male clients usually got the infection from CSW, and then transmit to their wives, girlfriends and other partners. Therefore, behavior change communication and campaign should be targeted to not only normal community but also commercial sex workers.

Behavior change interventions are currently the only effective way of slowing the spread of HIV infection. Recent research indicated that aggressive promotion of safer sexual behavior and prevention of substance abuse could avert tens of thousands of new HIV infection and potentially save millions of dollars in health care costs.

Therefore, behavior change intervention should be enforced at the level of individual, couples and family, community, and law and policy.

Because of unregistered status, language barriers and difficulties in communication, most of migrants faced problems to access in health care services. Therefore, to make more registration and documented status as possible among migrants population with policy intervention program should be targeted by Thai government.

This study reported that use of condoms among migrants were low, some migrants had more than one sexual partners and other associated risk factors like alcohol drinking and drug use before sex and history of blood transfusion risks. Although Thai government has tried to promote condom use with all people living in Thailand, including native Thai and migrants living in Thailand, the program has not adequately reached among Myanmar migrant workers in Thailand. Therefore, condom promotion programs should be focused effectively to migrant workers in Thailand.

A longitudinal study or qualitative study on sexual attitudes and behaviors of migrants from different age groups and different background with larger sample size should be considered in order to determine the causal relationship of sexual attitudes and behaviors among them.

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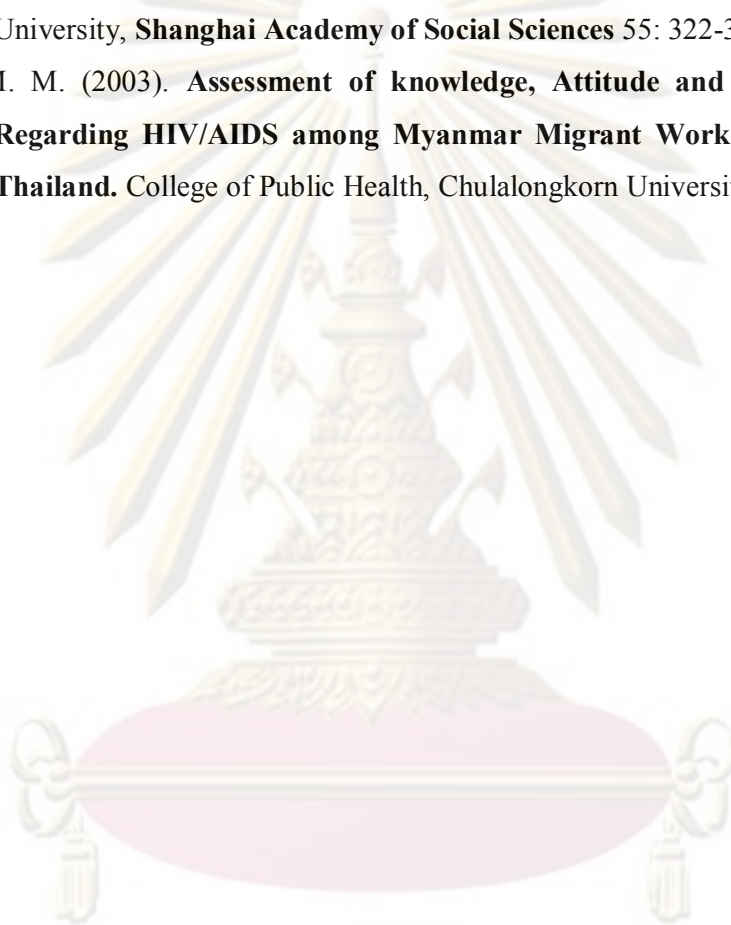
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ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย



APPENDICES

ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย



## 9) Occupation status

- (i) Construction worker      (ii) Restaurant/Hotel worker  
 (iii) Tourist guide      (iv) Others (please specify) .....

10) What is your monthly average income? ..... Baht (Individual income only)

11) What is your monthly average expenditure? ..... Baht (excluded support of your family)

12) How much do you usually support your family? ..... Baht / month

13) Where do you live?

- (i) Permanent residence      (ii) Hostel  
 (iii) Rent house      (iv) others (specify).....

14) With whom do you live now?

- (i) Husband/wife      (ii) Relatives  
 (iii) Alone      (iv) Friends  
 (v) Others (specify).....

15) How long have you been in Thailand?

.....year ..... months

16) How long have you been present resident?

- (i) < 3 months      (ii) 3 to < 6 months  
 (iii) 6 to < 12 months      (iv) > 12 months

17) What is your skill in Thai Language?

Items	No	Yes but a little (Basically)	Yes and very good (Fluently)
Speaking			
Listening			
Reading			
Writing			

## Part II - Health care service, knowledge, attitude and beliefs about HIV/ AIDS

### A. Health care service

1) Do you know the places that can access health care in Bangkok?

- (i) No      (ii) Yes

- 2) If you get sick, where do you usually go for your health care services?
- (i) Governmental hospital                      (ii) Clinic  
 (iii) Drug store                                      (iv) Traditional medicine  
 (v) Others (specify) .....
- 3) Have you ever sought the HIV/AIDS information?
- (i) No    (ii) Yes
- 3.1) If yes, where do you find HIV/AIDS information? .....
- 4) How many times did you usually access health education for HIV/AIDS in your life?
- (i) Never    (ii) 1 time  
 (iii) 2 to 3 times                                      (iv) > 3 times
- 5) Regarding HIV/AIDS, where do you mostly get health education?
- (i) Radio/TV/Video                      (ii) Billboards/Newspapers/Magazines/Journals  
 (iii) Health staffs and NGOs                      (iv) Pamphlet/leaflets  
 (v) other (specify).....
- 6) What language is mostly used in this HIV-related health education?
- (i) Thai language                      (ii) Myanmar  
 (iii) Thai Myanmar                      (iv) Other (specify) .....
- 7) Do you know where to go to get tested for HIV?
- (i) Yes    (ii) No    (iii) Don't know
- 8) Have you ever been tested for HIV?
- (i) No    (ii) Yes
- 8.1) If yes, can you tell me the month and year when you were last tested for HIV?  
 ..... year ..... month
- 8.2) If yes, the reason of test for HIV was .....



### B. Knowledge, attitude and beliefs about HIV/ AIDS

9) Now I'm going to read out some questions about HIV, the virus that causes AIDS. Some of the questions have accurate information and others incorrect information.

		Yes	No	Don't know
a	Can a person who looks healthy be infected with AIDS virus?			
b	Can people reduce their chances of getting the AIDS virus by using condom correctly every time they have sex?			
c	Do you think that a person can get infected with the AIDS virus through mosquito bite?			
d	Can people reduce their chances of getting the AIDS virus having only one sex partner who has no other partners?			
e	Can a person get infected with the AIDS virus by sharing a meal with a person who has HIV or AIDS?			
f	Can people get the AIDS virus by kissing someone?			
g	Can AIDS virus be transmitted for a mother to a child?			
h	Can AIDS virus be transmitted for a mother to a child: During pregnancy or at delivery?			
i	Can AIDS virus be transmitted for a mother to a child through breast milk?			
j	If a mother is infected with the AIDS virus, is there any way to avoid transmission to the baby?			
k	What ways? Antiretroviral therapy (drugs before birth) (Not breastfeeding) (Caesarean section)			

### Part III – High risk behaviors

#### A. Sexual behaviors

1) Have you ever have sex with .....? (If the answer is no, please skip no 2)

No	Items	No	Yes	Last time (when)
1	Spouse			
2	Boyfriend/girlfriend			
3	Friends			
4	Sex workers			
5	Other (specify) .....			

2) Have you ever use condom with .....?

No	Items	No	Yes	Sometimes	Specify the reason
1	Spouse				
2	Boyfriend/girlfriend				
3	Friends				
4	Sex workers				
15	Other (specify).....				

#### B. Alcohol and addictive substance related risk behaviors

1) Do you drink alcohol?

(i) No                      (ii) Yes                      (iii) Sometimes

2) Have you ever drink alcohol before having sex?

(i) No                      (ii) Yes                      (iii) Sometimes

2.1) If the answer is yes, specify partner .....

2.2) When was the last time? .....

2.3) did you use condom at that time?

(a) Yes                      (b) No

3) Have you ever used addictive substance?

- (i) No                      (ii) Yes

3.1) If yes, specify type of drug .....

4) Have you ever use addictive substance before having sex?

- (i) No                      (ii) Yes                      (iii) Sometimes

4.1) If the answer is yes, specify partner .....

4.2) When was the last time? .....

4.3) Did you use condom at that time?

- (a) Yes                      (b) No

5) Have you ever injected addictive substance?

- (i) No                      (ii) Yes

5.1) If yes specify type of drug .....

5.2) If yes, when was the last time? .....

### **C. Blood Transmission**

1) Have you ever received blood transfusion or any other surgery?

- (i) No                      (ii) Yes

1.1) If yes,

- (a) Urgently                      (b) Planned

1.2) When was the last time? .....

ထိုင်းနိုင်ငံ၊ ဘန်ကောက်မြို့၊ ခေါက်ဆန်လမ်းရှိ  
မြန်မာနိုင်ငံမှပြောင်းရွှေ့နေထိုင်အလုပ်လုပ်ကိုင်သူ အရွယ် ရောက်သူများ၏  
အိတ်ချ်အိုင်စီ/အေအိုင်ဒီအက်စ်ရောဂါနှင့် သက်ဆိုင်သောအသိပညာနှင့် အပြုအမူဆိုင်ရာ  
မေးခွန်းများ အမှတ်စဉ်-----

မေးမြန်းသူ - မနန်းရွှေစွယ်ထွန်း

ပြည်သူ့ကျန်းမာရေးသိပ္ပံကောလိပ်၊ ချူလာလောင်ကောင်တက္ကသိုလ်၊ ၂၀၀၉။

အပိုင်း (၁) ။ အတွေ့တွေ့အချက်အလက်များ

ညွှန်ကြားချက် ။ အောက်ဖော်ပြပါ မေးခွန်းများသည် သင်၏ကိုယ်ရေးအချက်အလက်များ ဖြစ်ပါသည်။ လေးထောင့်ကွက်ထဲတွင်ကြက်ခြေခတ်ခြစ်ပါ။ ပေးထားသော ကွက်လပ်တွင်ဖြည့်စွက် ရေးသားပါ။

- ၁။ အသက် ----- နှစ် ----- လ
- ၂။ (၁) ကျား  (၂) မ
- ၃။ လူမျိုး
  - (၁) မွန်  (၂) ကရင်
  - (၃) ရခိုင်  (၄) ထားဝယ်
  - (၅) မြန်မာ  (၆) အခြား (သီးခြားလူမျိုးကွဲများဖြစ်လျှင်)----
- ၄။ အိမ်ထောင်ရှိ/မရှိ (အိမ်ထောင်မရှိလျှင် မေးခွန်းနံပါတ်(၅)နှင့်(၆)ကိုဖြေရန်မလိုပါ)
  - (၁) အိမ်ထောင်မရှိ  (၂) အိမ်ထောင်ရှိ
  - (၃) မှဆိုးဖို/မှဆိုးမ  (၄) ကွာရှင်းထား/သီးခြားခွဲနေ  (၅) အခြား -
- ၅။ အိမ်ထောင်ရှိလျှင် ၊ ပထမဆုံးအိမ်ထောင်ကျသော အသက်
  - (၁) ၁၅ နှစ်မှ ၁၉ နှစ်  (၂) ၂၀ နှစ်မှ ၂၄ နှစ်
  - (၃) ၂၅ နှစ်မှ ၂၉ နှစ်  (၄) ၃၀ နှစ်အထက်
- ၆။ ဘယ်နှစ်ကြိမ်လက်ထပ်ခဲ့ဖူးပါသလဲ။  ကြိမ်
- ၇။ ပညာအရည်အချင်း
  - (၁) အတန်းပညာသင်ကြားဖူးခြင်းမရှိ  (၂) အခြေခံပညာ (၁-၁၀တန်း)
  - (၃) အဆင့်မြင့်ပညာ/တက္ကသိုလ်
- ၈။ ပြောင်းရွှေ့နေထိုင်မှုအခြေအနေ
  - (၁) ပညာသင်ခြင်း  (၂) တရားဝင်အလုပ်လုပ်ခြင်း
  - (၃) တရားမဝင်အလုပ်လုပ်ခြင်း  (၄) အလုပ်မလုပ်ပါ
  - (၅) အခြား -----
  - (၈-၁) အလုပ်မလုပ်လျှင် မည်သူက ငွေကြေးအထောက်အပံ့ပေးသနည်း။ -----
- ၉။ အလုပ်အကိုင်
  - (၁) ဆောက်လုပ်ရေးလုပ်ငန်း  (၂) ဟိုတယ်/စားတော်ဆက်လုပ်ငန်း
  - (၃) ဧည့်လမ်းညွှန်  (၄) အခြား -----

- ၁၀။ လစဉ်ဝင်ငွေ ----- ဘတ် (တစ်ဦးချင်းဝင်ငွေ)
- ၁၁။ လစဉ်အသုံးစရိတ် ----- ဘတ် (မိသားစုထောက်ပံ့ငွေမပါဝင်ပါ)
- ၁၂။ သင်၏မိသားစုသို့ မည်မျှထောက်ပံ့သနည်း။ ----- လလျှင် ----- ဘတ်
- ၁၃။ သင်နေထိုင်သောအိမ်အမျိုးအစား
- (၁) ကိုယ်ပိုင်နေအိမ်  (၂) အလုပ်ရှင်မှပေးသောအခန်းတွင်   
နေထိုင်သည်။
- (၃) အိမ်ငှားနေသည်။  (၄) အခြား -----
- ၁၄။ မည်သူနှင့် ယခုနေထိုင်ပါသလဲ။
- (၁) ခင်ပွန်း/ဇနီး  (၂) ဆွေမျိုးသားချင်း  (၃) တစ်ဦးတည်း
- (၄) သူငယ်ချင်းများနှင့်  (၄) အခြား (အသေးစိတ်ဖော်ပြရန်) -----
- ၁၅။ ထိုင်းနိုင်ငံသို့ ရောက်တာဘယ်လောက်ကြာပြီလဲ။  
----- နှစ် ----- လ
- ၁၆။ ယခုအိမ်တွင် နေထိုင်သည်မှာ ဘယ်လောက်ကြာပြီလဲ။
- (၁) ၃ လအောက်  (၂) ၃ လ မှ ၆ လအောက်
- (၃) ၆ လ မှ ၁၂ လ အောက်  (၄) ၁၂ လ အထက်
- ၁၇။ ထိုင်းဘာသာစကားကျွမ်းကျင်မှု

		မတတ်ကျွမ်းပါ	အနည်းငယ်တတ်ကျွမ်းသည်	ကောင်းစွာတတ်ကျွမ်းသည်
က	ပြောဆိုခြင်း			
ခ	နားလည်နိုင်ခြင်း			
ဂ	ဖတ်နိုင်ခြင်း			
ဃ	ရေးသားနိုင်ခြင်း			

အပိုင်း (၂)။ သင်၏ကျန်းမာရေးစောင့်ရှောက်မှု၊ အိတ်ချ်အိုင်ဗွီ/ အေအိုင်ဒီအက်စ်ရောဂါနှင့် ပတ်သက်၍ အသိပညာ၊ ခံယူချက်နှင့် ယုံကြည်ချက်။

အပိုင်းငယ် (၁)။ အေအိုင်ဒီအက်စ်ရောဂါနှင့်ပတ်သက်၍ ကျန်းမာရေးစောင့်ရှောက်မှု။

(၁) ဘန်ကောက်မြို့တွင် ကျန်းမာရေးစောင့်ရှောက်မှုခံယူနိုင်သော နေရာကိုသိပါသလား။

(၁) မသိပါ  (၂) သိပါသည်။

(၂) သင်ဖျားနာလျှင်၊ ကျန်းမာရေးစောင့်ရှောက်မှုခံယူနိုင်ရန် မည်သည့်နေရာသို့သွားပါသလဲ။

(အဖြေတစ်ခုထက်မက ဖြေဆိုနိုင်သည်။)

(၁) ပြည်သူပိုင်ဆေးရုံ  (၂) ဆေးခန်း

(၃) ဆေးဆိုင်  (၄) တိုင်းရင်းဆေးသုံးစွဲခြင်း

(၅) အခြား (အသေးစိတ်ဖော်ပြရန်) -----

(၃) အိတ်ချ်အိုင်ဗွီ/ အေအိုင်ဒီအက်စ်ရောဂါနှင့်ပတ်သက်သောပညာပေးသတင်းအချက်များရှာဖွေလေ့လာ ဖူးပါသလား။

(၁) မလေ့လာဖူးပါ  (၂) လေ့လာဖူးပါသည်။

(၄) သင်၏ဘဝတစ်သက်တာတွင်အိတ်ချ်အိုင်ဗွီ/ အေအိုင်ဒီအက်စ်နှင့်ပတ်သက်သောပညာပေးဗဟုသုတ ခံယူခြင်းဘယ်နှစ်ကြိမ်ခံယူခဲ့ဖူးပါသလဲ။

(၁) မခံယူဖူးပါ  (၂) ၁ ကြိမ်

(၃) ၂ ကြိမ် မှ ၃ ကြိမ်  (၄) ၃ ကြိမ် အထက်

(၅) အေအိုင်ဒီအက်စ်နှင့်ပတ်သက်သောသတင်းအချက်အလက်များကိုမည်သည့်နေရာမှအများဆုံးရရှိပါသနည်း။

(၁) ရေဒီယို/ တီဗွီ/ ဗွီဒီယိုမှတစ်ဆင့်

(၂) သတင်းစာ/ မဂ္ဂဇင်း/ ဂျာနယ်/ ကြော်ငြာသင်ပုန်းများမှတစ်ဆင့်

(၃) ကျန်းမာရေးဝန်ထမ်းနှင့်ကျန်းမာရေးအဖွဲ့အစည်းများမှတစ်ဆင့်

(၄) လက်ကမ်းစာစောင်များ မှတစ်ဆင့်  (၅) အခြား -----

(၆) အိတ်ချ်အိုင်ဗွီ/ အေအိုင်ဒီအက်စ်နှင့်ပတ်သက်သောပညာပေးသတင်းအချက်များကိုမည်သည့်ဘာသာ စကားနှင့် အများဆုံးရရှိနိုင်သနည်း။

(၁) ထိုင်းဘာသာစကားနှင့်  (၂) မြန်မာဘာသာစကားနှင့်

(၃) ထိုင်း-မြန်မာဘာသာစကား  (၄) အခြား----- (အသေးစိတ်ဖော်ပြရန်)

(၇) အိတ်ချ်အိုင်ဗွီပိုးစစ်ဆေးနိုင်သည့်နေရာကို သင်သိပါသလား။

(၁) မသိပါ  (၂) သိပါသည်။

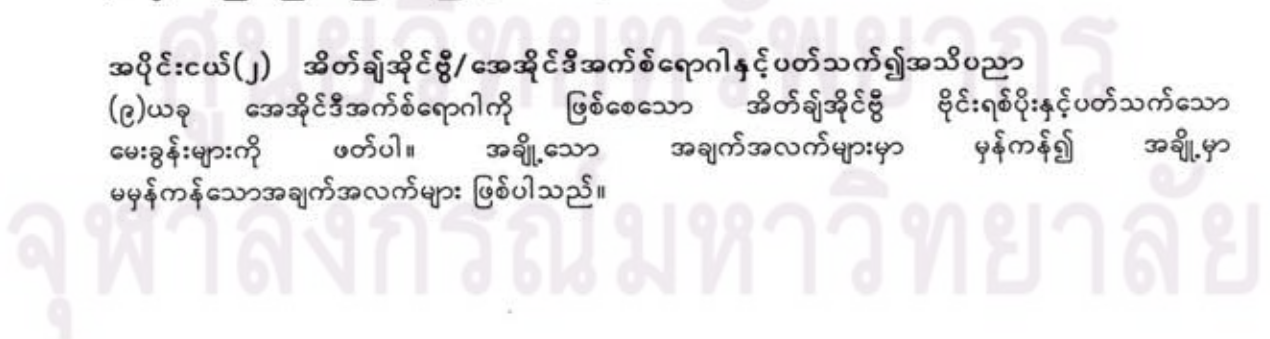
(၈) သင်အိတ်ချ်အိုင်ဗွီပိုးစစ်ဆေးကြည့်ဖူးပါသလား။

(၁) မစစ်ဆေးကြည့်ဖူးပါ  (၂) စစ်ဆေးကြည့်ဖူးပါသည်

(၈-၁) အကယ်၍ စစ်ဆေးခဲ့ဖူးလျှင် နောက်ဆုံးစစ်ဆေးခဲ့ဖူးသော ခုနှစ်၊ လကို ပြောပြနိုင်ပါသလား။  
----- ခုနှစ်၊ ----- လ

(၈-၂) မည်သည့်အကြောင်းကြောင့် စစ်ဆေးခဲ့ပါသလဲ။ -----

အပိုင်းငယ်(၂) အိတ်ချ်အိုင်ဗွီ/ အေအိုင်ဒီအက်စ်ရောဂါနှင့်ပတ်သက်၍အသိပညာ (၉)ယခု အေအိုင်ဒီအက်စ်ရောဂါကို ဖြစ်စေသော အိတ်ချ်အိုင်ဗွီ ပိုင်းရစ်ပိုးနှင့်ပတ်သက်သော မေးခွန်းများကို ဖတ်ပါ။ အချို့သော အချက်အလက်များမှာ မှန်ကန်၍ အချို့မှာ မမှန်ကန်သောအချက်အလက်များ ဖြစ်ပါသည်။



စဉ်	အချက်အလက်များ	မှန်ပါ သည်	မှားပါ သည်	မသိပါ
(က)	ကျန်းမာရေးကောင်းသည်ဟုထင်ရသော လူတစ်ယောက်သည် အေအိုင်ဒီအက်စ် ရောဂါပိုး ရှိနေနိုင်သည်။			
(ခ)	လိင်ဆက်ဆံသောအခါတိုင်း ကွန်ဒုံးကို မှန်ကန်စွာ သုံးစွဲခြင်းဖြင့်အေအိုင်ဒီအက်စ်ရောဂါပိုးကူးစက်ခြင်းကို လျော့ချနိုင်သည်။			
(ဂ)	ခြင်ကိုက်ရာမှတစ်ဆင့် အိတ်ချ်အိုင်ဗွီပိုး/ အေအိုင်ဒီအက်စ် ရောဂါ ကူးစက်နိုင်သည်။			
(ဃ)	တစ်ဦးတစ်ယောက်တည်းနှင့်လိင်ဆက်ဆံခြင်းဖြင့် အေအိုင်ဒီအက်စ်ရောဂါပိုးကူးစက်ခြင်းကို လျော့ချနိုင်သည်။			
(င)	အိတ်ချ်အိုင်ဗွီပိုးရှိသူနှင့်အတူစားသောက်ခြင်းဖြင့် အေအိုင်ဒီအက်စ် ရောဂါ ကူးစက်နိုင်သည်။			
(စ)	တစ်ဦးနှင့်တစ်ဦးနမ်းရှုံ့ခြင်းဖြင့် အေအိုင်ဒီအက်စ်ရောဂါ ကူးစက် နိုင်သည်။			
(ဆ)	အိတ်ချ်အိုင်ဗွီပိုးသည်မိခင်မှကလေးသို့ ကူးစက်နိုင်သည်။			
	အောက်ပါအမှတ်စဉ်(၁)နှင့်(၂)နှစ်ခုစလုံးဖြေဆိုပါ ■ ကူးစက်နိုင်လျှင် (၁) ကိုယ်ဝန်ဆောင်ချိန် (၂) မီးဖွားချိန်			
(ဇ)	အိတ်ချ်အိုင်ဗွီပိုးသည် မိခင်မှကလေးသို့ နို့တိုက်ကျွေးချိန်တွင် ကူးစက်နိုင်သည်။			
(ဈ)	မိခင်တွင် အိတ်ချ်အိုင်ဗွီပိုးရှိနေလျှင်၊ ရင်သွေးငယ်သို့ မကူးစက် အောင်တားဆီးနိုင်သည်။			
(ည)	အောက်ပါအမှတ်စဉ်များအားလုံးဖြေဆိုပါ။ တားဆီးနိုင်သောနည်းလမ်းများမှာ (၁)မမီးဖွားခင်အချိန်တွင်ဆေးတိုက်ကျွေးခြင်း (၂) ခွဲစိတ်မွေးဖွားခြင်း (၃) နို့မတိုက်ကျွေးခြင်း			

အပိုင်း(၃) အိတ်ချ်အိုင်စွီပိုး / အေအိုင်ဒီအက်စ်ရောဂါ ပိုမိုကူးစက်စေနိုင်သော အပြုအမူများ  
 အပိုင်းငယ်(၁) လိင်မူဆိုင်ရာ အပြုအမူများ

(၁) သင်လိင်ဆက်ဆံဖူးပါသလား။  
 အောက်ပါအမှတ်စဉ်များမှတစ်ခုမကဖြေနိုင်သည်။(မဆက်ဆံဖူးလျှင် နံပါတ်(၂)မှဇယား ကို  
 ဖြေရန်မလိုပါ)

စဉ်		မဆက်ဆံဖူးပါ	ဆက်ဆံဖူးပါသည်	ဆက်ဆံဖူးလျှင် နောက်ဆုံးဆက်ဆံ သည့်အချိန်/ နေ့ရက်
၁။	ခင်ပွန်း/ ဇနီးနှင့်			
၂။	ချစ်သူနှင့်			
၃။	သူငယ်ချင်းနှင့်			
၄။	ကာမဖြင့်အသက်မွေး ဝမ်းကျောင်းပြုသူ နှင့်			
၅။	အခြား----- (အသေးစိတ်ဖော်ပြရန်)			

(၂) လိင်ဆက်ဆံသည့်အခါကွန်ဒုံးသုံးပါသလား။

အောက်ပါအမှတ်စဉ်များမှအဖြေတစ်ခုမကဖြေနိုင်သည်။  
 မိမိဖြေဆိုသောအဖြေများအတွက် အကြောင်းပြချက်ပေးပါ။

စဉ်		မသုံးပါ	သုံးပါသည်	တခါတရံ	အကြောင်းပြချက် ပေးပါ
၁။	ခင်ပွန်း/ ဇနီးနှင့်				
၂။	ချစ်သူနှင့်				
၃။	သူငယ်ချင်းနှင့်				
၄။	ကာမဖြင့် အသက်မွေးဝမ်း ကျောင်း ပြုသူနှင့်				
၅။	အခြား----- (အသေးစိတ်ဖော်ပြရန်)				

အပိုင်းငယ်(၂) အရက်၊ မူးယစ်စွဲလန်းစေတတ်သောဆေးဝါးနှင့် သက်ဆိုင်ရာ အပြုအမူများ

(၁) သင်အရက်သောက်ပါသလား။  
 (၁) မသောက်ပါ  (၂) သောက်ပါသည်  (၃) တခါတရံ

(၂) လိင်ဆက်ဆံခြင်းမပြုမီ အရက်သောက်လေ့ရှိပါသလား။  
 (၁) မသောက်ပါ  (၂) သောက်ပါသည်  (၃) တခါတရံ

၂-၁ အကယ်၍ သောက်ဖူးလျှင် မည်သူနှင့်အတူ သောက်သုံးပါသနည်း။ -----

၂-၂ နောက်ဆုံးမည်သည့်အချိန်/နေ့ရက်က သောက်သုံးခဲ့ပါသနည်း။ -----

၂-၃ ထိုအချိန်တွင် ကွန်ဒုံးကို အသုံးပြုခဲ့ပါသလား။

(၁) အသုံးပြုခဲ့ပါသည်။  (၂) မပြုခဲ့ပါ။



(၃) မူးယစ်စွဲလန်းစေတတ်သော ဆေးဝါးများ(သောက်ဆေး/ထိုးဆေး) သုံးစွဲဖူးပါသလား။  
(၁) မသုံးစွဲဖူးပါ။  (၂) သုံးစွဲဖူးပါသည်။  (၃) တခါတရံ   
၃-၁ သုံးစွဲဖူးခဲ့ပါလျှင် ဆေးဝါးအမည်ဖော်ပြပါ။ -----

(၄) လိင်ဆက်ဆံခြင်းမပြုမီ  
မူးယစ်စွဲလန်းစေတတ်သောဆေးဝါးများ(သောက်ဆေး/ထိုးဆေး)သုံးစွဲဖူးပါသလား။  
(၁) မသုံးစွဲဖူးပါ။  (၂) သုံးစွဲဖူးပါသည်။  (၃) တခါတရံ   
၄-၁ သုံးစွဲဖူးပါလျှင် မည်သူနှင့်အတူ သုံးစွဲဖူးပါသလဲ။ -----  
၄-၂ နောက်ဆုံးမည်သည့်အချိန်/နေ့ရက်က သုံးစွဲခဲ့ပါသလဲ။ -----  
၄-၃ ထိုအချိန်တွင် ကွန်ဒုံးကို သုံးခဲ့ပါသလား။  
(၁) အသုံးပြုခဲ့ပါသည်။  (၂) မပြုခဲ့ပါ။

(၅) မူးယစ်စွဲလန်းစေသောဆေးဝါးများ သွေးကြောထဲသို့ ထိုးသွင်းဖူးပါသလား။  
(၁) မထိုးသွင်းဖူးပါ။  (၂) ထိုးသွင်းဖူးပါသည်။   
၅-၁ ထိုးသွင်းဖူးလျှင်၊ ထိုဆေးအမည်ကို ဖော်ပြပါ။ -----  
၅-၂ မည်သည့်အချိန်/နေ့ရက်က နောက်ဆုံး ထိုးသွင်းခဲ့ပါသလဲ။ -----

အပိုင်းငယ်(၃) သွေးမှတစ်ဆင့် ကူးစက်စေနိုင်သော အပြုအမူများ  
(၁) သင်သွေးသွင်းခံခဲ့ဖူးပါသလား။ (သို့) ခွဲစိတ်ခံခဲ့ဖူးပါသလား။  
(၁) မရှိခဲ့ပါ။  (၂) ရှိပါသည်။   
၁-၁ ရှိခဲ့လျှင် (က) ချက်ချင်း/အရေးပေါ်  (ခ) ကြိုတင်ပြင်ဆင်၍   
၁-၂ နောက်ဆုံးမည်သည့် အချိန်/နေ့ရက်က ဖြစ်ပါသလဲ။ -----

ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย

Appendix B

SCHEDULE OF ACTIVITIES

No.	Planned activities	Time (month)							
		Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09
1	Consulting advisor								
2	Writing thesis proposal								
3	Preparation of thesis proposal for exam								
4	Thesis proposal exam								
5	Ethical consideration by Chulalongkorn University								
6	Pretest and data collection								
7	Data management and analysis								
8	Report writing								
9	Writing article for publication								
10	Thesis defense exam								
11	Revising of thesis report								
12	Submitting of final thesis report								

## Appendix C

### BUDGETS

No	Items	Unit	Number	Unit cost (Bahts)	Total cost (Bahts)
1	Pretesting				
	Transport fees	Trip/day	1	100 x2 days	200
	Photo copies	Quest.	30	10	300
	Stationary	Set	30	5	150
2	Data collection				
	Transport fees	Trip/day	3	300x14days	420
	Training of research assistants	Person	2	200x2days	400
	Interviewees	Person	250	250x20	5,000
	Photo copies	Quest.	250	10x250	2,500
3	Preparation and completing of thesis paper				
	Paper printing	Pages	100	100x5	500
	Photo copies x 20 sets	Pages	100	100x0.5	1,000
	Journal publishing				5,000
	Miscellaneous				5,000
	Total				20,470

## Appendix D Informed Consent Form

Name of research project

พฤติกรรมเสี่ยงต่อการติดเชื้อเอชไอวี/เอดส์ในชาวพม่าที่อยู่ในกรุงเทพมหานคร (Thai) or HIV/AIDS Risk Behaviors among Myanmar Migrants in Bangkok (English)

I, who sign here below on this informed consent form, have been **clearly explained with satisfaction** from the researcher whose name is Ms.Nan Shwe Nwe Htun ....address **College** of Public Health Sciences, Chulalongkorn University, Institute Building 3, Floor 10<sup>th</sup>, Soi Chulalongkorn 62, Phyathai Road, Patumwan, Bangkok 10330. Telephone...084-880-3840 regarding the research objective (s) and steps in the research, including risk/danger and benefit which occur from this research project.

I take part in this research project with **willingness** and I have the **right** to withdraw from this research project at any time according to my will with no need to give reason. This withdrawal will not impact me by all means. I also know that it will take **20 minutes to fill-out the questionnaire** which covers general information (Socio demographic information), accessibility to health care services, knowledge, attitude and beliefs about HIV/AIDS and high risk behaviors.

I have been certified that the researcher will treat me according to the patient/participant information sheet and my data will be **kept confidential**.

I am willing to take part in this research project under the above stated conditions as appear in the patient/participant information sheet.

I have received one copy of the patient/participant information sheet and this informed consent form already.

.....  
Place/date

.....  
Name of research subject

.....  
Place/date

.....  
(Ms. Nan Shwe Nwe Htun)

.....  
Principal researcher

.....  
Place/date

.....  
( )

.....  
Witness

## CURRICULUM VITAE

Name : Ms. Nan Shwe Nwe Htun

Date of Birth : 24<sup>th</sup> June, 1981

Place of Birth : Taunggyi, Myanmar

Education : M.B., B.S. (2005)  
University of Medicine (2), Yangon, Myanmar

Work Experience : 2006 May - 2007 March  
Medical Officer,  
TUN Medical Center, Taunggyi, Myanmar

2007 April – 2008 April  
Medical Officer,  
Yangon General Hospital, Yangon, Myanmar

ศูนย์วิทยุทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย