

## FACTORS INFLUENCING HIV/AIDS RISKS AND PREVENTIVE BEHAVIORS OF MIGRANT WORKERS IN NORTHEAST THAILAND.

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### ABSTRACT

The purposes of this cross-sectional study were aimed to identify factors influencing HIV/AIDS risk and preventive behaviors of migrant workers. Questionnaire was administered using structured questionnaire developed by researcher which had high content validity and reliability. Participants consisted of 400 adult migrant workers, of which 157 migrant workers were randomly selected proportional to size and 223 migrant workers were selected by applying snowball technique from the three international check points, six temporary crossing points and border trade checkpoints in Nong Khai province to response to the interviewing questionnaire. The results indicated that only 12.5% had work permit or were illegally employed. Their mean age was  $21.8 \pm 7.1$  years old. Most of these migrant workers (85.2%) were female, single (73.5%) and obtained primary education (54.3%). Almost half of them worked as waiters/waitresses in the restaurants in Thailand (47.0%), their median monthly income was 4,000 Baht/month (min =1,500, max=15,000). The duration of working in Thailand was 0.5 to 41 years with the median of 1 year. Almost half of them drank alcohol (44.0%), of which one third of them drank 1-2 days per week. Almost all of them (84.5 %) had sexual intercourse experiences during the past one year. It was shown that 68.9% of these migrant workers used condom in the latest sexual intercourse. Condom used in the latest sexual intercourse was statistically significant higher ( $p$  value  $\leq 0.05$ ) when these migrant workers had sex with customers where the value of adjusted OR was 257.49; 95%CI = 40.82 - 1624.17, with sex workers where the value of adjusted OR was 42.87; 95%CI = 10.98 to 167.46, and with friends or acquainted where the value of adjusted OR was 10.43; 95%CI = 3.96 to 27.45, when compared with having sex with regular partners. Friend was the most influential person on migrant workers sex behaviors where the value of adjusted OR was 7.19; 95%CI = 2.42 to 21.28, followed by actors/actresses where the value of adjusted OR = 3.19; 95% CI = 1.07 to 9.51).

**Keywords:** HIV/AIDS, risk and preventive behavior, migrant workers.

## INTRODUCTION

Migration has been closely related to poverty, in many cases migration is not a “voluntary” process, but is motivated by a natural need of people to secure their livelihood. In theory, “migration” is seen as a response to negative conditions in the country of origin, i.e., political, economical, and professional development. In 2006, almost 175 million people world-wide were thought to be living outside their countries of origin, which many of them migration is a real lifeline, but all too often they face exploitation and abuse (Anonymous, Alien Occupational Control Division, 2006).

Most migrant workers in Thailand come from three neighboring countries, i.e., Myanmar, Laos, and Cambodia. The migrants from the three countries are placed mostly in low-skilled jobs, which most Thais prefer not to perform. Many of these migrants are working in “3Ds” jobs, where Ds stand for dirty, dangerous, and degrading. It is also believed that limited economic opportunities in their home countries and high rates of poverty are “push” factors that pushing people in the neighboring countries to cross into Thailand in order to explore more opportunities in life. The main reason why Thai citizens do not perform “3Ds” jobs is that “3Ds” employment is characterized by poor working conditions and inadequate payment. Migrants can make more than five times the wages they would get working in their country of origin (Raks Thai Foundation, 2005). It is believed that those migrants’ tolerance levels of poor working and living conditions, which is high considering for the poverty, hardship, and even persecution they face at home. It is apparent that migrant workers are also not fully aware of their labor rights. Therefore, the migrant workers are not protected by the labor law.

In 2008, there were about 21,000 migrant workers (both legal and illegal) in Northeast Thailand; most of them were Laotian and Cambodian (Anonymous, Alien Occupational Control Division, 2008). They worked as laborers in both agricultural and industrial sectors, such as workers in manufacturing and construction, housekeeper, waiter or waitress in restaurants, and entertainment workers in café, pub,

and bar, were common jobs for the migrant workers.

Many cross-border migrant workers do not register, especially female workers who mostly are sex workers in the bordering provinces, working in massage parlors, restaurants, karaoke, and temporally sex-trade places. Most of these migrants work in unsanitary, poor occupational health, and unsafe conditions. Their work places are mostly covered by cigarette smoke, loud music, and long working hours of more than 10 hours, daily with only one to two days off monthly. To worsen the situation, they live in overcrowded and dirty environment. These factors resulted in vulnerable to infectious diseases, and work related health problems among these migrant. The most significant problem is that they are vulnerable for STI, especially HIV/AIDS infection, which is considered as the highest priority among migrant workers. The NGOs which work with this group of people have pointed out that these migrant workers are mostly lacked of knowledge in preventing sexual intercourse and appropriate self care. The changes in Thai society value of polygamy, lack of sexual health knowledge, poor skills in preventive behaviors, sex among younger adolescence, hiding HIV infected cases, can lead to situations that these migrant workers could be the new source which spread HIV/AIDS in Thailand and their own country (Khruemane, 2007).

Despite the decreasing trend of HIV/AIDS infection of Northeast Thailand from the incidence rate of 23.1/100,000 population in 2001 to 4.92/100,000 population in 2007 (Anonymous, Epidemiological Information Section Bureau of Epidemiology, 2008), the situation and trend of migrant workers and the changes in social economic and health services system in Thailand could worsen the HIV/AIDS situations in Northeast Thailand. Therefore, the systematic study of their demographic and socioeconomic characteristics, the flowing patch into and within and out of Thailand, their likelihood, working conditions, and health risk behaviors, especially HIV/AIDS, health services system, and their health seeking behaviors, access to HIV/AIDS information and prevention services. This information then will be used as evident for relevant organizations

and sectors to work to identify appropriate interventions or measures to prevent HIV/AIDS among the migrant workers and the people in the areas. This study was aimed to identify the migrant workers' HIV/AIDS risk, preventive behaviors, describe their health, and information seeking behaviors.

## METHODOLOGY

This cross-sectional study aimed to identify risk and preventive behaviors and factors influencing these behaviors among the migrant workers in Laos-Thai seven border provinces (Loei, Nong Khai, Mukdahan, Nakhon Phanom, Amnat Charoen, Surin, Ubon Ratchathani), of which Nong Khai was randomly selected as a study area.

The samples were migrant workers from three permanent crossing points and International Check Points which open everyday. There were the Thai-Laos Friendship Bridge and Nong Khai Port checkpoint in Muang district and Bueng Kan-Customsin Bueng Kan district; and six temporary crossing points and check points for border trade, which open on three to four days/week for trade exchanges in the other districts, including Phon Phisai, Sangkhom, Si Chiang Mai, Pak Khat, Bung Khla, and Rattana Wapi districts.

Individual migrant worker who met the inclusion criteria was recruited for the study, as follows: (1) foreigners who currently working both legal and illegally in Nong Khai province, Thailand; temporally or long term basis, (2) age  $\geq 15$  years old, (3) be able to communicate in Thai with researchers, and (4) willing to participate with this study.

The sample size was calculated using the estimating population proportion (unknown population), as described by Selvin (1991), with the proportion of condom used calculated from HIV/AIDS prevention pre-survey in illegal migrant workers (40 migrant workers) in Nong Khai Province as 0.14, and allowable error, the absolute value of different acceptance (d) as 0.035.

Based on the context of the migrant workers in Nong Khai province, the researcher used different approaches for sample selection, as follows: (1) 157 legal workers; the time frame quota was

applied for sample section. The total numbers of workers who crossed the border in the same month of the previous year for one week were used as the population, then 157 samples were randomly selected proportional to the size of numbers of workers crossing the six check points within seven days during the data collection period to response to the interview-questionnaire. (2) Snowball technique was applied for 243 illegal migrant workers. A legal migrant worker was first asked to response to interview-questionnaire, after the data was collected the migrant was then asked to identify other migrant workers as new samples. The process was continued until the total samples were identified.

A structured questionnaire was developed and tested for content validity by five experts. In addition, the questions on attitude were tested for reliability. The Cronbach's alpha coefficient of the questionnaire was 0.84 indicating a high internal consistency. The questionnaire was used to collect data on the demographic, socioeconomic status, route and mode of border crossing and risk and preventive behaviors on HIV/AIDS.

The interviewers were three public health bachelor degree students who were trained and tested that they had high level of knowledge and skills in this interview-questionnaire administration.

## Data analysis

Descriptive statistics were used to describe the socioeconomic and migration characteristics. The logistic regression of which the value of adjusted OR and the 95% confidence interval (95% CI) was used to identify the magnitude of effect, whereas *P*-value ( $< 0.05$ ) was used to show the statistically significant in the multivariate model for factors influencing HIV/AIDS risks and prevention behaviors

## RESULTS

Most of the 400 respondents were female (85.2%) and single (73.5%). Their average age was  $21.8 \pm 7.1$  years old. Almost all were buddhists (98.3%), more than half finished only primary school (54.3%), 47.0% worked as waiters/waitresses in restaurants. The median monthly income of the

respondents was 4,000 (Min, Max = 1,500; 15,000) Baht. They have been working in Thailand between 0.5 and 41 years with the median of one year. Almost all of respondents (87.5%) were illegal migrant workers; almost half of the migrants used boarder passes (48.3%) to cross the border to Thailand. Only 12.5% had no document (illegally crossed border) and almost half crossed the border via ferry or boat to Thailand (49.2%). Results are summary in Table 1.

**Table 1.** Demographic characteristics of the respondents (n=400).

Demographic and socio-economics data	Number	Percent
<b>Age</b>		
15-19	204	51.0
20-24	123	30.8
25-29	30	7.5
30-34	17	4.2
≥ 35	26	6.5
Mean ± SD = 21.8 ± 7.1		
Median (min, max) = 19 (15, 60)		
<b>Sex</b>		
Female	341	85.2
Male	59	14.8
<b>Marital status</b>		
Single	294	73.5
Married	66	16.5
Divorced /Separated	29	7.2
Widowed	11	2.8
<b>Religion</b>		
Buddhist	391	97.8
Christian	9	2.2
<b>Education</b>		
Primary school	217	54.3
Secondary school	121	30.2
High school or equivalent and higher	12	3.0
Illiterate	50	12.5
<b>Demographic and socio-economics data</b>	<b>Number</b>	<b>Percent</b>
<b>Occupation</b>		
Waiters/waitresses in restaurants	188	47.0
Waiters/waitresses inpubs, bars, beer bars	72	18.0
Employee in shops	46	11.5
Workers in industrial sectors	42	10.5
Workers in agricultural sectors	29	7.2
House keepers	23	5.8
<b>Average monthly income (Baht)</b>		
<2500	18	4.5
2500 – 4999	217	54.3
5000 – 9999	112	28.0
≥10000	53	13.2
Mean ± SD = 5,452.8 ± 3,526.8		
Median (min, max) = 4,000 (1,500; 15,000)		
<b>Duration of working in Thailand</b>		
<1 year	100	25.0
1 year	140	35.0
2-4 years	109	27.2
> 5 years	51	12.8
Median (min, max) =1 (0.5; 41)		
<b>Type to trans border</b>		
<b>Legally trans border to Thailand</b>		
Legal	50	12.5
Illegal	350	87.5
<b>Document for trans border to Thailand</b>		
Boarding pass	193	48.3
Passport	157	39.2
No document	50	12.5
<b>Routes for trans border to Thailand</b>		
Ferry, boat	197	49.2
Bus	160	40.0
Train	43	10.8

### Risk behavior of migrant workers

The results indicated that 12.2% of the respondents smoked. Almost half of them drank alcohol (44%) and 32.9 % drank about 1 to 2 days per week. Party or socialized was the major reason of the respondents to drink alcohol (55.1%). Most of them (53.9%) drank alcohol with customers, 42.0 % used media to stimulate sexual drive. Results are summarized in Table 2.

**Table 2.** Risk behaviors in Thailand of the respondents (n=400).

Risk behaviors	Number	Percent
Smoking during the past 1 year		
No	351	87.8
Yes	49	12.2
Drink alcohol during the past 1 year		
No	224	56.0
Yes	176	44.0
Everyday	18	10.3
5 - 6 days/week	44	25.1
3 - 4 days/week	17	9.8
1 - 2 days/week	58	32.9
2 - 3 days/month	12	6.7
Once /month	14	7.9
Reason for drinking alcohol		
Party/socialized	97	55.1
Appetizing	39	22.2
Recreation	19	10.8
Others	21	5.3
Persons whom they drank alcohol with during the past 1 year (n=176) (could answer more than one)		
Customers	95	53.9
Friends/colleagues	82	46.6
Employers	17	9.6
Familiars/relatives	11	6.2

Risk behaviors	Number	Percent
Media to stimulate sexual drive (n=338)		
Never	193	57.10
Sometimes	142	42.01
Every time	2	0.59
Almost every time	1	0.30

Migrant workers' HIV/AIDS preventive behaviors During the past one year, the respondents received free condom, of which 47.8% was from health center or PCU, health personnel (39.0%), and work places (26.3 %). The most common HIV/AIDS prevention services they needed were free condom (72.5%), sex education and HIV/AIDS prevention information through several media such as radio and TV (41.5%). Results are summarized in Table 3.

**Table 3.** Number and percent of HIV/AIDS prevention service (N=400).

Preventive behaviors/policies	Number	Percent
During the past 1 year, free for condom distributed activities (could answer more than one) (n=400)		
Health care center / primary care unit	191	47.8
Health personnel	156	39.0
Brothel's owner	114	28.5
Public hospital	87	21.8
Campaign / project attended	76	19.0
Familiar health personnel	64	16.0
Need for HIV/AIDS prevention / services (could answer more than one) (n=400)		
Condom distribution	290	72.5
Broadcasting sex education, i.e., radio, TV	166	41.5
HIV/AIDS and STI check up	165	41.3
VCT	139	34.8
Individual counseling	110	27.5
Treatment of AIDS and STI	66	16.5

### Latest sex behaviors of migrant workers.

It was found that for the latest sexual intercourse, 31.1% of respondents had sexual intercourse with permanent partners, 28.4% with customers. However, 68.9% of them used condom and 30.5%

did not protect themselves. The main reasons for unprotected were because they had sexual intercourse with permanent partner (89.3%). The most common reasons for protected were afraid of getting infection (73.4%). Results are summarized in Table 4.

**Table 4.** Number and percent of the latest sexual behavior of respondents (n=400).

Latest sexual behavior	Number	Percent
Person who had latest sexual intercourse's with (n=338)		
Permanent partner	105	31.1
Customers	96	28.4
Sex worker	81	23.9
Acquainted	53	15.7
Friend	3	0.9
Preventive methods for HIV/AIDS (n=338)		
Using condom	233	68.9
External ejaculation	1	0.3
Oral sex	1	0.3
Unprotected	103	30.5
Reason for unprotected when having the latest sexual intercourse (n=103)		
Had sex with boyfriend/girlfriend	92	89.4
Afraid of showing distrust to partner	7	6.8
Partners refusal	2	1.9
Inconvenience to buy condom	2	1.9
Reason of protected when having the latest sexual intercourse (n=263)		
Afraid of getting infection	193	73.4
Had sex with sex worker	39	14.8
Had sex with boyfriend/girlfriend	17	6.5
Partners acceptant	14	5.3

### Factors influencing risks and preventive behaviors for HIV/AIDS prevention when migrant workers had the latest sexual intercourses.

Multivariate logistic regression analysis indicated factors which showed statistically significant influence on condom use of migrant workers for their latest sexual intercourses were types of sexual partners which controlled the covariates, including gender, age, education, marital status, occupation, income and border crossing type. Migrant workers were more likely to use condom when they had

sex with customers (adjusted OR = 257.49, 95%; CI = 40.82 to 1624.17), sex worker (adjusted OR = 42.87, 95%; CI = 10.98 to 167.46), and friends or acquainted (adjusted OR = 10.43, 95%; CI = 3.96 to 27.45) than when they had sex with spouses. Persons who showed statistically significant influence on migrant workers sex behaviors were friends (adjusted OR = 7.19, 95%; CI = 2.42 to 21.28), actors/actresses (adjusted OR = 3.19, 95%; CI = 1.07 to 9.51) when compared with family members. Results are summarized in Table 5.

**Table 5.** Factors influencing risks and preventive behaviors for HIV/AIDS prevention when migrant workers had the latest sexual intercourses.

Factors	Condom use number (%)		Crude		Adjusted	
	Yes	No	OR	p-value	OR	95% CI
<i>Influential persons</i>						
Most influential person on migrant workers sex behaviors				<0.01		
Family's member/ Health personnel/ teacher/lecturer	61 (26.2)	37 (35.2)	1		1	
Actors/actresses	73 (31.3)	48 (45.7)	0.92		3.19	1.07 - 9.51
Friends	99 (42.5)	20 (19.1)	3.00		7.19	2.42 - 21.28
<i>Partner factors</i>						
Person who had the latest sexual intercourse with				<0.01		
Boyfriend/girlfriend	24 (10.3)	81 (77.1)	1		1	
Friends/acquainted	64 (27.5)	17 (16.2)	12.70		10.43	3.96 - 27.45
Sex workers	52 (22.3)	4 (3.8)	43.88		42.87	10.98 - 167.46
Customers	93 (39.9)	3 (2.9)	257.49		104.63	40.82 - 1624.17

\* Remark: controlled the covariates including gender, age, education, marital status, occupation, income and border crossing type

## DISCUSSION

Most of the respondents (87.5 %) were illegal migrant workers. The figure of this study was slightly higher than that of the Boontinand in 2010, where 85% of migrant workers in Northeast Thailand were illegal. It may be because it is more convenient for the migrants to cross the border. It is supported by the information, that 48.3% used boarder pass which allowed them to stay at the maximum of three days. For the migrant workers who hold passport without work permit, the maximum duration of each visit was one month. Crossing the border in Nong Khai is more convenient than other ports. Migrant workers could cross the border as often as they wish. In addition, this study also found that almost half of the migrants (49.2%) crossed the border via boats, which they could travel back and forth on daily basis or stayed for a couple of days. For other 40 % were also convenient and cheap traveling by bus or car when considered the income they earned from temporary jobs in Thailand.

Most of these migrant (85.2%) were female and single (73.5%). The demographic profiles were different from previous studies on migrant workers in Thailand (Anonymous, Alien Occupational Control Division, 2006, 2007, 2008; Thanachaisethavut, 2007; Boontinand, 2010), which indicated that most of the migrant workers were many more male than female, and that they worked in fishery and as seafarers in coastal provinces and factories in inland provinces. It might also be that 47% of them worked in restaurants, which were more suitable for the female. The median monthly incomes of these workers were 4,000 (min= 1,500, max= 15,000) Baht/month. Despite the fact that the majority of them finished primary school (54.3%), their incomes were much higher than those of migrant workers in the study of Puria and Cleland (2006), which indicated that the average monthly income of migrant workers in Nepal was very low (US \$33 per month). Migrants in this study have been working for 0.5 to 41 years with the median of one year. This

finding is different from that of Chamrathirithrong et al. (2005), who found that their average length of stay in Thailand was about four years. The higher income and shorter length of stay may be contributed to the high proportion of these migrants who were waiters/waitresses in restaurants (47.0%), where they earned some extra income from tips and/or sexual activities with customers.

Various studies had shown that substantial proportions of migrant workers indulged in risky sexual behavior. Substance abuse, multiple partners, and low and irregular use of condoms were common. Despite high-risk behavior, relatively few migrant workers considered themselves to be at risk of getting STIs or HIV/AIDS. Migrant workers who are away from their friends, spouses, families, and communities often experience feelings of isolation and loneliness that can lead to drug use and sexual activity that put them at increased risk for HIV/AIDS (UNAIDS, 2007). This study indicated that almost half of them drank alcohol (44%), party or socialized was the major reason of the respondents to drink alcohol (55.1%). Most of them (53.9%) drank alcohol with customers. In term of using media to stimulate sexual mood, 42.0% of respondents used them sometimes. Sexual behavior studies in migrant workers and any other groups have shown that the use of alcohol increases the likelihood of engaging in risky sexual behavior. The results of this study were similar to that reported by Ford and Chamrathirithrong (2007) who found that alcohol use was common among males. Most of migrant workers (53.9%) consumed alcohol with customers. Some studies illustrated that some migrant workers in Thailand concealed their jobs as commercial sex workers. The STI prevalence found in this study was lower (19.2% of respondents report of having STI during the last one year) than that reported by Gaziet al. (2008) (33% of boatman migrants in Bangladesh having STI). Only 26.0 % of them ever received VCT. Having several partners (79.8%) were the major reason of the respondents to get VCT. This finding indicated the need to expand the VCT campaign to help managing HIV/ AIDS.

In term of HIV/AIDS risk and preventive behaviors for the latest sexual intercourse, 31.1% of respondents had sex with boyfriend/girlfriend, and 31.1% did not protect themselves because they had sex with boyfriends and girlfriends. The findings of this study were different from previous studies (Li et al., 2004; Puri and Cleland, 2006), that about half migrant workers did not use any method of protection during the most recent sexual relationships with non-regular partners. The common reasons for not using condoms were that they did not perceive risk from boyfriends and girlfriends, fear of loss of pleasure, unavailability of condom, and partner's objection which was similar to the studies of Shedlin et al.(2006), Puri and Cleland (2006), and Tran et al.(2004).

Condom use during the latest sexual intercourse was statistically significant ( $p$  - value < 0.05) higher when migrant workers had sex with customers (adjusted OR = 257.49, 95%; CI = 40.82 - 1624.17), with sex workers (adjusted OR = 42.87, 95%; CI = 10.98 to 167.46), and with friends or acquainted (adjusted OR = 10.43, 95%; CI = 3.96 to 27.45) when compared with regular partners. Friend was the most influential person on migrant workers sex behaviors (adjusted OR = 7.19, 95%; CI = 2.42 to 21.28), followed by actors/actresses (adjusted OR = 3.19, 95%; CI = 1.07 to 9.51). These facts indicated the gap of unsafe sex when having sex with acquainted and regular partners, which could spread the diseases. In addition, these migrant workers were working as waitresses and rather young; therefore, peers and movie stars have had influenced on their sex behaviors.

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