

# Substance Abuse among Migrant Workers of Thai-Laos Border, Thailand

Siriluk Jaichuang MNS\*,  
Amornrat Ratanasiri PhD\*, Manop Kanato PhD\*

\* Department of Community Medicine, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand

---

**Objective:** Study the impact of substance abuse among migrant workers along the Thai-Laos border region in Nakhon Phanom Province.

**Material and Method:** The target population included migrant workers aged 15 years and over and were selected using the snowball technique. Data were collected from 300 migrant workers and in-depth interviews and focus group discussion were carried out. Data analysis used content analysis, descriptive statistics, and multivariate logistic regression.

**Results:** Fifty-five point seven percent of migrant workers used stimulants namely tobacco, energy drinks, coffee, and methamphetamine. Males were at greater risk for substance abuse than females (AOR 16.03; 95% CI 8.43-30.45) and those who received news and information from community radios and news broadcasting towers were at more risk than other media (AOR 5.38; 95% CI 2.88-10.05). The impact of substance abuse were found to be chronic cough, moodiness, lack of interest in food, headache, wakefulness, sleeplessness, tremor, heart palpitation, and accidents.

**Conclusion:** Health promotion strategy must be implemented to minimize the harm. Motivating behavioral modification while keeping in mind the lifestyle, work, and environment of these people could help.

**Keywords:** Impact, Substance abuse, Migrant workers

**J Med Assoc Thai 2012; 95 (9): 1219-24**

**Full text. e-Journal:** <http://jmat.mat.or.th>

---

In today's era of globalization, changes in manufacturing processes, people's lifestyles in society, and international economic differences act as significant causes of movements among both legal and illegal migrant workers. Approximately 200 million migrant workers existed worldwide in 2008, while nearly 70 million migrant workers were estimated to be working in Asia with an estimated 2 million migrant workers living in Thailand<sup>(1)</sup>. It is a major concern that due to the global economic crisis that lasted from 2008 to 2010, unemployment and termination rates will continue rising with an estimate that 29 to 49 million more workers worldwide will lose their jobs as compared to 2007<sup>(2)</sup>.

As a result of multi-faceted problems, migrant workers have a necessity to find solutions for their lives, causing many to turn to substance abuse. This finding concurred with data reporting that approximately 172 to 250 million of the global population aged 15 to

64 years engage in substance abuse. A report of the United Nations Office on Drugs and Crime (UNODC) survey conducted among Laotians aged 15 to 64 years in 2009 who lived in the Lao People's Democratic Republic found that Amphetamine-Type Stimulants (ATS) had higher epidemiological rates among Laotians with the substance abuse prevalence of 1.1 to 1.7%<sup>(3)</sup>.

The present study implemented Rapid Assessment and Response (RAR) to explain the real picture of the scopes and characteristics of public health and social problems and to serve as a guideline for further development<sup>(4)</sup>. The positive effects of RAR include low time requirements, capabilities to specifically study issues in-depth and quick understanding of initial situations in data collection<sup>(5)</sup>. The objective of the present study was to study the impact of substance abuse among migrant workers along the Thai-Laos border region in Nakhon Phanom Province.

## Material and Method

The target group comprised of male and female, registered and unregistered migrant workers with Lao citizenship aged 15 years and up, who worked

---

## Correspondence to:

Ratanasiri A, Department of Community Medicine, Faculty of Medicine, Khon Kaen 40002, Thailand.

Phone: 085-001-1531, Fax: 043-202-488

E-mail: [amorat@kku.ac.th](mailto:amorat@kku.ac.th)

in agriculture, construction, and other occupations in the four border districts and who were willing to provide data and participate in the activities. The present study protocol was reviewed then approved by the Human Research Ethics Committee of Khon Kaen University, Thailand (HE531310).

Data collection was conducted by performing RAR, which took a period of approximately six weeks. In-depth interviews and focus group discussion were conducted on the issues of demographic data, work, experience, and views toward substance abuse among working-age people or workers. The number, duration, and venue used for interviews depended upon the convenience of the target group.

Regarding target group accessibility, the researchers used the snowball technique by beginning with persons holding data (gate keepers) in areas providing cooperation to lead to the target group, or a network, as the migrant workers did not disclose and preferred to conceal or hide themselves.

The instrumentation comprised of instrument created or developed by the researcher, persons who collected data and equipment for data collection. Quality control was checked for correctness and reliability by using the principle of triangulation.

Data analysis was done using content analysis in terms of qualitative data and was conducted continually throughout the research. In case of quantitative data, analysis was performed by using descriptive statistics (frequency, percentage, mean values, and standard deviation), and multivariate logistic regression was define the set of variable related to substance abuse in migrant workers. The adjusted odds ratios (95% CI) were report and p-value ( $< 0.05$ ) was considered statistically significant. Analysis statistic by program SPSS V.19.

## Results

1. The findings of quantitative data can be presented as follows:

### 1.1 Demographic characteristics

The target group was mostly female (53.3%) with an average age of 30.5 years. Most of them were married (68.0%) with mainly agriculture as their occupation (63.0%) that dealt with planting tobacco or tomatoes, rubber plantation, rice harvesting, etc. Only 35.0% of the migrant workers were registered and most had no education (55.7%). 55.7% of migrant workers used stimulants such as tobacco (87.9%), coffee (63.9%), energy drinks (70.6%), methamphetamines (3.7%), and other stimulant substances (4.5%).

### 1.2 Substance abuse and its impact

For most migrant workers, the causes of substance abuse were a desire to work more and longer without fatigue. Substance abuse were mostly carried out either singly (44.3%) or in combination (55.7%).

1.2.1 *Single substance abuse* - This consisted of the use of tobacco (23.3%), coffee (14.4%), energy drinks (4.8%), methamphetamine (0.6%), and other (1.2%) (Table 1).

1.2.2 *Combination of substance abuse* - This comprised of mixing one or more substances with various other drugs or substances. A combination of two substances included tobacco and energy drinks (18.5%), coffee and energy drinks (7.2%), tobacco and coffee (3.0%), tobacco and other (1.2%), energy drinks and methamphetamine (0.6%). Similarly, a combination of three different substances included tobacco, coffee and energy drinks (20.4%), tobacco, coffee and methamphetamine (0.6%), tobacco, coffee and other (0.6%), tobacco, energy drinks and methamphetamine (0.6%), tobacco, energy drinks and other (0.6%), coffee, energy drinks, and methamphetamine (0.6%). A combination of four different types such as tobacco, coffee, energy drinks, and methamphetamine (1.8%) was also observed (Table 1).

When some demographic characteristics causing migrant workers to use stimulants were considered, males were found to be at greater risk for increasing substance abuse as compared to females (AOR 16.03; 95% CI 8.43-30.45) and migrants who received news and information from community radios and news broadcasting towers were also at greater risk for increasing substance abuse as compared to those who received information from other media (AOR 5.38; 95% CI 2.88-10.05) (Table 2).

### 1.3 Hazards and impact from substance abuse

Pharmaceutical effects of the substances and the side-effects of overdose were found to be among the hazards of substance abuse. These included the physical impacts and psychological impacts of single and combined use such as chronic cough (28.1%), tremor and heart palpitation (4.2%), wakefulness and sleeplessness (2.4%), easy irritation and moodiness (16.8%) and lack of interest in food (5.4%) (Table 3).

2. The finding of qualitative data from in-depth interviews and focus group discussion migrant workers presented that: Three-fourths of the migrant workers interviewed had been recommended to come and work by acquaintances in communities, followed by relatives and family members with travel expenses

**Table 1.** Single and combination of substance abuse in migrant workers (n =167)

Type of substance abuse	Amount (person)	Percentage
Single uses	(74)	(44.3)
Tobacco	39	23.3
Coffee	24	14.4
Energy drinks	8	4.8
Methamphetamine	1	0.6
Others	2	1.2
Combined uses	(93)	(55.7)
Two types	(51)	(30.5)
Tobacco + energy drinks	31	18.5
Coffee + energy drinks	12	7.2
Tobacco + coffee	5	3.0
Tobacco + other	2	1.2
Energy drinks + methamphetamine	1	0.6
Three types	(39)	(23.4)
Tobacco + coffee + energy drinks	34	20.4
Tobacco + coffee + methamphetamine	1	0.6
Tobacco + coffee + other	1	0.6
Tobacco + energy drinks + methamphetamine	1	0.6
Tobacco + energy drinks + other	1	0.6
Coffee + energy drinks + methamphetamine	1	0.6
Four types	(3)	(1.8)
Tobacco + coffee + energy drinks + methamphetamine	3	1.8

**Table 2.** Demographic characteristics associated with substance abuse in migrant workers of 2011 (n = 300)

Demographic characteristics	Substance abuse		Adjust odds ratio (95% CI)	p-value
	Used (n = 167)	Never used (n = 133)		
Gender				
Male	119 (71.3%)	21 (15.8%)	16.03 (8.43-30.45)	0.000
Female	48 (28.7%)	112 (84.2%)		
Migrant worker registration				
Registered	47 (28.1%)	58 (43.6%)	1.61 (0.871-2.98)	0.129
Not registered	120 (71.9%)	75 (56.4%)		
Receipt of news and inform				
Community radios/news broadcasting towers	71 (42.5%)	98 (73.7%)	5.38 (2.88-10.05)	0.000
Other media	96 (57.5%)	35 (26.3%)		

and agent expenses. Income consisted of daily wages for agricultural work and ordinary employment at 150-200 ₪ per day. Quantitative wages were paid to workers in agriculture while contract wages of approximately 7,000-12,000 ₪ per six to seven months or 3,000 to 4,000 ₪ per five months were paid to workers who had seasonal agricultural occupations.

#### 2.1 Substance abuse behaviors

2.1.1 *Causes of substance abuse* - For most migrant workers, the causes of substance abuse were

a desire to work more and longer without fatigue. One migrant worker described: ["At initially, I have never done like this but since I have come here and stay with friends, and also my employer he support us, so we have not needed to buy since it's free of charge". (IDMW6-B4)]

2.1.2. *Expectation of effects* - Migrant workers expected freedom from weariness, ability to work without fatigue and relaxation. Some migrant workers expected that mixing substances with liquor or

**Table 3.** Single and Combination of substance abuse in migrant workers and impact (n = 167)

Impact	Single uses (n = 74)					Combined uses (n = 93)	Total
	Tobacco (n = 39)	Coffee (n = 24)	Energy drink (n = 8)	Methamphetamine (n = 1)	Other (n = 2)		
Chronic cough	8	-	1	-	-	38	47
Moodiness	5	4	-	-	-	19	28
Lack of interest in food	-	-	-	-	-	9	9
Tremor and heart palpitation	-	1	-	-	-	6	7
Wakeful and sleepless	-	1	-	-	-	3	4
Accident	-	-	-	1	-	-	1
Cough and moodiness	-	-	-	-	-	4	4
Lack of interest in food moodiness	-	-	-	-	-	1	1
Total	13	6	1	1	0	80	101

marijuana would create a delicious taste with a refreshing fragrance. Furthermore, migrant workers expected the substances to create effects in line and beliefs in which migrant workers had heard that consumption of energy drinks with liquor could cure liver disease, such as: ["When I finished working hard, I use it (tobacco) because it make me feel good and refreshing the body with energy" (IDMW5-B3)].

#### 2.2 Hazards from substance abuse

2.2.1 Hazards from the pharmaceutical effects of substances and side-effects of overdoses, such as a public health officer saying: ["Here, our employer always make a coffee for worker, he said it could help us more power to harvest but some Laos worker; they drink too much until they could not work longer because their blood pressure was drop, fainting sweating and could not face with the sunny day" (IPHO1-M1)].

2.2.2 Hazard from misuse, unsafe sex, and accidents added to the harmful effects of substance abuse. A migrant worker described: ["I used a half of a tablet of methamphetamine per day for one year, however, I stopped using it after meeting with an accident" (IDMW4-B2)].

2.2.3 Hazards from legal impact of substance abuse such as imprisonment and fights with others were observed while social impacts of substance abuse was found as family and friends walked away when migrant workers smoked such as public health officer saying: ["One of them; 21 years old, he has 800 tablets of methamphetamine and was arrest by the policeman, he was also the one who rape two of girls in the community and the result of this, they need to stop study because of pregnancy. The amphetamine adductors are the risk group of fear, the community

people knew but fear to support the information" (IPHO1-M1)].

From above, the result of qualitative data presented that workers' lifestyle related to substance abuse, hazards, and impacts from the substance abuse of migrant workers of Thai-Laos border, Thailand.

#### Discussion

Migrant workers used stimulants that were consistent with their agricultural occupation of tobacco planting and thereby made it convenient for them to find tobacco. They could purchase tobacco on their own or employers might provide them at no cost. They reported using stimulants as these provided their bodies with energy and capacity for working longer hours without fatigue. This finding was in accordance with the report that the substances used by working-age people were used to enhance work performance, occupation or cause users to feel good beginning with feeling of happiness followed by other effects of substance abuse which differed by type of substance<sup>(6)</sup>.

Migrant workers used substances because they had to work hard in order to increase income and find relief from a variety of problems. The impacts following substance abuse were found to include chronic coughing, heart palpitations, headaches, inability to sleep, work-related accidents, all of which are findings that concur with reports on substance abuse in order to enhance work performance that mention severe impacts on work and social roles, causing emotional changes that render users incapable of performing work<sup>(7)</sup>.

Hazards of impact consisted of effects following substance abuse which included physical impacts, psychological impacts, accidents, and

risky sexual behaviors, which are consistent with findings that state migrant workers engage in risky behaviors far from home. HIV may spread through injecting of narcotic substance (shared needles) or sexual intercourse, etc<sup>(8)</sup>.

Regarding the factors with impact on substance abuse, males were found to be at greater risk of substance abuse as compared to females (AOR 16.03; 95% CI 8.43-30.45) and persons who received news and information from community radios and news broadcasting towers were at a greater risk for substance abuse as compared to workers who received news and information from other media (AOR 5.38; 95% CI 2.88-10.05). This, however, conflicted with the findings of other studies that indicate that the chances of lifetime needle and syringe sharing was increased by female gender among others<sup>(10)</sup>. This difference between male and female may cause their way of life, most male workers always work outside therefore, they use these drugs more than female workers to support their much increased work and to relax after working.

### Conclusion

Substance abuse among migrant workers constitutes a vulnerable issue along Thai-Laos border areas in Nakhon Phanom Province, especially among illegal immigrant groups or other groups who use illegal substances. Consequently, the safety of the out to reach target group must be considered. This requires time as it involves building relationships with community members, employers, and migrant workers by initiating discussions about routine health issues in order to gain confidence before discussing the study issues. From the present study, the authors found that health promotion and behavioral modification among migrant workers could be brought by focusing on building understanding in communities about how migrant workers can have good health, reduce their impact of substance abuse, and have a better quality of life.

### Acknowledgement

The authors would like to offer special thanks to all the participants and the staffs involved, Nakhon Phanom Provincial public health office, the department of community medicine, the faculty of medicine, and Khon Kaen University for their kind help.

### Potential conflicts of interest

None.

### References

1. International Organization for Migration. Global estimates and trends [Internet]. 2009 [cited 2009 July 25]. Available from: <http://www.iom.int/jahia/page254.html>
2. International Labour Organization. International convention on the protection of the rights of all migrant workers and members of their families. [Internet]. 1990 [cite 2009 Jul 25]. Available from: <http://www2.ohchr.org/english/law/cmw.htm>
3. United Nations Office on Drugs and Crime (UNODC). World drug report 2009. Geneva: UNODC; 2009.
4. World Health Organization. The rapid assessment and response guide on injecting drug use (IDU-RAR), draft for field testing, May 1998. Geneva: Substance Abuse Department; 1998.
5. Beebe J. Introduction to rapid assessment process. Handout introduction to rapid assessment [Internet]. 2009 [cited 2009 Dec 28]. Available from: [www.rapidassessment.net/RAPILA2009.doc](http://www.rapidassessment.net/RAPILA2009.doc)
6. National Institutes on Drug Abuse (NIDA). Drugs, brains, and behavior, the science of addiction. Bethesda, MD: NIDA; 2008.
7. The Centre for Harm Reduction, Macfarlane Burnet Centre for Medical Research and Asian Harm Reduction Network. Drugs and their actions. In: The manual for reducing drug-related harm in Asia. Melbourne, Victoria: The Centre for Harm Reduction; 2003: 337-45.
8. Rachlis B, Brouwer KC, Mills EJ, Hayes M, Kerr T, Hogga RS. Migration and transmission of blood-borne infections among injection drug users, understanding the epidemiologic bridge. *Drug Alcohol Depend* 2007; 90: 107-19.
9. Philbin MM, Lozada R, Zuniga ML, Mantsios A, Case P, Magis-Rodriguez C, et al. A qualitative assessment of stakeholder perceptions and socio-cultural influences on the acceptability of harm reduction programs in Tijuana, Mexico. *Harm Reduct J* 2008; 5: 36.
10. Rafiey H, Narenjiha H, Shirinbayan P, Noori R, Javadipour M, Roshanpajouh M, Samiei M, Assari S. Needle and syringe sharing among Iranian drug injectors. *Harm Reduct J* 2009; 6: 21.

---

## ผลกระทบจากการใช้สารเสพติดในกลุ่มแรงงานข้ามชาติ พื้นที่ชายแดนไทย-ลาว, ประเทศไทย

ศิริลักษณ์ ใจช่วง, อมรรัตน์ รัตนศิริ, มานพ คณะโต

**วัตถุประสงค์:** จากสภาพปัญหาที่ซับซ้อน ได้บังคับให้กลุ่มแรงงานข้ามชาติต้องเข้าสู่จรรยาการใช้สารเสพติด ดังนั้นการศึกษานี้จึงมีวัตถุประสงค์เพื่อ ศึกษาผลกระทบและอันตรายจากการใช้สารเสพติด รวมถึงการดำเนินชีวิตที่เกี่ยวข้องกับการใช้สารเสพติดของแรงงานข้ามชาติพื้นที่ชายแดนไทย-ลาว

**วัสดุและวิธีการ:** กลุ่มเป้าหมายเป็นแรงงานข้ามชาติ สัญชาติลาว อายุตั้งแต่ 15 ปีขึ้นไป โดยเลือกกลุ่มเป้าหมายแบบลูกโซ่ (Snowball technique) โดยประยุกต์แนวความคิดการประเมินจับพัตน์และตอบสนอง เก็บข้อมูลเชิงปริมาณในกลุ่มแรงงานข้ามชาติ 300 ราย และสัมภาษณ์เชิงลึก 10 ราย โดยสนทนากลุ่ม 2 ครั้ง ข้อมูลเชิงปริมาณวิเคราะห์ข้อมูลด้วยสถิติเชิงพรรณนา และการวิเคราะห์ถดถอย (Logistic regression) ส่วนข้อมูลเชิงคุณภาพวิเคราะห์โดยการวิเคราะห์เนื้อหา (Content analysis)

**ผลการศึกษา:** พบว่าร้อยละ 55.7 ของแรงงานข้ามชาติใช้สารเสพติดประเภทสารกระตุ้นเพื่อให้ทำงานได้มากขึ้น และรู้สึกผ่อนคลายได้แก่ บุหรี่ เครื่องดื่มชูกำลัง กาแฟ และยาบ้า โดยความถี่และปริมาณการใช้ขึ้นอยู่กับความต้องการ และความสามารถซื้อหรือหามาได้ของแรงงาน ส่วนอันตรายที่เกิดจากตัวสารและผลกระทบที่ตามมา นั้นเพศชายจะมีโอกาสใช้สารเสพติดเพิ่มขึ้น เมื่อเทียบกับเพศหญิง (AOR 16.03; 95% CI 8.43-30.45) และผู้ที่ได้รับข้อมูลข่าวสารจากสื่อวิทยุชุมชน รวมทั้งหอกระจายข่าว จะมีโอกาสใช้สารเสพติดเพิ่มขึ้น เมื่อเทียบกับการได้รับข้อมูลจากสื่ออื่น ๆ (AOR 5.38; 95% CI 2.88-10.05) ส่วนผลกระทบจากการใช้สารเสพติดที่พบในกลุ่มแรงงานข้ามชาติที่ศึกษานี้พบ ปัญหาสุขภาพ มีอาการไอเรื้อรัง เบื่ออาหาร ปวดศีรษะ อ่อนเพลีย นอนไม่หลับ มือสั่น หัวใจเต้นเร็ว มีภาวะทางจิตสังคม อารมณ์แปรปรวน หงุดหงิดง่าย ด้านกฎหมายโดยถูกจับกุม และมีความเสี่ยงสูงที่จะเกิดอุบัติเหตุได้ง่าย

**สรุป:** กลยุทธ์ในการส่งเสริมสุขภาพบุคคลให้ลดผลกระทบและอันตรายจากการใช้สารเสพติดหรือสร้างแรงจูงใจให้เปลี่ยนแปลงพฤติกรรม ต้องคำนึงถึงความสอดคล้องกับแบบแผนการดำเนินชีวิต และการทำงานรวมถึงบริบทแวดล้อมของบุคคลนั้น ๆ ด้วย

---