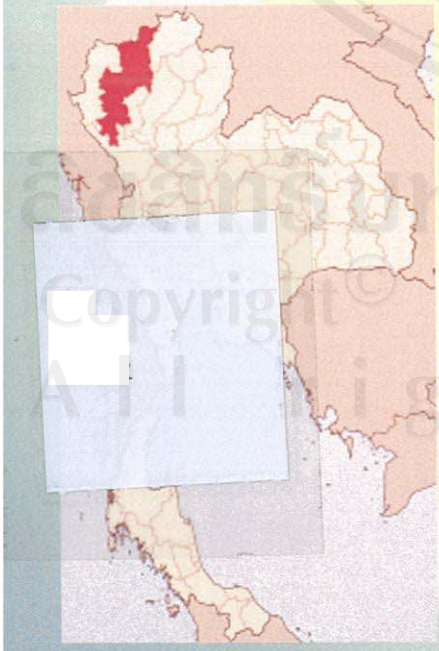
Rapid Assessment and Response (RAR) of Drug Use and HIV in 8 selected sites in Thailand

Chiang Mai Province



By

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Management by

Northern Substance Abuse Center, Chiang Mai University

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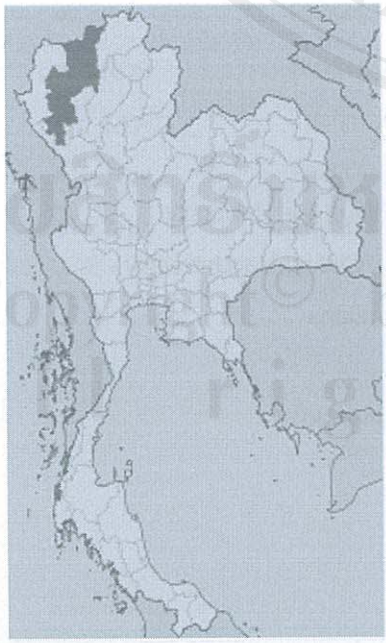

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: Chiang Mai Province

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RAR Acronyms

RAR	Rapid Assessment and Response
ACSAN	Administrative Committee on Substance abuse Academic Network (คณะกรรมการบริหารเครือข่ายองค์กรวิชาการสารเสพติด สำนักงานคณะกรรมการป้องกันและปราบปรามยาเสพติด)
AHRN	Asian Harm Reduction Network (NGO)
ARMT	AHRN Management Team
CHAMPION-IDU	Comprehensive prevention Among Most-at-risk population by Promoting Integrated Outreach and Networking – Injection Drug Users, กรมควบคุมโรค กระทรวงสาธารณสุข
DIC	Drop-In Center
GFTAM	Global Fund against Tuberculosis, AIDS and Malaria, United Nations
IBBS	Integrated Biological and Behavioral Survey
NSAC	Northern Substance Abuse Center (ศูนย์วิชาการสารเสพติด ภาคเหนือ มหาวิทยาลัย เชียงใหม่)
ONCB	Office of Narcotic Control Board (สำนักงานคณะกรรมการป้องกันและปราบปรามยาเสพติด)
PSI	Population Service International (NGO)
RDS	Respondent-Driven Sampling study
TAWG	Technical Advisory Working Group
TDN	Thai Drug user Network
TUC	Thai-US Collaboration on disease control

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Content

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RAR 1. Introduction

1.1 Rational for the research study

The importance of IDU and HIV information

Intravenous drug use (IDU) becomes the highest risk for the spreading of HIV infection among drug users and transmit to their partners and general population. In order to create the services or programs to prevent HIV infection and other health problems, data collection of samples from diverse provinces in Thailand (e.g. the North, the area in the city of Bangkok, and the South) with evidence of IV drug injection is needed. This research study collected essential information for Thai government and private partners to develop an effective health program for IDU. It is a part of the 8th round approval of the Global Fund against Tuberculosis AIDS and Malaria for Thailand program called CHAMPION – IDU. The goal is to decrease HIV infection among IDU in Thailand. The objectives of the program are; 1. To Strengthen and expand HIV preventive services thoroughly and appropriately for IDUs. 2. To create s a strong environment for appropriate and consisted HIV prevention for IDUs. 3. To create the strategic information system in order to improve program and policy for IDUs. PAR study will be an initial step to accomplish this goal.

The study duration of Comprehensive prevention Among Most-at-risk population by Promoting Integrated Outreach and Networking – Injection Drug Users (CHAMPION- IDU) – is five years from July 2009 to June 2014. There are two phases of the study; the first phase (the first two years) and the second phase (last two years). The first phase will covers 15 provinces which are Chiang Mai, Chiang Rai and Mae Hongson (for the North), Bangkok, Samutprakan, Prathumthani, Nonthaburi and Ratchaburi (for the Central) Songkha, Satun, Suratthani, Krabi and Pattalung (for the South). The investigators are PSI, Rakthai Foundation, AHRN, Thailand community pharmacy organization, Thailand drug user network, Alden House and Thai Red Cross Society.

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Rapid Assessment and Response (RAR)

Rapid Assessment and Response is a combination of quantitative and qualitative study to identify the critical problems associated with illicit drug injection and HIV transmission and to develop an intervention and policy to these problems. The role of RAR in CHIAMPION – IDU study is to provide rich descriptive data on the nature of drug injection in the study area. Eight from fifteen provinces were selected with consultation from Population Service International (PSI), Asian Harm Reduction Network (AHRN) and other partners to limit the target area to be controllable and still be representative of regions, including the South, Central and the North. Eight sites within the provinces were selected because they either already have or going to have program for IDUs in the near future. The detail of the eight sites are shown in table below.

Table 1 Area of RAR

Area	Area Characteristic	Program Activity	Implementation of Activity	IBBS
Bangkok	Huge IDU community	DIC & outreach	In prceess	Yes
Ratchburi	New area	Outreach	First year	No
Chiang Mai	Huge IDU community	DIC & outreach	In process	Yes
Amphur Fang	New area	DIC & Outreach	First year	No
Mae Hongson	New area	Outreach	First year	No
Surat thani	New area	DIC & outreach	First year	No
Songkla	Huge IDU community	DIC & outreach	In process	Yes
Satoon	New area	DIC & outreach	First year	No

The present study focuses on the Northern Region of Thailand and includes Chiang Mai Province (Muang and also Amphur Fang) and Mae Hon Song Province.

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1.2 Objectives of RAR

A. To prepare drug injection associated data of each area.

B. RAR should prepare data for the parties to be useful for development of interventions or others programs for IDUs.

C. RAR study will help promote and support other projects such as Integrated Biological and Behavioral Survey (IBBS).

D. To create the capacity for Thailand research networks and to partners of the CHAMPION – IDU project.

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RAR 2. Study Method

The duration of the study is between November 2009 and March 2010. The following steps were taken.

2.1 Country level initial discussion

The study teams attended a national Design Workshop with relevant partners from the Ministry of Public Health, Ministry of Justice, academic research teams from the target areas and NGOs from central and the regions on November 22, 2009 to understand the scope and method of RAR study and to discuss the research design.

2.2 A baseline data collection and meeting for relevant partners in the area

Study teams have gathered some of the existing baseline data and reports to evaluate the situation of IDU epidemiology and risks in the two provinces which are Mae Hongson, and Muang district and Fang district in Chiang Mai. The primary reports were presented and introduced the project during the meeting on December 17, 2009 to the sites in Chiang Mai and Mae Hongson, including personnel form Ministry of Public Health, Ministry of Justice and universities in the target area as well as NGOs. The purpose was to clarify the area and methodology of study for the rapid assessment and response research and ask for the cooperation in data collection plan.

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2.3 Field study plan

Study team applied for ethical clearance for the RAR project and received the approval to collect and process data from IDUs and relevant groups during January 18, 2010 to July 17, 2010 from Faculty of Medicine, Chiang Mai University Ethical Committee. The researchers

attended the RAR Training Workshop held by Asian Harm Reduction Network during January 19 - 22, 2010, during which the studied RAR methodology based on the WHO guidelines (SEX-RAR Guide, WHO, 2002).

2.4 Additional data collection

Researchers visited the Chiang Mai Addiction Treatment Center and Thai Drug User network to interview the relevant personnel and the IDUs who come for treatment as well as to collect available statistical data.

2.5 Data analysis

The data will undergo descriptive analysis according to WHO RAR-IDU model.

2.6 Data sources

Tables A, B and C show details of data sources used in this study.

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Table A Health assessment (general population/ IDU)

A	Secondary data sources	Key Informant Data	1	2	3	4
HIV infection (incidence and prevalence)	- Provincial Health Office - Chiang Mai Drug Treatment Center - Research Institute for Health Sciences	- AIDS nurse - pharmacist	-		-	-
AIDS	- Provincial Health Office	-	-		-	-
STDs	- Provincial Health Office	-	-		-	-
Hepatitis B	Research Institute for Health Sciences					
Hepatitis C						
Other						
Drug Overdose						
Tuberculosis	- Provincial Health Office		-		-	-
Health problems						
Mental Health						
Violence						

-/ 1 - Focus group discussions 2 - Mapping and Observation 3 - Questionnaire interview 4 - In-depth interview

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Table B Drug Use Assessment

B	Secondary data sources	Key Informant Data	1	2	3	4
History of Drug use in area	ONCB Region 5	Province				
	Drug Information System, ONCB	ONCB staff				
Types of Drugs Use/	ONCB Region 5	-		TDN	19 IDUs	19 IDUs
Patterns/ trends	Chiang Mai Drug Treatment Center					
Distribution of Drug Use	ONCB Region 5	-		TDN	19 IDUs	19 IDUs
(who and where)	Chiang Mai Drug Treatment Center					
Social characteristics of	ONCB Region 5	-		TDN	19 IDUs	19 IDUs
users	Chiang Mai Drug Treatment Center					
IDU drug use and trends	ONCB Region 5	-		TDN	19 IDUs	19 IDUs
	Chiang Mai Drug Treatment Center					
	Research Institute for Health Sciences					
Distribution of IDU (who and	ONCB Region 5	-		TDN	19 IDUs	19 IDUs
where)	Chiang Mai Drug Treatment Center					
	Research Institute for Health Sciences					
Social characteristics of IDUs	ONCB Region 5	-		TDN	19 IDUs	19 IDUs
	Chiang Mai Drug Treatment Center					

-/ 1 - Focus group discussions 2 - Mapping and Observation 3 - Questionnaire interview 4 - In-depth interview

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Table C **Risk Behaviour Assessment**

C	Secondary data sources	Key Informant Data	1	2	3	4
Risk behaviours of IDUs	PLWH	TDN	TDN		19 IDUs	19 IDUs
Frequency and extent of risk behaviours among IDUs		TDN	TDN		19 IDUs	19 IDUs
Why are IDUs engaging in these behaviours		TDN	TDN		19 IDUs	19 IDUs
How can IDUs adopt risk reduction behaviours		TDN	TDN		19 IDUs	19 IDUs
Infectious behaviours associated with IDU	Research Institute for Health Sciences	TDN	TDN		19 IDUs	19 IDUs
Sexual risk behaviours among IDUs and DUs		TDN	TDN		19 IDUs	19 IDUs
Overdose and other risks for both DU and IDU						
Extent of interaction and influences between DUs and IDUs		TDN	TDN		19 IDUs	19 IDUs

-/ 1 - Focus group discussions 2 - Mapping and Observation 3 - Questionnaire interview 4 - In-depth interview

3. Study Results

3.1 Area information

Chiang Mai province is located in the northern part of Thailand.[1] The total area is approximately 20,107.057 square kilometers with the total population of 1,666,024. There were 814,958 male and 851,066 female. The population density was 83 person/km. (Data at March 11, 2009). The province is divided into 24 districts, 204 sub districts and 2,066 villages. The population composes of 13 various ethnicities including 7 hill tribes which are Karen, Mong, Mean(Yao), Aka(E-kor), Lahu (Musor), Li Sore (Li Su) and Luea for total population of 229,386. There are 5 minorities which are Pa-Long, Thai-Yai, Thai-Lue, Chinese (Jin-hor) and others with the total of 34,022. Thai who lives in highland area were 49,043. The majority of the hill tribes is the Karen with 128,880, next are Thai, Musor, and Mong. There are 47 modern health care facilities; 23 belong to Ministry of Public health, 10 are other ministries and 14 are private. The DPP was 120,972 million baht. The amount from agriculture was 20,052 million baht and outside agriculture was 100,921 million baht. The main income was from public services accounting for 24%; next was merchandise. The average economic growth rate was 3.36%. The average population income per person was 76,388 baht/person/year. The employment situation in 2008 was 947,606 people (58.6% of population), among this number 930,019 were employed and 15,824 were unemployed. The average unemployment rate was 1.7%. The rate of labor fee was 153 baht/day. The number of foreign labors was 104,734. The majority was for agricultural labor, next was construction labor. There are 11 methadone clinics in Chiang Mai, 4 public clinic and 7 private clinics. Muang district, Chiang Mai is considered a municipality. The Chiang Mai Municipality is responsible for the people in Muang area. Muang Chiang Mai is located in the center of the province. It has the border next to Mae Rim and Sansai district in the north, Sansai, Doi Saket and San Kampang district in the East, Sarapee and Hangdong district in the South and Hangdong district in the West. Total population is 239,069 in 2010 with the area of 152.4 km.

[1] www.chiangmai.go.th

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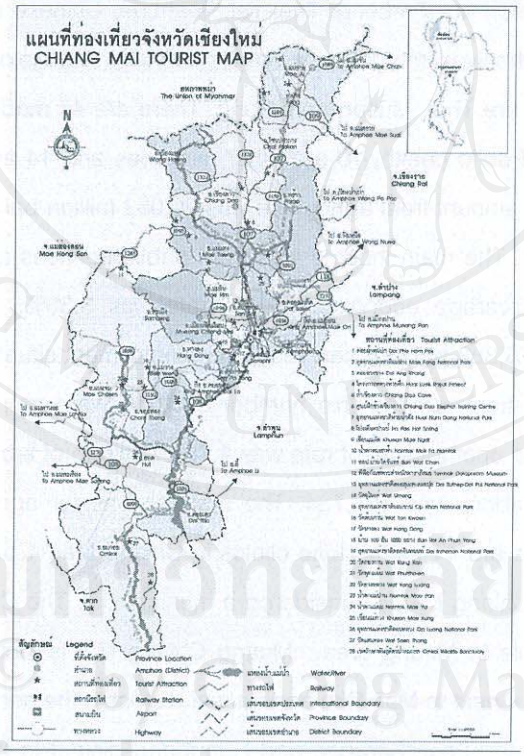
Table 2 Population of Muang Chiang Mai and nearby districts (year 2006) stratified by gender [2]

District	Male	Female	Total
Muang Chiang Mai	114,226	128,839	243,065
Doi Saket	31,528	33,319	64,847
Mae Rim	41,501	42,215	83,716
San Kampang	35,672	38,816	74,488
San Sai	51,147	57,205	108,352
Hangdong	35,513	38,025	73,538
Sarapi	35,851	39,345	75,196
Total	345,438	377,764	723,202
All Chiang Mai districts	*815,529*	*842,769*	*1,658,298*

Source : Ministry of Interior



Map of Chiang Mai

[2] *Statistic on district population 2006 http://*dpc10.ddc.moph.go.th/data/population/Amphur49.xls

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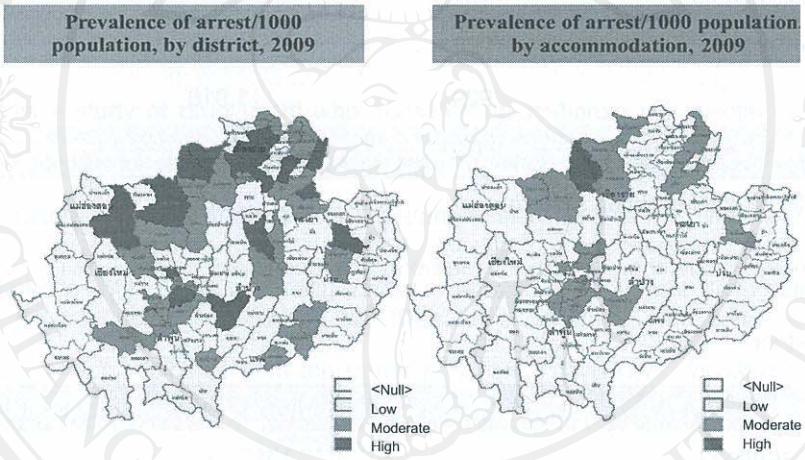
3.2 Northern Narcotic drug situation in 2009 and the tendency of situation in 2010

According to the analysis of the data from news and the narcotic arrest records showed that the highest density of the narcotic drugs was in Chiang Mai province, followed by Chiang Rai and Mae Hongson. There was an increasing of drug traffic in Chiang Rai province especially in Mae Sai district. When observing the proportion of areas where IDUs were arrested and their residence (per 1000 population) showed the majority of the areas of arrestwere found along the border of Chiang Mai, Lamphun, Lampang, Payao and Chiang Rai. While the residence of the arrested cases showed that A. Fang and Chaiprakarn had more than 3 cases to 1000 population. (The red areas in the maps to the right and below indicate hotspots,)



Source: Drug Offence Registration System

According to the statistics regarding possession of narcotic drugs, most of the narcotic arrests occurred in the North (21.7%). According to the type of narcotic, 70% of the arrest were on methamphetamine. Chiang Mai was the arrest of more than 100,000 tablets of methamphetamines. The director of Office of Narcotics Control Board 5ht region stated that the narcotic situation in the North requires continuous surveillance, especially the 14 target areas of 3 provinces which are Chiang Rai, Chiang Mai and Mae Hongson. There are plenty of newly made narcotics ready to be delivered in to the city; particularly A. Mae Ai and the Fang area, there is a high density of drug traffic. Recent information showed that the southern Wa's area is opposite to Chiangdao district, Chiang Mai province where there are huge amounts of Ya Ba (methamphetamine tablets). This is an important place of methamphetamine production and storage that should be carefully observed.

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There was a declining trend of drug users who went for narcotic treatment in Chiang Mai in 2009 when compared the previous two years. This was the same for heroin treatment and the arrest accused of heroin related offences. In 2009, the report from ONCB drug information system showed that number of heroin addict came for treatment were 10 persons with criminal charge (Table 3, 4 and 5).

Table 3 Number of all drug users in Chiang Mai who came for rehabilitation, stratified by type of rehabilitation in 2007 -2009

Type of rehabilitation	2007	2008	2009
Convicted for a crime	131	381	371
Compulsory Treatment	989	1,397	1,300
Voluntary	929	1,916	1,168
Total	2,049	3,694	2,839

source: ONCB drug information system

Table 4 Number of all drug users who came for rehabilitation stratified by type of rehabilitation per district

Area		Chiang Mai	Muang district, Chiang Mai
2007	Prosecution	131	10
	Compulsory Rehabilitation	989	118
	Voluntary	929	113
	Total	2,049	241
2008	Prosecution	381	52
	Compulsory Rehabilitation	1,397	176
	Voluntary	1,916	129
	Total	3,694	357
2009	Prosecution	371	50
	Compulsory Rehabilitation	1,300	150
	Voluntary	1,168	125
	Total	2,839	325

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Table 5 Numbers of IDUs came for drug rehabilitation and who were arrested for heroin use.

Province	Heroine rehabilitation			Arrest for Heroin use		
	2007	2008	2009	2007	2008	2009
Muang Chiang Mai	36	20	10	2	0	0

3.3 Characteristic of the drug users and risk behavior

The primary result among opium/heroin injection in Chiang Mai and Chiang Rai province in 2007-2009

This is a study of drug users who consume opium/heroin via injecting rout only and without HIV infection. The study compared long term and short term treatment with Suboxone® to evaluate the difference in the reduction of HIV transmission (Project HPTN058). The screening process started in April 2007. This project screened only persons who injected opium/heroin who was eligible for treatment. The total of 281 IDUs were screened. The screening has been completed and 202 participants from the upper north area have been followed to assess the result of the treatment.[3]

Table 6 shows ethnicity of the opium/heroin IDUs enrolled in the Suboxone® treatment program of HPTN 058.

Ethnics	number	%
Thai Northern	42	21
Akha	71	35
Karen	72	36
others	17	8
Total	202	100

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[3] Apinun Aramratana, HPTN058, Research Institute for Health Sciences, Chiang Mai University. This is a preliminary result of the study in Chiang Mai area only. Most of the data are being done for advance analysis. This result should not be used in scientific reference.

Table 7 shows the residence of opium/heroin ID Usenrolled in the Suboxone® treatment program of HPTN 058

		Total	%
Chiang Rai	Mae Lao	2	1.0
	Mae Suay	64	31.7
	Muang	2	1.0
Chiang Mai	Muang	5	2.5
	Sun Sai	1	0.5
	Jomtong	3	1.5
	Om Goi	74	36.6
Pa-Yao	Chiangkham	4	2.0
	Pong	3	1.5
Lampang	Muang	4	2.0
	Ngaw	28	13.9
Tak	Mae Ramard	12	5.9
Total		202	100.0

The participants were HIV negative, however 50% showed positive result for HBV antibody, 14% were HBV carrier and approximately 60% were already infected with HCV.

Primary result of IDUs in Muang district, Chiang Mai in 2009[4]

The Respondent Driven Sampling (RDS) method was used to study the drugs abuse behavior and HIV infection in the city area. The study was carried out at a Drop-in center of the Research Institute for Health Sciences, between March 11, 2009 to August 14, 2009. There were 309 participants enrolled in the study, 257 (83%) were male and 52(17%) were female. The most common narcotic used for injection was heroin in 197 (64%) participants and methamphetamine in 155 (50%) participants. The participants started injecting narcotics when they were 16 - 20 years old for 147 (48%) cases.

Ya Ba (Methamphetamine) injection behavior among teenagers

The younger age of Ya Ba IDUs was between 18 to 25 years old in 123 participants. 75 cases reported methamphetamine injection during the past 6 months. One 19 year old participant reported using only methamphetamine. This participant began injection at the age of 12 years old.

[4] Apinun Aramratana, RDS project, Chiang Mai. This is a preliminary result of the study in Chiang Mai area only. Most of the data are being done for advance analysis. This result should not be used in scientific reference.

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Another 18 years old participant also reported using only methamphetamine and started injection at 16 years of age and already has HIV infection.

HIV infection

HIV infection was found in 44 IDUs. Among these numbers 31 (70%) previously used methamphetamine and 8 (18%) reported using only methamphetamine in the past 6 months. These 8 IDUs were 18 to 39 years of age. According to age distribution of these 8 IDUs, we found that one started injection at 15 years old, two at 16 years old, one at 18 years old, two at 19 years old, one at 23 years old and one at 27 years old. Among 45 IDUs, 28 (64%) of them reported injected more than 2 types of narcotics and 4 reported using more than 5 various narcotics which were heroin, methamphetamine, dormicum®, opium, methadone and xanax®.

Additional results in RAR

In depth interview of IDUs

Heroin and Ya Ba (methamphetamine) injecting behavior

Case study

A 32 years old male IDU living with his partner experienced narcotic use started from heroin, anti-anxiety medicines, marijuana, opium, inhalant, methamphetamine and sleeping pill. He used to be arrested of having narcotics for sale. In the past month he used anti-anxiety drug and methamphetamine, he sometimes shared needles with others. He is currently under methadone maintenance program at Famai clinic.

A 38 years old male IDU living with his partner experienced narcotic use started from marijuana, sleeping pill, heroin, methamphetamine and ice. In the past month he used sleeping pill, marijuana, methamphetamine, and heroin. He injected methamphetamine 4 -5 times per week (depended on quantity and type of narcotics) and 3 times for heroin. He is currently under methadone maintenance program. He was arrested 7 times; the last time was because he had positive narcotic on urine test (purple urine).

A 27 years old male IDU living with his partner experienced narcotic use started from methamphetamine and heroin. In the past month he injected methamphetamine, heroin and

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smoked methamphetamine every day. He injected heroin 3 times/ month. He sometimes shared needles and syringes with others and he also helped inject narcotic for others for the first time.

A 35 years old single male IDU. He experienced narcotic use from inhalant, sleeping pill, heroin, marijuana, cocaine, methamphetamine and opium. In the past month he ate and injected sleeping pill 2 -3 times per week, injected opium 2- 3 times per month, injected heroin 5 days per week and injected methamphetamine 5 days per week. He used to help inject narcotic for other for the first time. He shared needles and syringed with others 5 years ago. He is currently on methadone maintenance program. He was arrested 5 times. The first charge was because he owned the narcotic then charged for narcotic consumption, sharing and stealing. The last time was due to the positive narcotic in his urine (purple urine

A 36 years old male IDU experienced marijuana, heroin and methamphetamine. In the past month, he used anti-anxiety drug and methamphetamine. He used to help the first time injector do the injection. He shared needles and syringes in the past 3 months. He sometimes acquired needles from TDN or drug store.

A 32 years old male IDU injected methamphetamine 3-4 days per week in the past month. He has never shared needles or syringes with others. He used to help the first time injector do the injection. He used to be on the maintenance program at Vivatpolmuang School. He was arrested 3 times with the charge of having narcotics to use and for sale.

A 26 years old male IDU injected and smoked methamphetamine daily and injected heroine 3 times per month. He shared needle with others once a month when he ran out of the clean needle, the last time was in January 2010. He used to help the first time injector do the injection. He is currently on methadone maintenance program and previously got treatment at Suanprung Hospital.

During the past the several years, most of IDUs have changed their narcotic use and consumption methods; for example, changed from smoking to injection for opium as well as dormicum and methamphetamine. One reason regarding Methamphetamine injection was that it provided a longer effect than smoking. The injection sites changed from arm to leg, popliteal area and ascended up to occiput. The IDUs are concerned about safety, prevention and appropriate use.

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The use of narcotics and type of narcotics injection were heroin, opium, methamphetamine and sleeping pills (dormicum ® and xanax®) psychotropic drugs and methadone.

Local drug user populations are made up of teenagers and adults, including employees, vendors working at the local markets and tourist streets, and sex workers (e.g. female prostitutes and men who have sex with men (MSM)). Illicit drugs are abused mostly at private houses, apartments, friend's houses, public parks, entertainment venues, depending on the situation. As for sex workers, drugs are often obtained from their customers and abused at hotels where they are plying their sex trade. Most commonly abused drugs are methamphetamine (known locally as Ya Ba), and heroin. When drug supplies are running short, tranquilizers such as Xanax and Dormicum will be injected as substitute drugs.

Quotations from Key Informant Drug Users:

"Teenagers aged 18-19 used meth pills, those ≥ 20 years old preferred injectable Xanax and Dormicum, while those≥ 30 years old injected soluble methamphetamine in place of heroin"

"Most MSM were usually found to abuse heroin, while others used meth and heroin"

"Drug of choice for teenage group is meth – route of administration is inhalation of smoke. Female sex workers also abused Ya Ba by inhaling its smoke. Preferred narcotic substances for adult group aged ≥ 25 included Ya Ba and heroin and routes of administration were inhalation and injection."

"Most teenagers were found to usually abuse meth and heroin among their group, and occasionally with new friends."

"Drug abuse at home: 40 men who were Saa paper producers; 38 men who were employees; 28 women who were employees."

"Most drug-abusing friends and acquaintances were in 20-30 age group. The vast majority used meth pills, which were largely abused at apartments."

"Drug abuse at apartments: aged 20-30, working at entertainment venues."

"Most drug users ranged from teenagers to middle-aged adults. Drugs were often used at home. Money was pooled to buy drugs, which would be split up among different users."

Drug Supplies have not been readily available lately due to intensified anti-drug efforts by law enforcement officials. The following are statements from drug user informants regarding drug costs:

- Heroin 200 Baht/retail unit; Ya Ba 200-250 Baht/pill
- Ya Ba 200 Baht/pill; moderately convenient to buy
- Not easily available for heroin; 200 Baht/injection; Methadone and antidepressants readily available

Drug injection behavior and abuse of other illicit drugs

There was a recent increase in drug injection as well as use of substitute drugs and multiple drugs in combination, for instance, injectable mixture of sleeping pills and Methadone, and purple Xanax pills mixed with water or Methadone for injection. This was because of limited amount of drugs available. In addition, the injection option has proved effective in providing more intense, faster, and longer effects, thus specifically responding to the need of drug addicts, whose prolonged addiction and increasing tolerance would typically lead to cravings for higher and higher dosages of drugs over time. This method also helped reduce the amount of drugs consumed each time. Following are patterns ofillicit drugs found to have been adapted for consumption by drug abusers:

- Sleeping pills mixed with Methadone, meth
- Meth-heroin mixture resulted in mood swing; meth mixed with heroin and Dormicum would lead to deep sleep
- Heroin mixed with Methadone
- Meth mixed with heroin; Dormicum combined with Methadone
- Methadone and meth prepared for injection
- Ya Ba, antidepressants evolved from smoke inhalation and oral ingestion to Injection.

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Quotes from IDU informants:

> *"Ya Ba – switch from smoking to injection. Because the latter did not cause chapped lips and oral sputum."*
>
> *"Abused among group members, both smoke inhalation and injection. Abusers preferred injection to smoking because injection could get them high on drugs more easily."*
>
> *"Inject able meth was prepared as an alternative to heroin which was becoming increasingly scarce. Moreover, injection option also helped reduce the amount of meth consumed each time, while offering longer drug effects."*

History of needle or drug paraphernalia sharing and awareness about potential risks of syringe sharing

Only some members of the study group were aware of the risks of needle sharing. Prior to this study, used syringe was simply rinsed with water to prevent HIV transmission. However, after meeting with outreach workers from the network of people living with HIV/AIDS (PLHA network), not only they were encouraged to return used syringes in exchange for new ones, but also trained to clean used needles with alcohol and rinse them with water, sterilize in boiling water, or heated before reuse (in the event new syringes are insufficient or not commercially available). Following are some accounts from TDN members:

> *"Oftentimes during outreach visits to exchange syringes, the number of returned needles were significantly lower than those earlier provided and syringes were found scattered all over the place."*
>
> *"Used needles simply cleaned with water"*
>
> *"Used needles sterilized in boiling water"*
>
> *"10 years ago, used syringe was simply rinsed with water. But these days, a new one is used before each injection and I have become aware of the risk of HIV infection from shared syringe."*

"Used syringe was rinsed with water, cleaned with alcohol, and rinsed again with water. Without repeating with water, I would make me dizzy. And I have now become aware of the risk of HIV infection from shared syringe."

"Yes, I did clean a needle with water. Previously, I had no knowledge. But I am now aware that needle sharing can lead to HIV infection."

"Cleaned a needle with alcohol. But if there was no alcohol, the needle would be heated."

Some members of the study group used to talk with female sex workers but had never had sex with them. Only three of them had hung out or been in touch with sex workers (some was known to have abused Ya Ba). They occasionally had sex with these prostitutes and most of the time used condom to protect themselves. Relevant quotes from IDU informants:

"Most female sex workers abused Ya Ba. When under drug influence, they appeared to have failed to ensure consistent condom use by their customer."

"I sometimes had a chat with them. Most commonly abused drug is meth. We had sex occasionally and always used condom."

"We only chatted like friends but she didn't use drugs. I had sex with her for free and didn't forget to use condom."

"I did have a chat with female sex workers. Ya Ba was abused by means of chasing the dragon only. I used condom whenever having sex with sex workers I knew."

"Used to have a chat with female sex workers but didn't have sex with them. They were just acquaintances. These sex workers were known to have abused Ya Ba by means of smoke inhalation."

Services offered to local injecting drug users (IDUs) and places where services are accessible by IDUs:

- Child support group, child development group, with focus on free distribution of condoms
- TDN Harm Reduction Center – used syringes returned in exchange for new ones, free distribution of condoms
- Drop in Center – outreach volunteer staff

Increasing demand for services from health care services system, social welfare benefits, as well as treatment and care and rehabilitation

Relevant Quotes from IDU informants:

> *"Assurance should be given that we are willing to undergo treatment and not forced to do so."*
>
> *" HIV educational session should be organized for PLHA once a week."*
>
> *"This project should be sustained for as long as possible (with uninterrupted funding)."*
>
> *"Group activities should be organized as frequently as once a month. Counseling services should also be provided. Syringe handout should be expanded to cover Saturdays and Sundays. "*
>
> *"Educate IDUs on proper syringe use and cleaning method more frequently. More frequent group activities are needed in order to share experience."*

Involvement of local police to encourage IDUs to participate in rehabilitation program

Local police were perceived by drug users as having failed to get involved in the process to provide much-needed assistance regarding rehab efforts. They wanted law enforcement officers to understand drug users who actually wanted to kick the habit rather than using them as confidential informants (CIs) to provide tip-off leading to arrests of drug dealers. Oftentimes, when a plan for undercover drug purchase was not successful, or CIs failed to

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provide a tip-off, they would end up being framed or planted drugs by police. Relevant quotes from IDUs:

"Police are notorious for violating the rights of drug users. Local police are practically not involved in assisting drug addicts."

"No involvement. But I would like to plead for understanding from the cops. They should stop framing drug users but referring them to a rehab center instead."

"No assistance, no involvement. They just wanted to make an arrest. Sometimes when no drugs were found, we eventually ended up being unlawfully framed."

"No help offered. Only arrests were on their mind." "Their only duty is making arrest sending us to rehab centers."

"Make an arrest and send us to rehab centers. And that's all."

Clean and Seal Project to wipe out illicit drugs implemented by local counter-narcotics police force

Police, particularly plainclothes officers, have been consistently making arrests of IDUs. Most of the time drug users were approached to act as confidential informants for police. Another commonly-used tactic was setting up road checkpoints. A substantial amount of methamphetamine pills have recently been seized (only meth arrests so far). Relevant quotes from IDU informants:

" We were being searched all the time by plainclothes police."

" Whenever police came to see us, we were always asked to work as CIs."

"Not yet implemented. But clear guidelines for arrest should be established."

" Blanket anti-narcotic operations launched targeting both drug addicts and dealers. Random drug urinalysis carried out; those tested positive for illicit drugs would be arrested."

"Those tested positive for illicit drugs would be referred to a rehab center. Warnings given to those tested negative."

"Arrest made, then followed by a series of undercover purchase starting from users and leading to pushers and dealers."

"Police normally have records of those previously arrested. On their next encounter with police, they will get arrested instantly, unless they agree to work as a CI. Otherwise they will be sent to a rehab center."

"IDUs whose records were already on the police files were unlawfully arrested without exhibit being found on them or flagrant offences. But the arrest was made based only on tip-off from CI."

Estimate of the number of local drug users

The number of injecting drug users (IDUs) is estimated at 4-20 and is made up of both men and women, most of whom are friends and acquaintances and those from Chiang Mai Harm Reduction Center (TDN). Relevant quotes:

"Approximately 30 inhalation-turned-injection drug users, male and female; approx. 7-8 women"

"Approximately 20-50"

"Around 5 IDUs; approx. 10 smoking drug users"

"Approx. 20 IDUs; approx. 40-50 IDUs

"Approx. 25 IDUs; about 40 by other routes of administration"

"Around 5-6 IDUs; approx. 40-50 smoking drug users"

"Around 7-8 IDUs, totaling 10-15 if smoking drug users included"

Drug abuse behaviors based on a quantitative survey

According to the data obtained from personal interviews with 19 drug users in Chiang Mai's Muang district area, 100% of them were Thai nationals, with male accounting for 78.9% and

female 21.1%. More than one type of drugs was abused. Among these, eight, three, one, and 11 injected heroin, Methadone, opiates, and Ya Ba, respectively. Of eight male and three female abusers, five, one, and one, were found to be injecting heroin, opium, and Dormicum, respectively. Of these, 57.9 percent admitted having shared needle with others; 18.2 percent mostly used shared syringe; 10.5 percent most recently used shared syringe passed on from other people. Within the last 30 days, 15.8 percent had handed over used needle to other drug users, while 26.3 percent admitted to having helped others with the drug injection for the first time. All study populations knew their fellow injecting drug users, and were aware of the place where new syringes were being distributed, e.g. PLHA network offices and HIV clinic.

Regarding high-risk sexual behaviors over the last six months, 33.3% (5/15) were MSM. Of these, one was MSM sex worker. Most male subjects reported having sex with their spouse/partner, 20 percent with casual partners, and 6.7 percent with sex workers. One hundred percent of female respondents reported having sex with their husband or permanent partner. Condom was used most of the time, except when having sexual intercourse with husband/permanent partner.

Specific needs

Tuberculosis (TB) screening test, treatment and clinical follow-up after counseling session on TB, drug abuse, and co infections, home visits for TB patients to follow up on treatment progress, wider distribution of Methadone to upcountry along with counseling services before and after use, administration of anti-tuberculosis drug and other medications.

Local drug market

Street prices of illicit drugs

- Meht 200-250 Baht per pill (20-50 Baht added per pill for delivery service)
- Heroin 100 Baht/small straw; 500–1,000 Baht/big straw; extra large 4,000 Baht; doorstep delivery 5,000 Baht; Xanax 15 Baht/tablet or 70 Baht per 10 pills
- Heroin 100-200 Baht/coffee straw; 800 Baht/drink bottle lid

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Table 8 Meth prices, Oct 2008-Sept 2009

Province	FY	Border area (Baht)	Inner area (Baht)	Downtown (Baht)
Chiang Mai	2008	35-50	45-300	150-350
	2009	50-75	50-300	50-350

Sources: Data obtained from a survey on drug situation conducted on drug users, confidential informants, intelligence information

Table 9 Prices of other major illicit drugs

Drug types	Border area (Baht)	Inner provincial area (Baht)
Heroin/kg		
2008	250,000-270,000	NA
2009	300,000-350,000	Pending information
Heroin/kg		
2008	12,500 – 18,750	NA
2009	12,500 – 18,750	Retail rate: 100 Baht/gram
	1,000 – 2,000 Baht/160 g	
Crystal meth		
(ICE)/kg	600,000-700,000	NA
2008	1,000,000-1,500,000	1,500,000-2,000,000 บาท
2009		Retail rate: 2,500-3,000 Baht/gram

Sources: Data obtained from the interview with drug users, confidential informants, and drug intelligence gathering

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3.4 Drug addiction rehabilitation program

Number of drug users undergoing rehabilitation using Methadone at hospitals in Chiang Mai provincial area:

- Fang Hospital: 209 drug addicts were being given Methadone (remarkable increase from just 12 (1 IDU among this group) early 2008)
- Chiang Dao Hospital: 100 drug addicts were receiving Methadone (early 2008 none participated in the rehab program; most participants were meth addicts).
- Chaiprakarn Hospital: 50 drug addicts were receiving Methadone (remarkable increase from just 12 (early 2008 none participated in the rehab program, most participants were meth addicts).
- Chom Thong Hospital: 17
- Maharaj Hospital (psychiatry clinic): 14
- Phrao Hospital: 5
- Mae Chaem Hospital: 3
- Samoeng Hospital: None
- Mae Ai Hospital: None (patients will be referred to Fang Hospital)
- Hospitals other than listed above: None

Number of drug users undergoing rehabilitation using Methadone at other sites

- HPTN 058 study project; 83 drug addicts undergoing rehabilitaion using Suboxone (only Chiang Mai-based participants; 74 were Aom Koi residents)
- Three private clinics: 105 receiving Methadone (data as from Mar-May 2009)

Drug users network (Chiang Mai)

1. Members: 500. Of these, 230 are IDUs, including 4 MSM and 6 FSWs. There are over 270 DUs (22 MSM, 20 STIs, and 114 VCTs). The network is staffed by 20 volunteer workers.

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2. Ongoing activities are focusing on harm reduction and syringe exchange campaign. The program is not being fully implemented pending funding streams (funding received through two sources, namely the Health Systems Research Institute (HSRI) and the Global Fund to Fight AIDS, Tuberculosis and Malaria).

3. Members who want to have HIV screening tests but need to protect their confidentiality may have blood tested at a clinic of the Thai Red Cross Society (Anonymous Clinic), or at health facilities to which they have entitlement to health care services. Most members are entitled to access treatment and care services.

Fah Mai Clinic (New Skies Clinic)

1. 45 Thais and 8 foreigners are receiving Methadone.
2. Approximately 35-40% of Thai HIV-infected patients and almost all HIV patients are receiving antiretroviral therapy under the state-funded universal health care scheme and the benefits offered under the Social Security Office (SSO).
3. Patient referral is initial counseling services only.

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Table 10 Chiang Mai Rehab Center

Administration routes	No. of participants	Total	Admission	Oct 2008-Sept 2009	Sept 2009-Present
Smoke inhalation	1,132	1,132			
Injection	33	13 from Chiang Mai, 4 from Muang district, the others from Mae Rim, Sarapee, Sanpatong, and Hangdong districts	4(2009)	13	20
Heroin	25		2	7	18
Methadone	4		1	2	2
Morphine	2			2	-
Opium	2			2	-
Meth (Ya Ba)			1 (discharged Apr 2009)		

3.5 Perspectives of health care providers/rehab center staff/law enforcement officials

Counter-narcotics efforts

The Interior Ministry's "Clean and Seal Project to Wipe Out Illicit Drugs (running from Oct 2009-Sept 2010)", to be implemented by the Drug Eradication Operations Center, calls for the elimination of illicit drugs by focusing on a proactive approach. The full operations were scheduled to take place from Nov 2008-Jan 2010, with the aim to turn 10 percent of drug-plagued villages/communities in each province/district into drug-free areas (white zones) on a monthly

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basis. Chiang Mai Provincial Drug Eradication Operations Center in collaboration with the ONCB Region 5, by the approval of the Provincial Subcommittee on Drug Prevention and Eradication, has readjusted the target areas to be in line with the government's anti-drug policy and the Ministry of Interior (MOI)'s Clean & Seal Campaign for Fiscal Year 2010. Total of 546 villages/communities have been designated as target areas based on the following geographical locations:

1. 106 villages along the border with neighboring countries, where problems are related to cross-border drug trafficking.
2. 422 villages in 24 districts, including those in inner areas of the districts sharing the border with neighboring countries and other non-border districts.
3. 18 communities in urban areas (Chiang Mai Municipality and Muang Kaen Pattana Municipal area).

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4. Discussion

Chaing Mai's Muang district is covered by health cares services for people affected by drug problems and treatment and care for HIV-infected persons. Treatment and care services are being offered by state and private health facilities, including non-governmental organizations (NGOs). All this has made it possible for drug users and PLHA to access treatment and care. Drug abuse behaviors and the way illicit drugs are abuse have significantly changed, i.e. from previously only single-drug consumption to currently multiple-drug options. This includes the use of substitution substances in place of intended narcotics which are not available, e.g. sedatives, antidepressants, psychoactive substances or Methadone, as alternatives to illicit drugs which are scarce and expensive. In addition, some drug users have also introduced a new method of administration they preferred, for instance, inject able form of sedatives, antidepressants, psychoactive substances or Methadone, and Ya Ba. The syringe exchange program has helped reduce HIV infection rates to a certain extent. However, this doesn't necessarily mean drug injection has decreased in tandem with the implementation of this program. Conversely, the injection method had been adopted for other drugs as well. Moreover, social stigmatization on IDUs, who are characterized by needle marks on their forearms, has prompted them to switch the injection site to the groin area or the back of the head instead. Some of them also lacked knowledge and wanted to be educated on TB prevention, screening, treatment follow-up, counseling services on TB, drug abuse, and other co infections. Home visits to follow TB patients should also be organized. There should be a system in place to ensure wider distribution of Methadone to upcountry along with counseling services before and after use along with counseling services before and after use, administration of anti-tuberculosis drug and other medications. The program had enjoyed strong interagency cooperation in Muang district area both from public health organizations and NGOs. Overall access to treatment and care services has not been significantly affected by a lack of full cooperation from the military, police, and local administration officials.

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5. Conclusion

Conclusion of the study

1. Muang district, Chiang Mai is an intensive and continuous area of illicit drug movement. The illicit drugs used include of opium, heroin and Ya Ba (methamphetamine),as well as methadone, Dormicum and other benzodiazepines (Xanax, Valium). We found several youth who injected methamphetamine alone, without having injected heroin first, and that were already infected with HIV. Given the highly social nature of ya ba use, the spread of HIV infection could be very rapid if Ya Ba users switch to use IDU.
2. Accessibility to the group of IDU can be developed through collaboration between the government and private sectors including the drop-in-center of the Thai Drug User network, which has been exiting in the area for several years.
3. The Clean and Seal Policy seems not having much impact on IDUs in Chiang Mai city area.
4. The risk among IDU are not only acquiring HIV infection but also include hepatitis B and C infection.
5. There are excellent government Rehabilitation Centers for drug maintenance and health care services of the HIV infected persons in the city area, but those services have not been effectively integrated risk reduction services.
6. There has been a good collaboration between the drop-in center of Thai Drug User network and methadone Clinic of the Center for Drug Treatment (Farmai Clinic).

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6. Recommendation

Recommendation

1. Encourage the expansion of risk reduction for IVDU in the city area for both local and temporary travelers and support the appropriate necessarily holistic services.
2. Accessible educational guidelines should be available to all IDU to reduce the risk from IV illicit drug injection, especially targeting the youths who use Ya Ba (methamphetamine). Most of them are lack of knowledge on how to reduce risks. This can explain why they change to the method of methamphetamine use from smoking to injection. The education should not be limited only to injectors but also should be provided to all accessible methamphetamine users in order to prevent the spread of unawareness of methamphetamine injection.
3. Improve the existing risk reduction services, including VCT, rick reduction behavior and needle exchange in order to cover the methamphetamine injection group.
4. The needle exchange service should not operate in the same place that provides services to non-injecting Ya Ba users. The introduction of new needle to them may facilitate injection practice among these kids and lead to more harm related to injection practice.

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RAR Appendix

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A. Preliminary results from RDS study in Chiang Mai, 2009

Chiang Mai (N=309)

Demographic characteristics

Variables	RDSAT- adjusted (%)
Sex	
Male	82.5
Female	17.5
Highest education	
No formal & incomplete primary education	22.8
≥ Primary education or equivalent	77.2
Current age	
<Median (36 yrs)	50.5
≥Median	49.5
Current age	
< 25 yrs	42.6
25-35 yrs	37.3
> 35 yrs	20.1
Current marital status	
Single (never married)	48.9
Married/living together	36.0
Married but living separately	7.5
Divorced/widowed/other	7.6
Birth place	
Chiang Mai	65.7*
Outside Chiang Mai	32.4*
Geographic live/sleep area	
Muang	74.0*
Om Koy	10.4*
Others	15.6*

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Demographic characteristics (cont')

Variables	RDSAT- adjusted (%)
Employment	
No	24.9
Yes	75.1
Approximate monthly income	
<Median (4,500 baht)	47.9
≥Median	52.1

*Crude data. RDSAT-adjusted cannot be computed.

Types of drug injected in the past 30 days (multiple answers)

Heroin	
Yes	33.8
No	66.2
Ya Baa	
Yes	31.9
No	68.1
Dormicum	
Yes	3.9
No	96.1
Methadone	
Yes	5.6
No	94.4
Opium	
Yes	14.4
No	85.6

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Holding cell and prison

In the past 12 months, have you ever been detained in a *holding cell at the police station*	
No	89.8
Yes	10.2
If yes, how many times	
1	66.7*
>1	33.3*
In the past 12 months, have you ever been detained in a *prison*	
No	84.9
Yes	15.1
If yes, how many times	
1	80.9
> 1	19.1

*Crude data. RDSAT-adjusted cannot be computed.

Needle sharing

Have you used a syringe/needle, which you knew had been used by someone else to inject with (past 6 month)	
No	34.0
Yes	66.0
The last time you injected did you share the syringe/needle	
No	51.9
Yes	48.1
The last time you inject did you share other injection equipment e.g. spoon, cotton, water	
No	47.4
Yes	52.6

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Sexual activities in the past 6 months (N=269)

Men having sex with men (incl. those reporting sex with both sexes) in the last six months (male only, N=216)	12.3
Sex with steady partner in the last 30 days	54.1
Condom use last time with steady partner	*20.9*
Sex with casual partner in the last 30 days	37.2
Condom use last time with casual partner	*27.0*
Had more than one sex partners in the last 30 days	43.6

Access to services

Variables	RDSAT-adjusted %
Have you ever been tested for HIV	
No	61.9
Yes	38.1
If yes, when was your last HIV test	
< 6 month	63.4
≥ 6 months	36.6
Have you ever been in drug treatment	
No	69.7
Yes	30.3
If yes, where (multiple answers)	
Dr. Panu's clinic	14.6*
Dr. Chamlong's clinic	7.8*
Pingpayom clinic	1.0*
Charoenraj clinic	2.9*
TDN	9.7*
Famai clinic	22.3*
Mae Rim treatment center	30.1*
Friend's house (058)	35.0*

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Suan Dok	2.9*
If yes: are you currently in treatment	
No	48.3
Yes	51.7

*Crude data. RDSAT-adjusted cannot be computed.

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Continued risk behaviors and high HIV prevalence among injecting drug users (IDUs) in a respondent driven sampling (RDS) survey in Bangkok and Chiang Mai, Thailand

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Background: HIV prevalence and drug use behavior data among IDUs outside methadone treatment clinics are scarce. In addition, the pattern of injection drug use in Thailand has changed substantially from opiates to methamphetamines. To inform prevention and care programs, we conducted cross-sectional respondent driven sampling (RDS) surveys to estimate HIV prevalence, risk behaviors, and practices among IDUs in Thailand.

Methods: We conducted RDS surveys in Bangkok and Chiang Mai (CM) . Initial participants were selected by staff to recruit peers according to RDS methods. Consenting participants were interviewed in non-governmental offices by trained interviewers. Participants provided blood specimens for rapid HIV testing and confirmatory testing for those screening HIV-positive. Data were analyzed using RDS Analysis Tool (RDSAT).

Results: A total of 746 IDUs were recruited in Bangkok and 309 in CM. Most participants were men (83% in both Bangkok and CM) and Bangkok participants were older (3% (95%CI (CI);1-5%) under 25 years) than those in CM (43% (CI;32-51% under 25 years). Most commonly reported drugs injected within the past month included heroin (34% in both Bangkok and CM), methamphetamine (63% in Bangkok; 32% in CM), and midazolam (42.% in Bangkok; 4% in CM). Needle sharing in the past 6 months was reported by 14% (CI; 10-18%) in Bangkok and 57% (CI; 57-74%) in CM, while needle sharing with most recent injection was reported by 5% (CI; 3-8%) in Bangkok and 48% (CI; 39%-57%) in CM. HIV prevalence was 24% (CI; 20%-30%) in Bangkok and 11% (CI; 7%-17%) in CM.

Conclusions: IDUs continue to practice risky injection behaviors and had high HIV prevalence. Injection of drugs other than heroin was common in both cities, indicating the need for new

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prevention and treatment approaches. Proven effective interventions such as needle exchange programs should be considered to strengthen existing prevention activities among this population.

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