

## How Harm Reduction Programs Work in the Context of Village and Commune Safety Policy: Lessons :Learned from a National Non-Governmental Organization in Cambodia

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### Abstract

This paper aims to examine the challenges and implications of the Village and Commune Safety Policy (VCSP) on harm-reduction programs and describe lessons learned from a harm-reduction program within the context of the VCSP in Cambodia. Data were collected from a monitoring and evaluation database and reports of a drop-in center that provides a wide range of harm-reduction services. In addition, qualitative data were collected through key informant interviews and focus group discussions with 38 participants including people who use drugs (PWUD) and people who inject drugs (PWID). Desk reviews and consultative meetings with key stakeholders were also conducted. In total, 496 PWUD were registered into the program between 2010 and 2012, of which 22.4% were PWID, and 15.0% were women. The mean age of participants was 26 years old. HIV prevalence among PWUD was 1.0% compared to 16.2% among PWID. Remarkable achievements were observed such as high uptake of services by PWUD and PWID with active referrals to methadone maintenance treatment (MMT) and voluntary HIV confidential counseling and testing (VCCT). However, distribution of clean needles and syringes in communities was limited. Also, the newly initiated needle and syringe program (NSP) based in pharmacies failed to reach PWUD and PWID. Appropriate coordination and collaboration with law enforcement and authorities were observed given the complexity of the VCSP. However, the implementation of the VCSP poses challenges including NSP and accessibility to harm reduction services. For future successes of harm-reduction programs, it is important to maintain close coordination and collaboration between program implementers and local authorities with mutual understanding and flexibility.

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## Introduction

Cambodia is no exception to the global rise in the use of illicit drugs. After more than a decade of civil war and isolation, Cambodia opened its borders and introduced a free market economy in 1993. Since then, the developing country has become a transit point along regional drug trafficking routes between middle-income countries of Thailand and Vietnam. In turn, Cambodia experienced a sharp rise in drug seizures, arrests, and an emerging wave of drug use [1, 2]. In 1995, as a response to the increasing drug problems, the government formed the National Authority for Combating Drugs (NACD) to manage and coordinate all aspects of drug control in the country [3].

Since the organization's inception, no consensus has been reached on the number of people who use drugs (PWUD) and people who inject drugs (PWID) in Cambodia. According to NACD, the estimated number of PWUD ranged from 6,000 to 40,000, of which 600 to 1,000 were PWID. Another study in 2007 suggested that there were about 9,000 to 20,000 PWUD, of which about 2,000 were PWID [2]. UNAIDS estimated about 46,300 PWUD, of whom 23,150 were using amphetamine types stimulant (ATS), and more than 2,000 were PWID [2, 4].

Although HIV prevalence in the general population in Cambodia has substantially decreased over the last two decades from around 2% in 1998 to only 0.28% in 2014 [5, 6], HIV among PWUD and PWID remains particularly high with a prevalence of 24.4% among PWID and 1.1% among PWUD in 2010 [2] and 24.8% among PWID and 4.0% among PWUD in 2012 [7]. While their practices increase their risk for HIV, their access to HIV prevention, treatment, and care services are limited. In 2010, only 40% of PWID were exposed to HIV prevention, which is far behind Cambodia's Universal Access target of 80% [8]. One out of five PWID have access to needles and syringes programs (NSP), particularly in the capital city of Phnom Penh [3]; about 40-45% have received HIV testing and counseling services in the past six months [9]. Since 2003, the Cambodian government has recognized the importance of harm reduction in targeting HIV prevention among PWUD and PWID and their sexual partners [10]. A pilot harm-reduction

program was conducted in 2004, which granted Mith Samlanh, a local non-governmental organization (NGO), a license to distribute needles and syringes to street-based children in Phnom Penh. In 2005, the harm-reduction program was extended to Korsang, a community-based NGO.

For over a decade as the largest HIV NGO, KHANA responds to the challenges of HIV in Cambodia by providing HIV prevention, care, and support services at the community level targeting key populations including PWUD and PWID. As of 2012, KHANA collaborated with local community-based organizations in the capital city and 11 provinces to foster the access and delivery of services to PWUD and PWID.

### *Mondul Meanchey*

In June 2010, Mondul Meanchay, hereafter referred to as "the Center," was established by KHANA in Meanchey District of the capital city of Phnom Penh as a center of excellence. By 2011, the NACD granted the Center a license to provide needles and syringes to PWID within the Center's scope of coverage. From May 2012 to April 2013, the Center's scope with provision of needles and syringes was expanded through outreach services. With the recognition from the NACD and local authority, the Center demonstrates best practices in harm reduction and provides capacity building and training while documenting case studies and monitoring trends related to HIV and drug use. The Center aims to engage its local community through programs delivered in partnership with KHANA's network of community-based NGOs.

The Center's staff members are directly managed by KHANA, which consist of a center manager, a medical doctor, a nurse, an outreach assistant, two peer counselors, and ten peer outreach workers (four of whom are women) who are former or occasional PWUD and PWID.

The Center's facility provides onsite services as well as community-based services. The services are based on international best practices informed by evidence-based findings for effectiveness in achieving the 16 key interventions of harm reduction that contribute to the improvement of the HIV, health, and development status of PWUD and PWID based on the World Health Organization (WHO) and the

International HIV/AIDS Alliance good practice guide, and adapted as KHANA Standard Package of Activities (SPA) [11, 12].

A wide range of interventions are implemented at the Center, including peer outreach (i.e. condom distribution and group education) and networks, referrals to methadone maintenance treatment (MMT), and voluntary HIV counseling and testing (VCT), education sessions, psycho-social counseling about drug use problems, provision of a space to rest, and primary health care services. Also, it serves as the center for information, education, and communication with the provision of capacity building to support community-based organizations [13].

#### *Village and Commune Safety Policy*

In late 2010, NACD initiated the Village and Commune Safety Policy (VCSP) nationwide. The policy focuses on removing five elements from communities, which include the following: drug use, human trafficking, gangs, domestic violence, and gambling. This policy involves all local authorities and police at all levels ensuring that these problems are removed from communities [14].

Since its implementation, the VCSP has impacted harm-reduction programs with additional challenges in providing accessible services to the key target populations. Conflicts between law enforcement and harm-reduction programs for PWUD and PWID are a common occurrence under the provisions of the VCSP. A recent study found that 15% of PWUD and PWID have been arrested at least once by police during the implementation of VCSP [9]. Also, 75% of interviewed had been questioned by the police (*Personal communication with the Center staff, April 2012*). In another study, about 75% of police reported conducting body searches on suspected members of the key populations [15]. Consequently, key populations are weary of possessing needles and syringes (67%) and condoms (23%) to incriminate themselves of drug use and prostitution. Overall, 19% of the key population was discouraged from seeking health services to avoid unwanted attention from law enforcement. In the same study, 58% of law enforcement officers reported arresting key populations within in a six-month period of the implementation of the VCSP with the following reasons for arrest: drug use (64%), distribution of drugs

(36%), and displaying violence (13%) [15]. As high as 94% of law enforcement officers believe their reasons for arrest were justifiable and valid in controlling drugs and preventing HIV [15]. Therefore, this paper aims to examine the challenges and implications of the VCSP on harm-reduction programs and describe lessons learned from a harm-reduction program within the context of the VCSP in Cambodia.

#### **Materials and Methods**

This study used a combination of quantitative and qualitative methods within fieldwork conducted from March to April 2012. The quantitative method refers to the collection and analyses of the Center's monitoring and evaluation database to determine the trends of service uptake, characteristics of PWUD and PWID, and coverage. The qualitative study was conducted in tandem to gain a comprehensive understanding of the issues. In addition, desk reviews and consultative meetings were conducted to collect additional information and different perspectives about the program.

Monitoring and evaluation data were retrieved from the Center's database and program reports. These data were used to understand the characteristics of PWUD and PWID reached by the Center, to quantify the number of the beneficiaries, and to identify trends overtime. Types of drugs used, specific age groups, and gender stratifications were analyzed.

For qualitative data, a purposive sampling method was used to select participants for key informant interviews (KIIs) and focus group discussions (FGDs). Based on the characteristics of the key population and purposes of the study, eight in-depth interviews with key informants as well as four FGDs, and 26 interviews with PWUD and PWID were conducted within the scope of the Center's coverage.

Key informants included an outreach assistant, a nurse, a Center manager, and a medical doctor along with other stakeholders and local authorities that had been working with the Center (nurses at the referred health centers, village chief, commune council, and MMT staff).

FGDs and in-depth interviews were conducted with PWUD and PWID who used illicit drugs either regularly or occasionally. Occasional drug use was

defined as using illicit drugs, as defined in Cambodian Drug Control Law, two times per week or less in the past month [16]. Regular drug use was defined as using illicit drugs, as defined in Cambodian Drug Control Law, three or more times per week in the past month [16].

The FGDs and in-depth interviews were conducted at the Center with trained qualitative researchers. The interviews with key informants were held at a time and location convenient for them. Qualitative data were analyzed using thematic analyses. Some themes were pre-identified and some were explored during the analyses. Available documents and reports related to harm-reduction programs were reviewed. These included the concept note of the Center Aide Memoire, the Annual Reports 2011, the Community Need Assessment Report 2010 before the establishment of the Center, Cambodian Drug Control Law, the Needle Syringe Program Guidelines, and a standard package of activities for PWUD and PWID.

A number of consultative meetings were conducted with staff in different departments of KHANA. This study was based on the secondary data from the Center's database. Names and clients' identities were removed during the data analysis phase to maintain confidentiality. All qualitative interviews were conducted with verbal informed consent with anonymity, confidentiality, and privacy ensured throughout the process. Participants who required either health or non-health services were referred to the Center for treatment or referred to other appropriate government service facilities with their consent.

## Results

### *Characteristics of PWUD and PWID Visiting the Center*

From June 2010 to June 2012, a total of 496 PWUD and PWID were registered as clients of the Center. Of those registered, 22.4% were PWID injecting heroin, and 15% were women. The mean age of PWUD and PWID was 26 years old with the age range falling between 16 and 52; 47% of them aged 24 or younger. Older PWUD were more likely to be PWID (Table 1). About half of the PWUD and PWID reported to be hidden, meaning that their status was

not known to their family members or local authorities. PWID were more likely to disclose their status compared to their counterparts of ATS users (67.6% vs. 46.0%). Reports of loss to follow up or dropouts from accessing the Center were about 15%, which consisted mainly PWUD. Close to 60% of PWUD and PWID reported being unemployed, while 12% were scrap collectors, 12% were construction workers and motor taxi drivers, and 8% were students. The HIV prevalence was 4.4% among combined registered PWUD and PWID – 1% among PWUD and 16.2% among PWID. Within this figure, the HIV prevalence among men and women was similar (Table 1).

### *Provision and Use of Services*

Of the 16 key harm-reduction interventions: 10 interventions were implemented at the Center, five through community outreach, and eight through referrals (Table 2). The achievements through different services were described by main activities below.

### *services provided at Mondul Meanchey*

Up until April 2012, the Center provided more than 2,400 PWUD and 825 PWID with different support services to improve current health conditions. In addition, the services benefitted partners and families of PWUD and PWID as the Center received 1,164 extra cases (Table 3).

The most common services provided were consultations and counseling related to drug use and mental health difficulties, drug overdose, and minor health conditions (i.e. diarrhea, minor injuries, and skin problems). From January to March 2012, approximately 50 PWUD/PWID received counseling related to complication of drug use, drug overdose, coping with psychological and emotional problems, and job opportunities. *"The service provision here related to education on drug use, blood tests, medical services for minor illnesses, and is a place for recreational activities or for sleeping. For example, if you want to play volleyball, we can borrow a ball [for] physical exercise... We can also study, join music class and watch TV."* (FGD, male) *"The Center provides health services, food, a place to sleep and blood test for HIV. What I like most is health education on drug use, because it explains about drug issues and our health."* (FGD, male)

Table 1. Characteristics of PWUD and PWID receiving **harm-reduction services at Mondul Meanchey Demonstration Center** from June 2010 - June 2012

Characteristics	PWUD ( <i>n</i> = 385)	PWID ( <i>n</i> = 111)	Total ( <i>n</i> = 496)
	Number (%)	Number (%)	Number (%)
Gender			
Female	57 (14.8)	18 (16.2)	75 (15.1)
Male	328 (85.2)	93 (83.8)	421 (84.9)
Age groups			
< 25	219 (56.9)	14 (12.6)	233 (47.0)
25 – 35	155 (40.3)	78 (70.3)	233 (47.0)
> 35	11 (2.8)	19 (17.1)	30 (6.0)
Marital status			
Never married	305 (79.2)	69 (62.2)	374 (75.4)
Married	77 (20.0)	35 (31.5)	112 (22.6)
Divorced/widowed	3 (0.8)	7 (6.3)	10 (2.0)
Drug use status disclosure*			
No	208 (54.0)	36 (32.4)	244 (49.2)
Yes	177 (46.0)	75 (67.6)	252 (50.8)
HIV status			
Negative	381 (98.9)	93 (83.8)	474 (95.6)
Positive	4(1.1)	18 (16.2)	22 (4.4)

*Abbreviations: PWID, people who inject drugs; PWUD, people who use drugs.*

*\*Disclosure means their drug use status is not known to their families or local authorities.*

Table 2. Key harm-reduction interventions implemented by Mondul Meanchey Demonstration Center

Harm Reduction Interventions	In Center	Outreach	Referral	Description
Needle and syringe program	√			
Opioid substitution therapy			√	Clinic for Mental Health and Drug Dependence at MMT
HIV testing and counselling (blood sample collected at the Center)			√	Refer to Steung Meanchey Health Center and RHAC
Anti-retroviral therapy			√	Refer to SHCH and Chhouk Sar clinics
Prevention and treatment for STI	√	√	√	Provide education and refer to health facilities
Condom promotion for drug users and their sexual partners	√	√		Provide education sessions at the Center/outreach activities and educational materials (i.e. leaflet, booklet)
Targeted information, education and communication	√	√		Provide education sessions at the Center/outreach activities and educational materials (i.e. flipbooks, booklets, posters) on drugs and health impact, methamphetamine, heroine.
Diagnosis, treatment and vaccination for hepatitis B			√	Provide education sessions at the Center/outreach activities and referral to health facilities
Prevention, diagnosis and treatment of TB			√	Provide education sessions at the Center/outreach activities and referral to health facilities
Advocacy and supporting enabling environment	√			Organized quarterly coordinating meeting with authorities, parents, NGO partners, in collaboration with AusAID, WHO, UNAIDS and FHI360 on HIV-drugs and harm reduction for law enforcement in selected provinces and Phnom Penh.
Basic health services, including overdose prevention and treatment	√			Provide education sessions, counselling, training
Sexual and reproductive health services	√	√	√	Provide education sessions at the Center/outreach activities and referral to health facilities
Home based care and support for HIV positive drug users	√	√		Conduct home visit and link to KHANA home base care in the catchment area
Family support for parents and children of PWUD/PWID	√			Home visit and refer children to access to schools
Access to justice and legal service	√			Provide consultation and option to the family with their children arrested by police
Livelihood development/economic strengthening			√	Link to KHANA livelihood center and other private shops based for their skill developments

*Abbreviations: AusAID, Australian Agency for International Development; MMT, methadone maintenance therapy; NGO, non-governmental organization; PWID, people who inject drugs; PWUD, people who use drugs; RHAC, Reproductive Health Association of Cambodia; SHCH, Sihanouk Hospital Center of Hope; STI, sexually transmitted infections; WHO, World Health Organization.*

Table 3. List of indicators to be filled by Mondul Meanchey Demonstration Center

Indicators	Jun-Dec 2010	Jan-Dec 2011	Jan-Mar 2012
Number of PWUD contact accessed to the Center	469	1832	131
Number of PWID contact accessed to the Center	22	464	339
Number of PWUD/PWID received counseling at Center	NA	NA	47
Number of female PWUD/PWID reached by peer or at the Center	34	146	27
Consultation offered to PWUD/PWID partners and families at the Center	54	996	114
Number of PWUD contact reached by peer educator	249	844	114
Number of PWID contact reached by peer educator	25	162	82
Number of needles and syringes dispensed to PWID	NA	4292	350
Number of condoms dispensed to PWUD/PWID	1591	22268	420
Number of PWID referred to MMT	NA	22	14
Number of PWUD/PWID referred to VCCT	58	239	10
Number of PWUD/PWID referred to OI/ARV service	3	14	13
Number of PWUD/PWID referred to STI clinic	1	47	8

*Abbreviations: PWID, people who inject drugs; PWUD, people who use drugs; STI, sexually transmitted infections; VCCT, voluntary confidential counseling and testing.*

The FGD revealed that the Center became an important and safe place for PWUD and PWID to visit due to the diverse services tailored to meet their needs. In some cases, this has helped reduce the frequency of drug use.

*"I haven't used drugs. I enjoy [my time] here. When I am here, I forget everything [drugs]. When we get bored, we can watch TV. We can eat a snack, drink water, read stories, play drums or music, and play volleyball. [It makes] us sweat...so we can reduce [our] drug use. Now, I have reduced [drug use] a lot, [about] 60%..."* (FGD, male)

In addition to this, a friendly service was also provided to their partners, spouses, family members, and children of PWUD and PWID. It was found that that most PWUD and PWID and their partners come to the Center for a health follow-up visit (counseling, consultation, and treatment) despite being faced with many obstacles such as fear from police arrest and transport fees (Table 3).

#### *Psychosocial Support and Counseling*

The psychosocial support and counseling services aimed to increase awareness of drug use (i.e. consequences of drug use, safe injecting), HIV status, and promote early diagnosis and treatment of HIV. In addition, the Center ran large-scale VCT campaigns in communities to increase knowledge and awareness of HIV among PWUD and PWID, as well as the broader community. Both activities encouraged PWUD and PWID to visit the Center, where they were provided with pre-test counseling and education about HIV transmission before being referred to government health clinics for HIV counseling and testing. Apart from primary health care, the Center also offered vocational training to PWUD and PWID. In 2011, a total of 18 PWUD and PWID received vocational training. Examples of vocational training included farming techniques, mechanic skills, music class, and a cooking course. However, the training did not attract much attention from PWUD and PWID. This was clearly indicated by the in-depth interviews with PWUD and PWID that revealed low willingness to commit to the training. Further consultation with the peer outreach workers and Center staff showed that the priority of PWUD and PWID was to have fast return paid jobs such as construction workers, laborers, and porters. In addition, the Center

tried to integrate gender-based concepts into its services especially targeted toward female PWUD and PWID, including female entertainment workers. It was found that many female PWUD and PWID were less likely to be supported by their families though they had particular needs regarding sexual reproductive health, access to health services, clean syringes and needles, and negotiation skills on condom use with partners. In the Center, women had choices between male or female health providers regarding a consultation, counseling, primary health care, and pregnancy test.

#### *Community outreaches and peer education*

The Center's peer outreach workers were former or occasional PWUD and PWID. According to the Center's staff, these peer outreach workers were found to be effective in working with PWUD and PWID. The peer outreach workers provided PWUD and PWID with information on safe injecting, risk behavior reduction, overdose, negotiating condom use, and referrals to health services. Peer outreach workers also provided condoms and educational materials on harm reduction. Up until March 2012, the total number of PWUD and PWID reached through communities peer outreach was 1207 and 269 cases, respectively (Table 3).

Furthermore, monthly coordination meetings and reflections with peer outreach workers were conducted with participation of peers from other local NGOs to provide an update on the drug situation, update hot spot locations for NSP in order to share information and to avoid overlapping coverage.

#### *Needles and Syringes Program and Condom Distribution*

Since the NACD issued the NSP license in 2011, the distribution of needles and syringes through the community outreach programs could not be followed through due to the implementation of VCSP coupled with a lacking of understanding of the harm reduction programs at the community level (i.e. local authority, police, villagers). Up until March 2012, more than 4,600 sterile needles and syringes were daily distributed to PWID at the Center (Table 3). Based on the usage of the 111 PWID registered, the average supply of clean syringes was three. Currently, the NSP covers less than 5% of its projected scope. In July 2011, the Center piloted a distribution of NSP through designated pharmacies that were frequently visited by PWID. However, this distribution channel failed due to



the high mobility of the PWID from place to place for safety reasons, which was directly and indirectly affected by the fear of arrests from police resulting from the implementation of the VCSP. A decline in condom distribution was observed in first quarter of 2012, indicating a tenfold decrease in comparison with each quarter in 2011. PWUD and PWID did not want to carry condoms with them, especially female entertainment workers because it was an evidence of sex work involvement.

#### *Referral to OI/ART Clinic*

HIV-positive PWUD and PWID were referred to appropriate facilities such as Chhouk Sar clinic (OI/ART clinic for HIV key populations), Social Health Clinic, and other linked health facilities run by the government. A transport fee was provided for those who were referred. All registered 22 HIV-positive PWUD and PWID were receiving support from the Center to access the health services, of which 13 positive PWUD and PWID were on ART, and seven were on treatment of associated opportunistic infections. Of the remaining two, one refused to receive OI/ART services due to his busy time in work, while another was lost to follow-up.

#### *Referral to MMT and VCCT*

Since the availability of MMT in 2011, 36 PWID were referred to the clinic with transportation support. About one-third of the PWID referred dropped out of the MMT for various reasons such as family problems, change in job, and relocation to other places or provinces. By March 2012, a total of 307 PWUD and PWID had been referred to the VCCT, of which 38 were PWID (Table 3). *"We accept new patients for MMT through our networks, first we have [PWID] from Korsang and Mith Samlanh, the last one is from the KHANA Meanchey Center."* (MMT staff) *"We refer [PWUD and PWID] to VCCT at Steung Meanchey Health Center. TB [suspected cases] were also referred to Steung Meanchey Health Center. PWUD and PWID with STI [are referred] to the Health Center or RHAC clinic"*(The Center manager)

#### *Referral to Sexual and Reproductive Health*

People who needed sexual and reproductive health services were referred to a linked health center and local NGO such as Reproductive Health Association of Cambodia (RHAC) clinic, a local NGO providing sexual and reproductive health services. Sexual and

reproductive health problems included vaginal discharge, unwanted pregnancy, and sexually transmitted infections. In addition, counseling on sexual and reproductive health issues was commonly conducted at the Center. *"Regarding sexual and reproductive health, there are almost no services offered; for example, family planning, antenatal care... We don't have the capacity to offer [the services] yet."*(Medical doctor)

Results indicated that the center used an active referral system. This means that a staff or a peer from the Center accompanied the referred PWUD or PWID to other services. Therefore, the Center could verify the complete access to referred services on a case-by-case basis. However, on average, the Center spent about \$400 monthly for referral and travel support fee to deliver and complete the referral process. *"...at my place [Center], if a client decides to have VCCT [HIV test] we arrange everything...we arrange motor [taxi] or tuk tuk... We go with the client until they have received the services and go home, thus our referral is never missed[incomplete]."*(the Center manager)

#### *Creating an Enabling Environment*

In order to obtain a NSP license, KHANA and the Center worked on both technical and management aspects with the relevant stakeholders. KHANA joined the NACD Drug and HIV/AIDS Technical Working Group, and regularly submitted quarterly reports to NACD. However, challenges arose regarding compromising the confidentiality of the referrals' identifying information to be released. For example, in 2011, the local authorities requested information on the identities of PWUD and PWID (i.e. picture, name), who frequent the Center. This raised a great concern for the Center and PWUD and PWID who access the services. To protect the safety and confidentiality of all PWUD and PWID, the Center organized a number of sensitization meetings with local authorities and police to explain about the programs and the impact of releasing information about PWUD and PWID to the local authority. Through training and education, the issue was resolved, and no identifying information was released. Moreover, regular quarterly meetings with local authorities, health service providers, neighbors, and parents of PWUD and PWID were conducted with the aim to raise awareness on HIV and harm reduction while mobilizing support for the protection of their rights

to access health services, treatment, and care while fighting against stigma and discrimination.

### *Learning and Sharing*

Besides the services, the Center hosted experience-sharing sessions with local NGOs working with the PWUD and PWID. Discussions were held about the process of running the Center, communicating with PWUD and PWID, registering/recording the PWUD and PWID data, and providing PWUD and PWID with counselling, consultation on MMT adherence education, and treatment services. The Center also took part in an exchange visit to Children's Fund to build a networking relationship in a joint effort to support low-income families with children who are out of school, including the families of PWUD and PWID. In addition, the Center provided technical expertise in building capacity and knowledge related to harm-reduction interventions to community-based organizations, and learning from and sharing experiences with international and regional agencies.

### **Discussion**

After two years of implementing the harm-reduction program, the Center appears to have achieved its objectives of delivering services to PWUD and PWID in the communities through different services, such as high uptake of PWUD and PWID access to services within the Center and different referrals. However, some challenges remain including the failure of the NSP program due to competitive priorities between the law enforcement and harm-reduction programs particularly NSP given the complexity of the VCSP. Results from the field using former PWUD and PWID as peer outreach workers proved to be effective for the drug use community-based programs because it built trust and credibility among PWUD and PWID. However, it is likely to fail using conventional drug treatment based approach like the former initially setting up, in the northwestern provinces of Cambodia [1]. This community-based peer outreach approach allows participants to support each other in various ways such as filling in report forms, helping each other during health education sessions. Despite this, challenges remained relating to jealousy among the group due to their limited education level, stigma, and discrimination especially among female PWUD and PWID involved

with sex work. Also, group peer outreach attracted unwanted attention from local police. As a result, many PWUD and PWID are afraid to attend their peer education sessions at the Center. The active referral system is a unique feature of the Center, which ensured that PWUD and PWID received appropriate services. However, in the long term, it becomes costly in terms of expanding reach-out. Once the program becomes well established and stable, this approach needs to be revisited to minimize the dependency from the group and ensure long-term sustainability of services. Comprehensive services that are available at the Center (i.e. counseling, primary health care, drug use group education) and referrals (i.e. SRH, VCCT, MMT) should be well maintained linkages. It is clear that the vocational training program has to be redesigned to meet the needs of PWUD and PWID through coordination and their thorough participation at the initial design stage to avoid the waste of resource and time. A successful lesson from Croatia related to comprehensive services and referrals using multidisciplinary teams were documented. The approach resulted in a high retention rate of up to 85% [17]. A systematic review suggested that a combined intervention that addressed socio-environmental factors to be more effective than the stand-alone strategies [18]. Distribution of sterile needles and syringes is a key component of harm reductions as well as HIV prevention intervention efforts [19]. However, a very low coverage of NSP was found given that only 16% of PWID reported accessing NGO drop-in centers [9]. Epidemiologically, at least up to 60% coverage would be needed to meet the threshold that could halt and decrease HIV epidemic among PWID. Another concern is the shifting pattern from ATS users to PWID since less than 5% of those visited at the Center were originally PWID (*Personal communication with the Center staff*). Therefore, it raises great concerns about what triggers PWUD to become PWID. More studies are needed for a better understanding about this link. Therefore, it is really important to focus work on both PWUD and PWID to reduce the potential for transitions from snorting to injecting. The complexity of the VCSP significantly affects the NSP at the community level where more than half of PWUD and PWID were hidden with lower coverage. Lack of understanding, stigma, discrimination, and a prevailing negative attitude and

behaviors towards PWUD and PWID remain high from local communities. In addition, the location of drop-in centers may contribute to challenging accessibility issues for the NSP [10]. Also, this policy discourages PWUD and PWID to disclose their status. Consequently, many PWUD and PWID did not want to carry needles, syringes, or condoms. Thus, the key population remains hidden or has moved to other locations in search of safety and employment. Globally, there is a strong evidence to suggest that harm-reduction intervention is effective in preventing the spread of HIV among PWUD and PWID. However, at each country level, the successful harm reduction programs have to be designed to fit and adapt well with the local context in terms of socio-economic, political, and cultural issues [10, 20]. Working with PWUD and PWID is politically complex because of the subtle line that separates a PWUD and PWID from a drug distributor or a drug dealer. Therefore, it is quite challenging to maintain a high level of support from authorities and police because government and police have different priorities - reducing crime; whereas our priority - reducing HIV transmission - results in a clash of approaches. The recent update from the Center after the study was conducted reported that there has been a positive sign of distribution of sterile needles and syringes in the community through peer outreach activities without any major distraction from police. However, more work and understanding are required to ensure that crime reduction efforts do not undermine HIV prevention. This study is subject to a number of limitations. First, the monitoring and evaluation data available at the Center were limited to a program performance report rather than information for a specific research purpose. Double counting may have occurred between the peer outreach activities, services within the Center, referrals, and coverage overlapping. However, this concern has been addressed through regular coordination meetings to update and share information. The unique identifier for PWUD and PWID is in the process of discussion to improve data quality and duplication issue. Secondly, findings were based on the secondary data available at the Center and desk reviews combined with additional qualitative interviews. Therefore, it represents the picture of the harm-reduction implementation at the Center only. However, experiences, challenges, and lessons learned from this model are worth-sharing and documenting.

In conclusion, many of the key harm-reduction interventions appear to have achieved its objective of delivering services to PWUD and PWID in the communities though challenges remain except the NSP in the community that need to be more advocated with the government. Moreover, other aspects of the harm-reduction intervention package need to be strengthened and improved including referral to MMT and ensuring access to ART for PWUD and PWID living with HIV. A proper formative assessment should be conducted prior to the setting up of any vocational training and the network link to private pharmacies on the NSP to better guide a program planning and to increase relevant and flexible strategies to ensure the value of money. The further success of The Center's harm-reduction programs should be reviewed to fit well with the current socio-economic, political, and cultural contexts. Though there were some clashes between the police, government, and harm-reduction implementation particularly NSP, there is a need to have a common way to work together with mutual understanding, coordination, and collaboration with all parties involved exhibiting a degree of flexibility with a common goal toward the successful NSP implementation as part of the NACD national strategic plan 2011-2015 [21, 22].

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### **Conflict of Interest**

The authors declare that they have no conflict of interest.

### **References**

1. Klein A, Saphonn V, Reid S. Reaching out and reaching up - developing a low cost drug treatment system in Cambodia. *Harm Reduct J.* 2012;9:11.
2. Chhea C, Seguy N. HIV prevalence among drug users in Cambodia 2007. Phnom Penh: National Center for HIV, Dermatology and STD (NCHADS),

- National Authority for Combating Drugs (NACD); 2010.
3. National Authority for Combating Drugs (NACD) and National AIDS Authority (NAA). National Strategic Plan for Illicit Drug Use related HIV/AIDS 2008-2010. Phnom Penh: NACD, NAA; 2008.
4. Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet*. 2008, 372 (9651):1733-45.
5. National Center for HIV, Dermatology and STD (NCHADS). Estimation of the HIV Prevalence among General Population in Cambodia, 2010. Phnom Penh: NCHADS; 2011.
6. Mun M, Sopheab H, Tuot S, Morgan P, Pal K, Chhoun P et al. National HIV Sentinel Survey among Women Attending Antenatal Care Clinics in Cambodia in 2014. Phnom Penh: National Center for HIV/AIDS, Dermatology and STD (NCHADS); 2016.
7. Chhea C, Heng S, Tuot S. National Population Size Estimation, HIV Related Risk Behaviors and HIV Prevalence among People Who Use Drugs in Cambodia in 2012. Phnom Penh: National Center for HIV/AIDS, Dermatology and STD (NCHADS); 2014.
8. National AIDS Authority (NAA). Aide Memoire. Universal Access to HIV Prevention, Treatment, Care and Support. Phnom Penh: NAA; 2010.
9. Sopheab H, Tuot S. End project evaluation: Changes in HIV integrated prevention, care and impact mitigation efforts from 2009-2011. Phnom Penh: KHANA; 2012. systematic review of global, regional, and national coverage. *Lancet*. 2010, 375(9719):1014-28.
10. Chheng K, Leang S, Thomson N, Moore T, Crofts N. Harm reduction in Cambodia: a disconnection between policy and practice. *Harm Reduct J*. 2012,9(1):30.
11. International HIV/AIDS Alliance. Good practice guide: HIV and drug use: community responses to injecting drug use and HIV. Brighton: International HIV/AIDS Alliance; 2010.
12. World Health Organization (WHO), United Nations Office on Drugs and Crime (UNODC), Joint United Nations Programme on HIV/AIDS (UNAIDS). Technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users; Geneva; WHO, UNODC, UNAIDS; 2009.
13. KHANA. KHANA Meanchey Drop in Center Service Packages. Phnom Penh: KHANA; 2011.
14. Chhea C, Saphonn V, Sopheab H. Feasibility Assessment Report: Drug Users Size Estimation and HIV Prevalence Study NCHADS, NACD, KHANA; 2011.
15. Schneiders, ML, Weissman, A. Determining barriers to creating an enabling environment in Cambodia: results from a baseline study with key populations and police. *J Int AIDS Soc*. 2016,19(Suppl 3):1-9.
16. National Authority for Combating Drugs (NACD), National Center for HIV, Dermatology and STD (NCHADS), KHANA. A Drug User Study: National Population Size Estimation and HIV Prevalence and HIV Related Risk Behaviors among Drug Users. Phnom Penh: NACD, NCHADS, KHANA; 2012.
17. Saucier R, Silva P, Bane T. Widespread and uncontroversial: Methadone and buprenorphine in Croatia. New York City: Open Society Institute; 2010.
18. Degenhardt L, Mathers B, Vickerman P, Rhodes T, Latkin C, Hickman M. Prevention of HIV infection for people who inject drugs: why individual, structural, and combination approaches are needed. *Lancet*. 2010;376(9737):285-301.
19. Mathers BM, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick RP, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. *Lancet*. 2010, 375(9719):1014-28.
20. Friedman SR, de Jong W, Rossi D, Touze G, Rockwell R, Des Jarlais DC, et al. Harm reduction theory: users' culture, micro-social indigenous harm reduction, and the self-organization and outside-organizing of

users' groups. Int J Drug Policy. 2007,18 (2):107-17.

21. National Authority for Combating Drugs (NACD). Draft national strategic plan for illicit drug use related to HIV/AIDS 2011-2015. Phnom Penh: NACD; 2012.

22. Tuot S, Ngin C, Pal K, Sou S, Sawez G, Morgan P, et al. How understanding and application of drug-related legal instruments affects harm reduction interventions in Cambodia: a qualitative study. Harm Reduct J. 2017;14(1):39.