

## Substance use disorders and HIV in Vietnam since Doi Moi (Renovation): An overview

Follow this and additional works at: <https://www.jfda-online.com/journal>



Part of the [Food Science Commons](#), [Medicinal Chemistry and Pharmaceutics Commons](#), [Pharmacology Commons](#), and the [Toxicology Commons](#)



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](#).

### Recommended Citation

Giang, L.M.; Ngoc, L.B.; Hoang, V.H.; Mulvey, K.; and Rawson, R.A. (2013) "Substance use disorders and HIV in Vietnam since Doi Moi (Renovation): An overview," *Journal of Food and Drug Analysis*: Vol. 21 : Iss. 4 , Article 41. Available at: <https://doi.org/10.1016/j.jfda.2013.09.032>

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

ScienceDirect

journal homepage: [www.jfda-online.com](http://www.jfda-online.com)

# Substance use disorders and HIV in Vietnam since Doi Moi (Renovation): An overview

Le Minh Giang<sup>a,\*</sup>, Lung Bich Ngoc<sup>a</sup>, Vu Huy Hoang<sup>b</sup>, Kevin Mulvey<sup>b</sup>,  
Richard A. Rawson<sup>c</sup>

<sup>a</sup> Vietnam-HIV Addiction Technology Transfer Center (VHATTC), Hanoi Medical University, Vietnam

<sup>b</sup> Substance Abuse and Mental Health Services Administration, US Embassy, Hanoi, Vietnam

<sup>c</sup> Integrated Substance Abuse Programs, Department of Psychiatry and Biobehavioral Sciences, David Geffen School of Medicine, University of California, Los Angeles, CA, USA

## ABSTRACT

### Keywords:

Global health  
Human immunodeficiency virus  
Review  
Substance abuse  
Vietnam

Drawing from published and gray literature, this manuscript focuses on the following topics: (1) changing patterns of substance use and abuse in Vietnam since the early 1990s; (2) the roles of substance use in the human immunodeficiency virus (HIV) epidemic; (3) the responses of the Vietnamese government and other entities (both domestic and international) to substance use disorders (SUDs) and HIV; and (4) the current research capacity in Vietnam and ways in which furthering research in Vietnam could enrich our knowledge of the linkages between SUDs and HIV and of effective measures to reduce their public health consequences. A growing number of studies during the past 2 decades show dynamic and still evolving twin epidemics of SUDs and HIV in Vietnam, including a shift from consumption of opium to heroin and amphetamine-type stimulants, the concurrent use of drugs, and the increasing embrace by the government of internationally recognized effective responses (including harm reduction and methadone substitution therapy). However, remaining issues, such as the rapid ascendance of amphetamine-type stimulant use among the country's most vulnerable populations, the lack of effective integration of SUD and HIV services for HIV-infected drug users, and the reliance on international resources for maintaining quality services, among others, are posing challenges for building sustainable Vietnamese responses. Therefore, building local research and training capacity is a crucial foundation to meet these challenges.

Copyright © 2013, Food and Drug Administration, Taiwan. Published by Elsevier Taiwan LLC. All rights reserved.

## 1. Introduction

In Vietnam, drug users have remained at the highest risk of human immunodeficiency virus (HIV) and other sexually transmitted infections. To date, the HIV epidemic has been mainly concentrated among drug users. Although the rate of

injecting drug users (IDUs) infected with HIV decreased by 3% in 2011 compared to 2010, nearly half (41%) of the new cases of HIV/AIDS in 2011 were IDUs [1,2]. In order to provide a better understanding about substance use disorders (SUDs) in association with the HIV epidemic, this review will highlight new trends in substance use after Doi Moi (Renovation) was launched in

\* Corresponding author. Vietnam-HIV Addiction Technology Transfer Center (VHATTC), Hanoi Medical University, Vietnam.

E-mail address: [leminhgiang@hmu.edu.vn](mailto:leminhgiang@hmu.edu.vn) (L.M. Giang).

1021-9498/\$ – see front matter Copyright © 2013, Food and Drug Administration, Taiwan. Published by Elsevier Taiwan LLC. All rights reserved.  
<http://dx.doi.org/10.1016/j.jfda.2013.09.032>

Vietnam, the intersection between HIV and substance disorders, the successes and challenges in response to drug use in the country, and potential contributions of research on these issues.

## 2. Results

### 2.1. Changing patterns of substance use and abuse in Vietnam since the early 1990s

Since the Doi Moi policy was introduced in 1986, Vietnam shifted from a centrally planned to a market-oriented economy. This has made significant developmental changes in the socio-economic picture. During the same period, a large number of new drug users emerged, creating a newly complicated situation of substance use and abuse in Vietnam [3].

Over the past ten years, the use of heroin and amphetamine-type stimulants (ATS) has increased, whereas opium, which was the predominant substance during the French colonial and pre-Doi Moi eras, has decreased substantially. Currently, data show that heroin is the most commonly used drug, with the percentage of drug users who use heroin ranging from 65% to 85% [4,5], whereas opium users dropped from 92.7% in 1995 to only 6.4% in 2012 [6]. ATS consumption has rapidly increased from 1.5% in 2001 to 6.5% in 2012 [6]. This trend is similar to reports from other countries of the Southeast Asia region, where the ATS market has continued to expand in recent years [7]. A United Nations Office on Drugs and Crime study reported that ATS has been used with a high prevalence among the high risk groups: female sex workers had the highest frequency (39.6%) and taxi drivers had the second highest frequency (25%) of methamphetamine use in the previous 90 days [8].

The concurrent use of heroin and other drugs has become more common in recent years. In a 2012 survey, heroin users reported that they used heroin concurrently with a wide range of other drugs such as crystal methamphetamine (15%), marijuana (7.0%), and amphetamines (2.8%). The other concern related to substance use in Vietnam is that the mean interval of transition time from heroin smoking to injection use was 2.5 years, and this period is becoming increasingly shorter among heroin initiates. This suggests that heroin users are being exposed to HIV transmission sooner after their first injection, whereas current interventions mainly focus on long-term injecting individuals [9,10].

Female sex workers (FSWs) also suffer heavily from HIV risks. Drug use has been prevalent among female sex workers, ranging from 23% to 29%, especially in big cities such as Hanoi, Hai Phong, Ho Chi Minh, and Can Tho. Drug injection has been a main risk factor for HIV transmission among FSWs (rate of HIV infection: 13–17%). Approximately 50% of HIV + FSWs have ever injected drugs [2].

### 2.2. Substance use and its role in the HIV epidemic

As of November 2012, the number of people living with HIV in Vietnam was 208,866. During the first 11 months of 2012, 11,102 new cases of HIV infections were reported, a decrease of 26% in comparison with the same period in 2011. The number of women infected with HIV, which was 31.5% of new cases, has slightly increased by 0.5% compared to 2011. The

rate of new HIV infection among IDUs continued to decrease from 13.4% in 2011 to 11% in 2012 [1].

Needle sharing connected with drug injection, which was a main route of HIV transmission in Vietnam in the 1990s, gradually decreased in the 2000s, whereas sexual transmission of HIV has increased in both male clients of FSWs and low-risk women. The percentage of new HIV infections among IDUs decreased from 71% in 1998 to 32% in 2010 and it has been predicted that this rate would continue to slightly decline in the next few years. By contrast, HIV infections estimated among low-risk women and male clients of FSWs have become significant, 31% and 24%, respectively, in 2010 [11].

Although HIV infection among IDUs has been decreasing, the overlap between HIV/AIDS and drug use, as “twin epidemics”, has synergistically contributed to adverse outcomes and created many challenges in Vietnam. Currently, an estimated 26% of the IDU population is infected with HIV. Data among people initiating antiretroviral therapy (ART) showed that 62% of them reported a history of intravenous drug use [12]. Drug users have been more likely to be infected with the hepatitis C virus (HCV) and hepatitis B virus (HBV) than other high-risk groups [13]. IDUs who are HIV seropositive also have a higher rate of active tuberculosis and HCV than do non-IDUs [12]. Clatts et al [14], using a cohort of young male heroin injectors in Hanoi, addressed the issue of time since first drug injection as being a risk factor for HCV infection among IDUs. HCV prevalence increased from 30% in those who had  $\leq 10$  months of injection use to 70% in those who had  $\geq 30$  months of injection use. Moreover, the mean time to HCV infection among new drug injectors has been rapidly becoming shorter than in previous data [14].

IDUs have many risk factors, such as unsafe sex and needle-sharing behaviors. According to the Integrated Biological and Behavioral Surveillance 2009, needle sharing among IDUs in the previous 6 months ranged from 15% to 37% in surveyed provinces, except for Hai Phong, where the rate was 7% in 2009 [2]. Ho Chi Minh City had the second highest rate of needle sharing among IDUs (24.6%) in the previous 6 months [2]. Regarding issues related to unsafe sex, IDUs reported that they were less likely to consistently use condoms with their regular partners than with FSWs [2]. This is the context embedded in the increase of HIV prevalence among females in recent years and has raised concerns about the risks of HIV transmission from IDUs to their sexual partners. According to the United Nations Entity for Gender Equality and the Empowerment of Women and the Joint United Nations Programme on HIV/AIDS (2012), it was estimated that about 23,666 women could be exposed from the approximately 12.3% of IDUs who are infected with HIV and married. Among them, there could be 1739 women infected with HIV from their IDU partners [15].

Evidence shows that access to HIV testing services among IDUs has remained relatively low, with only 31.27% of IDUs who have been tested returning for their HIV test results in the previous 12 months in 2012, although there was an increase in access to HIV testing services among IDUs in recent years [16]. Moreover, there are many gaps in the care and treatment for HIV-infected drug users in Vietnam. The HIV care cascade showed that among 248,485 people living with HIV/AIDS (PLWHA), 79% of them knew they were infected with HIV but

only 25% (about 60,924 people) received ART. This number fell by 6% when care retention was measured [17]. A large proportion of the PLWHA injected drugs. A national evaluation of the outcomes of antiretroviral therapy in Vietnam found that people who reported a history of IDU have lower CD4 cell counts, are at a higher (more severe) World Health Organization stage of HIV disease, and had poorer retention on ART than non-IDUs. Retention of IDUs in treatment is 81.5% at 12 months and 63.3% at 60 months, whereas retention of non-IDU groups at 60 months was 85.7% [12].

Alcohol abuse, which negatively affects outcomes of ART, also has become a concern among HIV-infected drug users in Vietnam. A cross-sectional study of seven hospitals in three cities in Vietnam showed that 30.1% of clients had hazardous drinking rates and 22.3% binge drank. In this research, 46% of participants had a history of drug use and 87% of them were ongoing drug users. Among PLWHA who were on ART, drug users (DUs) had higher alcohol consumption and a greater likelihood of alcohol use disorders (1.27 times) than non-DUs. Furthermore, DUs in the first year ART had higher alcohol consumption and a higher possibility of at-risk drinking than DUs on a waiting list who were HIV-positive. The research also found that integration between HIV care and drug treatment was a protective factor against alcohol abuse and disorder. HIV-infected DUs who were receiving methadone treatment were less likely to be involved in at-risk drinking (0.56 times) than DUs who were not [18].

### 2.3. Vietnam's responses to drug use: from "social evil" to "patient"

In the context of the rapid spread of HIV in Vietnam over the past 20 years and the long history of drug consumption in the country, responses to substance use disorders in terms of policy and action have significantly changed. In the 1970s, heroin was used widely among both American troops and Vietnamese soldiers. It was estimated that there were about 150,000 drug users in Saigon in 1974. At that time, the Communist government banned drug use, which was considered a so-called "leftover of capitalism". After the Doi Moi policy was launched in Vietnam, although opium cultivation had greatly decreased, the number of drug users increased dramatically because of the development of narcotic trading in the Golden Triangle [3]. In 1993, The Resolution 06/CP gave birth to Compulsory Centers (06 centers), where drug users were re-educated, punished, and rehabilitated, because they were viewed as a "social evil" (*tệ nạn xã hội*). In 1995, the Ordinance launched by the National Assembly drove a significant increase in the number of compulsory centers. Besides being labeled as social evils, drug users also were linked with the HIV/AIDS epidemic. As a result, they became the subjects of didactic moral teaching, criminalization, and punishment [19].

During the next decade, responses to and discourses about drug use significantly changed in Vietnam. In 2004, the National Strategy for Prevention and Control of HIV/AIDS provided support for syringe exchange and condom distribution programs for high-risk groups, and in 2006, the Law on HIV/AIDS Prevention and Control (HIV law) officially approved harm reduction programs. More importantly, drug use

behavior was removed from the Penal code in 2009 under the influence of the international community and civil society. Finally, drug users are recognized as patients rather than as "social evils" or "criminals" [19].

### 2.4. Harm reduction programs: successes and gaps

Prevention programs have been instituted widely in the entire country. By 2012, 88% of the provinces and cities in Vietnam had implemented free clean needle programs, and condoms were distributed free for IDUs, FSWs, and other high-risk populations in all provinces. The total number of condoms provided free and sold through social marketing programs was about 18 million. The number of syringes distributed free was about 26.5 million. Voluntary HIV counseling and testing served 1.5 million individuals [1]. However, only about 31.27% of IDUs accessed HIV testing services and 57.8% received syringes within the previous 6 months [16].

A methadone program was piloted in 2008 in Hai Phong and Ho Chi Minh City under the guidance of the 2006 HIV law. With the success of pilot programs, the government decided to scale-up methadone programs in other provinces [19]. By the end of June 2013, 61 methadone clinics were providing methadone treatment for 13,838 drug users in 20 cities and provinces. The Ministry of Health projected that methadone treatment will be provided for about 80,000 drug users in 2015, with financial and technical supports from international donors and organizations [20]. In term of the impacts of the methadone program, studies showed positive changes in behaviors and quality of life among methadone users. Risk behaviors such as unprotected sex and injection drug use have decreased significantly. Injection drug use among methadone users decreased from 87% to 56% after 9 months of treatment. Moreover, 96% of them reported that they consistently used condoms during sexual intercourse [20]. Tran et al [18] found that patients' quality of life had improved considerably, both physically and mentally. However, all aspects of life quality among HIV-infected methadone users slightly decreased 9 months after entering methadone treatment [20]. This is a challenge to the successes of the methadone programs in maintaining a high quality of life for methadone users.

---

## 3. Conclusion

For the past few decades, with the changes in substance use, Vietnam's response to SUD also has experienced a transformation in terms of policy and action. In this setting, building local research capacity became very significant in addressing gaps and developing recommendations for programs, because the number of peer-reviewed publications has been limited. There were 477 HIV related peer-reviewed publications authored in Vietnam from 2005 to 2011. However, the total number of publications on SUDs was only 81, accounting for 17% of HIV publications. Moreover, during this period, there were only 10 National Institute on Drug Abuse funded studies related to HIV and SUDs in Vietnam. Issues, such as how to improve the integration of SUD and HIV services, how to address these epidemics among other highly vulnerable



groups, and how to capture and better understand the changing epidemics, need to be focused on.

## Acknowledgments

This work was supported by a United States Substance Abuse and Mental Health Services Administration grant to build the VHATTC (TI-23603).

## REFERENCES

- [1] Vietnam Ministry of Health. Report on HIV/AIDS situation and prevention and control HIV/AIDS in 2011. Direction and major tasks in 2012; 2012. p. 73 [In Vietnamese].
- [2] Integrated Biological and Behavioral Surveillance (IBBS) 2009. Results from the HIV/STI IBBS in Vietnam, Round II; 2009.
- [3] Joint United Nations Programme on HIV/AIDS (UNAIDS). United Nations Office of Drugs and Crime (UNODC). Drug use and HIV vulnerability: policy research study in Asia. Bangkok: UNAIDS and UNODC; 2000.
- [4] Do K, Minichiello V, Hussain R. HIV risks among injecting drug users in Vietnam: a review of the research evidence. *Curr HIV Res* 2012;10:479–86.
- [5] Nguyen VT, Scannapieco M. Drug abuse in Vietnam: a critical review of the literature and implications for future research. *Addiction* 2008;103:535–43.
- [6] Department for Social Evils Prevention (DSEP), Ministry of Labor – Invalid and Social Affairs (MoLISA), National Commission on AIDS, Drugs and Prostitution (NCADP), Vietnam Administration for HIV/AIDS Control (VAAC). Annual reports from NCADP (2012); DSEP/MoLISA (1995, 1999, 2001, 2005); VAAC (2012).
- [7] United Nations Office on Drugs and Crime (UNODC). Patterns and trends of amphetamine-type stimulants and other drugs: Asia and the Pacific; 2012.
- [8] United Nations Office on Drugs and Crime (UNODC). Amphetamine-type stimulants in Viet Nam - Review of the availability, use and implications for health and security; 2012.
- [9] Clatts MC, Goldsamt LA, Minh Giang L, et al. Accelerated transition to injection among male heroin initiates in Hanoi, Vietnam: implications for early harm reduction interventions. *J Community Health* 2011;36:999–1003.
- [10] Thao le TL, Lindan CP, Brickley DB, et al. Changes in high-risk behaviors over time among young drug users in South Vietnam: A three-province study. *AIDS Behav* 2006;10(Suppl. 4):S47–56.
- [11] Ministry of Health/Vietnam Administration for HIV/AIDS Control (MOH/VAAC). Vietnam HIV/AIDS estimates and projection 2011–2015; 2012.
- [12] Nguyen DB, Do NT, Shiraishi RW, et al. Outcomes of antiretroviral therapy in Vietnam: results from a national evaluation. *PloS One* 2013;8:e55750.
- [13] Integrated Biological and Behavioral Surveillance (IBBS). 2009. Hepatitis B and C among high-risk populations in Vietnam; 2013.
- [14] Clatts MC, Colón-López V, Giang LM, et al. Prevalence and incidence of HCV infection among Vietnam heroin users with recent onset of injection. *J Urban Health* 2010;87:278–91.
- [15] United Nations Entity for Gender Equality and the Empowerment of Women (UN Women). UNAIDS. Triangulation exercise on intimate partner transmission of HIV in Vietnam; 2012.
- [16] National Institute of Hygiene and Epidemiology/Vietnam Administration for HIV/AIDS Control (NIHE/VAAC). Results of HIV Sentinel Surveillance integrated behavioral assessment (HSS plus); 2012.
- [17] Vietnam Administration for HIV/AIDS Control (VAAC). Annual report of HIV situation; 2013.
- [18] Tran BX, Nguyen N, Ohinmaa A, et al. Prevalence and correlates of alcohol use disorders during antiretroviral treatment in injection-driven HIV epidemics in Vietnam. *Drug Alcohol Depend* 2013;127:39–44.
- [19] Vuong T, Ali R, Baldwin S, et al. Drug policy in Vietnam: a decade of change? *Int J Drug Policy* 2011;23:319–26.
- [20] Nguyen T, Nguyen LT, Pham MD, et al. Methadone maintenance therapy in Vietnam: an overview and scaling-up plan. *Adv Prev Med* 2012;2012:732484.