BEHAVIORAL SURVEY OF INJECTING DRUG USERS IN VIETNAM

VIETNAM REPORT 2010

Social Marketing Prevention and Supportive Services Project

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EXECUTIVE SUMMARY

Between December 2009 and February 2010, PSI Vietnam, in partnership with local research agency, Newcare conducted a behavior survey of male injecting drug users, across seven PEPFAR priority provinces in Vietnam (Ho Chi Minh City, Hanoi, Hai Phong, Quang Ninh, An Giang, Nghe An and Can Tho). Behavioral and other data relevant to HIV risk were collected, together with a wider range of social and demographic information.

Data was collected via individual face-to-face interviews, using a structured questionnaire. The survey was conducted with a sample of male injecting drug users (IDUs), using a respondent driven sampling method.

A total of 1,094 injecting drug users were interviewed for the behavior survey. An injecting drug user (for this study) was defined as any male who had injected in the past 1 month and who are aged between 18-40 years.

KEY FINDINGS

1 **Injecting drug users play a key role in the initiation of new injectors, and non-injectors actively seek support from existing IDU to assist with their first injection.**

72% of IDU reported that they were actively helped by an IDU for their first injection, and a further 14% reported that, although they had performed the first injection themselves an existing IDU had told them how to inject.

41% of IDU report being asked to assist with a first injection in the past six months and 23% had been offered money or drugs to do so. 70% of IDU report performing at least one initiating behavior in the past 6 months.

One fifth of the IDU respondents report being approached to help with another's first injection in the past six months, but had refused to provide assistance.

2 **Injectors and non-injectors socialize together, although initiating behavior is much more likely to occur with heroin inhalers than with non-drug users.**

59% of IDU report injecting in front of a non-injector (inhaler and non-drug user) in the past six months. A far higher proportion of IDU report injecting in the presence of heroin inhalers (52%) compared to in front of non-drug users (26%). The belief in the IDU group that the transition from inhaling to injecting is inevitable is a key determinant of injectors talking with inhalers about the benefits of injecting and in the overall initiation into injecting drug use behavior.

3 **The importance of group solidarity and feelings of sympathy for inhalers make it very difficult for injectors to resist giving help to new injectors**

The belief that helping non-injectors to inject increases group solidarity, and the difficulty of refusing a request for help from a new injector, are key influencing factors on IDU helping new

injectors to inject, and injecting in front of non-injectors. These beliefs contribute to the performance of initiating behaviors by existing IDU.

4 **Injecting drug users in Vietnam are a sexually active population, reporting both regular and commercial partners**

Almost half of IDU in this study reported having had sex with a regular sex partner in the past 6 months, and 27% report having had commercial partners. IDU with commercial sex partners on average reported sex with sex workers 7.4 times in the past 6 months.

Over one third of IDU with regular partners reported that these partners did not know that they were an IDU.

5 **Consistent condom use is very low with regular partners and inconsistent condom use with commercial sex partners is common, indicating a high potential risk of sexual transmission of HIV from IDU to non-IDU partners.**

Over one third of IDU with commercial sex partners report inconsistent condom use with those partners in the past 6 months. Consistent condom use with regular partners over the same time period is even lower, at 26%.

81% of IDU report that their regular partner is neither an IDU nor a sex worker.

6 **Given the HIV prevalence levels among IDU, a relatively low proportion of this population know their HIV status, with use of VCT services being lower still**

Just over half of IDU report that they have ever been tested for HIV, but less than one-fifth report having ever accessed VCT services. Just over 10% report that their last HIV test was at a detention center.

IDU report a range of responses when probed for the most common reasons for not knowing their HIV status. These range from *being afraid of the test result* to *not believing that they are HIV positive* as the most common responses.

IDU that had been exposed to the project's VCT *Chan Troi Moi* social marketing campaign and who can recall key messages are more likely to have been tested for HIV than those that report no exposure.

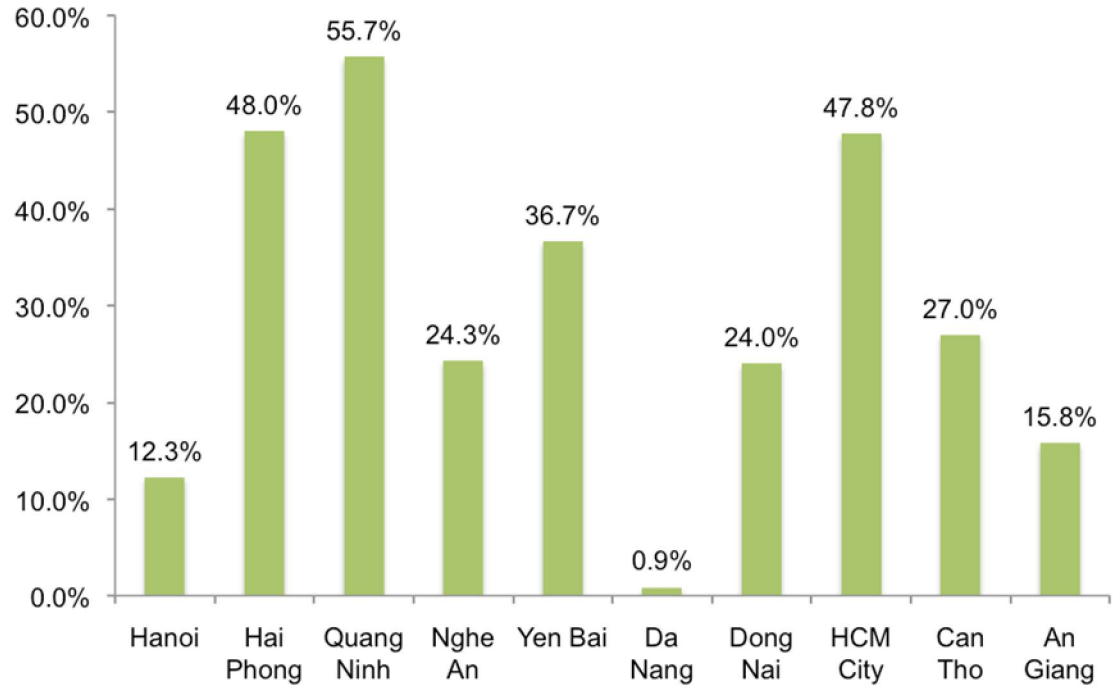
7 **Despite high HIV prevalence rates, needle sharing is relatively common among IDU**

25% of IDU report having ever shared a needle, with 18% reporting having done so in the past 12 months and 14% in the last 1 month.

BACKGROUND

The HIV epidemic in Vietnam is concentrated among high-risk populations, such as injecting drug users (IDU) and commercial sex workers (CSWs), while HIV prevalence in the general population is estimated at about 0.5%.[1] The Integrated Biological and Behavioral Surveillance (IBBS) survey conducted in 2009 estimated HIV prevalence among injecting drug users in six provinces. Prevalence was found to vary greatly across provinces, ranging from 0.9% in Da Nang to 55.7% in Quang Ninh.

Figure 1: HIV prevalence across six provinces of Vietnam (IBBS 2009)



Risky injecting practices such as the sharing of needles and syringes, is a highly efficient mode of HIV transmission among IDU. The 2005-2006 IBBS survey found no difference in sharing behaviors between new injectors and those who have been injecting for more than one year, which indicates that risk behavior begins early after a drug user initiates injecting drug use behavior and does not improve with experience[2]. About one-third of IDU reported that they had shared needles in the last 6 months (IBBS 2006).

IDU also engage in high-risk sexual behavior, particularly with commercial sex workers and regular partners, such as a wife or girlfriend. Inconsistent condom use with sex workers creates a 'bridge' for HIV transmission between these two high-risk populations, while inconsistent condom use with regular partners is of particular concern for the spread of HIV into the general population.

In terms of reducing the extent to which injecting drug use contributes to the overall HIV burden, a key prevention strategy is to limit initiation into injecting drug use, thereby reducing the size of this high-risk population. Neil Hunt and Gary Stillwell developed a "Break the Cycle" (BTC) campaign model, which was

[1] UNAIDS reference: http://unaids.org.vn/sitee/index.php?option=com_content&task=blogsection&id=4&Itemid=26

[2] IBBS reference: http://www.fhi.org/NR/rdonlyres/etpiez3jktbiyvwcnx6upuefj7kqefygm4b5h5dplftlbyrgxhfnsakq24y3aymclczypl4cdn6cxj/VietnamIBBS2006EnglishHV.pdf

first implemented in the United Kingdom. The campaign aims to prevent IDU from initiating others into injecting drugs. The BTC model identifies three main risk behaviors among current IDU associated with initiating new injectors: 1) **h**elping others inject for the first time; 2) **i**njecting in the presence of non-injectors (i.e. modeling injecting behavior); and 3) **t**alking about the benefits of injecting to non-injectors. These behaviors, summarized as H.I.T., increase the likelihood that a non-injector will adopt injecting drug use behavior as a result of being exposed to an existing IDU.

Research conducted to date confirms that the first behavior i.e. helping others inject is common in IDU in Vietnam. Both qualitative and quantitative research has shown that most IDU are helped by another IDU when they inject for the first time.

Injecting in the presence of other drug users is associated with initiation as it normalizes and models injecting behavior and provokes curiosity about injecting. Qualitative research revealed that social groups comprise both inhalers and injectors who use drugs together, thereby exposing inhalers to injecting behavior. Among female sex worker IDU in Vietnam, 37% reported injecting in the presence of non-injectors and 39% agreed that this might increase the chance of initiating new injectors (PSI Behavioral survey, 2008).

Talking about the 'benefits' of injecting has an intuitive influence on other drug users. Qualitative research conducted by PSI among male and female injecting drug users found that drug users perceive several immediate benefits of switching from inhaling to injecting, including: a more sensational high is experienced through injecting, a smaller dose is needed to achieve a better high through injecting compared to inhaling (lower cost), and injecting is more convenient (i.e. faster and discreet) than inhaling. However, there are longer-term consequences that eventually negate these short-term benefits, such as the sigma one experiences for being known as an IDU and a deeper addiction that requires increasing doses and therefore increasing costs to support.

PROGRAM DESCRIPTION

With funding from USAID, PSI Vietnam is implementing a five-year, US$15.5 million "Social Marketing Prevention and Supportive Services" project in partnership with the Government of Vietnam (GoV) that supports the PEPFAR five-year strategy. The primary goal of this project is to reduce HIV prevalence among most-at-risk populations (MARP) – sex workers (SW) and their clients, injecting drug users (IDU) and men who have sex with men (MSM) – by promoting HIV related commodities and services, increasing the adoption of safer behavior practices, and reducing the initiation of drug use. PSI uses evidence-based techniques to develop customized interventions to address HIV prevention needs of MARP groups. This project is designed to enhance the capacity of Government and local partners by integrating social marketing and behavior change communications techniques into HIV prevention programs. PSI provides technical assistance to a wide network of peer educators and outreach workers in high HIV prevalence provinces.

As part of the overall HIV prevention project, the Social Marketing Prevention and Supportive Services project is implementing program activities targeting injecting drug users (IDU) in seven provinces across Vietnam (Ha Noi, Hai Phong, Quang Ninh, Nghe An, Ho Chi Minh City, Can Tho and An Giang). These are priority provinces for PEPFAR-supported HIV prevention programs in Vietnam. The project has several components targeting IDU, either directly or indirectly, through providing technical support to partner programs that implement existing IDU interventions. As part of this project, PSI is currently implementing a pilot interpersonal communication (IPC) project in two Northern provinces, Quang Ninh and Hai Phong, based on the "Break the Cycle" intervention concept with the goal of reducing H.I.T. behaviors among current IDU. PSI also provides technical training and communication tools to partner organizations to integrate the BTC intervention model within their existing programs targeting IDU. In addition to this, PSI provides technical assistance to the network of peer educators/outreach workers (PE/OW) under the provincial Government partners to increase consistent condom use, and promote the uptake of HIV testing and counseling services. To increase condom use, PSI implements the *Number One* condom social marketing program and to promote HIV testing, PSI provides communication support for a network of voluntary counseling and testing (VCT) centers run by partner organizations. The *Chan Troi Moi* campaign leverages mass media to advertise the availability of quality VCT services and increase awareness of where such services can be accessed.

RESEARCH OBJECTIVES

In 2010, PSI/Vietnam conducted a quantitative survey among male injecting drug users in 7 provinces. The main objectives for this research were fourfold:

1. To understand HIV prevention behaviors among IDU, condom use with different partner types, and safe injecting practices

2. To measure the prevalence of the three behaviors related to the initiation into injecting drug use:
    i. Helping non-injectors to inject for the first time
    ii. Injecting in the presence of non-injectors
    iii. Talking about the benefits of injecting with non-injectors

3. To measure levels of HIV testing, including VCT and repeat testing.

4. To understand the determinants of the above three behaviors.

Results from this study will be used to guide HIV prevention programming at the provincial level, including the project's technical assistance to promote consistent condom use, uptake of VCT services and the Break the Cycle intervention targeting existing male IDU. Subsequent rounds of the survey will be conducted in order to monitor changes over time in H.I.T. behaviors, consistent condom use, and use of HIV testing and VCT services.

METHODOLOGY

STUDY POPULATION

Participants were recruited in 7 provinces throughout Vietnam: Ha Noi, Hai Phong, Quang Ninh, Nghe An, Ho Chi Minh City, Can Tho and An Giang. These are priority provinces for PEPFAR-supported HIV prevention programs in Vietnam.

This study was conducted with male IDU who met the following inclusion and exclusion selection criteria:

- Male
- Age 18 – 40
- Ever injected heroin
- Injected drugs at least once in the last month
- Has been injecting drugs for at least 3 months but less than 10 years
- Lived in study province for more than 6 months

The following exclusion criteria were used:

- Does not meet all of the inclusion criteria
- Not a peer educator for IDU
- Does not consent to participate in the study

Respondents were recruited through respondent-driven sampling (RDS), which is a chain-referral procedure whereby samples are selected from social networks of IDU. RDS relies on the assumption that, given sufficiently long referral chains (i.e. 3-6 waves), the sample composition becomes stable (i.e. reaches "equilibrium") and results in a probability sample of hard-to-reach populations. Adherence to RDS procedures is required – no convenience sampling (i.e. snowballing) was accepted.

SAMPLE SIZE CALCULATION

The sample size required for this study was 1,093 IDU (allowing for 5% non-response), based on the estimate that 20% of IDU will report helping someone inject for the first time in the last 6 months. With 80% power, 95% significance and a design effect of 1.5, the segmentation analysis will detect a difference of 15 percentage points between helpers and non-helpers for determinants that are around the 50% level (i.e. 45% vs. 60% or 40% vs. 55% between groups). Smaller differences may be significant for determinants at lower and higher levels. The monitoring analysis will detect a minimum change over time of 6 percentage points from the estimated baseline level of 20% of IDU who helped someone inject for the first time in the last 6 months.

SAMPLE DISTRIBUTION

A minimum of 1,093 IDU were to be recruited in urban districts of 7 provinces (Hanoi, Ho Chi Minh City, Hai Phong, Quang Ninh, An Giang, Can Tho and Nghe An). These are priority provinces for PEPFAR-supported HIV prevention programs in Vietnam.

Within each province, a number of urban districts were focused for sampling. The urban districts are those in which PSI/Vietnam and/or partner organizations have been running intensive activities with IDU. As RDS was applied, the respondents could come from any districts in the provinces.

The sub-samples of IDU to be recruited in each province are proportionate to the estimated number of IDU in each sample province.

The target minimum sample size distribution across study provinces was as follows:

i) Large provinces
Ho Chi Minh City: 221 (focused on 6 urban districts)
Hanoi: 219 (focused on 6 urban districts)
Sub-total: 440

ii) Medium provinces
Hai Phong: 208 (focused on 4 urban districts)
Quang Ninh: 105 (1 urban district)
Nghe An: 125 (1 urban district)
Sub-total: 438

iii) Small provinces
An Giang: 98 (1 urban district)
Can Tho: 117 (1 urban district)
Sub-total: 215

Due to wide variation in the estimated size of the IDU population in each province, the provinces are categorized by population size in three groups, as shown above. Within each group, the number of IDU to be recruited in each province is proportionate to the estimated size of the IDU population in each province. The sub-totals for the groups were purposively determined so that when distributed across provinces, the sub-samples for all 7 provinces would increase sequentially with the estimated size of the IDU population in each province. Data will be weighted to compensate for the sample being disproportionately composed of IDU from small vs. medium vs. large provinces.

Table 1: Distribution of final achieved sample

PROVINCE	N
Hanoi	219
Hai Phong	208
Quang Ninh	106
HCM City	221
Can Tho	117
An Giang	98
Nghe An	125
TOTAL	1,094

RECRUITMENT OF SEEDS

Four to six seeds were recruited in each sample province. Initial seeds selection was carried out by NEWCARE, and seeds identified by outreach workers working with IDU populations and with whom NEWCARE have an ongoing working relationship. Outreach workers were given the criteria for seed recruitment and approached those who they identified as being potential participants. Potential participants were given an overview of the study and, if they did not wish to withdraw at that stage, were referred on to the NEWCARE fieldwork team. The NEWCARE team then administers the screening questionnaire and the informed consent protocol.

All seeds had to meet the inclusion and exclusion criteria for the sample. To ensure the diversity of the respondent, the seeds were selected to meet the following additional criteria:

- Age: maximum 30 years, with at least 2 seeds being aged 18-22 years old
- Duration of injecting: maximum 5 years, including at least one IDU who has been injecting for less than 1 year
- Living area: are living in the focused districts
- Half of the seeds in each sample province should have been exposed to HIV or IDU programs, and half should not. IDU who met and talked about HIV by outreach workers/peer educators, participated in health clubs/centers for IDU will be considered as exposed to HIV or IDU programs.
- Marital status: include both married and unmarried ones
- Occupation: include both employed and unemployed ones.
- Education: including IDU with both under and above secondary school completion
- Recruited from different sources. A recommendation is recruiting new seeds through recruited seeds to get the seeds non-exposed to HIV programs.

To ensure good diversity, 10-15 IDU were screened and identified as potential seeds within each sample province. The final 4-6 seeds for each province were then selected from this wider group, ensuring the diversity outlined above.

The first round of data collection was conducted with the seeds and these formed part of the sample.

SELECTION AND SCREENING OF PARTICIPANTS

A coupon system was used to manage the respondent recruitment and a number of steps were followed:

1. Each respondent was given 3 coupons for recruiting others and was informed that they will receive 40,000VND ($2.50) for each person they successfully recruit who meets the study criteria. All respondents were recruited through the coupon system, i.e. only people with a coupon were interviewed

2. Recruiters informed potential study participants about the key features of the study, gave them details of any financial incentives that they will receive and informed them of where they should go to participate in the study and the associated risk that, in doing so, they may be seen by other IDU as well as members of the study team.

3. Those who agreed to participate then attended the recruitment site. Field supervisors to ensure that they met the criteria for the study screened them. The screening process involved two stages: first, recruiters were told to recruit participants from their social network who are:

    - Aged 18-40 years old
    - Inject drugs
    - Has not been interviewed already for this study

    On attending the recruitment centre, all participants who were found to meet this criterion were given 40,000VND to compensate them for their time and costs. Passing this criterion also triggered the 40,000VND payment to their recruiter, once the recruiter returned the other half of the coupon to the recruitment site to prove that they were responsible to the recruitment of that participant.

4. Participants were then screened on the additional criteria:

    - Has injected illegal drugs within the past 1 month
    - Has injecting experience of at least 3 months but less than 10 years
    - Is not a peer educator or outreach worker for IDU or HIV programs
    - Lived in study province for 6 months or more
    - Know their recruiters

    The reasons for not disclosing all of the screening criteria to the recruiter are that the recruiter could 'coach' ineligible respondents to 'pass' the screening test, thereby ensuring payment for both. So long as those referred pass the initial screening criteria – which are the most important, and which recruiters will be made fully aware of - payments were made to both the recruiter and to those referred

5. Those participants that met the primary and secondary screening criteria were then asked if they wish to participate in the full study. To explain this, the informed consent script was read out to them, explaining the risks and benefits (including financial – they will be paid a further 60,000VND if they participate in the study, plus 40,000VND for every person they successfully recruit that meets the study criteria) of participating in the study. The interviewer conducted the informed consent procedure.

6. Those that agreed to participate were interviewed in a separate, private room within the recruitment site/center.

The study was conducted sequentially in each of the 7 sample provinces, between January 7, 2010 and February 4, 2010.

ANALYSIS CONDUCTED

Analysis of data presented in this report was conducted using RDSAT and SPSS. RDSAT was used to produce estimates for indicators at each sample site.

The aggregated estimates across the seven provinces were calculated with provincial-RDSAT estimates and provincial population weights. The population size of IDU used for the weighting was based on the Vietnam HIV/AIDS Estimates and Projections for 2007-2012.

All significance testing is conducted using univariate analysis of variance (UNIANOVA). For 'segmentation' analysis to identify factors related to consistent condom use, a combination of Exploratory Factor Analysis (EFA), reliability testing, logistic regression and UNIANOVA was conducted, using study

design variables as controls. 'Opportunity, Motivation and Attitude' factors were captured using a 4pt Likert scale, where 1=Strongly Disagree and 4=Strongly Agree. With multivariate analysis, the individualized weights of the dependent variables were generated in RDSAT and exported into SPSS. RDSAT adjusted weights and provincial population weights were applied to the dependent variable in logistic regression.

RDSAT was used to establish whether equilibrium was achieved for variables at each sample site. An overview of the equilibrium status of all key behavioral variables at each site is given at **Annex F**.

A detailed overview of analysis techniques used throughout this report and how they combine together to produce the tables presented, is in **Annex E**

RDSAT Version 6.1 and SPSS Version 17.0 were used to conduct analysis.

PROFILE OF INJECTING DRUG USERS

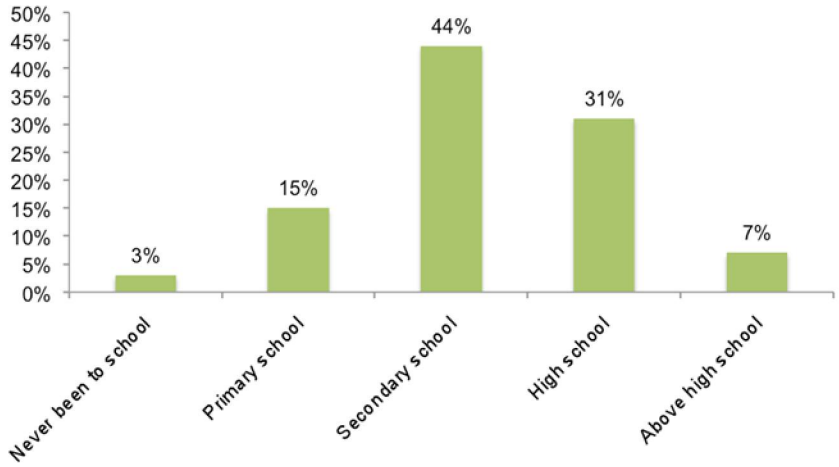
The average age of IDU in the study was 30 years, with some regional variation. Respondents from An Giang province had the youngest average age (27 years) whilst respondents from Hai Phong had the higher average age (31.8 years). A large proportion of IDU sampled in Can Tho and An Giang are in the youngest age range (18-24 years) – 23% in Can Tho and 34% in An Giang – whereas the reverse is true in Hai Phong and Quang Ninh, where a large proportion of respondents – 40% in Hai Phong and 52% in Quang Ninh – are in the 35-40 years age category.

Table 2: Age profile of respondents in the study

	Hanoi N=219 %	Hai Phong N=208 %	Quang Ninh N=106 %	Nghe An N = 125 %	HCM City N=221 %	Can Tho N=117 1%	An Giang N=98 %	Total N=1,094 %
18-24 years	14	9	10	25	19	23	34	17
25-30 years	34	31	14	40	37	48	31	34
31-34 years	20	19	24	26	20	14	16	20
35-40 years	32	40	52	10	24	15	18	29
Mean	30.6	31.8	31	27.6	29.6	28.1	27	30

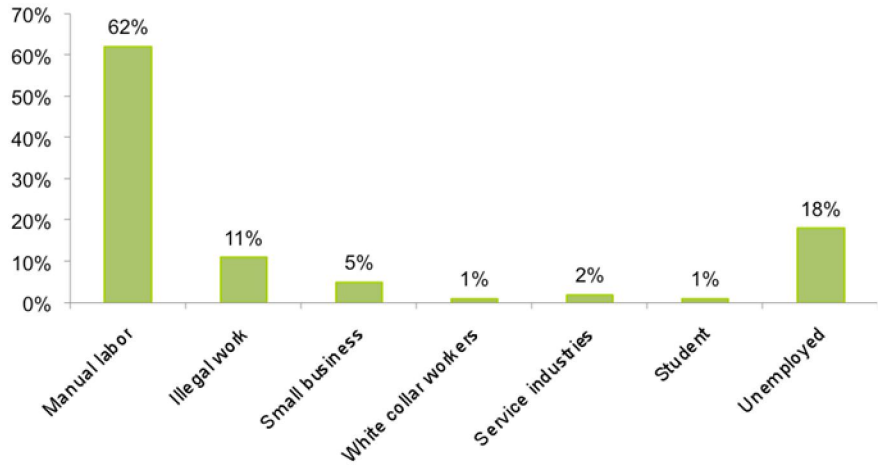
The majority of respondents (82%) had received education to at least secondary school level, with 31% being educated to high school or above. Only a small minority (3%) reported no formal schooling, with the majority of these being in An Giang province (28% of respondents report never having been to school). 15% reported having been educated only to primary school level, with a high proportion of these coming from An Giang province (40% of respondents report having only been educated to primary school level).

Figure 2: Highest level of education achieved



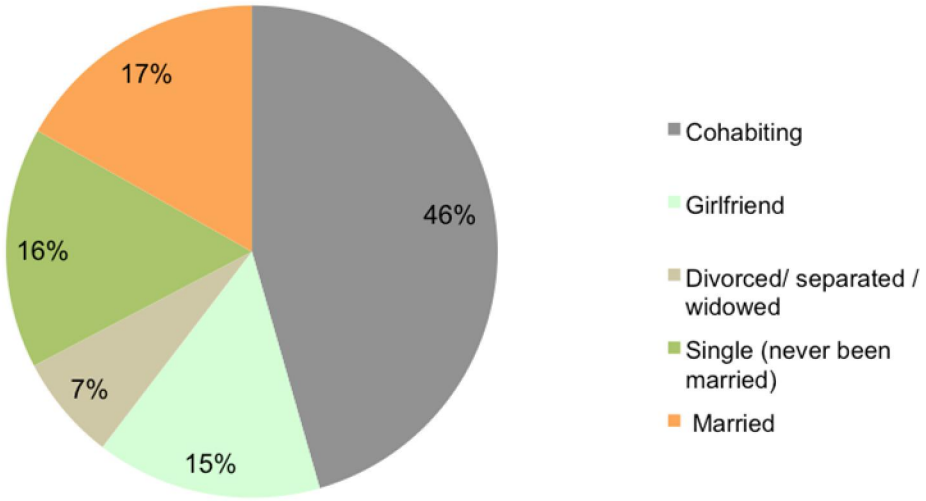
The majority of IDU in the study report manual labor as their main occupation (62%). Only a small minority – 1% - report being in a white-collar occupation, with a little over 20% (21.4%) report being unemployed. The mean monthly income of IDU in the study was 4.85 million VND.

Figure 3: Main occupation of IDU



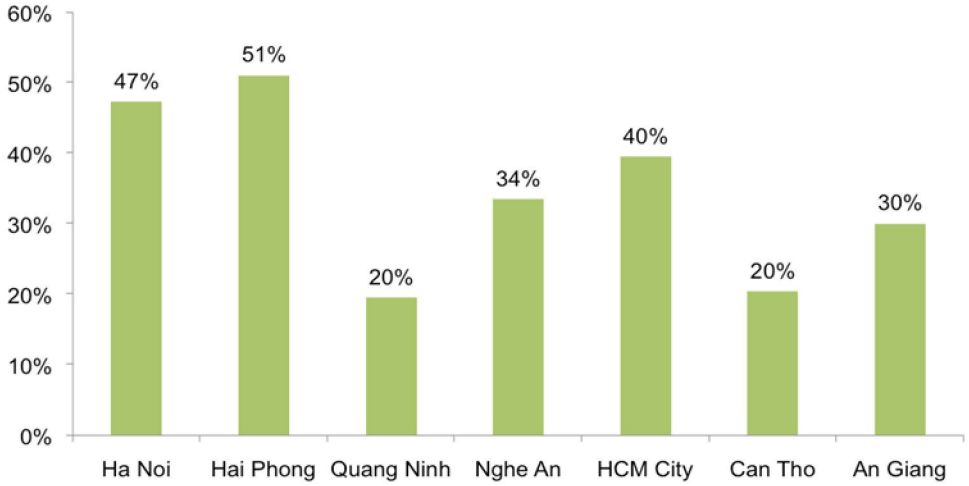
A substantial proportion (46%) of respondents report being in a cohabiting relationship. Additional 15% of respondents report having a girlfriend. A smaller proportion of respondents report being single and having never been married (16%). Less than 1 in 5 (17%) report being currently married, with 7% being divorced, widowed or separated from their partner.

Figure 4: Marital status of respondents



40.1% of respondents report having ever been in a rehabilitation center, with some substantial regional variations. The highest proportion is in Hai Phong (51%) with the lowest being 20% in Can Tho.

Figure 5: IDU that have ever been in a rehab center, by province



DRUG USE AND INJECTING BEHAVIOR

DRUG USE HISTORY (INHALING AND INJECTING DRUG USE)

Respondents in the study report drug use for an average of six and a half years. IDU from Hanoi and Hai Phong had the longest duration of drug use – a little over eight years for each province. IDU from Quang Ninh reported the shortest average time as a drug user, a little over two years.

The duration of injecting follows a similar pattern as above, with IDU from Hanoi and Hai Phong reporting the longest periods – between five and five and a half years in each province – and IDU from Quang Ninh reporting the duration, a little over eighteen months.

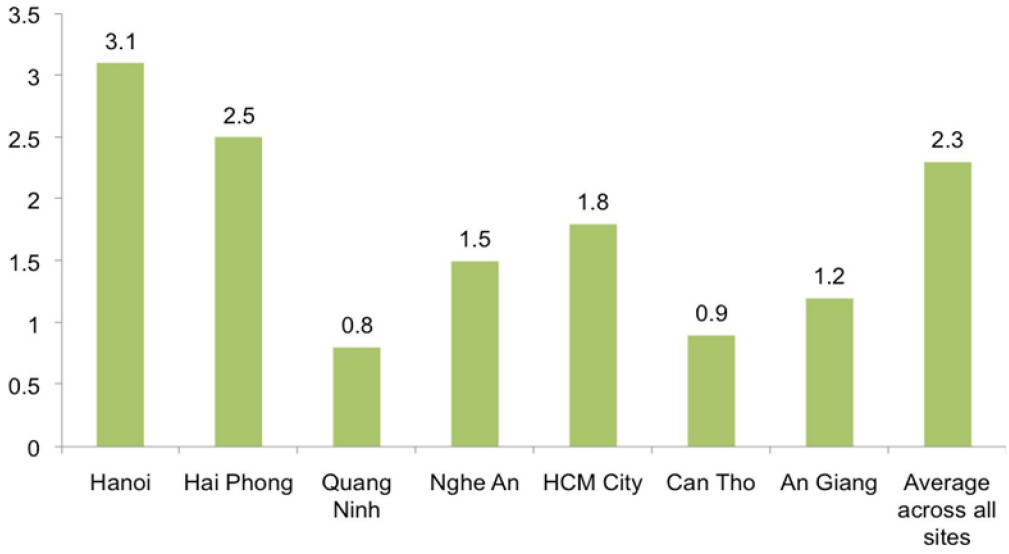
Table 3: Duration of drug use, duration of injecting and proportion of respondents reporting inhaling before initiation into injecting (in years)

	Hanoi N=219 Mean	Hai Phong N=208 Mean	Quang Ninh N=106 Mean	Nghe An N=125 Mean	HCM City N=221 Mean	Can Tho N=117 Mean	An Giang N=98 Mean	Total N=1,094 Mean
Duration of drug use	8.2	8.0	2.2	5.9	5.3	4.2	4.4	6.5
Duration of drug injecting	5.2	5.7	1.5	4.8	3.7	3.5	3.9	4.4
	%	%	%	%	%	%	%	%
Inhaling before injecting	96%	90%	83%	64%	90%	85%	36%	89%

Across all sites, 89% of IDU report having been inhalers before switching to injecting. There is an average of 2.3 years between initiation of drug use and first experience of injecting. Durations vary across provinces, highest in Hanoi (approximately three years) and lowest in Quang Ninh (a little over eight months).

This pattern of inhaling prior to injecting, and assistance with first injection coming from an injector indicates that inhalers and injectors do not form two separate social groups. There are strong social connections between inhalers and injectors.

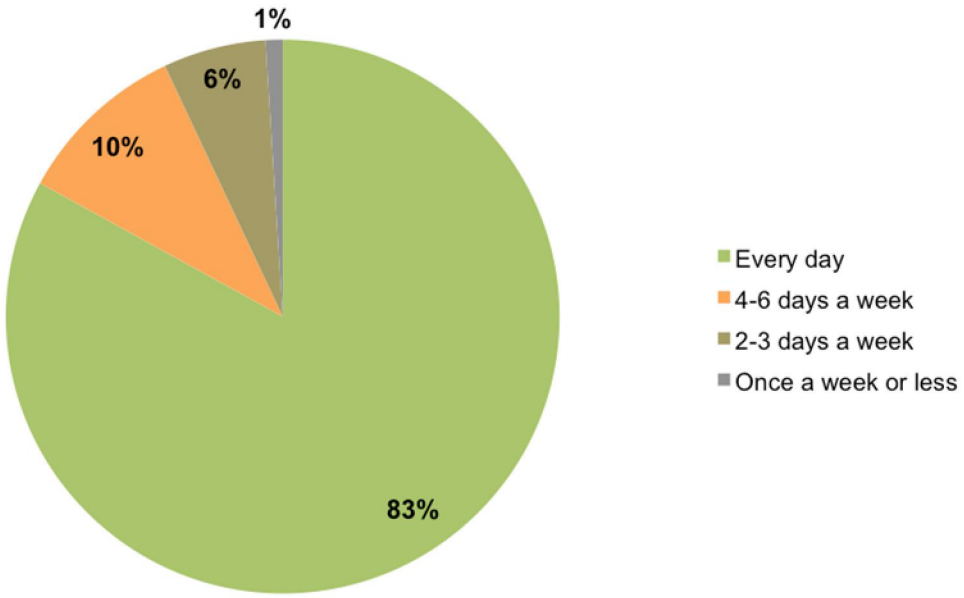
Figure 6: Average number of years between first drug use and first injection



INJECTING AND NEEDLE SHARING BEHAVIOR

IDU report injecting an average of 22.1 times in the past 1 month, with 83% reporting that they inject every day and a further 10% reporting that they had injected between 4-6 times each week over the past 1 month. The average number of monthly injections is highest in HCM City (29.3 in the past 1 month) and lowest in Ha Noi (19.2 in the past 1 month).

Figure 7: Frequency of injecting in the past 1 month

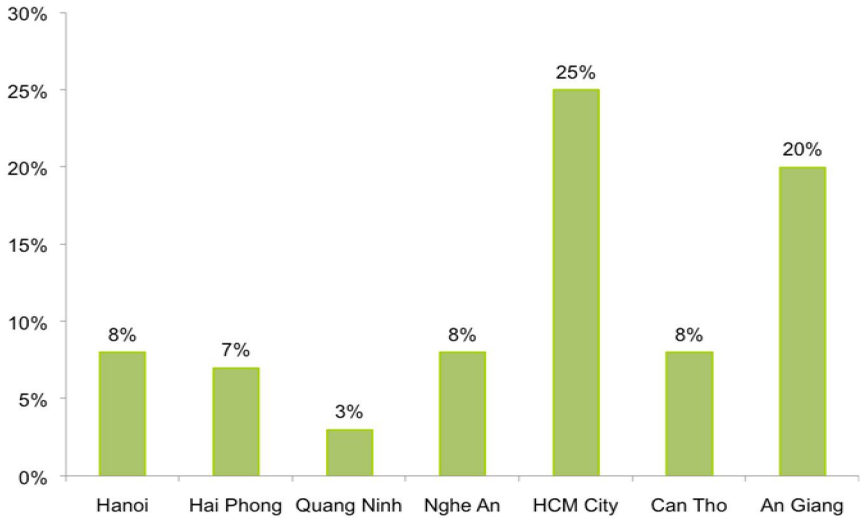


25% of respondents report having ever shared a needle, with 18% having done so in the past 12 months, and 14% in the past 1 month. Among those who shared in the past 1 month, the average number of times was 7.1. There are substantial differences across provinces in the extent of needles sharing. Needle

sharing is highest in HCM City, with 25% reporting having shared a needle in the past 1 month. It is lowest in Quang Ninh, where only 7% report having shared over the same time period.

Annex D shows comparisons of needle sharing behavior between this study and IBBS 2009

Figure 8: Needle sharing in the past 1 month, by province

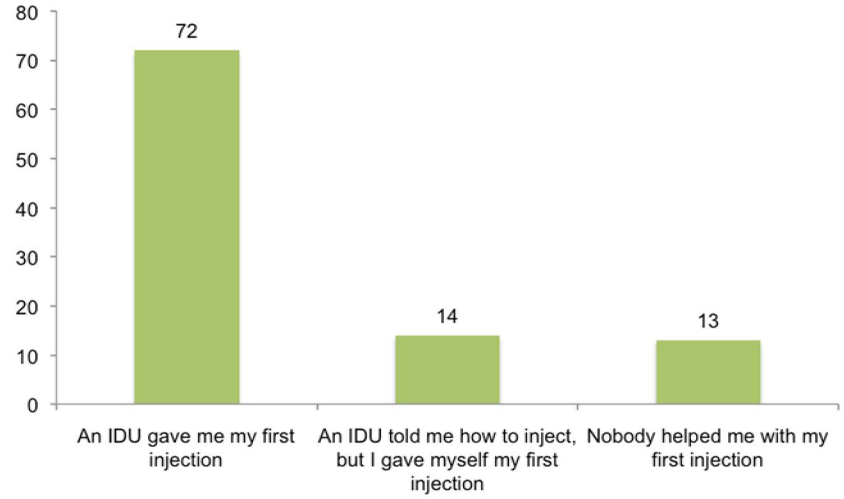


INITIATION INTO INJECTING DRUG USE

The Break the Cycle model is based on evidence that current injectors play a key role in other people's decision to try injecting, that most people who inject disapprove of initiating others into injecting and that injectors do not always realize that they may be unintentionally increasing the chances of someone deciding to try injecting (BTC Briefing Paper, 2001)

The overwhelming majority of IDU reported that their own initiation into injecting was with the help of an existing IDU. 72% reported that they actively were helped by an IDU for their first injection and a further 14% reported that, although they had performed the injection themselves, an existing IDU had told them how to inject.

Figure 9: Who provided help with first injection



Qualitative research among male IDU conducted by PSI in 2009 also highlighted:

- The central role that existing IDU have in the initiation process and the different ways in which current injectors can influence the process through which non-injectors are initiated into injecting drug use
- The lack of awareness among current injectors about how behaviors that do not take the form of direct assistance – injecting in front of non-injectors and talking about the benefits of injecting in front of non-injectors – are an influence on the transition from inhaling to injecting.
- That non-injectors actively ask for assistance with injecting, and current injectors often find it difficult to resist these requests.
- That injectors clearly distinguish between non-injectors who are already drug users ('inhalers') and those that are not using at all. The majority of behaviors that contribute to initiation are performed with inhalers rather than with non-drug users.

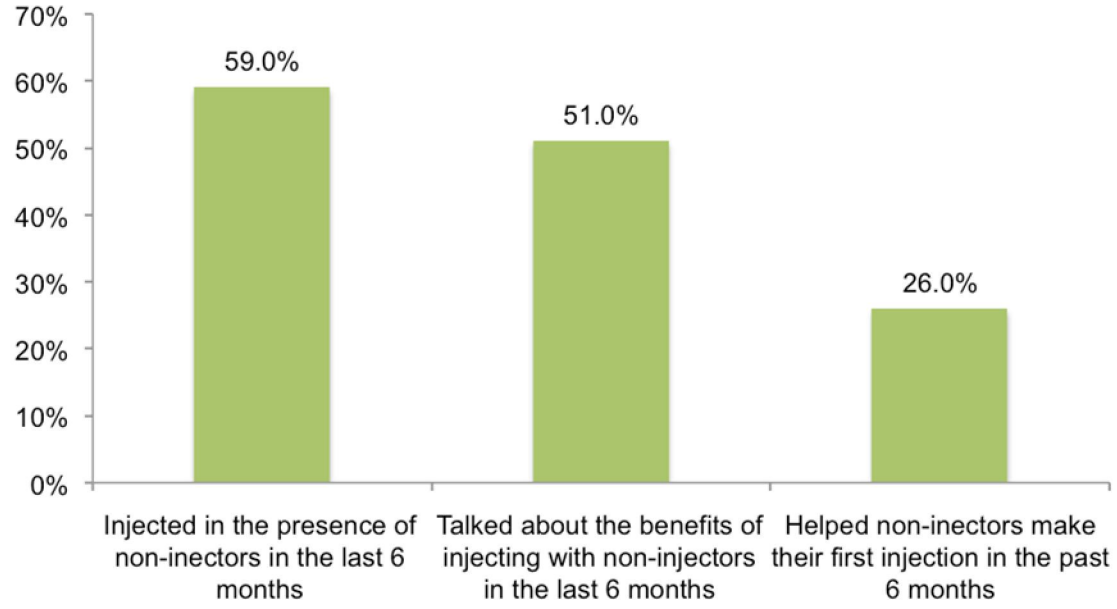
PREVALENCE OF H.I.T BEHAVIORS

Data was collected on three behaviors that contribute to the initiation of non-injectors into injecting.

i) Injecting in the presence of non-injectors;
ii) Talking about the benefits of injecting with non-injectors; and
iii) Helping non-injectors to inject for the first time

71% of IDU reported performing at least one HIT behavior in the past 6 months, and 42% reported at least two. The most commonly reported behavior is injecting in the presence of a non-injector, with 59% of IDU reported having done this in the past 6 months. 51% reported having talked abut the benefits of injecting with a non-injector in the past 6 months, and 26% reported having actually helped a non-injector make their first injection over that same time period.

Figure 10: Prevalence of HIT behaviors in the past 6 months



IDU that reported having assisted a non-IDU to inject had done so an average of 2.66 times over the past 6 months.

HELPING TO INJECT

Helping to inject covers both giving a non-IDU their first injection, and broader assistance for their first injection such as preparation of drugs, help with positioning of the needle and instructing them on how to inject, but without actually giving the injection themselves.

15% of respondents reported having actively given a non-injector their first injection in the past six months, and 18% reported having assisted in some way.

41% of IDU report that they had been asked to assist with a first injection in the past six months and 23% say that they had been offered money or drugs to do so.

One fifth of IDU respondents reported that they had been approached to help with another's first injection in the past six months, but had refused to provide assistance.

Table 4: Types of help given for first injection and approaches/refusals to help with first injection, in the past six months

Type of help given	% (N = 657)
Gave non-IDU the first injection in the last 6 months	15%
Assisted non-IDU to make their first injection in the last 6 months *(Assisting means positioning the needle, or preparing the drugs, or instructing them how to inject, but not give them injection)*	18%
Asked by non-IDU to help with first injection in the past six months	41%
Refused when non-IDU asked them to help for the first injection in the last 6 months	20%

INJECTING IN FRONT OF NON-INJECTORS

IDU are much more likely to inject in front of inhalers than in front of non-drug users. 59% report injecting in front of any non-injector in the past six months, but a far higher proportion report doing so in front of inhalers (52%) than in front of non drug users (26%).

Table 5: Injecting in presence of inhalers and non drug users

Injecting behavior	N = 657
	%
Injected in the presence of non-IDU (inhaler + non-user) in the last 6 months	59%
Injected in the presence of inhalers in the last 6 months	52%
Injected in the presence of non-users in the last 6 months	26%

TALKING ABOUT THE BENEFITS OF INJECTING

51% of IDU report talking with inhalers about the benefits of injecting in the past six months. Among these, the most commonly reported topic they discussed was the different high that one gets from injecting compared with inhaling (69.5%). 41.7% reported having discussed the greater convenience of injecting compared with inhaling, and 37.9% reported talking about the cheaper cost per dose of injecting compared with inhaling. 25.1% reported talking about how addiction deepens if one switches from inhaling to injecting.

Table 6: Topics that IDU have discussed with inhalers in the past 6 months

Topics that IDU talk with inhalers in the last 6 months	N = 1,094
	%
Different high between injecting and inhaling	17%
How to inject	12%
Injecting is more convenient than inhaling (faster, discreet)	37%
A dose for injecting costs less than a dose for inhaling	8%
The risk of getting diseases or HIV through injecting	21%
Ways IDU can avoid contracting diseases or HIV	17%
The addiction deepens after switching to injecting	12%

DETERMINANTS OF H.I.T BEHAVIORS: SEGMENTATION ANALYSIS

The purpose of segmentation analysis is to identify the key determinants of a behavior, i.e. factors that distinguish those that perform the desired behavior from those that do not[3]. It helps identify those attributes or factors that may need to be promoted to increase the number of people from the target population that are performing the promoted behaviors.

PSI's behavior change framework (see **Annex B**) organizes factors into three groups:

- **Opportunity –** Factors that relate to an individual's opportunity to use condoms, and which are beyond their immediate control. For example, the availability of condoms at places where they are having sex.
- **Ability –** Factors that relate to the capacities that an individual has to use condoms, such as their knowledge about HIV transmission, or their self efficacy in using condoms.
- **Motivation –** Factors that relate to an individual's desire to use condoms.

For this analysis, all socio demographic variables and relevant determinants are entered into a logistic regression analysis. All significant variables are then reported on as being 'key determinants' of consistent condom use with commercial sex workers.

'Determinants' are measured using a four-point scale that captures the extent of agreement/disagreement with a statement. Odds Ratios (OR) for each variable are also. The Odds Ratio indicates the strength of the relationship that each variable has with the behavior. Where OR=1, the variable has no influence on the behavior

Logistic regression analysis was conducted to identify the key determinants of each H.I.T. behavior, and the relationship that these behaviors have with each other.

For the behavior, 'Talking with non-injectors about injecting', there are three OAM factors identified as being significant determinants of the behavior (See **Annex C** for full logistic regression models):

[3] Segmentation tables are produced through three analysis procedures in SPSS: i) Exploratory Factor Analysis to identify scaled constructs and Reliability testing (Cronbach's Alpha) to establish reliability of scales; ii) Logistic regression is conducted to identify variables that are significantly associated with the behavior in question; iii) UNIANOVA is conducted to identify the estimated values for each factor identified as a significant determinant.

1. ‘My “ban chich” (injecting friends) often talk with inhalers about injecting’ (OR=1.67)

2. Once an inhaler is addicted to heroin, it is inevitable that they will eventually start injecting (OR=1.61)

3. IDU who use drugs in a group with inhalers are likely to encourage them to switch to injecting (OR=1.26)

In addition to these three factors, having injected in front of a non-injector in the past 6 months was also identified as a determinant (OR=5.00)

For the behavior, ‘Injecting in front of non-injectors’, there are three OAM factors identified as being determinants of the behavior (see **Annex C** for full logistic regression model):

1. My “ban chich” (injecting friends) often inject in the presence of inhalers in our group (OR=1.90)

2. Helping a to start injecting increases our solidarity (OR=1.35)

3. If IDU don't inject in the presence of inhalers, they will be less likely to switch to injecting (OR=1.21)

In addition to these three factors, having ever talked with inhalers about injecting in the last 6 months was also identified as a determinant (OR=5.6)

For the behavior, ‘Helping a non-injector to inject for the first time’, there are 3 OAM factors identified as being determinants of the behavior (see table for full details)

1. If a “ban nghien” (addicted friend) asks me to help with their first injection, I cannot refuse (OR=1.6)

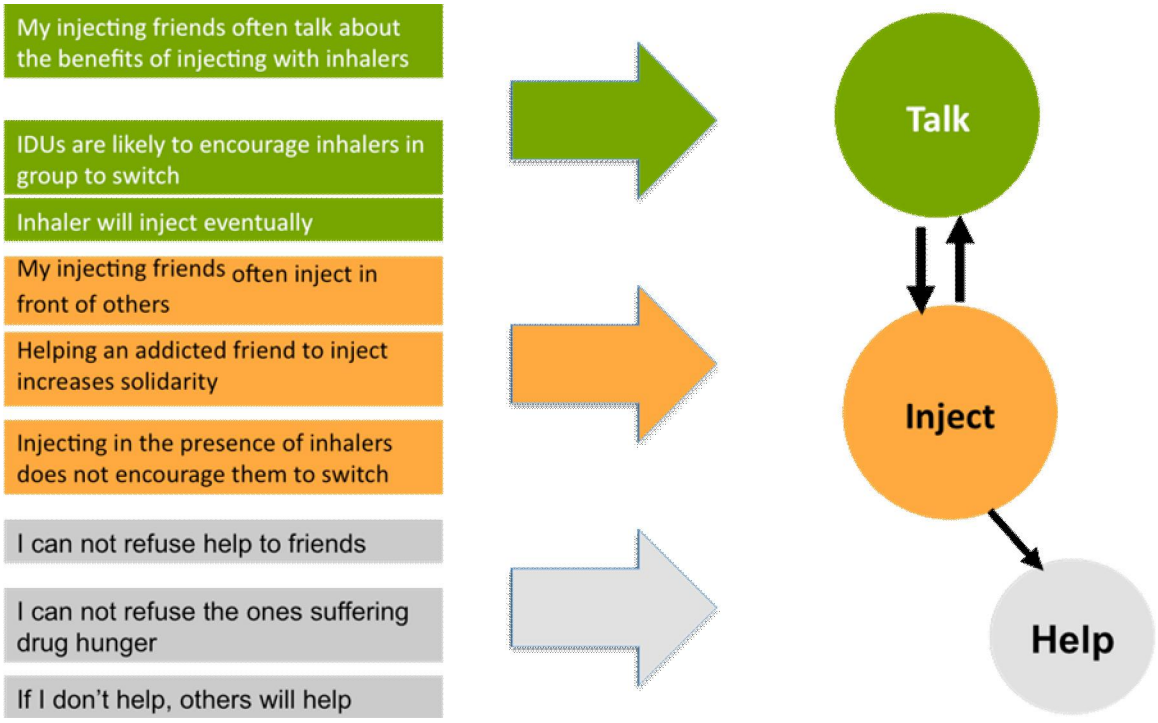
2. If a “ban nghien” (addicted friend) inhaler who is suffering from drug hunger asks me to help them inject, I cannot refuse (OR=2.9)

3. If I refuse to help someone inject for the first time, another IDU will help them (OR=1.9)

In addition to these three factors, having ever inject in front of inhalers in the last 6 months was also identified as a determinants (OR=1.7)

For all H.I.T behaviors, a range of demographic characteristics was also identified as being significant determinants of each of the H.I.T behaviors. The model below incorporates these, and presents in a single model the relationships between all determinants and behaviors.

Figure 11: Model for factors that influence HIT behavior



SEXUAL ACTIVITY AND CONDOM USE

SEX PARTNERS

Almost 49% of IDU reported having had sex with a regular partner in the past 6 months, and almost 27% report having had commercial sex. The prevalence of commercial sex in this group is close to that found in PSI's Male Client Behavior Survey, (39.1% of men aged 18-40 recruited in targeted entertainment establishments reported having had commercial sex in the past three months).

21% of IDU reported that their regular partner was either an IDU a sex worker, or both, and over one third of IDU reported that their regular partners did not know that they were an IDU.

Among IDU respondents who report commercial sex in the past six months, the average number of times that they report having sex with sex worker is 7.4 times.

Figure 12: Commercial and regular sex partners in the past 6 months

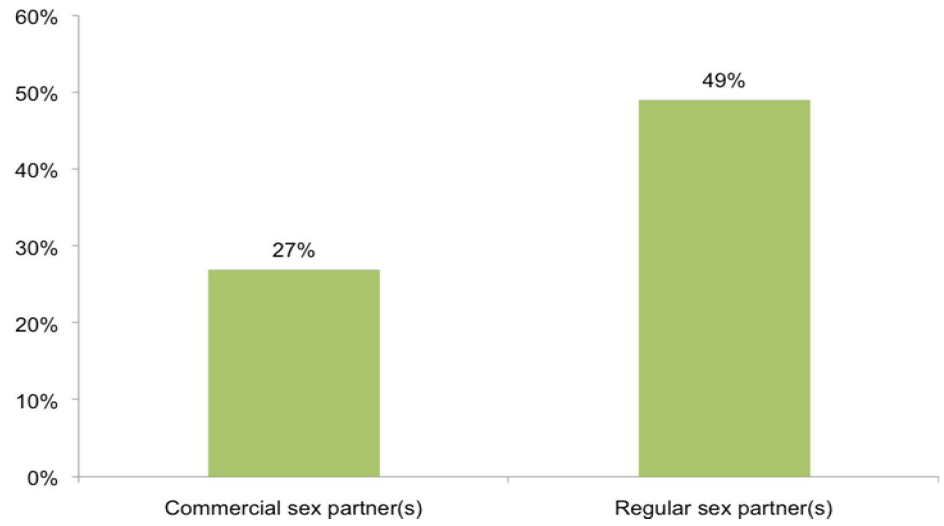
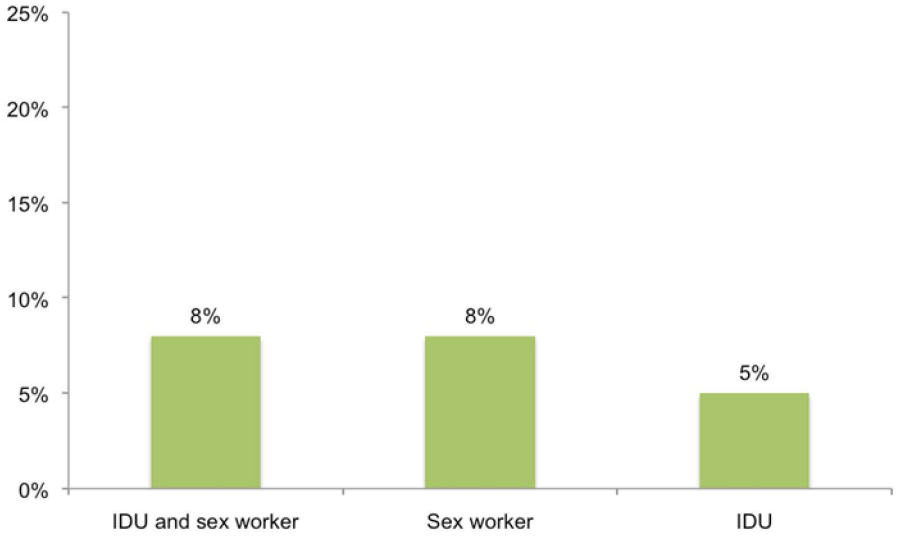


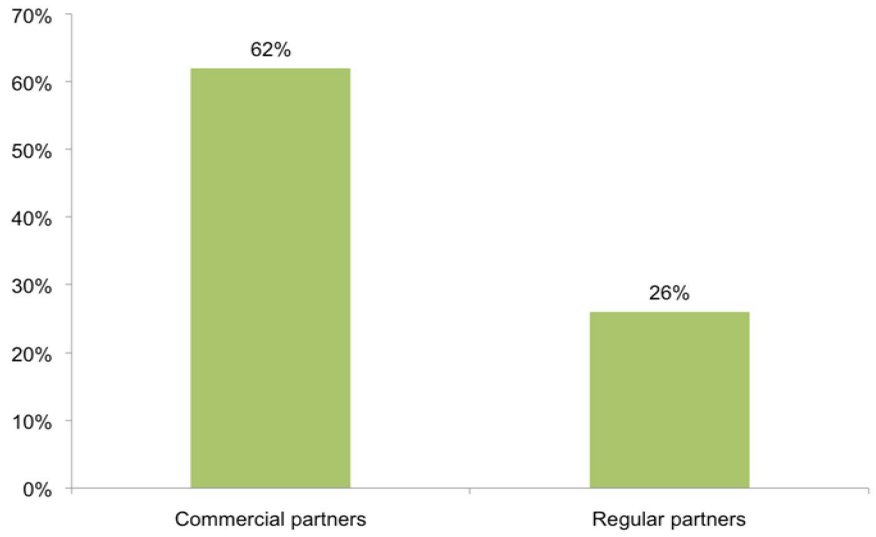
Figure 13: Profile of regular sex partners of IDU



CONSISTENT CONDOM USE

62% of IDU reported consistent condom use in commercial sex in the past 6 months, and a little more than a quarter report that they used a condom consistently with their regular partners over the same time period.

Figure 14: Correct and consistent condom use in the past 6 months with commercial and regular partners



Annex D shows comparisons between consistent condom use rates in this study compared with IBBS 2009.

DETERMINANTS OF CONSISTENT CONDOM USE WITH REGULAR PARTNERS

Three OAM factors have a positive association with consistent condom use with regular partners:

1. I don't need to use condoms with my regular partner if I know she is safe (*this is a reversed scaled item, indicating that consistent condom use is associated with low levels of agreement with this statement*) OR=10.82

2. If I don't use condoms with my regular partner, I put her at risk of HIV. OR=2.03

3. By using condoms consistently, I protect my regular partner from HIV. OR=1.87

One factor, 'If I use condoms with my regular partner, she will think that I am not safe' had a negative association with consistent condom use with regular partners, i.e. those that scored highly on this factor were less likely to be consistent condom users'. OR=0.59

In addition to these OAM factors, the following respondent characteristics were found to have an association with consistent condom use:

i. Level of education
ii. Risk perception of HIV (respondents with higher risk perception are less likely to be consistent condom users with regular partners)
iii. Received free condoms in the past 6 months
iv. Regular partner uses method of contraception other than condoms (IDU whose partners use other methods of contraception are less likely to be consistent condom users)

The full segmentation table and regression model is at **Annex C**

DETERMINANTS OF CONSISTENT CONDOM USE WITH COMMERCIAL PARTNERS

One OAM factor, Appearance and Trust in commercial sex worker has a positive association with consistent condom use with commercial partners (OR=54.46). This is a scaled construct that captures beliefs that respondents have about the need to use condoms with sex workers who they trust to be safe from their appearance.

Table 7: Individual items that form the 'Appearance and Trust' construct

APPEARANCE AND TRUST CONSTRUCT
I do not need to use condoms with a sex worker who is young
I do not need to use condoms with a sex worker I visit regularly
I do not need to use condoms with a sex worker who is attractive
I do not need to use condoms with a sex worker who is healthy looking
If I feel a SW is not at risk of HIV, I do not need to use a condom with her
I do not need to use condoms with a sex worker I know well
I do not need to use condoms with a SW who is clean

The scale is reverse coded, meaning that respondents with a higher score have a lower level of agreement with statements that indicate a person's willingness to judge the risk of HIV by a person's appearance and the level of trust that they have in them.

Respondents that score highly on this scale are 54 times more likely to be consistent condom users than respondents with lower scores, suggesting that this one issue is a very strong determinant of whether or not condoms are used consistently with commercial partners.

One OAM factor had a negative association with consistent condom use with commercial partners. Respondents who had stronger levels of agreement with the statement, 'As an IDU, there is no additional risk of HIV from having unprotected sex with sex workers', were almost twice as likely to be inconsistent condom users than respondents with lower levels of agreement (OR=0.52)

In addition to these OAM factors, the following respondent characteristics were found to have an association with consistent condom use with commercial partners:

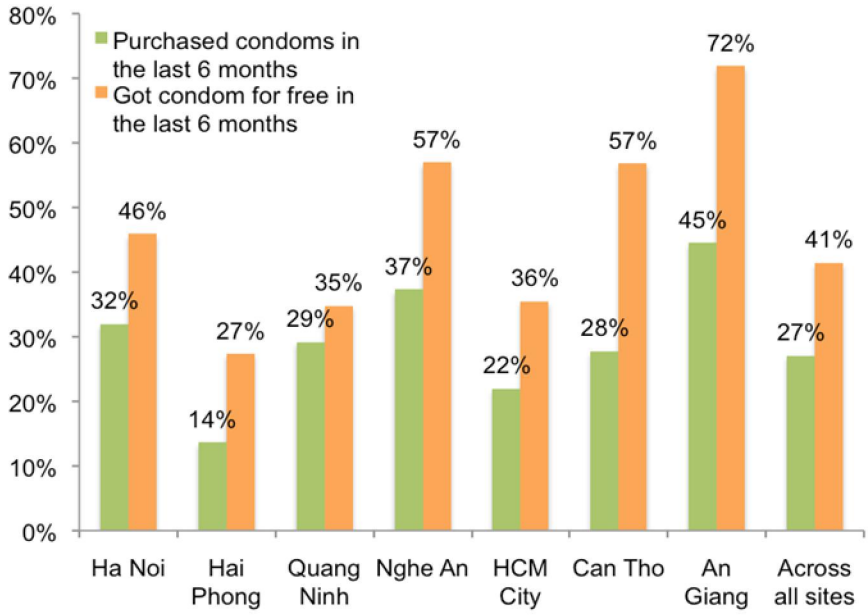
v. Level of education
vi. Risk perception of HIV (respondents with higher risk perception are less likely to be consistent condom users with regular partners)

The full regression model is at **Annex C**

CONDOM ACCESS

Just over one quarter of IDU reported having purchased condoms in the past 6 months. This compares with 41% who report having received condoms for free. There are some regional variations, although this seems to reflect variations in overall condom consumption rather than the ratio of purchased to free condom

Figure 15: Source of condoms in past 6 months, by province



The main source of free condoms is hotels and guesthouses (39%), where condoms are often provided 'free' with the room. 28% of IDU report that they received free condom(s) from sex worker and one fifth that they received them from a friend.

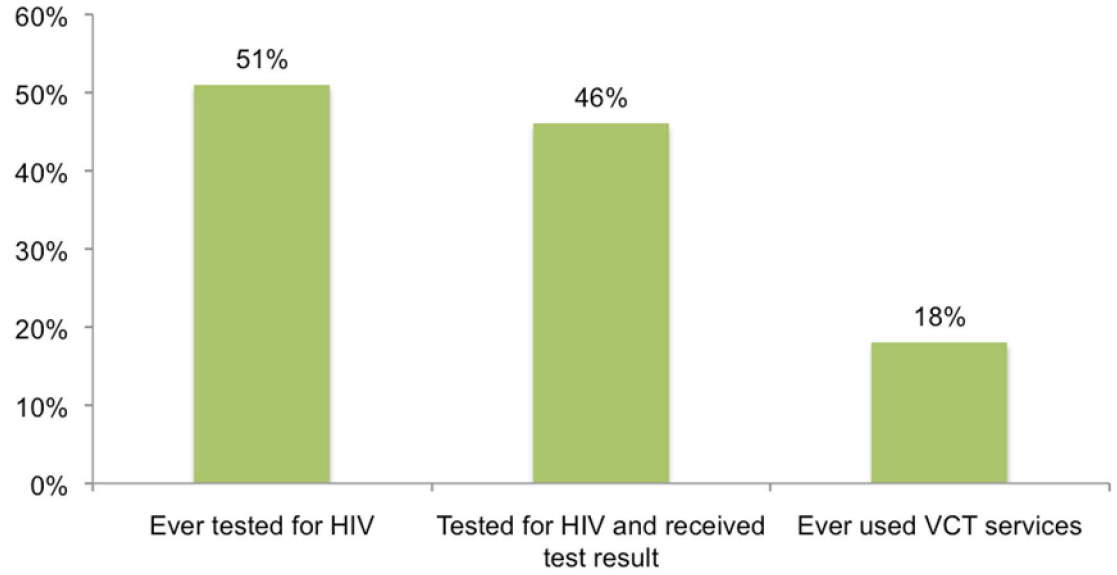
Table 8: Source of free condoms in the past 6 months

Source of free condoms in last 6 months (n=479)	%
Peer educator	18%
Drop-in center	8%
HIV testing / VCT center	10%
Guesthouse / hotel	39%
Sex worker	28%
Friend	19%

HIV TESTING

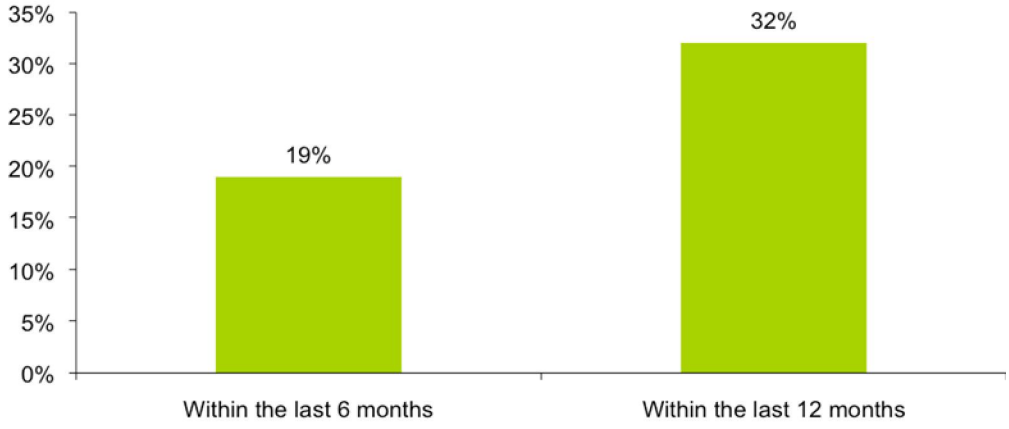
Just over half of IDU (51%) report having ever been tested for HIV, with 46% reporting that they have been tested and received their results. 18% report having ever used VCT services.

Figure 16: HIV testing and use of VCT services



19% of IDU that had ever received an HIV test reported that their last HIV test was within the past 6 months and 32% in the last 12 months. 87.1% of IDU that had been tested report receiving the results of their last HIV test. 11.4% of respondents report that their last test was at a detention center.

Figure 17: Time since last HIV test (N=1094)



The three most common reasons given for not having ever received an HIV test are:

1. Being afraid of the test result (35%)
2. Believing that they are not HIV positive (35%); and
3. Afraid of the stigma that may accompany a positive result (19%)

Only 12% reported that they did not know where to get tested, and a smaller proportion still reported a negative perception about the testing service, such as lack of confidentiality, cost, or unfriendly medical staff at testing centers.

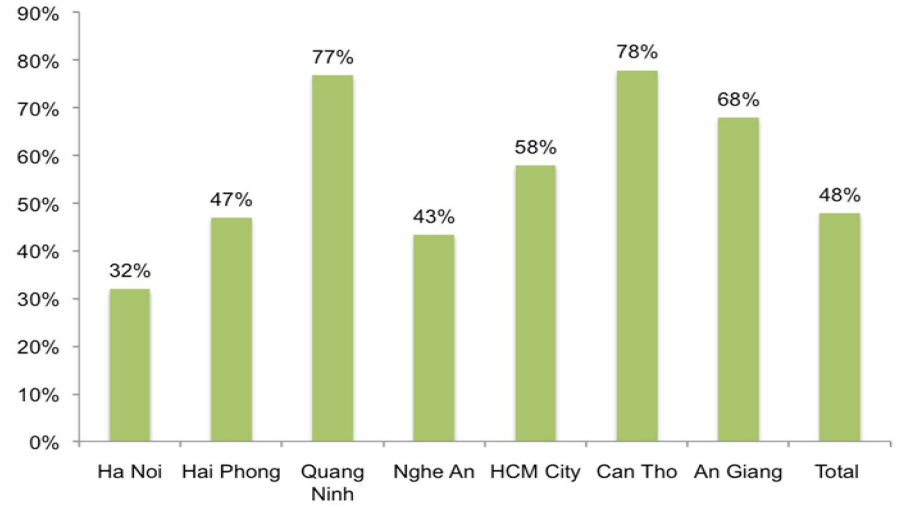
Table 9: Reasons for not getting HIV tested

Reason for not getting tested	%
Afraid of getting a positive result	35.1%
Nothing I can do if I am positive	4.3%
Don't want to spend money for that	8.0%
Afraid of stigma	19.3%
Don't know where to get tested	11.8%
The service lacks of confidentiality	2.9%
The service is too expensive	4.2%
Unfriendly health staff	0.2%
Believe that I am not HIV-infected	34.6%
Don't care to know status	11.3%

EXPOSURE TO VCT PROGRAM - 'CHAN TROI MOI' CAMPAIGN

The *Chan Troi Moi* campaign promotes regular use of VCT services. IDU were asked whether they had seen the campaign. Just under half of IDU reported that they had seen the Chan Troi Moi campaign, with some regional variations. Exposure was very high in Can Tho (78%) and Quang Ninh (77%), with Hanoi (32%) having the lowest level of reported exposure.

Figure 18: Exposure to Chan Troi Moi campaign, by province



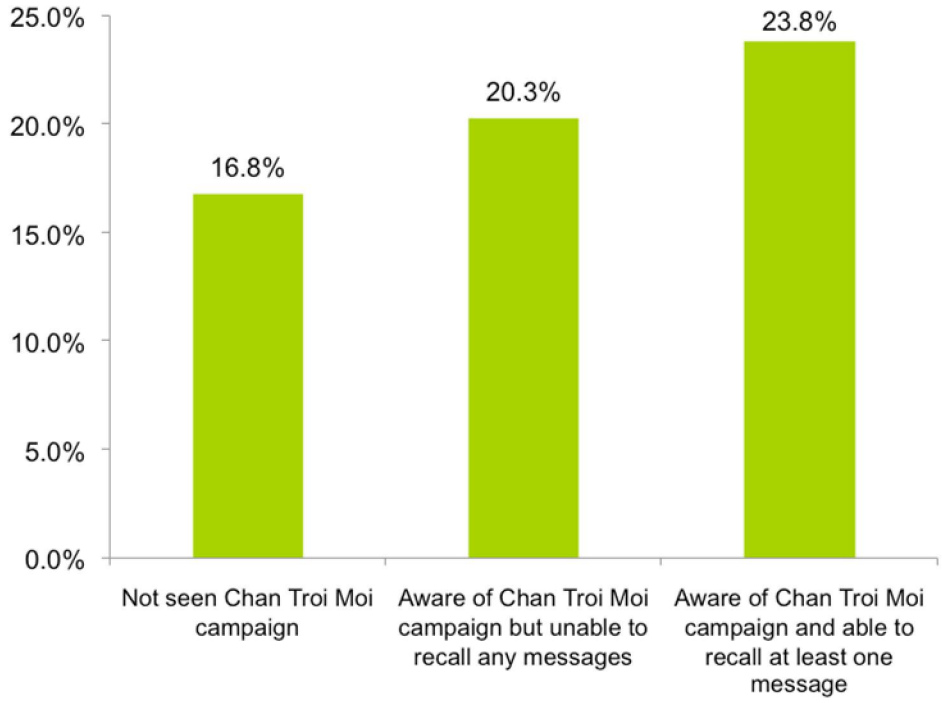
By far the most common channels through which respondents report being exposed to the Chan Troi Moi campaign are through billboards/bus stops (65%) and posters (51%).

Table 10: Channels through which IDU were exposed to Chan Troi Moi Campaign

Channel where Chan Troi Moi campaign was seen	%
Billboard / bus stop	65%
Poster	51%
Leaflet / brochure	6%
Newspaper	7%
TV	21%
Outreach worker (IPC)	3%
Internet	3%
Sticker	2%

IDU that report being aware of the Chan Troi Moi campaign and who can recall key messages are more likely to have accessed VCT services than those who have no awareness of the campaign (p<. 05). 24% of IDU who are aware the campaign and can recall key messaged report having accessed VCT services, compared with 17% of those with no exposure to the campaign.

Figure 19: Access to VCT services by exposure to Chan Troi Moi campaign



CONCLUSIONS AND PROGRAM RECOMMENDATIONS

- ## Preventing Initiation of new IDU

  The program should continue to target current injecting drug users to prevent the initiation of new injecting drug users. The research clearly shows how injecting drug users model behaviors that encourage and motivate non-injectors to start injecting. A strong link exists between IDUs who talk about the benefits of injecting with non-IDU and inject in their presence and giving assistance to non-IDU with their first injection. The best way to prevent the initiation of new injectors is by changing the behaviors of existing injecting drug users.

- ## Consistent Condom Use

  The program should enhance the focus of its intervention to promoting consistent condom use with all partner types. The research shows that IDU are sexually active, reporting both regular and commercial sex partners. Furthermore, consistent condom use reported by IDU with commercial partners is much lower than the average male client of sex workers. This demonstrates the importance of interrupting sexual modes of HIV transmission from the IDU population to their partners.

  IDU make decisions about whether to use condoms with commercial sex workers in the same way the average male client does, by assessing the sex worker's physical appearance, or if they can trust her. The program can use tools and materials form the Male Client program to target male IDU with promotion of consistent condom use with sex workers.

  To promote consistent condom use with their regular partners, the program should target male IDU to increase the belief that by not using a condom, he puts his partner at risk for HIV.

- ## Voluntary Counseling and Testing

  Another key behavior for program focus is HIV testing at VCT centers, given the fact that very few IDU know their HIV status despite their very high risk behaviors. A crucial part of containing the epidemic includes HIV counseling and testing for promotion of safer behaviors and more importantly, linkages into care and treatment services.

  IDU report not receiving HIV testing and counseling because they do not believe they are at risk for infection, and that they are afraid of a positive result. The program should link the IDU's risk behaviors (needle and syringe sharing, inconsistent condom use with SW) to the need to know their status. At the same time, the program should improve the perception of brand Chan Troi Moi VCT services as being friendly and high quality, to increase confidence they can handle a positive result as VCT provides a gateway to care, support and treatment services.

- ## Linkages to Other Services

  The program should also link IDU to support services, such as methadone centers, addiction counseling, drop in centers, other medical services, and support services like work placement, etc. Past experience has shown that IDU interventions are more effective when they provide IDU with a comprehensive set of care services to meet their range of needs. The program should link up with government and NGO partners to ensure IDUs covered under the program can have access to these services.

ANNEX A: QUESTIONNARE

Questionnaire ID: _____

Questionnaire

Study on health among Vietnamese Men

- **Read the Informed Consent script to the respondent. If the respondent agrees to answer this questionnaire, sign to confirm his voluntary participation**

Interviewer's signature: _____

Interviewer name: _____ Interviewer code: _____

Date of interview: ___ / ___ / 2009 **Starting time: ____:____**

City/Province of interview:

1. Hanoi 2. Hai Phong 3. Quang Ninh
4. Nghe An 5. Ho Chi Minh City 6. Can Tho 7. An Giang

Coupon No. |____|____|____|____|____|

Section A: BACKGROUND CHARACTERISTICS AND NETWORK

No.	Questions and filters	Coding categories	Codes	Skip to
A1	➢ **For Ha Noi, Hai Phong and HCM City** In the last month, how many male IDUs in this city did you meet or talk with that you are acquaintance with? Acquaintance is that you know personally by their names or nick names and they also know you? ➢ **For Quang Ninh, Nghe An, Can Tho and An Giang** In the last month, how many male IDUs in this province did you meet or talk with that you are acquaintance with?	Number of Male IDUs If >30 people, ask the question again and emphasize the key information	_____	

No.	Questions and filters	Coding categories	Codes	Skip to
	Acquaintance is that you know personally by their names or nick names and they also know you?			
A2	Among _____people that you met and talked with in the last month, How many people are in the age of 18 to 40?	Number of people ➢ **A2 > A1 → ask A2 and A1 again**	_____	
A3	Among ____people that are from 18 to 40 years old, how many people are in rehab center of in jail?	Number of people ➢ **A3 > A2 → ask A3 and A2 again**	_____	
A4	What is the education level that you have attained?	The highest grade that you attained **(Never been to school = 0 Above Grade 12 = 13)**	_____	
A5	What is your current marital status? ➢ **SHOW CARD**	Have a girlfriend but not live together Cohabiting *(but not married)* Divorced/separated/widowed Single *(never been married)* Married Other (specify): _____	1 2 3 4 5 6	

Section B: DRUG USE AND H.I.T. BEHAVIORS

➢ **Read out loud: Now, I am going to ask you about using drug and helping inhalers for their first injection.**

No.	Questions and Filters	Coding categories	Codes	Skip to
B1	Before injecting, how long did you smoke/inhale heroine or drugs?	Number of years Number of months ***(Inject at the first time when you used drug = 0)*** ***(If the respondent only remember number of the year but not remember the number of month, write the number of years and 0***	_____ _____	

No.	Questions and Filters	Coding categories	Codes	Skip to
		month)		
B2	In the last month, how many days, on average, did you inject per week?	Everyday 4-6 days a week 2-3 days a week Once a week or less **Not at all**	1 2 3 4 **5**	1 → B4 **5 → STOP**
B3	How many times did you inject drugs <u>in the last month</u>?	Number of times	_____	Any answer → B5
B4	How many times did you inject drugs <u>per day</u>?	Number of times	_____	
B5	➢ **READ OUT THE DEFINITION** Helping someone to inject drug in the first time includes not only giving you the first injecting but also activities such as positioning the vein, or preparing the drugs, or instructing them how to inject. Which of the following best describes your first time injecting drugs? ➢ **SHOW CARD**	An IDU gave me my first injection An IDU told me how to inject, but I gave myself my first injection A non-IDU helped me with my first injection None helped me with my first injection	1 2 3 4	 3 → B7 4 →B7
B6	Which of the following best describes how you got help the first time you injected drugs? ➢ **SHOW CARD**	I asked the person to help me inject The person offered to help me inject without my prompt Other (specify): _____	1 2 3	
B7	How many times have you ever been in a rehabilitation center for IDUs?	Number of times **(Never = 0)**	_____	
B8	➢ **READ OUT THE DEFINITION** Inhalers are peoople who only inhale or smoke drugs, but not inject. In the last 6 months, how often were you with <u>inhalers</u> when you injected? ➢ **SHOW CARD**	Never Rarely Sometimes Most of the time Always	1 2 3 4 5	
B9	In the last 6 months, how often were you with non-users when you injected? ➢ **SHOW CARD**	Never Rarely Sometimes Most of the time	1 2 3 4	

No.	Questions and Filters	Coding categories	Codes	Skip to
		Always	5	
B10	In the last 6 months, was there any time when you and inhalers talked with each other about injecting?	Yes No	1 2	 2 → B14
B11	In the last 6 months, which topic did you talk with inhalers about? ➢ **SHOW CARD.** ➢ **MULTIPLE CHOICE** ➢ **AFTER EACH RESPONSE, ASK "WHAT ELSE?"**	The risk of getting diseases or HIV through injecting Ways IDUs can avoid contracting diseases or HIV Different high between injecting and inhaling How to inject Injecting is more convenient than inhaling (faster, discreet) A dose for injecting costs less than a dose for inhaling The addiction deepens after switching to injecting Other (specify): _____	1 2 3 4 5 6 7 8 9	
B12	➢ **READ OUT THE DEFINITION** Helping someone to inject drug in the first time includes not only giving you the first injecting but also activities such as positioning the vein, or preparing the drugs, or instructing them how to inject. In the last 6 months, did you ever help someone inject for the first time by giving them the injection (chich ho)?	Yes No	1 2	 2 → B14
B13	How many people did you help by giving them the injection for their frist time in the last 6 months?	Number of people	_____	
B14	In the last 6 months, did you ever give assistance to someone when they took their first injection by positioning the needle, or preparing the drugs, or instructing them how to inject, but not give them injection?	Yes No	1 2	 2 → B16
B15	In the last 6 months, how many people did you help to position the needle, prepare the drug, instruct them how to inject when they took their first injection, but not give them injection?	Number of people	_____	
B16	In the last 6 months, did you ever see an IDU help someone with their **first** injection?	Yes No	1 2	 2 → B18
B17	How many IDUs did you see they help			

No.	Questions and Filters	Coding categories	Codes	Skip to
	someone with their first injection in the last 6 months?	Number of IDUs	_____	
B18	In the last 6 months, did you ever refuse to help anyone when they ask you to help them with their **first** injection?	Yes No	1 2	 2 → B20
B19	In the last 6 months, how many people did you ever refuse to help anyone when they ask you to help them with their **first** injection?	Number of people	_____	
B20	➢ **READ OUT THE DEFINITION** Sharing a needle/syring with others means you give someone your used needle/syringe or use a needle/syringe that someone else already used? Have you ever share a needle/syringe with others?	Yes No	1 2	 2 →B24
B21	How many times in the **last month** did you share a needle/syringe with others?	Number of times	_____	>0→ B24
B22	When was the last time you shared a needle/syringe with others?	Less than one year A year ago	1 2	 2 → B24
B23	On average, how many times did you share needle/syringe with others per month in the last 12 months?	Number of times/month	_____	
B24	➢ **READ OUT THE DEFINITION** Non-injector can be inhaler, smoker or people who do not use drug at all? In the last 6 months, how many times did non-injectors ask you to help them inject for their first time?	Number of times	_____	0 → B26
B25	In the last 6 months, how many times did non-injectors offer you money or drugs to help them inject for their first time? ➢ **SHOW CARD**	Not any time Few times Many times	1 2 3	
B26	How often did you experience drug hunger in the last 6 months? ➢ **SHOW CARD**	Not at all A few times Many times	1 2 3	

Section C: OAM ITEMS RELATED TO H.I.T.

- **Showed the color card**

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

- **Read out loud: Now, I would like to ask about your thoughts about helping inhalers for their first injection in the last 3 months.**
  - ✓ You will look at the following card and use the accordant number to tell me whether you **Strongly Disagree**, **Disagree**, **Agree**, or **Strongly Agree** with each of the statement below
  - ✓ There is no Right or Wrong answer. You only need to tell me what you really think
  - ✓ Please answer some questions seem to be same with others but they are different.

	Items	**SD**	**D**	**A**	**SA**
C1	My "ban chich" (group) often talk with inhalers about injecting	1	2	3	4
C2	My "ban chich" (group) often inject in the presence of inhalers in our group	1	2	3	4
C3	My "ban chich" (group) often help new injectors "shoot up" in the first time injecting	1	2	3	4
C4	My "ban chich" (group) have discouraged me from helping someone inject for the first time	1	2	3	4
C5	My "ban chich" (group) have discouraged me from talking with inhalers about injecting	1	2	3	4
C6	My "ban chich" (group) have discouraged me from injecting in the presence of inhalers	1	2	3	4
C7	I have discouraged an inhaler I know from starting to inject	1	2	3	4
C8	I have told an inhaler that becoming an IDU increases his risk of getting HIV	1	2	3	4
C9	If a "ban nghien" asks me to help with their first injection, I can not refuse	1	2	3	4
C10	If a "ban nghien" asks me to help them with their first injection, I can persuade them not to start injecting	1	2	3	4
C11	If an inhaler who is suffering from drug hunger asks me to help them inject, I can not refuse	1	2	3	4
C12	By talking with a "ban nghien" about the risks associated with injecting, I can refuse to help them start injecting	1	2	3	4
C13	Over time, an injecting habit does not save more money than an inhaling habit	1	2	3	4
C14	It is okay to talk about injecting with "ban nghien" who have never injected	1	2	3	4
C15	It is okay to inject in the presence of "ban nghien" who have never injected	1	2	3	4
C16	It is harder for injectors to quit using drugs than for inhalers	1	2	3	4
C17	An addict who inhales heroin can choose to never start injecting	1	2	3	4
C18	Once an inhaler is addicted to heroin, it is inevitable that they will eventually start injecting	1	2	3	4
C19	IDUs who use drugs in a group with inhalers are likely to encourage them to switch to injecting	1	2	3	4
C20	If I don't help my friend to inject for the first time, they may suffer from bleeding, overdose, etc.				
C21	Once someone starts injecting, they will not be able to quit using drugs	1	2	3	4
C22	If I refuse to help someone inject for the first time, another IDU will help them	1	2	3	4
C23	Helping a "ban nghien" to start injecting increases our solidarity	1	2	3	4

C24	If I refuse to help someone inject for the first time, I will save them from becoming an IDU	1	2	3	4
C25	If I help someone start injecting, they will be at increased risk of HIV	1	2	3	4
C26	If IDUs don't talk about the benefits of injecting such as injecting is cheaper, injecting makes higher, etc. with inhalers, they will be less likely to switch to injecting	1	2	3	4
C27	If IDUs don't inject in the presence of inhalers, they will be less likely to switch to injecting	1	2	3	4
C28	If IDUs don't help inhalers to start injecting, they will be less likely to switch to injecting	1	2	3	4
C29	I am afraid to help someone inject for the first time for fear they will overdose	1	2	3	4

Section D: SEXUAL BEHAVIOR & CONDOM USE

- **Read out loud: Now I am going to ask you about condom use**
- **Having sex here is virginal sex and anal sex, do not count oral sex and by hand**

No	QUESTION	RESPONSES	CODES	SKIP
D1	➢ **READ OUT THE DEFINITION** A sex worker is a woman who you paid by cash to have sex with her. In the last 6 months, have you had sex with a sex worker?	Yes No	1 2	 2 →D6
D2	In the last 6 months, how many times did you have sex with sex workers?	Number of times	_____	
D3	Among the SWs that you had sex with in the last 6 months, are there any sex workers that you visit regularly?	Yes No	1 2	
D4	In the last 6 months, was there ever a time that you **did not** use a condom when having sex with sex workers?	I never used condoms with SWs Yes, there were times I did not use a condom No, I used a condom every time ➢ **Read the corresponding statement to confirm their answer**	1 2 3	1 →D6 2 → D6
D5	➢ **READ OUT THE DEFINITION** "From start to end" means from inserting the penis into the vaginal till you stop having sex.	Yes No	1 2	

No	QUESTION	RESPONSES	CODES	SKIP
	In the last 6 months, was there any time that you didn't use condom **from the beginning to the end** with a sex worker?			
D6	**Regular partner** is your wife or girlfriend In the last 6 months, have you had sex with a regular partner?	Yes No	1 2	 2 → D13
D7	How many regular partners did you have sex with in the last 6 months?	Number of regular partners **If > 3 people, read the definition again and ask "Are those___ people is your wife or girl friend"?**	_____	
D8	Do any of your regular partners that you had sex in the last 6 months inject drugs or sell sex? ➢ **SHOW CARD** ➢ **MULTIPLE CHOICE** ➢ **AFTER EACH RESPONSE, ASK "WHAT ELSE?"**	There is a partner who is IDU-Sex worker There is a partner who is a SW, but she is not an IDU There is a partner who is an IDU, but she is not a SW None inject drugs or sell sex	1 2 3 4	
D9	Does your regular partner(s) know that you are an IDU?	Yes No Don't know	1 2 99	
D10	In the last 6 months, was there ever a time that you **did not** use a condom when having sex with your regular partner?	I never used condoms with my regular partners Yes, there are times I did not use a condom No, I used a condom every time ➢ **Read the corresponding statement to confirm their answer**	1 2	1 →D12 2 → D12
D11	In the last 6 months, was there any time that you **did not** use a condom **from start to end** of sexual intercourse with your regular partner?	Yes No	1 2	
D12	In the last 6 months, besides condoms, do you and your regular partner use any other contraceptive method, such as pill or IUD, to prevent pregnancy?	Yes No Don't know	1 2 99	
D13	In the last 6 months, did you purchase any condoms?	Yes No	1 2	

No	QUESTION	RESPONSES	CODES	SKIP
D14	In the last 6 months, were there anytime you did not need to buy condoms to use (i.e got it for free, your sex partners have condoms, got condoms from hotels/guesthouses)?	Yes No	1 2	 2 → D17
D15	In the last 6 months, when you do not need to purchase condoms, where did you get condoms? ➢ **SHOWCARD** ➢ **MULTIPLE CHOICE** ➢ **AFTER EACH RESPONSE, AKS "WHAT ELSE?"**	Peer educator Drop-in center HIV testing / VCT center Guesthouse / hotel Sex worker Friend Other (specify): _____ _____	1 2 3 4 5 6 7	
D16	➢ **D13 = 2 → D17** Out of all the condoms you used in the last 6 months, did you… ➢ **SHOW CARD**	Get most of them free Purchase most of them About half free / half purchased	1 2 3	
D17	➢ **Show a pack of Number One condoms and a Number One condom separately** Have you ever used Number One condoms?	Yes No Don't remember/Don't know	1 2 3	
D18	If a sale come and offer you this pack of Number One condoms, with 3 condoms inside. Would you be willing to pay 3,000 VND for this pack of condoms?	Yes No	1 2	 2 →D20
D19	Would you be willing to pay 4,000 VND for this pack of condoms?	Yes No	1 2	1 →E 2 →E
D20	Would you be willing to pay 2,000 VND for this pack of condoms?	Yes No	1 2	

Section E: OAM ITEMS RELATED TO CONDOM USE

Sex workers (Ask this part only to those who had sex with SWs in the last 6 months (D1 = 1 - yes)

➢ **Showed the card**

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

➢ **Read out loud: Now, I would like to ask about what you think about condom use during <u>vaginal sex</u> with sex workers in the last 3 months.**

- ✓ You will look at the following card and use the accordant number to tell me whether you **Strongly Disagree**, **Disagree**, **Agree**, or **Strongly Agree** with each of the statement below
- ✓ There is no Right or Wrong answer. You only need to tell me what you really think

E1	There are times when I need a condom and can't get one	1	2	3	4
E2	I do not need to use condoms with a sex worker who is young	1	2	3	4
E3	I do not need to use condoms with a sex worker I visit regularly	1	2	3	4
E4	I do not need to use condoms with a sex worker who is attractive	1	2	3	4
E5	I do not need to use condoms with a sex worker who is healthy looking	1	2	3	4
E6	If I feel a sex worker is not at risk of HIV, I don't need to use a condom with her	1	2	3	4
E7	I do not need to use condoms with a sex worker I know well	1	2	3	4
E8	I do not need to use condoms with a sex worker who is clean	1	2	3	4
E9	When I'm high on drugs, I less likely to use condom with sex workers	1	2	3	4
E10	I put myself at risk of HIV if I <u>don't</u> <u>always</u> use condoms with sex workers	1	2	3	4
E11	As an IDU, there is no additional risk of HIV from having unprotected sex with sex workers	1	2	3	4
E12	As an IDU, the risk of getting HIV from a sex worker does not matter to me	1	2	3	4

Regular partners (Ask this part only to those who had sex with regular partner (D6 = 1 - yes)

- **Read out loud: Now, I would like to ask about what do you think about condom use during vaginal sex with regular partners in the last 3 months.**

E13	I don't need to use condoms with my regular partner if I know she is safe	1	2	3	4
E14	If I don't use condoms with my regular partner, I put her at risk of HIV	1	2	3	4
E15	If I use condoms with my regular partner, she will think that I am not safe	1	2	3	4
E16	By using condoms consistently, I protect my regular partner from HIV	1	2	3	4

Section F: HIV TESTING AND COUNSELING

- **Read out loud: Now I will ask you questions about HIV testing and counseling. You do NOT need to tell me about your HIV status.**

No.	Questions and Filters	Coding categories	Codes	Skip to
F1	Do you think you are at risk of getting HIV? ➢ **SHOW CARD**	Great Moderate Small No risk at all Don't know/Unsure	1 2 3 4 5	
F2	Please do not tell me the results, but have you ever been tested for HIV?	Yes No	1 2	1 →F4
F3	Why have you not been tested for HIV? ➢ **MULTIPLE CHOICE** ➢ **AFTER EACH RESPONSE, ASK "WHAT ELSE?"** ➢	Afraid of + result Nothing I can do if I am positive Don't want to spend money for that Afraid of stigma Don't know where to get tested The service lacks of confidentiality The service is too expensive Unfriendly health staff Believe that I am not HIV-infected Don't care to know status Other (specify): _____	1 2 3 4 5 6 7 8 9 10 11	Any answers → F8
F4	How many times have you ever been tested for HIV and known the test results?	Number of times	_____	
F5	When was the last time you got tested for HIV?	Within the last 6 months >= 6 months – 1 year ago >1 – 2 years ago More than 2 years ago Don't remember	1 2 3 4 99	

No.	Questions and Filters	Coding categories	Codes	Skip to
F6	Did you know the results of your last HIV test?	Yes No	1 2	
F7	The last time you got tested for HIV, where did you receive the HIV test?	Chan Troi Moi VCT center (but not Chan Troi Moi) Public hospital/clinic Private hospital/clinic Rehab camp (06 center) Other (specify) _____	1 2 3 4 5 6	1→ F13 2 → F11
F8	There are some HIV testing services where you <u>voluntarily</u> go for HIV testing and they provide <u>counseling</u> before and after the test. And you do not need to pay for testing and counseling. Do you know of a place with this kind of service?	Yes No	1 2	 2 → F12
F9	➢ **F2 = 2 → F12** Have you ever been tested for HIV voluntarily like that?	Yes No	1 2	 2 → F12
F10	When was the last time you got tested for HIV voluntarily like that?	Within the last 6 months ≥ 6 months – 1 year ago > 1 – 2 years ago More than 2 years ago Don't remember	1 2 3 4 99	
F11	Please tell me the name and location of **<u>all</u>** the places where you had an HIV test voluntarily like that. ➢ **Multiple choices** ➢ **After each choice, ask the interviewee: "Anywhere else?"** ➢ **If the respondent does not mention Chan Troi Moi, interviewer uses the list of Chan Troi Moi sites to check if the interviewee received VCT at a Chan Troi Moi site**	Chan Troi Moi (respondent mentions the name himself) Chan Troi Moi (determined by checking the list) Others (specify): <u>Site 1</u> Name: _____ Address: _____ <u>Site 2</u> Name: _____ Address: _____ <u>Site 3</u> Name: _____ Address: _____	1 2 3	
F12	➢ **Show Chan Troi Moi logo** Have you ever seen any advertisement containing this logo?	Yes No	1 2	 2 → G

No.	Questions and Filters	Coding categories	Codes	Skip to
F13	Where have you heard of or seen those advertisement? ➢ **Multiple choices** ➢ **After each response, ask "what else?"**	Billboard / bus stop Poster Leaflet / brochure Newspaper TV Outreach worker (IPC) Internet Sticker Other (specify): _____ Do not remember	1 2 3 4 5 6 7 8 9 99	
F14	What information do you remember seeing on the Chan Troi Moi advertisement? ➢ **Multiple choices** ➢ **After each choice, ask the interviewee: "Anything else?"**	Hotline phone number VCT center names / locations Professional / friendly counseling (When counseling, we are professionals; when chatting, we are friendly) "Mien Phi" (services are free) "Bi mat" (services are confidential) "Chinh xac" (correct info) Other (specify): _____ Don't know	1 2 3 4 5 6 7 99	
F16	**F14 = 2 → or F7 = 1 or F11 = 1 → G** Do you know where to access Chan Troi Moi VCT services?	Mention the address Can not remember the address in detail but know where to find the address No	1 2 3	

Section G: EXPOSURE TO IPC & BTC INTERVENTION

➢ **Read out loud: Now, I will ask you about some communication programme targeting at IDUs.**

No.	Questions and Filters	Coding categories	Codes	Skip to
G1	Have you ever been reached by a peer educator for injecting drug users?	Yes No Don't know	1 2 99	 2 →G4 99 → G4
G2	When was the last time you were reached by those peer educators?	Within the last 6 months >6 months – 1 year ago >1 – 2 years ago More than 2 years ago	1 2 3 4	 3 →G4 4 →G4

No.	Questions and Filters	Coding categories	Codes	Skip to
		Don't remember	99	99 →G4
G3	How many times were you reached by those peer educators in the last year?	Number of times	_____	
G4	➢ **The respodent lives in Quang Ninh or Hai Phong → H** ➢ **Show BTC campaign logo / tagline** Have you ever seen this logo or tag line?	Yes No Don't know	1 2 99	 2 →H 99 → H
G5	Where did you see this logo or tag line? ➢ **Multi choice** ➢ **After each choice, ask the interviewee: "Anything else?"**	Peer educator Leaflet Flip chart Board game (Chess game) Cards Posters Other (specify): _____ Don't remember	1 2 3 4 5 6 7 99	
G6	➢ **G5 ≠ 1 → H** When were you reached by a peer educator who showed you this logo or tag line?	Within the last 6 months More than 6 months ago Don't know	1 2 99	

Section H: MEDIA HABITS

No.	Questions and Filters	Coding categories	Codes	Skip to
H1	Have you used internet any time in the last 3 months?	Yes No	1 2	 2 →H4
H2	How often did you use internet in the last 3 months? ➢ **SHOW CARD**	Every day Several days per week Several days per month Only once or twice within the last 3 months	1 2 3 4	
H3	What websites did you use most often in the last 3 months? Please tell me the top 3, <u>not including</u> email pages, search engines and instant messaging.	Website #1: www._____ Website #2: www._____		

No.	Questions and Filters	Coding categories	Codes	Skip to
		Website #3: www._____		
H4	Have you read a newspaper any time in the last 3 months?	Yes No	1 2	 2 → I
H5	How often did you read a newspaper in the last 3 months? ➢ **SHOW CARD**	Every day Several days per week Several days per month Only once or twice within the last 3 months	1 2 3 4	
H6	What newspapers did you read most often in the last 3 months? Please tell me up to 3 titles.	Newspaper #1: _____ Newspaper #2: _____ Newspaper #3: _____		

PART I INCOME

No.	Questions and Filters	Coding categories	Codes	Skip to
I1	What do you do to earn money? Please, tell me about the job for which you spend most of your working time.	Un-employed Manual labor Do small business White-collar worker Employer for business and services area Soldier/Policeman Student/Pupil Illegal work Other (specify): _____	1 2 3 4 5 6 7 8 9	
I2	Including all sources, before expenditure, how much do you earn on average per month?	Amount of money (in million VND) Don't answer	_____ 99	

Ending time of the interview: ____:____

Is the interview completed?

1 = COMPLETED

- ✓ Ask the respondent to wait for 5 minutes.
- ✓ Check if all the questions were answered and the information is consistent. For missing questions, ask the respondent to answer them. For inconsistent information, ask the respondent the questions again.
- ✓ Submit the questionnaire to the assistant.

2 = UNCOMPLETED

- ✓ Write down the reason:
  _____
- ✓ Report to the team leader

For supervisor

- **Check if all the questions were answered and the information is consistent. If the questionnaire is good, give the respondent**

Evaluation: _____

Name: _____ Signature: _____ Date: ___ / ___ / 2009

ANNEX B:
PSI BEHAVIOR CHANGE FRAMEWORK

PERForMance Framework for Social Marketing (PERForM)

This study design is guided by PSI's PERForM framework. PERForM describes the social marketing research process, identifies key concepts important for designing and evaluating social marketing interventions, and mirrors the four levels and concepts in the logical framework (goal, purpose, outputs, activities).

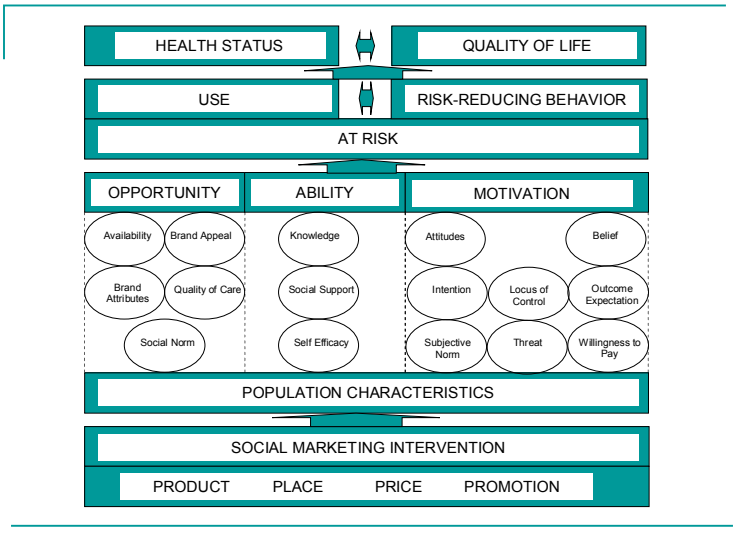
The top level consists of the goal of social marketing for any health promotion intervention, namely improved health status and, for interventions relating to coping with sickness or disability, quality of life.

The second level consists of the objectives of social marketing stated as product or service use on the left side and other risk-reducing behaviors that do not involve the use of a product or service on the right side. The adoption or maintenance of these behaviors in the presence of a given risk or need for health services is causally antecedent to improving or maintaining health and quality of life.

The third level consists of the determinants in PSI's Behavior Change Framework categorized in terms of opportunity, ability and motivation, given population characteristics such as age and sex. Opportunity, ability and motivation characteristics are mutable whereas population characteristics are not.

The fourth level consists of the characteristics of the social marketing intervention: the four Ps.

PERForM and Proposed "Bubbles"



4

Behavior Change Framework

The PSI Behavior Change Framework is embedded within the third level of PERForM and categorizes mutable determinants of behavior into three groups: opportunity, ability and motivation. The 16 behavioral determinants known as "bubbles" are the most widely used for project and marketing plan decision-making within PSI and for designing segmentation, monitoring and evaluation studies. The bubbles are generic to all behaviors promoted by PSI across HIV/AIDS, reproductive health, family planning, maternal and child health, including malaria prevention and treatment. Definitions of opportunity, ability, and motivation are based in the disciplines of consumer behavior, marketing, advertising, public health, social psychology, and economics. Specifically, OAM can be defined as follows:

- Opportunity is institutional or structural factors that influence an individual's chance to carry out a promoted behavior.
- Ability is an individual's skills or proficiencies needed to carry out a promoted behavior.
- Motivation is an individual's arousal or desire to carry out a promoted behavior.

Opportunity-based PERForM indicators, such as social norms, are measured in individual surveys, while some other opportunity-based PERForM measures, namely coverage, quality, equity of access, and efficiency, are measured at an aggregate level. Ability and motivation factors are measured at the individual level as they are unique to each person.

Project TRaC proposes a survey method for collecting data on the behaviors and determinants outlined in the Behavior Change Framework.

ANNEX C: REGRESSION MODELS FOR HIT BEHAVIORS AND CONSISTENT CONDOM USE WITH REGULAR AND COMMERCIAL PARTNERS

Segmentation table 1: Determinants of giving drug inhalers their first injection in the last 6 months, among male injecting drug users (IDU in Vietnam (n=1,093)
Risk Group: Male IDUs who reported injecting in the last one month
Behavior: Do not give drug inhalers their first injection in the last 6 months

INDICATORS		Do not give drug inhalers the first injection (N = 927)	Give drug inhalers the first injection (N = 165)	Odds Ratio	p-value
DETERMINENTS					
OPPORTUNITY					
My "ban chich" (group) often talk with inhalers about injecting	R	2.40	2.13	1.70	**
ABILITY					
My "ban chich" (group) have discouraged me from helping someone inject for the first time		2.73	2.95	0.62	**
If a "ban nghien" asks me to help with their first injection, I can not refuse	R	2.50	2.34	1.60	**
If an inhaler who is suffering from drug hunger asks me to help them inject, I can not refuse	R	2.48	2.01	2.88	***
If I refuse to help someone inject for the first time, another IDU will help them	R	2.23	2.12	1.91	***
DRUG USE BEHAVIOR					
Duration of drug injection		46.74	56.54	0.99	**
Shared needles/syringes with other IDUs in the last 12 months		12.5%	29.6%	0.37	***
Number of times asked by non-injectors to help them inject for their first time In the last 6 months		0.99	2.82	0.61	***
Non-injectors offer you money or drugs to help them inject for their first time in the last 6 months?					***
- Not any times					
- Few times		8.2%	32.2%	0.25	***
- Many times		1.1%	2.5%	1.22	Ns
OTHER BEHAVIORS					
Inject in front of inhalers in the last 6 months		44.3%	52.7%	0.60	**

Notes:

Significance: *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$
Mean scores are generated on questions using a 4 points Likert scale for the response categories in which 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree
(R) denotes the indicator has been reverse coded to present consistent scale directions
p-value < 0.001; Negelkerke R square = 0.504, Hosmer and Lemeshow Test with p-value = 0.527

Segmentation table 2: Determinants of injecting in front of drug inhalers in the last 6 months, among male injecting drug users (IDU in Vietnam (n=1,093)
Risk Group: Male IDUs who reported injecting in the last one month
Behavior: Do not inject in front of drug inhalers in the last 6 months

INDICATORS		Do not inject in front of drug inhalers (N = 517)	Inject in front of drug inhalers (N = 574)	Odds Ratio	p-value
OPPORTUNITY					
My "ban chich" (group) often inject in the presence of inhalers in our group	R	0.36	0.70	1.90	***
ABILITY					
Social support					
I have discouraged an inhaler I know from starting to inject		2.94	3.10	0.74	**
MOTIVATION					
Attitudes					
Helping a "ban nghien" to start injecting increases our solidarity	R	2.71	2.49	1.35	**
If IDUs don't inject in the presence of inhalers, they will be less likely to switch to injecting		2.89	2.79	1.21	*
POPULATION CHARACTERISTICS					
Age		29.65	31.15	1.06	***
Job					**
- Manual labor					
- Unemployed		16.5%	21.3%	0.76	
- Illegal work		2.5%	5.3%	1.95	**
- Other		6.9%	9.5%	0.66	
DRUG USE BEHAVIOR					
Injected right at the first time of drug use		21.0%	25.5%	0.59	*
Number of times in rehab centre		0.38	0.55	0.77	**
Shared needles/syringes with other IDUs in the last 12 months		10.1%	17.4%	0.63	*
Experienced drug hunger in the last 6 months?					**
- Not any times					
- Few times		52.6%	55.9%	0.73	
- Many times		27.9%	24.7%	1.37	
HIV TEST					
Got HIV test		52.3%	45.0%	1.48	*
Ever got HIV test at VCT centers		26.5%	19.6%	0.04	*
OTHER CHARACTERISTICS					
Network size		4.76	5.78	0.97	**
OTHER BEHAVIORS					
Ever talk with inhalers about injecting in the last 6 months		35.5%	69.7%	0.18	***

Notes:

Significance: *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$
Mean scores are generated on questions using a 4 points Likert scale for the response categories in which 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree
(R) denotes the indicator has been reverse coded to present consistent scale directions
p-value < 0.001; Negelkerke R square = 0.367, Hosmer and Lemeshow Test with p-value = 0.019

Segmentation table 3: Determinants of talking about the benefits of injecting with drug inhalers in the past 6 months, among male injecting drug users IDU in Vietnam (n=1,093)
Risk Group: Male IDUs who reported injecting in the last one month
Behavior: Do not give drug inhalers information that can encourage injecting, in the past 6 months

INDICATORS		Do not give drug inhalers the information (N = 533)	Give drug inhalers the information (N = 560)	Odds Ratio	p-value
OPPORTUNITY					
My "ban chich" (group) often talk with inhalers about injecting	R	2.26	2.03	1.67	***
MOTIVATION					
Once an inhaler is addicted to heroin, it is inevitable that they will eventually start injecting	R	1.92	1.78	1.61	***
IDUs who use drugs in a group with inhalers are likely to encourage them to switch to injecting		3.08	2.96	1.26	*
POPULATION CHARACTERISTICS					
Age		29.85	30.90	0.96	**
Education level					*
- Never been in school and Primary school					
- Secondary school		38.0%	37.7%	0.84	
- High school		24.1%	27.8%	0.59	*
- Above high school		8.7%	6.7%	1.27	
Job					***
- Manual labor					
- Unemployed		18.6%	21.8%	0.91	
- Illegal work		1.9%	13.5%	0.23	***
- Other		9.8%	8.6%	1.15	
DRUG USE BEHAVIOR					
Duration of drug smoking/inhaling		12.15	18.97	0.99	***
Number of injecting times per month		56.14	51.20	1.01	*
Receive the first drug injection from an IDU		72.7%	85.6%	0.33	***
Number of IDUs you saw they help someone with their first injection in the last 6 months		0.21	0.86	0.73	***
Shared needles/syringes with other IDUs in the last 12 months		10.1%	17.4%	0.63	*
Experienced drug hunger in the last 6 months?					***
- Not any times					
- Few times		47.4%	60.1%	0.32	***
- Many times		17.5%	33.2%	0.20	***
OTHER CHARACTERISTICS					
Network size		4.28	6.97	0.95	***
OTHER BEHAVIORS					
Injecting in front of inhalers in the last 6 months		29.7%	64.6%	0.20	***

Notes:

Significance: *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$
Mean scores are generated on questions using a 4 points Likert scale for the response categories in which 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree

(R) denotes the indicator has been reverse coded to present consistent scale directions
p-value < 0.001; Negelkerke R square = 0.449, Hosmer and Lemeshow Test with p-value = 0.094

Segmentation table 4: Determinants of consistent condom use with commercial sex workers in the past 6 month among male injecting drug users in Vietnam (n=1,093)

Risk Group: Male IDUs who reported injecting in the last one month

Behavior: Used a condom consistently with commercial sex workers in the past 6 months

INDICATORS		Consistent condom use with SWs	Inconsistent condom use with SWs	Odds ratio	p-value
		(N = 178)	(N = 126)		
Appearance and Trust (construct)		3.12	2.46	54.56	***
- I do not need to use condoms with a sex worker who is young	R				
- I do not need to use condoms with a sex worker I visit regularly	R				
- I do not need to use condoms with a sex worker who is attractive	R				
- I do not need to use condoms with a sex worker who is healthy looking	R				
- If I feel a SW is not at risk of HIV, I do not need to use a condom with her	R				
- I do not need to use condoms with a sex worker I know well	R				
- I do not need to use condoms with a SW who is clean	R				
As an IDU, there is no additional risk of HIV from having unprotected sex with sex workers	R	3.02	3.19	0.52	*
Education level					**
- Never been in school and Primary school					
- Secondary school		28.1%	34.0%	0.47	
- High school		31.7%	23.8%	3.03	
- Above high school		7.9%	5.6%	1.15	
HIV self-perceived risk					**
- No risk perceived					
- Low risk perceived		11.0%	14.5%	0.45	**
- Moderate risk perceived		8.8%	19.4%	0.14	*
- High risk perceived		23.2%	32.5%	0.25	***
- DK/Unsure		28.6%	43.2%	0.15	*

Notes:

use condoms with SWs and every time, they used condoms, they used from the start to the end of sex act.

Significance: *: p < 0.05; **: p < 0.01; ***: p < 0.001
Mean scores are generated on questions using a 4 points Likert scale for the response categories in which 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree
(R) denotes the indicator has been reverse coded to present consistent scale directions
p-value < 0.001; Negelkerke R square = 0.658, Hosmer and Lemeshow Test with p-value < 0.001

Segmentation table 5: Determinants of consistent condom use with regular sex partners in the past 6 month among male injecting drug users in Vietnam (n=1,093)
Risk Group: Male IDUs who reported injecting in the last one month
Behavior: Used a condom consistently with regular sex partners in the past 6 months

INDICATORS		Consistent condom use with RPs (N =140)	Inconsistent condom use with RPs (N =396)	Odds ratio	p-value
BELIEFS					
If I don't use condoms with my regular partner, I put her at risk of HIV		3.18	2.86	2.03	***
SUBJECTIVE NORMS					
If I use condoms with my regular partner, she will think that I am not safe	R	2.14	2.40	0.59	*
OUTCOME EXPECTATIONS					
By using condoms consistently, I protect my regular partner from HIV		3.48	3.26	1.87	*
Educational level					**
- Never been in school and primary school					
- Secondary school		30.6%	31.0%	1.19	
- High school		20.3%	28.3%	0.47	
- Above high school (1)				0.14	**
Number of times shared needles/syringes with other IDUs in the last 1 month (2)				0.89	*
HIV self-perceived risk					**
- No risk perceived					
- Low risk perceived		6.5%	9.9%	0.45	
- Moderate risk perceived		2.1%	12.0%	0.12	***
- High risk perceived		4.1%	19.4%	0.28	*
- DK/Unsure		12.7%	32.0%	0.29	**
OTHER CHARACTERISTICS					
Got free condoms in the last 6 months		75.8%	43.8%	3.54	***
Use contraceptive methods		23.8%	67.1%	0.92	***

Notes:

Consistent condom users defined here as IDUs who report having sex with RPs in the last 6 months and they always use condoms with RPs and every time, they used condoms, they used from the start to the end of the sex act.
(1) (2): the estimated means of these variables are negative; we first think that their distributions are not standard.

Significance: *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$
Mean scores are generated on questions using a 4 points Likert scale for the response categories in which 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree
(R) denotes the indicator has been reverse coded to present consistent scale directions
p-value < 0.001; Negelkerke R square = 0.538, Hosmer and Lemeshow Test with p-value = 0.146

ANNEX D: IBBS 2009 COMPARISON TABLES

TABLE A: NEEDLE SHARING

Indicators	Ha Noi (n=219)	Hai Phong (n=208)	Quang Ninh (n=106)	Nghe An (n=125)	HCM City (n=221)	Can Tho (n=117)	An Giang (n=98)
	%	%	%	%	%	%	%
Ever shared needles/syringes with others	16%	27%	9%	18%	37%	21%	26%
Shared needles/syringes in the last 12 months	11%	8%	6%	9%	32%	11%	23%
Shared needles/syringes in the last 1 month	8%	7%	3%	8%	25%	8%	20%
Shared needles/syringes in the last 6 month - IBBS 2009	19%	7%	24%	28%	21%	17%	54%

TABLE B: COMMERCIAL SEX

Indicators	Ha Noi (n=219)	Hai Phong (n=208)	Quang Ninh (n=106)	Nghe An (n=125)	HCM City (n=221)	Can Tho (n=117)	An Giang (n=98)
Had sex with SWs in the last 6 months	30%	18%	22%	35%	24%	32%	47%
Had sex with SWs in the last 12 months >= 2 times - IBBS 2009	48%	16%	11%	40%	18%	17%	20%
Consistent and correct condom use with SWs in the last 6 months	72%	81%	84%	74%	44%	77%	38%
Consistent and correct condom use with SWs in the last 12 months (IBBS 2009)	46%	75%	67%	63%	25%	42%	85%

TABLE C: CONSISTENT CONDOM USE

Indicators	Ha Noi (n=219)	Hai Phong (n=208)	Quang Ninh (n=106)	Nghe An (n=125)	HCM City (n=221)	Can Tho (n=117)	An Giang (n=98)
Consistent and correct condom use with regular partners in the last 6 months	25%	40%	32%	32%	23%	13%	22%
Consistent and correct condom use with regular partners in the last 12 months - IBBS 2009	29%	53%	56%	32%	20%	18%	41%

TABLE D: HIV TESTING

	Ha Noi (n=219)	Hai Phong (n=208)	Quang Ninh (n=106)	Nghe An (n=125)	HCM City (n=221)	Can Tho (n=117)	An Giang (n=98)
Ever been tested for HIV and got the result	54.7%	54.4%	45.9%	59.8%	34.1%	36.4%	22.7%
Ever been tested for HIV and got the result - IBBS 2009	28.9%	54.0%	63.7%	51.0%	31.2%	24.4%	28.4%

ANNEX E:
ANALYSIS PROCESS AND SYNTAX STRUCTURES

SEGMENTATION ANALYSIS

Segmentation analysis analysis combines four analytical procedures:

- Exploratory Factor Analysis (EFA)
- Reliability testing of scaled constructs
- Logistic regression
- UNIANOVA

EFA using Principal Axis Factoring (PAF) is run on all scaled determinant items to first establish which items may work together to form multi-item scales.

Once items are identified, reliability analysis is conducted. Where a Cronbach's Alpha score of >=.70 is the outcome, the scale is accepted as reliable.

Scaled constructs, along with other singular scaled items are then added to the list of variables considered relevant for the segmentation analysis.

All variables are tested for multi-colinearity. A decision is then made about variables found to be correlated as to which is most appropriate to enter into the regression model in the first instance. The variable that is most closely correlated to the dependent variables is often retained for the regression model.

All remaining variables are then entered into a logistic regression model. Significant variables are retained, and non-significant variables (p<.05) are removed from the model.

Each removed variable is then entered back into the model, one at a time. If the variable is significant (p<.05) and no other variables lose significance, then the variable is retained in the model. If not, it is removed from the model.

Finally, each of the independent variables in the model is run through UNIANOVA and the estimated marginal means are reported in the segmentation analysis (either as a proportion or as a mean, depending on the variable). The UNIANOVA syntax takes the following syntax structure:

```
UNIANOVA X BY Y WITH A B C D
 /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /EMMEANS=TABLES(Y) WITH(A=MEAN B=MEAN C=MEAN D=MEAN)
COMPARE ADJ(LSD)
  /PRINT=ETASQ
  /CRITERIA=ALPHA(.05)
  /DESIGN=A, B, C, D, Y
```

Where:
X is the variable for which the estimated marginal means are to be reported
Y is the dependent variable from the logistic regression
A, B, C, and D are covariates. For segmentation analysis, covariates used are the other independent variables from the final regression model.

EVALUATION ANALYSIS PROCEDURE

Evaluation analysis is conducted using UNIANOVA. The following syntax structure is used:

```
UNIANOVA X BY Y WITH A B C D
/METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /EMMEANS=TABLES(Y) WITH(X=MEAN A=MEAN B=MEAN C=MEAN D=MEAN)
    COMPARE ADJ(LSD)
  /PRINT=ETASQ
  /CRITERIA=ALPHA(.05)
  /DESIGN= X, A, B, C, D
```

Where:
X is the dependent variable. In evaluation tables, this is either the behavioral indicator (e.g. consistent condom use with regular partners) or a scaled determinant.
Y is the variable that categorizes exposure.
A B C and D are covariates. For evaluation analysis, covariates used are the key study design variables plus demographic variables collected.

ANNEX F: EQUILBRIUM STATUS FOR KEY INDICATORS

Main indicators	Hanoi	Hai Phong	Quang Ninh	Nghe An	HCM City	Can Tho	An Giang
Drug use							
Inhaled before switching to inject	Y	Y	Y	Y	Y	Y	Y
Sharing needle							
Shared last 1 month	Y	Y	Y	Y	Y	Y	Y
HIT							
Injected in the presence of inhalers in the last 6 months	Y	Y	Y	Y	Y	Y	Y
Talked with inhalers about the benefits of injecting in the last 6 months	Y	Y	Y	Y	Y	Y	Y
Gave non-IDUs the first injection in the last 6 months	Y	Y	Y	Y	Y	Y	Y
Condom use							
Consistent and correct condom use with SWs in the last 6 months	Y	Y	Y	Y	Y	Y	Y
Consistent and correct condom use with regular partners in the last 6 months	Y	Y	Y	Y	Y	Y	Y
VCT use							
VCT last 6 months	Y	Y	Y	Y	Y	Y	Y
Exposure							
Reached by a peer educator of program targeting IDUs	Y	Y	Y	Y	Y	N	Y