# Research Report on
# Cross-Boundary Substance Abuse Problem among Youths in Hong Kong

# Executive Summary

**Submitted to:**

**Sub-committee on Research, ACAN**

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## I. BACKGROUND

Substance abuse among youths in Hong Kong has been an important social issue that raises the concern of many people in the society. Increasing prevalence of abusing substances among the youth has been reported (e.g., Cheung & Ch'ien, 1996; Lau et al., 2002; Lee, Hollinrake, & Ng, 1998) and some preliminary data also showed that there is a trend of crossing the boundary from Hong Kong to mainland China for substance use (e.g., 香港社會服務聯會，2001; Lau et al., 2002). However, very few, if any, large-scale studies have been conducted on the topic in Hong Kong and internationally.

This report contains three parts: Part I summarizes the results obtained from a quantitative study on the cross-boundary travelers recruited at the Lo Wu checkpoint, Part II is a supplementary qualitative study (four focus group discussion were conducted), and Part III is a synthesis and recommendations of the entire study.

## II. OBJECTIVES OF THE STUDY

The main objectives of the study are:

1). to obtain the profiles of cross-boundary substance abusers regarding their background characteristics;

2). to provide a better portrait on the reasons of substance abuse across the boundary, drug use pattern, knowledge and attitude towards substance abuse, etc. among cross-boundary substance abusers; and

3). to recommend appropriate strategies and relevant preventive education and publicity measures to tackle the problem.

## III. STUDY POPULATION AND SAMPLING

The study population included Hong Kong Chinese young adults of age 18 to 30, who had used psychoactive substances and/or heroin in mainland China (for simplicity, psychoactive substances and heroin are referred to as "drugs" in this report). Respondents were invited to participate in the study when they returned to Hong Kong from mainland China via the Lo Wu checkpoint during the data collection period. The survey was conducted from 18 November to 17 December 2002 (from 10am to 7pm everyday). A structured questionnaire was used to collect data from the respondents. A total of 11,497 eligible respondents were contacted and 6,420 completed the entire study. In brief, the response rate, defined as the number of respondents who completed the survey divided by the total number of eligible individuals contacted, was hence approximately 56%.

For Part II of the study (the qualitative study), a total of four focus groups, two for age 18-20 (one male and one female groups), and the other two for age 21-30 (one male and one female groups) were conducted. For males, there were 8 participants of age 18-20 and 6 of age 21-29. For females, there were 6 participants of age 18-20 and 5 of age 21-26.. All participants had experiences of using drugs in mainland China in the last 12 months, most of them did so in Hong Kong as well. None of them used drugs for less than 6 months. These informants were recruited from social workers' referral and invitation at the Lo Wu checkpoint among those who had participated in the quantitative study. Interviews were conducted in December 2002 and January 2003.

## IV. LIMITATIONS

The quantitative study is limited in a number of ways. First, since the sample of the survey was not a random sample, results of the survey may not be generalizable to the entire

cross-boundary travelers of the same age group. It however, brings new insights to the relevant problem and is one of the few studies of the kind. Further research is mandated. Secondly, due to the limitation of the study design, no prevalence of the cross-boundary drug abuse problem could be estimated and the study was descriptive in nature. Thirdly, the overall response rate of the study was not too high, though it was comparable to quite a few studies (of various topics) carried out in Hong Kong (e.g., Brieger, Yip, Hin, & Chung, 1996; Chou, Mak, Chung, & Ho, 1996; Lau & Siah, 2001; Lau & Thomas, 2001; Lau & Tsui, 2003; Tang, 1998; Wong & So, 2003).

As regards the qualitative study, there are also some limitations. For instance, participants are not randomly selected and the sample size is quite small. Hence, the results may not be generalizable to the target population. Yet, it provides supplementary information that could not easily be captured by the quantitative survey.

## V. SOME KEY FINDINGS

Background characteristics of respondents who used drugs in mainland China

Of all respondents who completed both parts of the quantitative survey (n=6,420, with 5,138 males and 1,282 females), 1,167 males and 122 females had used drugs in mainland China in the last 12 months (PDC).

The quantitative study showed that female PDC tended to be younger than male PDC. About 36% of the male PDC were of age 18-20, whereas nearly 61% of the female PDC were of age 18-20. The corresponding figures for the age groups 21-25 and 26-30 were 42% and 21.9% respectively for male PDC, and 33.6% and 5.7% for female PDC. The majority (over 85% for both genders) of the PDC had attained F.1 to F.5 education. Quite a

few of the PDC were unemployed (17.1% for males and 24% for females), and about 72% and 54% respectively of the male and female PDC were employed full-time. A substantial proportion was not earning any income (about 20% and 36% for male and female PDC respectively). Most of the PDC had spent at least one day staying over in mainland China in the last month (about 90% for males and 77% for females).

Experience of drug use in mainland China

In the quantitative study, about one third of the PDC (both males and females) had used drugs in mainland China for one year or more, about 48% of the male PDC and 36% of the female PDC had done so for less than 6 months. About 67% of PDC for both genders had first used drugs in the mainland China within 12 months before enumeration.

Frequency of drug use in the last month

The quantitative study showed that a significant proportion of the PDC used drugs 1-2 times (38% for males and 39% for females), followed by none (34% for both genders), in the last month. Around 28% of the male PDC and 27% of the female PDC had used drugs for 3 times or more in the last month.

From the quantitative study, it can be seen that as compared to those drug users who had only used drugs outside mainland China in the last 12 months (DOC), PDC were more likely to have had used drugs in the last month. Over half of the DOC (about 56% of both males and females) reported that they did not use drugs in the last month (as compared to about 34% of the PDC).

Some participants of the focus group discussion (the qualitative study) pointed out that they used to abuse drugs more frequently in the past.

Reasons for using drugs in mainland China

Results of the quantitative study showed that lower price, peer influences, and better availability were important reasons for using drugs in mainland China. The three reasons totally accounted for 74% and 79% of the choices of male and female PDC respectively. In general, those younger were more attracted by the lower price of drugs in mainland China, whereas peer influence was cited by older respondents as a more important reason for using drugs in mainland China. Of all PDC, over 60% (63% for males and 68% for females) mentioned that they had at least one friend who frequently used drugs in mainland China. Similar figures were lower among male DOC (52%) and female DOC (40%).

Similar reasons for using drugs in mainland China were also obtained from informants of the qualitative study. In addition, these informants mentioned the better atmosphere of using drugs in mainland China and relatively lenient law enforcement regarding drug use in mainland China as their reasons for choosing to use drugs there.

Types of drugs used in mainland China

The quantitative study showed that the most commonly used type of drug was ecstasy (MDMA), which was used by over 80% of the PDC (around 87% of the male PDC and 81% of the female PDC). Ketamine and Cannabis also were common types of drugs used by the respondents. A substantial proportion of PDC also reported having used methylamphetamine (19% for males and 22% for females) and heroin (11% for males and 8% for females).

Similar findings with respect to the types of drugs used in mainland China were obtained from the qualitative study.

Further, the quantitative study also showed that a high percentage of the PDC (81% for males and 69% for females) reported that they had used more than one type of drugs in mainland China in the last 12 months.

From informants of the qualitative study, drug-mixing behaviors are common, such as mixing MDMA with Ketamine, or mixing MDMA pills of different ingredients, etc..

Venue of drug use in mainland China

From the quantitative study, as expected, disco (or rave party) was the most common venue for using drugs in mainland China. Other venues include bar, hotel, home/friend's home, etc..

From informants of the qualitative study, drug use in mainland China also took place in game centers, cyber-cafés, etc..

Source of drugs and with whom drugs were used in mainland China

Results of the quantitative study revealed that supply of free drugs was very common. Over half of the PDC (55% of males and 62% of females) stated that the drugs used in the last episode of drug use in mainland China were supplied by their friends free of charge, 9% of male PDC and 16% of female PDC even obtained them free of charge from strangers. Drug use was usually accompanied by friends.

Perceptions related to drug use

The quantitative study showed that a large proportion of PDC (87% for both genders) believed that they were able to quit using drugs. Such perceptions prevailed among both PDC and DOC. About one-third of PDC (for both genders) perceived that taking drugs would be very easily or easily addictive and one-third the contrary. About 58% and 50% of

the male PDC and female PDC respectively perceived that drug use was quite/very harmful. A substantial proportion (64.3% for male PDC and 51.8% for female PDC) perceived that drug use had severe negative impact on their health.

Other perceptions related to drug use in mainland China

The quantitative study showed that drugs were thought to be more available in mainland China by a fairly large proportion of the PDC (about 60% of the male PDC and 40% of the female PDC).

The quantitative study also showed that the majority of the PDC believed that they had no chance at all (29% for males and 25% for females) or little chance (about 55% for both males and females) to be arrested in mainland China due to drug use.

Other drug-related behaviors

Results of the quantitative study showed that many PDC reported consuming alcohol before taking drugs (73% of the male PDC and 61% of the female PDC had consumed alcohol before taking drugs in the last episode of drug use). Having sexual intercourse after taking drugs also was common. About 43% of the male PDC and 29% of the female PDC reported having done so in their last episode of drug use.

## VI. DISCUSSION AND RECOMMENDATIONS

Lower price and better availability were important reasons for choosing to use drugs in mainland China. Many mentioned that it is much easier to obtain drugs in mainland China than in Hong Kong. Those younger or having no income were particularly attracted by the lower price of drugs in mainland China. In addition, peer influence was also a key factor

for using drugs in mainland China.

Similar findings were also obtained from the qualitative study. In fact, some informants of the qualitative study mentioned that they sometimes felt under pressure to conform to their peers to abuse drugs (in mainland China).

Programs teaching relevant skills to deal with this kind of peer pressure are therefore warranted.

About 14% of the male PDC and 16% of the female PDC perceived that drug use was not quite/not harmful. About one-third of PDC (for both genders) perceived that taking drugs would hardly/very hardly be addictive. Such misconceptions should be rectified in drug preventive education programs.

Despite the fact that a substantial number of PDC perceived that drug use is easily/very easily addictive, most of them believed that they could quit using drugs (87% or so of both male PDC and female PDC). It is possible that these respondents tended to believe that they were much able to control themselves and to quit drug use anytime they want.

Moreover, the enforcement of law against drug use in mainland China was perceived as less stringent by many respondents. In fact, the majority of PDC (80% or so) believed that they had no chance at all or low chance of being arrested in mainland China due to drug use. Co-operation with the mainland authorities about law enforcement, control and regular inspection of entertainment venues that are popular for drug use is much needed.

Mixing drugs behaviors were noted in a sizeable proportion of PDC. Heroin was also used by a fairly high percentage of the PDC. Moreover, drug use behavior was found to be

associated with other risk behaviors such as having sexual intercourse or alcohol consumption. Such could further complicate the tackling of the drug abuse problem.

Data obtained from informants of the qualitative study provide some insights for discouraging cross-boundary abuse among these young adults. Whereas curiosity and peer influences were factors initiating and keeping (cross-boundary) drug abuse, personal growth was mentioned as a crucial factor for reducing (or stopping) the behavior.

A holistic approach is therefore warranted.

A number of areas that need special attention (e.g., relationship with sex, co-operation with the mainland authorities on controlling drug supply and law enforcement) and further investigation (e.g., the cross-boundary drug users may not be a homogeneous group such as those heroin-users may be a group different from users of other drugs) in order to tackle the cross-boundary abuse problem have been pointed out. It is also believed that in order to better understand the cross-boundary abuse problem, a surveillance system should be established.

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**Part II Report – A Supplementary Qualitative Study**



**Part III Report – Synthesis & Recommendations**

# Research Report on
# Cross-Boundary Substance Abuse Problem among Youths in Hong Kong

# Part I
# - A Quantitative Study

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## I. BACKGROUND OF THE STUDY

Drug abuse among young adults has been a strong concern in Hong Kong. There are reports that the prevalence of substance use has been increasing in Hong Kong (e.g., Cheung & Ch'ien, 1996; Lau et al., 2002; Lee, Hollinrake, & Ng, 1998). The number of Hong Kong-mainland China cross-boundary activities has increased tremendously over the last few years. In the year 2002, Hong Kong citizens had made 55.6 million person-trips to mainland China for business, entertainment etc., as compared to lower figures of 52 million in 2001 and about 33.7 million in 1997 (Department of Census and Statistics, 2003). With such an increasing frequency of cross-boundary activities, a particular phenomenon of practicing risk behaviors across the boundary in mainland China has emerged. For instance, many male Hong Kong citizens have engaged in unsafe sex practices, such as unprotected sex with commercial sex partners in mainland China (Lau & Thomas, 2001; Lau & Tsui, 2003). Similarly, men who have sex with another man were also found to be frequently practicing HIV-related at-risk behaviors in mainland China (Lau, Kim, Lau, & Tsui, 2003). A special feature of such cross-border activities is that they often involved a higher level of risk, as compared to similar behaviors (e.g., commercial sex) taking place in Hong Kong (Lau, Tang, & Tsui, 2003). The list of cross-boundary risk behaviors extends to include substance use. There are preliminary data showing that it had been becoming common (e.g., 香港社會服務聯會，2001; Lau et al., 2002). Yet, there is no large-scale study conducted on the topic.

In 2000, it was found that the prevalence of ever using psychoactive substances and heroin among secondary school students was around 4.1% and 2.6% respectively (Lau et

al., 2002). Variations in the prevalence depend on a number of factors, such as gender, perception and attitudes toward drug use, family relationships, peer influences, experiences of physical maltreatment, etc.. MDMA, cannabis, and ketamine were the three most frequently used types of psychoactive substances and changing patterns were observed. A trend of increasing prevalence of drug use was also reported (Lau et al., 2002).

In another study carried out for Hong Kong adults (Lau, Kim, & Tsui, 2003), it was reported that, among young adults aged 18 to 24, the prevalence of using psychoactive substances in the last year were 9.3% and 5.5% respectively for male and female respondents. Further, a substantial proportion reported doing so in mainland China. For instance, among those younger males who had used psychoactive substances in the last 6 months, around one fourth had used psychoactive substances in mainland China (Lau, Kim, & Tsui, 2003).

In another recent study conducted for those unemployed and out of school young people (18-24 of age) in Hong Kong, it was found that about 12-14% of them had been using some psychoactive substances in the last 6 months. For those who were employed and who were of the same age range, the figure was 6.5% (Lau, 2003). It is expected that a noticeable proportion of these drug users may also have been using drugs in China.

Therefore, except for the above-mentioned studies that give us an idea that cross-boundary drug use activities are more or less common, there are no systematic studies on understanding the characteristics of cross-boundary drug users, the reasons behind such

behaviors, the venue that drug use took place and the other patterns of drug use etc.. The study therefore fills an important knowledge gap. According to our literature, very few, if any, study on cross-boundary use of substances has been reported.

## II. OBJECTIVES

The main objectives of the study are:

1). to obtain the profiles of cross-boundary substance abusers regarding their background characteristics;

2). to provide a better portrait on the reasons of substance abuse across the boundary, drug use pattern, knowledge and attitude towards substance abuse, etc. among cross-boundary substance abusers; and

3). to recommend appropriate strategies and relevant preventive education and publicity measures to tackle the problem.

## III. METHODS

Respondents

The study population included all Hong Kong Chinese young adults between 18 to 30 of age, who used psychoactive substances and/or heroin in mainland China (for simplicity, psychoactive substances and heroin are referred to as “drugs” in this report). Respondents

were invited to participate in the study when they returned to Hong Kong from mainland China via the Lo Wu checkpoint during the data collection period. The survey was conducted from 18 November to 17 December 2002. A total of 6,627 respondents (5,309 males and 1,318 females) joined the study. Among all participants of the study, around 1.5% refused to enter the part II and among those who entered part II of the study, about 1.7% did not complete the entire questionnaire. Among all eligible individuals contacted (n=11,497), 6,420 completed the entire study, 5,077 either refused (n=4,870) or did not complete the study (n=207). The response rate, defined as the number of respondents who completed the survey divided by the total number of eligible individuals contacted, was hence approximately 56%.

Measurements

A structured questionnaire, containing two parts, was used for data collection. Part I of the questionnaire asked about background information of the respondent and their opinions about drug use. Part II of the questionnaire asked some personal and sensitive questions such as drug use behaviors and was administered by a specially designed computerized data collection method (explained below) (see Appendix for the questionnaire).

*Socio-demographic background information (Part I)*

Information on gender, age, education level, employment status, and monthly income was collected. Respondents were also asked about their number of days staying over in mainland China in the last month.

*Perceived addictiveness and perceived harmfulness of using drugs (Part I)*

Respondents were asked about their perceived addictiveness and perceived harmfulness of using drugs.

*Drug use in the last year (Part II)*

Respondents were firstly asked whether they had used some drugs such as ecstasy, ketamine, cannabis, methylamphetamine, or heroin, etc. (in any place) in the last year. Only those who reported having used some drugs in the last year went on to answer the following questions.

*Frequency of drug use in the last 30 days (Part II)*

Respondents were asked about their frequency of drug use in the last 30 days (none, 1-2 times, 3-10 times, or more than 10 times).

*Location of drug use in the last year (Part II)*

Respondents were enquired about the location of drug use in the last year (both in Hong Kong and in mainland China, in mainland China only, in Hong Kong only, or other places).

*Other risk behaviors and related attitudes/behaviors (Part II)*

With reference to the last episode of drug use, respondents were asked whether they had consumed alcohol before using drugs and whether they had had sexual intercourse after using drugs. They were also asked about their perceived impact of drug use on sexual performance. Further, respondents were also asked whether they had friends who always used drugs in mainland China. Respondents were also asked about whether they believed that they could quit using drugs at any time and their perceived impact of drug use onto their physical health.

*Patterns of drug use in mainland China in the last year (Part II)*

For those who reported having used drugs in mainland China in the last year, they were further asked about a number of questions specifically related to their drug use behaviors

in mainland China. In particular, they were asked about the types of drug used in mainland China (whether they had used ecstasy, ketamine, cannabis, methylamphetamine, or heroin respectively in the last year in mainland China). Further, with reference to their last episode of drug use in mainland China, they were asked about a). the venue of drug use, b). how the drug was obtained, c). with whom the drug was used. In addition, they were also asked about their time first used drugs in mainland China, their major reason for choosing to use drugs in mainland China, their perceived easiness to obtain drugs in mainland China and in Hong Kong, and their perceived chance of being arrested for using drugs in mainland China.

Data collection procedure

Interviews were conducted inside the Lo Wu KCR station at the exit of the custom during the data collection period from 10am to 7pm. Interviewers first briefed the prospective respondents about the purpose of the study ("We are interviewers from the Chinese University of Hong Kong and are conducting a research project, commissioned by the Action Committee Against Narcotics, in order to understand the drug use behaviors and related knowledge/opinions among Hong Kong residents") and invited them to participate in the study. Prospective respondents were confirmed that they had not participated in the study before (as the same traveler might have been selected more than once in our sampling procedure). Verbal consent was also obtained from the respondents before conducting the interview.

Interviews were conducted in everyday during the data collection period (18 November to 17 December 2002) and continuously from 10am to 7pm. The fieldwork team had a total of 10 interviewers (6 were females and 4 were males). There were at least 5 to 6 interviewers in each day of data collection.

Part I of the questionnaire was administered to the respondents by interviewers in a face-to-face manner. This was to establish some rapport with the respondents in order to facilitate the subsequent asking of more sensitive questions. After completing Part I, respondents were briefed that Part II of the questionnaire would cover some sensitive questions and would be administered by using a specially designed computerized data collection method. Respondents were provided with a mobile telephone, and were told that the questions were pre-recorded in a computerized phone system, and that they only needed to key in their responses after listening to the questions. Upon completion, respondents returned the mobile phone and moved on without leaving any trace of their identity. They were assured of absolute confidentiality and anonymity. This specially designed computerized data collection method was demonstrated to be able to maximize anonymity and response rate, and to minimize reporting bias such as social desirability (Lau, Thomas, & Liu, 2000; Lau, Tsui, & Wang, 2003). It has also been applied in other local studies (e.g., Lau & Thomas, 2001; Lau, Thomas, & Lin, 2002; Lau & Tsui, 2003).

Statistical analyses

The distributions of the studied variables were tabulated. Chi-square test and logistic regression analysis were performed to examine the associations among socio-demographic background characteristics, drug use behaviors/patterns, perceptions related to drug use, and some risk behaviors such as having sexual intercourse after drug use, etc.. A p-value $<0.05$ was considered statistically significant. All statistical analyses were conducted with SPSS for Windows (version 11.0).

Caution for interpretation of findings

The present study employed the "convenience quota sampling method" to collect data. The study was thus descriptive in nature and did not aim to estimate the prevalence of cross-boundary drug abusers. Since the sample of the survey was not a strictly random

sample, results of the survey may not be generalizable to the entire cross-boundary travelers of the same age group. It however, brings new insights to the relevant problem and is one of the few studies of the kind.

## IV. RESULTS

### 1. Socio-demographic characteristics of different types of respondents

All respondents

The socio-demographic characteristics of all respondents (including drug-users and non-users) are tabulated in Table 1. In general, female respondents tended to be younger, better educated, and spent fewer days staying over in mainland China in the last month, as compared to male respondents; they were also more likely to be students and were having no income.

Drug-users versus non-users

Of all respondents, 1,405 males and 170 females admitted that they had used drugs in the last 12 months. The socio-demographic profiles of the male and female respondents who reported having used drugs (including ecstasy, ketamine, cannabis, methylamphetamine, or heroin) in any places (i.e. no matter inside or outside mainland China) in the last 12 months and those who did not use drugs in the last 12 months ("drug-users" and "non-users" respectively) are summarized in Table 2 and Table 3 respectively. In general, it is seen that drug-users were more likely to be younger, less educated, being

unemployed, having lower income, and have spent more days staying over in mainland China in the last month, as compared to the non-users. Such were true for both male and female respondents.

Persons who had used drugs in mainland China in the last 12 months (PDC)

The socio-demographic profiles of the respondents who reported having used drugs in mainland China in the last 12 months ("PDC", people who had used drugs in mainland China in the last 12 months) are summarized in Table 4. There were 1,167 male and 122 female PDC in the sample. About 36% of the male PDC were of age 18-20, about 42% were of age 21-25, and only 21.9% were of age 26-30; the figures were 60.7%, 33.6% and 5.7% respectively for female PDC. Female PDC were therefore younger than male PDC. Most of the PDC had attained Form 1 to Form 5 level of education (about 85% for both male and female PDC, $p>0.05$). About 72% of the male PDC and 54% of the female PDC were employed full-time, whereas 17.1% versus 24% of the male and female PDC respectively were unemployed, and 3.9% of males versus 10.7% of females were students. In other words, female PDC were more likely than male PDC to be students or being unemployed (21% versus 34.7%, $p<0.001$).

Relatedly, about 20% and 36% respectively of the male and female PDC were not earning any income ($p<0.001$; Table 4). Very few (<5%) of the PDC were earning over HK$20,000 per month. About 90% and 77% of the PDC of the two genders (male and female respectively) had spent at least one day staying over in mainland China in the last month. In fact, about 45% and 30% respectively of the two gender groups had spent 4 or more days staying over in mainland China in the last month. Male PDC spent more days staying over in mainland China as compared to female PDC ($p<0.001$).

Comparing PDC and those using drugs outside mainland China (DOC)

Table 5 compares the socio-demographic characteristics of the PDC and those who reported only using drugs outside mainland China in the last 12 months ("DOC", people who had only used drugs outside mainland China in the last 12 months). It is seen that the two groups differed in their education level (PDC tended to have a lower education level), number of days staying over in mainland China in the last month (PDC spent more days staying over in mainland China), and employment status (PDC were less likely to be students than DOC). Such were true for both male and female respondents who had used drugs in the last 12 months except that the employment status did not differ between female PDC and female DOC (Table 5).

Further, to determine characteristics distinguishing between PDC and DOC, a stepwise multivariate regression analysis was performed (using the six socio-demographic characteristics listed in Table 1, the two perception items about perceived addictiveness and perceived harmfulness of drug use, frequency of drug use in the last month, perceived ability to quit using drugs, whether having friends who always used drugs in mainland China, and perceived impact of drug use on one's health as candidate independent variables). Results showed that males (OR=2.0, $p<0.01$), those with F.5 or below level of education (OR=2.34, $p<0.001$), those who spent more than 10 days staying over in mainland China in the last month (OR=2.14, $p<0.001$), those who had used drugs for at least one time in the last month (OR=2.01, $p<0.001$), those who perceived themselves to be unable to/did not know if they could quit using drugs (OR=1.85, $p<0.05$), those having friends who always used drugs in mainland China (OR=1.44, $p<0.05$), and those who did not think/did not know if intake of drugs had severe negative impact on health (OR=1.38, $p<0.05$) were more likely than females, those with above F.5 level of education, those who spent 10 days or less staying over in mainland China in the last month, those who did not use drugs in the last month, those

who perceived that they were able to quit using drugs, those who did not have friends who always used drugs in mainland China, and those who thought that drug use had severe negative impact on health to be PDC.

**2. Proportions of travelers that belonged to different types of drug users**

Drug use in any place

The proportions of travelers among all respondents that had used drugs in the last 12 months and in the last month are summarized in Table 6 and Table 7 respectively. About 27% of the male travelers and about 13% of the female travelers had been using drugs in the last 12 months (Table 6); the corresponding figures for drug use in the last month were 16.7% and 7.6% respectively (Table 7). Age, education level, employment status, income level, and number of days staying over in mainland China in the last month were all significantly associated with whether a traveler used drug or not. In general, such was true for both the "1-month proportions" and the "12-month proportions", as well as true for both genders (Table 6 and Table 7).

Drug use in mainland China

The proportions of travelers (among all respondents) that had used drugs in mainland China in the last 12 months in subgroups of different background characteristics are summarized in Table 8. There were 22.4% and 9.4% respectively of all the male and female respondents that admitted having practiced such a behavior in the last 12 months. Male travelers who were younger, less educated, being unemployed, having relatively lower income, and having spent more days staying over in mainland China in the last month were more likely than other travelers to have used drugs in mainland China in the

last 12 months. In general, similar characteristics were found for female travelers, except that education was not statistically significant (Table 8).

Drug use in mainland China only or both in Hong Kong and in mainland China

Among all 1,167 male PDC and 122 female PDC, 70.4% and 78.7% of them respectively were using drugs both in Hong Kong and in mainland China, whereas 29.6% and 21.3% respectively were using drugs only in mainland China (Table 9 and Table 10 respectively). Among male and female PDC, those who spent more days staying over in mainland China were more likely to be using drugs only in mainland China, rather than using drugs both in Hong Kong and in mainland China.

**3. Frequency of drug use for PDC and comparison with DOC**

The frequency of drug use in the last month among PDC and DOC is summarized in Table 11. It can be seen that 28.1% of the male PDC and 27% of the female PDC respectively had used drugs for at least 3 times in the last month. Univariately, male PDC tended to use drugs more frequently (in any place) in the last month as compared to DOC (Table 11). The association remained statistically significant after adjusting for socio-demographic background characteristics ($p<0.05$).

**4. General perceptions related to drug use among PDC**

Perceptions on drug use

Among the PDC, about 87% of them (87.1% for males and 87.4% for females) thought

that they were able to quit using drugs (no significant gender difference, $p>0.05$; Table 12). About 64.3% of the male PDC and 51.8% of the female PDC believed that drug use would have severe negative impacts on their health ($p<0.05$). Around 58% and 50% of the male and female PDC respectively perceived drug use to be quite or very harmful (no significant gender difference, $p>0.05$). Slightly over 30% of the two gender groups (30% for males and 33% for females) believed that drug use is easily or very easily addictive (no significant gender difference, $p>0.05$). While about 41% of the males and 58% of the females believed that drug use had no effect on sexual performance, about 24% and 17% respectively of males and females believed that it has a positive bearing and about 35% and 25% respectively believed that it has a negative bearing on sexual performance ($p<0.01$; Table 12).

Associations between perceptions and background characteristics

Table 13 and 14 summarize the associations between some perceptions about drug use and background characteristics among male and female PDC respectively. It can be seen that those who were younger than others tended to believe that drug use is not harmful or addictive. Such was true for both male and female PDC. Younger male PDC also tended to think that drug use had no effect on sexual performance. In addition, male PDC with lower level of education tended to believe that they could quit using drugs, that drug use is not very harmful, and that it has a negative effect on sexual performance (Table 13).

Using the six socio-demographic background characteristics listed in Table 1 as inputs to a stepwise regression model, only age was statistically significantly associated with perceived addictiveness of drug use. Those who aged 18-20 (OR=0.66, $p<0.01$) were less likely than those aged 21 or above to believe that drug use is easily or very easily addictive.

Using the six socio-demographic background characteristics listed in Table 1 as inputs to a stepwise regression model, it was found that those aged 18-20 (OR=0.63, $p<0.001$), and those who worked full-time (OR=0.78, $p=0.05$) were less likely than those aged 21 or above and those who were not employed full-time to perceive that drug use is harmful or very harmful.

Comparing perceptions between PDC and DOC

The above-mentioned perceptions between the PDC group and the DOC group (those who had only used drugs outside mainland China in the last 12 months) are compared in Table 15. Univariately, male PDC were more likely than DOC to perceive that drug use is not addictive, not harmful, and related to better sexual performance, etc.. Adjusting for those background characteristics that are listed in Table 1, male PDC were more likely to perceive that the intake of drugs have no negative impact on one's health ($p<0.01$), and were less likely to perceive drug use to be quite harmful or very harmful ($p<0.05$) and to be easily or very easily addictive ($p<0.05$), as compared to male DOC. The differences in perceptions between female PDC and female DOC were not statistically significant.

## 5. Other perceptions related to drug use in mainland China among PDC

Two other questions were asked only to the PDC: 1). whether it is easier to obtain drugs in mainland China or in Hong Kong; and 2). perceived chances of being arrested for using drugs in mainland China. Around 60% of the male PDC and 40% of the female PDC believed that it is easier to obtain drugs in mainland China than in Hong Kong, and 15.2% and 22.5% of the males and females held the opposite belief, while 24.3% and 37.8% respectively of the two gender groups thought that there was no difference in the

perceived easiness to obtain drugs in mainland China and in Hong Kong (Table 16).

Using the six socio-demographic background characteristics listed in Table 1 as inputs to a stepwise regression model, it was found that males (OR=2.42, $p<0.001$) and those aged 18-20 (OR=1.47, $p<0.01$) were more likely than females and those aged 21 or above to perceive that it is easier to obtain drugs in mainland China than in Hong Kong.

About one-fourth (29% of male PDC and 25% of female PDC) and 55% (both genders) respectively believed that there was no chance at all or little chance for them to be arrested in mainland China due to drug use; only 16.4% and 20% of the male and female PDC respectively believed that they had a large chance to be arrested in mainland China due to drug use. The gender difference was not of statistical significance (Table 16).

Using the six socio-demographic background characteristics listed in Table 1 as inputs to a stepwise regression model, only the age variable was found statistically significant. Those aged 18-20 (OR=1.98, $p<0.001$) were more likely than those aged above 20 to perceive that there was no/little chance for them to be arrested due to drug use in mainland China.

**6. Patterns of drug use in mainland China**

The results are summarised in Table 17. Among male and female PDC, about 33% had used drugs in mainland China for at least 1 year. Male PDC were more likely to have used drugs in mainland China for less than 6 months than female PDC (48% vs. 36%, $p<0.05$).

Drugs were used in discos or rave parties by over 80% (about 88% for males and 84% for females) of the PDC in the last episode of drug use (Table 17). About 6% and 9% of the male and female PDC used drugs in bars in mainland China but very few used drugs in hotels (<1%) or in home or friends' home (≤3%).

Over 50% of the PDC were obtaining the drugs free from their friends in the last episode of drug use (55% for males and 62% for females, $p>0.05$; Table 17). About 9% and 16% of male and female PDC respectively obtained it for free from strangers ($p<0.01$), and only about 32% and 14% of male and female PDC respectively bought it in mainland China ($p<0.001$). Females PDC were more likely than male PDC to obtain the drug free of charge from someone (friends or strangers) (78% versus 63.2%, $p<0.01$). Very few of them (<2%) brought the drug from Hong Kong.

Close to 80% (77% and 81% for males and females respectively) of the PDC used drugs in mainland China with their friends in the last episode of drug use. More males than females (17.4% vs. 11.2%) used drug alone. About 6% of the males and 8% of the females used drugs together with some strangers (Table 17). The breakdowns by background characteristics are tabulated in Table 18.

**7. Other drug-related behaviors among PDC**

It is seen that among the male and female PDC, about 63% and 68% respectively had had at least one friend that frequently used drugs in mainland China (Table 19), which were higher than the figures of the DOC (about 52% for males and 40% for females; Table 20). The differences between PDC and DOC in the two gender groups were both of statistical significance ($p<0.01$; Table 20).

About 73% of the male PDC and 61% of the female PDC consumed alcohol before taking drugs in the last episode of drug use (p=0.009; Table 19). The practice was significantly more common among PDC, as compared to DOC for males (64%, p=0.01), but such was not true for females (70%, p=0.29; Table 20).

Using the six socio-demographic background characteristics listed in Table 1, frequency of drug use in the last month, perceived ability to quit using drugs, whether having friends who always used drugs in mainland China, time first used drugs in mainland China, venue of drug use in the last episode of drug use, source of drugs used in the last episode of drug use, and with whom the drug was used in the last episode of drug use as inputs into a stepwise regression model, it was found that males (OR=1.99, p<0.01), those having friends who always used drugs in mainland China (OR=3.47, p<0.001), those who used drugs together with someone in the last episode of drug use (OR=2.91, p<0.001), and those whose drugs used in the last episode were bought by themselves in mainland China (OR=1.66, p<0.01) were more likely than others to have consumed alcohol before using drugs in the last episode of drug use.

Around 43% of the male and 29% of the female PDC had had sexual intercourse with someone after taking drugs in the last episode of drug use (p=0.007; Table 19). Comparing with DOC, male PDC were more likely to have engaged in sexual intercourse after taking drugs (p<0.001), whereas the difference between female PDC and female DOC was not of statistical significance (p=0.23; Table 20). Table 21 summarizes the associations between having sexual intercourse after using drugs in the last episode of drug use and other variables related to drug use in mainland China.

Using the six socio-demographic background characteristics listed in Table 1, frequency of using drugs in the last month, perceived impact of drug use on sexual performance,

whether having consumed alcohol before drug use in the last episode of drug use, perceived ability to quit using drugs, whether having friends who always used drugs in mainland China, the time first use drugs in mainland China, venue of drug use in the last episode of drug use, source of drugs used in the last episode of drug use, and with whom the drug was used in the last episode of drug use as inputs into a stepwise regression model, it was found that those who worked full-time (OR=1.36, $p<0.05$), those who had used drugs for at least one time in the last month (OR=1.67, $p<0.001$), those who believed that drug use has a positive bearing on sexual performance (OR=3.0, $p<0.001$), and those who had consumed alcohol in the last episode of drug use (OR=2.09, $p<0.001$) were more likely than others to have engaged in sexual intercourse after using drugs in the last episode of drug use.

**8. Reasons for using drugs in mainland China**

The results in Table 22 show that among the male and female PDC, about 30% and 24% respectively chose a lower price, about 26% and 33% respectively chose peer influence, and about 18% and 22% respectively chose better availability as the prior reason for using drugs in mainland China. These 3 reasons therefore accounted for 74% and 79% of the choices of the male and female PDC respectively. The gender differences were not statistically significant.

It seems that those male PDC who were younger, those who were students or were unemployed, and those without income were more attracted by a lower price; while those who were of age 26-30, who were having part-time jobs were more likely to be influenced by peers; those female PDC who had not spent any day staying over in mainland China in the last month was more likely to use drugs in mainland China due to

a lower price but those who spent more than 10 days staying over in mainland China in the last month was much more likely to use drugs in mainland China due to peer influence (Table 22).

**9. Types of drug used in mainland China by the PDC**

The results are summarised in Table 23-24. Among the male and female PDC respectively, around 87% and 81% had used ecstasy in mainland China in the last 12 months ($p>0.05$); about 80% and 70% respectively had used ketamine ($p<0.05$); about 66% and 47% respectively had used cannabis ($p<0.001$); about 19% and 22% had used methylamphetamine, and about 11% and 8% respectively had used heroin ($p>0.05$). Among male PDC, it seems that those who were of age 26-30 were less likely to use ecstasy and methylamphetamine (Table 24). (It should be noted that the type of drugs used by the participants were based on their own understanding and it is possible that the drugs used were adulterated with other substances).

Five stepwise multivariate regression analyses (using the six socio-demographic characteristics listed in Table 1 as inputs) were performed to predict the use of the 5 types of drugs examined in this study respectively. It was found that males (OR=1.68, $p<0.05$) and those aged 18-20 (OR=1.51, $p<0.05$) were more likely than others to have used ecstasy in mainland China in the last year. Males (OR=1.56, $p<0.05$) and those with F.5 or lower level of education (OR=1.75, $p<0.01$) were more likely than others to have used ketamine in mainland China in the last year. With regard to the use of cannabis in mainland China in the last year, it was found that males (OR=2.13, $p<0.001$) and those who spent more than 10 days staying over in mainland China (OR=1.91, $p<0.001$) were more likely than others to have used cannabis. All the six socio-demographic

characteristics studied were not associated with the use of methylamphetamine in mainland China in the last year. Regarding the use of heroin, those who had attained above F.5 level of education (OR=1.82, $p<0.05$) were found to be more likely to have used heroin in mainland China in the last year.

Table 25 and 26 respectively summarize some characteristics of those male PDC and female PDC who had or had not used heroin in mainland China in the last 12 months ("heroin-users" and "non-heroin-users"). It can be seen that a lower price was chosen by over half of the heroin-users (55% of males and 62.5% of females) as the main reason for using drugs in mainland China (versus 26.8% of male non-heroin-users, $p<0.001$ and 21% of female non-heroin-users, $p<0.05$). Similarly, heroin-users were more likely to perceive that it is easier to obtain drugs in mainland China than in Hong Kong (70.2% of males and 62.5% of females). About 59% of the male heroin-users and 50% of the female heroin-users perceived that there was no chance for them to be arrested in mainland China for drug use. Nearly half (48.4%) of the male heroin-users were using drugs alone in mainland China in the last episode of drug use (versus 13.6% of the male non-heroin-users, $p<0.001$; Table 25), whereas about one third of the female heroin-users were using drugs alone in the last episode of drug use (Table 26).

Among male and female PDC, about 81% and 69% respectively had used more than one types of drug in mainland China in the last 12 months (Table 27). Using the six socio-demographic characteristics listed in Table 1, perceived addictiveness and perceived harmfulness of drug use, frequency of drug use in the last month, perceived ability to quit using drug, perceived impact of drug use on one's physical health, whether having friends who always used drugs in mainland China, and time first used drugs in mainland China as inputs into a stepwise regression model, it was found that males (OR=1.80, $p<0.05$), those who did not perceive drug use as harmful or very harmful

(OR=1.77, p<0.01), those who had used drugs for at least one time in the last month (OR=2.29, p<0.001), and those who had used drugs in mainland China for more than 1 year (OR=1.59, p<0.05) were more likely than others to have used multiple types of drugs in mainland China in the last year.

## V. SUMMARIES AND DISCUSSION

The study was descriptive in nature. Some statistical comparisons had been made however, attempting to make better use of the results. The study has several limitations, one of which being that there was no community-based control group in the study (community members who used drugs but not in mainland China). In the analysis, respondents who were DOC (those drug users who had only used drugs outside mainland China in the last 12 months) were used as the control group. However, it could not be ascertained whether members of this traveler group are similar in behaviors to those drug users who seldom traveled to mainland China. Interpretation should therefore be made cautiously. The sampling design also does not allow for estimation of the size of the problem, as the sampling process was not strictly random and the differences between the traveler population and the general population are not known.

As discussed, the study was not aiming at estimating prevalence. However, a fairly high proportion of the travelers being interviewed were PDC (i.e. people who had used drugs in mainland China in the last 12 months; about 22% for males and 9% for females). Therefore, it is speculated that the prevalence of drug use might be fairly high among cross-boundary travelers. Though the proportion was higher for male travelers than for female travelers, the proportion for female travelers was still noticeable. From

another independent study, it was estimated that roughly 26% and 78.6% of the males respondents of age 18-25 and 26-35 respectively who had used drugs in the last 6 months had done so in mainland China (Lau, Kim, & Tsui, 2003). Therefore, the problem of cross-boundary substance use could not be dismissed. Education materials displayed at the checkpoints and programmes targeting young Hong Kong-mainland China travelers are still warranted. Population-based studies, specifically set up for surveillance purpose, are also mandated to estimate the size of the problem and to document relevant trends.

Ecstasy was the drug that had been most commonly used by PDC (87% for males and 81% for females), followed by ketamine (about 79% for males and 70% for females). Cannabis was used by 66% and 47% of the male and female PDC respectively. Methylamphetamine was used by about 20% of all PDC (18.7% for males and 21.8% for females). It is also noted that a fairly high percentage (10.9% for males and 7.6% for females) were using heroin in mainland China. It is important to monitor whether this represents a rising trend. It is seen that users of heroin were much more likely to mention a cheaper price as the key reason for using drugs in mainland China, more likely to believe that it is easier to obtain drugs in mainland China, more likely to believe that they were unlikely to be arrested in mainland China due to drug use, and were less likely to be accompanied when using drugs in mainland China. Cross-boundary drug users who intake heroin may therefore be different from the other types of drug users. It seems that cross-boundary heroin-users are very much driven by price, availability, and police actions. It is speculated that they specifically go for heroin use, rather than for other social purposes, as many of them went to mainland China to use drugs unaccompanied. More detailed studies are required in the future to understand the availability of heroin in mainland China.

It is common for PDC to have used more than one types of drug in mainland China in the

last 12 months. This was especially true for those who did not see drug use to be harmful and those who had used drugs in mainland China for more than 1 year. Further investigation should be made on whether they are mixing drugs for consumption simultaneously. It is also important to monitor whether there are changing patterns in the types of drug used.

Looking at the socio-demographic characteristics of the respondents, female PDC tended to be younger than male PDC and 60% or so of the respondents in the former group were of age 20 or below. Relatedly, only about half of the female PDC were employed full-time (11% were students and 24% were unemployed; 36% without income). PDC usually have a monthly income of HK$20,000 or less. When compared to other travelers, PDC tended to have a relatively lower level of education as well and tended to be younger and being unemployed. When compared to DOC, PDC also tended to be more likely to have F.5 or lower level of education and tended to be male. Therefore, PDC were less likely to come from the group with university education or high income. Many of them were lower than 26 years of age and they were also more likely to be male. With regard to the high proportions of unemployed youths using drugs in mainland China, some efforts for drug prevention should be focused on this group. Future in-depth studies may also be conducted to understand the situations of drug use, including cross-boundary drug use behaviors among unemployed youths. The drug prevention programs should therefore have more interaction with other social programs, such as the ones serving unemployed youths.

About 28% of PDC (both males and females) had used drugs for at least 3 times in the last month and the frequency was much higher than that of the DOC (12.9% for males and 20.9% for females). A high percentage of the PDC had stayed over for 4 or more days in mainland China in the last month (45% for males and 30% for females). It is possible

that these cross-boundary drug use habits were practiced on a regular basis. It should however, be noticed that about 48% and 36% of the male and female PDC had been using drugs in mainland China only for 6 months or less.

Over 60% of the PDC (63% for males and 68% for females) had some friends who were frequently using drugs in mainland China (as compared to about 52% among male DOC and 40% among female DOC). Around 80% of the PDC were using drugs with some friends in their last episode of drug use in mainland China; relatively few (17.4% for males and 11.2% for females) were using drug by themselves. Many (50% or so) of the users were provided with the drug by their friends for free (54.7% for males and 61.9% for females). In fact, only 14% of the female PDC were purchasing the drugs in mainland China (32% for male PDC). It is very likely that peer influence plays an important role in cross-boundary drug use behaviors. The conformity effects should be studied in more depth. Peer education may be one of the possible effective prevention strategies. Skills to refuse improper request made by peers should also be considered as part of the programs.

Male PDC were more likely than DOC to believe that drug use has no severe negative impacts on health, that drug use is not harmful to health, and that drug use is not addictive. Among PDC, those who were younger were more likely to believe that drug use is not going to be additive or harmful. It is possible that male PDC were having lower awareness or more misconceptions about the harmful effects of drug use, as compared to male DOC. Cross-boundary prevention programs are therefore facing additional difficulties and should emphasize on changing the relevant health beliefs.

Most of the PDC (about 87% for both genders) believed that they could quit the drug use habit, which was lower than that of the DOC group (over 90% of both genders). Considering the fact that about one-third of the respondents (about one-third of both male

and female PDC, and slightly over one-third of both male and female DOC) perceived that drug use is easily/very easily addictive, it is possible that these respondents tended to believe that they were much able to control themselves and to quit drug use anytime they want.

It is also important to find out that around 60% of the male PDC and 40% of the female PDC believed that it is easier to obtain drugs in mainland China than in Hong Kong; only 15% and 22% of the two gender groups believed in the opposite. Lower price, peer influence, and better availability were mentioned as the key reasons for using drugs in mainland China by over 70% of the PDC. Those who were younger and had no income were more likely to use drugs in mainland China due to its lower price; those who were of age 26-30 were more likely to use drugs in mainland China due to peer influence. On the other hand, about 80% or so of the PDC, both males and females, believed that the chance of being arrested for drug use in mainland China was low or very low. Liaison with the law enforcement departments in Shenzhen and other cities may be required to reverse the perception that it is unlikely to be caught when using drugs in mainland China. The majority of the PDC obtained their drugs in mainland China.

Besides that many attributed a lower price as the key reason for using drugs in mainland China, many were in fact obtaining the drugs free. About 63% of the male PDC and about 78% of the female PDC were obtaining drugs for free (about 16% of the female PDC were getting the drugs free from strangers, about 7% of the female PDC used drugs with some strangers). Hence, drugs were not only cheaper in mainland China, it is often free! Female PDC were more likely than the male PDC to receive free drugs from friends or strangers (78% versus 63.2%). That would hence be very appealing to the unemployed young adults or those without income, who seemed to make up a substantial proportion of the PDC. It seems that drugs are quite available in mainland China. To reduce the supply

may be effective to decrease the attractiveness of using drugs in mainland China. Supply also has an implication on price. It seems that the reduction of supply in mainland China is essential to prevent cross-boundary use of drugs.

The findings confirmed our impression that most of the drug use activities in mainland China were carried out in discos or rave parties. Prevention programs may be launched in these establishments, with the assistance of the public security system in mainland China. Since drugs are often distributed free in these venues, stronger law enforcement in these places would remove these “meeting grounds” for drug dissemination and drug use. It is believed that such would have a strong bearing on the prevalence of cross-boundary drug use. Such would also change the impression that there is a low chance of being arrested in mainland China for drug use.

Further, it is expected that in discos and rave parties, drug use was often accompanied with alcohol consumption (73% for male PDC versus 64% for male DOC; 61% and 70% respectively for the two corresponding groups of female respondents). The use of alcohol many undermine the ability to remit using drugs. Education should emphasize on the dissociation in order to prevent youngsters from starting drug use under alcohol influence. Alcohol may have been under-emphasized in drug use prevention campaigns.

Sex is another potential at-risk behaviors that are often associated with drug use. In the last episode of drug use in mainland China among the PDC, 43% and 29% of the male and female PDC respectively, had had sexual intercourse after taking drugs. The higher figure for males can be explained by the higher likelihood of using commercial sex in mainland China, when compared with females. The figures could be much higher if a time frame (say in the last 3 months instead of just the last episode of drug use) is being considered. Interestingly, alcohol use and the belief that drugs could improve sexual

functioning were associated with sexual experience after drug use. Such misconception needs to be rectified. Cross-boundary risk behaviors are therefore inter-related, drug prevention program should therefore incorporate sex education in its content and vice versa. Joint forces of drug prevention programs, HIV prevention programs, and sex education programs among different organizations would therefore be useful and necessary.

Besides those limitations mentioned earlier, there are a few other limitations. The overall response rate of the study (approximately 56%) was not too high, but it was comparable to studies of other topics conducted at the Lo Wu checkpoint (e.g., HIV risk behaviors study) (e.g., Lau & Thomas, 2001; Lau & Tsui, 2003) and many other telephone surveys of various topics conducted in Hong Kong (e.g., Brieger, Yip, Hin, & Chung, 1996; Chou, Mak, Chung, & Ho, 1996; Lau & Siah, 2001; Tang, 1998; Wong & So, 2003). Response bias due to social desirability may exist. However, this type of bias is somehow less relevant as the purpose of the study was not prevalence finding, and those admitting drug use should be less influenced in describing their patterns of drug use in mainland China, in a biased way due to social desirability. The special data collection method has also been shown to be able to reduce possible response biases. Moreover, the length of the questionnaire also limits the number of questions and hence the depth of the data collected. The study was hence supplemented by a qualitative study (see separate report). Further synthesis of the quantitative and qualitative studies and recommendations for actions are given in a third report (Part III Report).

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Table 1 Socio-demographic characteristics of all respondents

| | Male Col % (N=5309) | Female Col % (N=1318) | $\chi^2$ p-value |
|---|---|---|---|
| Age | | | <0.001 |
| 18-20 | 26.4 | 33.6 | |
| 21-25 | 40.9 | 39.1 | |
| 26-30 | 32.6 | 27.3 | |
| Education level | | | <0.001 |
| None | 0.6 | 0.7 | |
| Primary | 1.7 | 0.3 | |
| F.1-4 | 26.6 | 13.7 | |
| F.5 | 41.1 | 41.2 | |
| F.6-7 | 8.5 | 12.5 | |
| University | 17.3 | 26.9 | |
| Post-graduate | 4.1 | 4.6 | |
| Employment status | | | <0.001 |
| Unemployed | 10.4 | 10.0 | |
| Part-time job | 4.8 | 4.9 | |
| Full-time job | 75.4 | 64.7 | |
| Student | 7.9 | 18.0 | |
| Others | 1.5 | 2.4 | |
| Income level | | | <0.001 |
| None | 17.0 | 27.8 | |
| $5000 or below | 3.6 | 6.3 | |
| $5001-$10000 | 36.2 | 33.2 | |
| $10001-$20000 | 35.1 | 26.5 | |
| Above $20000 | 8.1 | 6.1 | |
| No. of days stay-over in mainland China last month | | | <0.001 |
| None | 24.7 | 43.7 | |
| 1-3 days | 39.4 | 32.4 | |
| 4-10 days | 16.4 | 10.2 | |
| Above 10 days | 19.5 | 13.7 | |

Table 2 Socio-demographic characteristics of male drug-users (drug use in any place in the last 12 months) versus male non-users

| | Male | | |
|---|---|---|---|
| | Drug-users (in any place) Col % (N=1405) | Non-users Col % (N=3822) | $\chi^2$ p-value |
| Age | | | <0.001 |
| 18-20 | 35.6 | 22.9 | |
| 21-25 | 41.9 | 40.8 | |
| 26-30 | 22.6 | 36.3 | |
| Education level | | | <0.001 |
| Primary or below | 3.7 | 1.8 | |
| F.1-5 | 83.7 | 61.9 | |
| F.6-7 | 5.4 | 9.7 | |
| University or above | 7.2 | 26.6 | |
| Employment status | | | <0.001 |
| Unemployed | 16.4 | 8.1 | |
| Part-time job | 5.8 | 4.5 | |
| Full-time job | 71.4 | 77.0 | |
| Student | 4.4 | 9.1 | |
| Others | 2.0 | 1.4 | |
| Income level | | | <0.001 |
| None | 19.6 | 16.0 | |
| $5000 or below | 2.9 | 3.8 | |
| $5001-$10000 | 40.3 | 34.7 | |
| $10001-$20000 | 32.9 | 36.0 | |
| Above $20000 | 4.3 | 9.5 | |
| No. of days stay-over in mainland China last month | | | <0.001 |
| None | 13.2 | 29.0 | |
| 1-3 days | 43.8 | 37.7 | |
| 4-10 days | 21.4 | 14.6 | |
| Above 10 days | 21.6 | 18.7 | |

Note: There were 5227 male respondents provided information on whether they had used drugs in the past 12 months. However, some of them had not completed all questions of the survey. Therefore the total number of respondents in this table may not tally with that in other tables.

Table 3 Socio-demographic characteristics of female drug-users (drug use in any place in the last 12 months) versus female non-users

| | Female | | |
|---|---|---|---|
| | Drug-users (in any place) Col % (N=170) | Non-users Col % (N=1131) | $\chi^2$ p-value |
| Age | | | <0.001 |
| 18-20 | 55.9 | 30.3 | |
| 21-25 | 35.9 | 39.5 | |
| 26-30 | 8.2 | 30.3 | |
| Education level | | | <0.001 |
| Primary or below | 0.6 | 1.1 | |
| F.1-5 | 79.8 | 51.4 | |
| F.6-7 | 7.7 | 13.1 | |
| University or above | 11.9 | 34.5 | |
| Employment status | | | <0.001 |
| Unemployed | 20.2 | 8.5 | |
| Part-time job | 6.0 | 4.8 | |
| Full-time job | 56.5 | 65.7 | |
| Student | 12.5 | 19.0 | |
| Others | 4.8 | 2.0 | |
| Income level | | | 0.05 |
| None | 32.3 | 27.4 | |
| $5000 or below | 8.4 | 6.1 | |
| $5001-$10000 | 37.1 | 32.6 | |
| $10001-$20000 | 17.4 | 27.5 | |
| Above $20000 | 4.8 | 6.4 | |
| No. of days stay-over in mainland China last month | | | 0.001 |
| None | 31.5 | 45.5 | |
| 1-3 days | 43.0 | 31.1 | |
| 4-10 days | 14.5 | 9.3 | |
| Above 10 days | 10.9 | 14.1 | |

Note: There were 1301 female respondents provided information on whether they had used drugs in the past 12 months. However, some of them had not completed all questions of the survey. Therefore the total number of respondents in this table may not tally with that in other tables.

Table 4 Socio-demographic characteristics of PDC (those who used drugs in mainland China in the last 12 months)

| | Male<br>Col %<br>(N=1167) | Female<br>Col %<br>(N=122) | $\chi^2$<br>p-value |
|---|---|---|---|
| Age | | | <0.001 |
| 18-20 | 35.9 | 60.7 | |
| 21-25 | 42.2 | 33.6 | |
| 26-30 | 21.9 | 5.7 | |
| Education level | | | 0.29 |
| Primary or below | 3.8 | 0.8 | |
| F.1-5 | 85.4 | 85.1 | |
| F.6-7 | 5.1 | 6.6 | |
| University or above | 5.7 | 7.4 | |
| Employment status | | | <0.001 |
| Unemployed | 17.1 | 24.0 | |
| Part-time job | 5.7 | 7.4 | |
| Full-time job | 71.8 | 53.7 | |
| Student | 3.9 | 10.7 | |
| Others | 1.6 | 4.1 | |
| Income level | | | <0.001 |
| None | 19.3 | 35.5 | |
| $5000 or below | 3.0 | 8.3 | |
| $5001-$10000 | 40.5 | 37.2 | |
| $10001-$20000 | 33.3 | 14.9 | |
| Above $20000 | 3.8 | 4.1 | |
| No. of days stay-over in mainland China last month | | | <0.001 |
| None | 10.5 | 23.1 | |
| 1-3 days | 43.9 | 46.2 | |
| 4-10 days | 22.6 | 17.1 | |
| Above 10 days | 22.9 | 13.7 | |

Table 5 Socio-demographic characteristics of PDC versus DOC (those who had only used drugs outside mainland China in the last 12 months)

| | Male | | | | Female | | | |
|---|---|---|---|---|---|---|---|---|
| | PDC | DOC | | | PDC | DOC | | |
| | Col % (N=1167) | Col % (N=217) | $\chi^2$ p-value | Univariate Odds ratio(95% CI) | Col % (N=122) | Col % (N=44) | $\chi^2$ p-value | Univariate Odds ratio(95% CI) |
| Age | | | | | | | | |
| 18-20 | 35.9 | 34.1 | 0.71 | 1.00 | 60.7 | 47.7 | 0.32 | 1.00 |
| 21-25 | 42.2 | 41.5 | | 0.97 (0.69, 1.35) | 33.6 | 43.2 | | 0.61 (0.30, 1.27) |
| 26-30 | 21.9 | 24.4 | | 0.85 (0.58, 1.25) | 5.7 | 9.1 | | 0.50 (0.13, 1.86) |
| Education level | | | | | | | | |
| Primary or below | 3.8 | 3.2 | <0.001 | 2.95 (1.20, 7.30) * | 0.8 | 0.0 | 0.04 | 7.33 (0.00, $4.71 \times 10^{21}$) |
| F.1-5 | 85.4 | 76.0 | | 2.84 (1.79, 4.48) *** | 85.1 | 68.2 | | 3.82 (1.42, 10.25) ** |
| F.6-7 | 5.1 | 6.5 | | 2.01 (0.98, 4.14) | 6.6 | 9.1 | | 2.22 (0.50, 9.96) |
| University or above | 5.7 | 14.3 | | 1.00 | 7.4 | 22.7 | | 1.00 |
| Employment status | | | | | | | | |
| Unemployed | 17.1 | 13.8 | 0.008 | 1.00 | 24.0 | 11.4 | 0.21 | 1.00 |
| Part-time job | 5.7 | 6.0 | | 0.77 (0.38, 1.55) | 7.4 | 2.3 | | 1.55 (0.16, 14.96) |
| Full-time job | 71.8 | 68.2 | | 0.85 (0.56, 1.30) | 53.7 | 63.6 | | 0.40 (0.14, 1.14) |
| Student | 3.9 | 7.8 | | 0.40 (0.20, 0.79) ** | 10.7 | 18.2 | | 0.28 (0.08, 1.02) |
| Others | 1.6 | 4.1 | | 0.32 (0.13, 0.77) * | 4.1 | 4.5 | | 0.43 (0.07, 2.87) |
| Income level | | | | | | | | |
| None | 19.3 | 22.0 | 0.33 | 1.00 | 35.5 | 25.6 | 0.68 | 1.00 |
| $5000 or below | 3.0 | 2.8 | | 1.22 (0.49, 3.08) | 8.3 | 9.3 | | 0.64 (0.17, 2.43) |
| $5001-$10000 | 40.5 | 38.8 | | 1.19 (0.80, 1.75) | 37.2 | 37.2 | | 0.72 (0.30, 1.72) |
| $10001-$20000 | 33.3 | 29.9 | | 1.27 (0.84, 1.91) | 14.9 | 23.3 | | 0.46 (0.17, 1.27) |
| Above $20000 | 3.8 | 6.5 | | 0.66 (0.34, 1.30) | 4.1 | 4.7 | | 0.64 (0.11, 3.75) |
| No. of days stay-over in mainland China last month | | | | | | | | |
| None | 10.5 | 27.0 | <0.001 | 1.00 | 23.1 | 52.3 | 0.002 | 1.00 |
| 1-3 days | 43.9 | 42.7 | | 2.64 (1.79, 3.88) *** | 46.2 | 36.4 | | 2.88 (1.31, 6.32) ** |
| 4-10 days | 22.6 | 15.2 | | 3.83 (2.36, 6.21) *** | 17.1 | 9.1 | | 4.26 (1.27, 14.27) * |
| Above 10 days | 22.9 | 15.2 | | 3.87 (2.39, 6.28) *** | 13.7 | 2.3 | | 13.62 (1.68, 110.67) * |

Note: *** p<0.001 ** p<0.01 * p<0.05

Table 6 Proportion of respondents using drugs in any place in the last 12 months (among all respondents)

| | Using drugs in any place in the last 12 months | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Male | | | | Female | | | |
| | N | Yes Row % | No Row % | Univariate Odds ratio (95% CI) | N | Yes Row % | No Row % | Univariate Odds ratio (95% CI) |
| Age | | | | | | | | |
| 18-20 | 1403 | 36.4 | 63.6 | 1.00 | 442 | 21.7 | 78.3 | 1.00 |
| 21-25 | 2172 | 27.4 | 72.6 | 0.66 (0.57,0.76) *** | 515 | 12.0 | 88.0 | 0.49 (0.35,0.69) *** |
| 26-30 | 1733 | 18.6 | 81.4 | 0.40 (0.34,0.47) *** | 360 | 3.9 | 96.1 | 0.15 (0.08,0.26) *** |
| Education level | | | | | | | | |
| Primary or below | 123 | 42.6 | 57.4 | 1.00 | 13 | 7.7 | 92.3 | 1.00 |
| F.1-5 | 3593 | 33.2 | 66.8 | 0.67 (0.46,0.96) * | 722 | 18.7 | 81.3 | 2.77 (0.36,21.47) |
| F.6-7 | 451 | 17.1 | 82.9 | 0.28 (0.18,0.43) *** | 164 | 8.1 | 91.9 | 1.05 (0.13,8.76) |
| University or above | 1135 | 9.0 | 91.0 | 0.13 (0.09,0.20) *** | 415 | 4.9 | 95.1 | 0.62 (0.08,4.98) |
| Employment status | | | | | | | | |
| Unemployed | 549 | 42.7 | 57.3 | 1.00 | 131 | 26.2 | 73.8 | 1.00 |
| Part-time job | 257 | 32.0 | 68.0 | 0.63 (0.46,0.87) ** | 65 | 15.6 | 84.4 | 0.52 (0.24,1.14) |
| Full-time job | 3997 | 25.4 | 74.6 | 0.46 (0.38,0.55) *** | 851 | 11.3 | 88.7 | 0.36 (0.23, 0.56) *** |
| Student | 417 | 15.2 | 84.8 | 0.24 (0.17,0.33) *** | 237 | 8.9 | 91.1 | 0.28 (0.15, 0.5) *** |
| Others | 82 | 35.0 | 65.0 | 0.72 (0.44, 1.18) | 31 | 25.8 | 74.2 | 0.98 (0.4, 2.4) |
| Income level | | | | | | | | |
| None | 895 | 30.9 | 69.1 | 1.00 | 365 | 14.9 | 85.1 | 1.00 |
| $5000 or below | 190 | 21.9 | 78.1 | 0.63 (0.43,0.91) * | 83 | 16.9 | 83.1 | 1.16 (0.61,2.21) |
| $5001-$10000 | 1906 | 29.9 | 70.1 | 0.95 (0.80,1.13) | 436 | 14.4 | 85.6 | 0.96 (0.65,1.43) |
| $10001-$20000 | 1846 | 25.1 | 74.9 | 0.75 (0.63,0.90) ** | 348 | 8.5 | 91.5 | 0.53 (0.33,0.86) * |
| Above $20000 | 424 | 14.3 | 85.7 | 0.37 (0.27,0.51) *** | 80 | 10.0 | 90.0 | 0.64 (0.29,1.40) |
| No. of days stay-over in mainland China | | | | | | | | |
| None | 1295 | 14.2 | 85.8 | 1.00 | 570 | 9.2 | 90.8 | 1.00 |
| 1-3 days | 2066 | 29.8 | 70.2 | 2.56 (2.13,3.08) *** | 423 | 16.9 | 83.1 | 1.99 (1.36,2.92) *** |
| 4-10 days | 862 | 34.8 | 65.2 | 3.22 (2.61,3.98) *** | 133 | 18.6 | 81.4 | 2.25 (1.33,3.81) ** |
| Above 10 days | 1023 | 29.6 | 70.4 | 2.54 (2.07,3.13) *** | 179 | 10.2 | 89.8 | 1.12 (0.64,1.97) |
| All | 5309 | 26.9 | 73.1 | | 1318 | 13.1 | 86.9 | |

Note: *** p<0.001, ** p<0.01, * p<0.05

Table 7 Proportion of respondents using drugs in any place in the last month (among all respondents)

| | Using drugs in any place in the last month | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Male | | | | Female | | | |
| | N | Yes Row % | No Row % | Univariate Odds ratio (95% CI) | N | Yes Row % | No Row % | Univariate Odds ratio (95% CI) |
| Age | | | | | | | | |
| 18-20 | 1403 | 23.8 | 76.2 | 1.00 | 442 | 14.4 | 85.6 | 1.00 |
| 21-25 | 2172 | 16.7 | 83.3 | 0.64 (0.54,0.76)*** | 515 | 6.5 | 93.5 | 0.41 (0.27,0.64)*** |
| 26-30 | 1733 | 10.9 | 89.1 | 0.39 (0.32,0.48)*** | 360 | 0.8 | 99.2 | 0.05 (0.02,0.16)*** |
| Education level | | | | | | | | |
| Primary or below | 123 | 27.3 | 72.7 | 1.00 | 13 | 0.0 | 100.0 | 0.0 |
| F.1-5 | 3593 | 21.3 | 78.7 | 0.72 (0.48,1.09) | 722 | 11.8 | 88.2 | 6.70 (3.21,13.99)*** |
| F.6-7 | 451 | 8.3 | 91.7 | 0.24 (0.14,0.41)*** | 164 | 3.7 | 96.3 | 1.95 (0.66,5.70) |
| University or above | 1135 | 4.1 | 95.9 | 0.12 (0.07,0.19)*** | 415 | 2.0 | 98.0 | 1.00 |
| Employment status | | | | | | | | |
| Unemployed | 549 | 28.9 | 71.1 | 1.00 | 131 | 18.5 | 81.5 | 1.00 |
| Part-time job | 257 | 20.9 | 79.1 | 0.65 (0.46,0.93)* | 65 | 10.9 | 89.1 | 0.54 (0.22,1.34) |
| Full-time job | 3997 | 15.5 | 84.5 | 0.45 (0.37,0.55)*** | 851 | 6.1 | 93.9 | 0.29 (0.17,0.49)*** |
| Student | 417 | 8.6 | 91.4 | 0.23 (0.16,0.34)*** | 237 | 5.9 | 94.1 | 0.28 (0.14,0.56)*** |
| Others | 82 | 18.8 | 81.3 | 0.57 (0.31,1.02) | 31 | 6.5 | 93.5 | 0.31 (0.07,1.37) |
| Income level | | | | | | | | |
| None | 895 | 19.8 | 80.2 | 1.00 | 365 | 9.9 | 90.1 | 1.00 |
| $5000 or below | 190 | 13.9 | 86.1 | 0.66 (0.42,1.02) | 83 | 10.8 | 89.2 | 1.11 (0.51,2.39) |
| $5001-$10000 | 1906 | 18.6 | 81.4 | 0.93 (0.76,1.14) | 436 | 8.9 | 91.1 | 0.88 (0.55,1.43) |
| $10001-$20000 | 1846 | 15.3 | 84.7 | 0.74 (0.60,0.91)** | 348 | 3.5 | 96.5 | 0.33 (0.17,0.65)** |
| Above $20000 | 424 | 8.9 | 91.1 | 0.39 (0.27,0.57)*** | 80 | 3.8 | 96.3 | 0.35 (0.11,1.18) |
| No. of days stay-over in mainland China last month | | | | | | | | |
| None | 1295 | 7.1 | 92.9 | 1.00 | 570 | 4.6 | 95.4 | 1.00 |
| 1-3 days | 2066 | 18.6 | 81.4 | 2.98 (2.34,3.79)*** | 423 | 10.5 | 89.5 | 2.40 (1.45,3.97)** |
| 4-10 days | 862 | 24.1 | 75.9 | 4.15 (3.19,5.41)*** | 133 | 12.4 | 87.6 | 2.91 (1.51,5.61)** |
| Above 10 days | 1023 | 18.4 | 81.6 | 2.96 (2.26,3.86)*** | 179 | 5.1 | 94.9 | 1.11 (0.51,2.41) |
| All | 5309 | 16.7 | 83.3 | | 1318 | 7.6 | 92.4 | |

Note: *** p<0.001, ** p<0.01, * p<0.05

Table 8 Proportion of respondents using drugs in mainland China in the last 12 months (among all respondents)

| | Using drugs in mainland China in the last 12 months | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Male | | | | Female | | | |
| | N | Yes Row % | No Row % | Univariate Odds ratio (95% CI) | N | Yes Row % | No Row % | Univariate Odds ratio (95% CI) |
| Age | | | | | | | | |
| 18-20 | 1403 | 30.6 | 69.4 | 1.00 | 442 | 16.9 | 83.1 | 1.00 |
| 21-25 | 2172 | 23.0 | 77.0 | 0.68 (0.58, 0.79) *** | 515 | 8.1 | 91.9 | 0.43 (0.29, 0.65) *** |
| 26-30 | 1733 | 15.1 | 84.9 | 0.40 (0.34, 0.48) *** | 360 | 2.0 | 98.0 | 0.10 (0.05, 0.22) *** |
| Education level | | | | | | | | |
| Primary or below | 123 | 36.4 | 63.6 | 1.00 | 13 | 7.7 | 92.3 | 1.00 |
| F.1-5 | 3593 | 28.2 | 71.8 | 0.69 (0.47, 1.01) | 722 | 14.4 | 85.6 | 2.02 (0.26, 15.72) |
| F.6-7 | 451 | 13.5 | 86.5 | 0.27 (0.17, 0.43) *** | 164 | 5.0 | 95.0 | 0.63 (0.07, 5.48) |
| University or above | 1135 | 5.9 | 94.1 | 0.11 (0.07, 0.17) *** | 415 | 2.2 | 97.8 | 0.27 (0.03, 2.31) |
| Employment status | | | | | | | | |
| Unemployed | 549 | 37.0 | 63.0 | 1.00 | 131 | 22.3 | 77.7 | 1.00 |
| Part-time job | 257 | 26.3 | 73.7 | 0.61 (0.44, 0.85) ** | 65 | 14.1 | 85.9 | 0.57 (0.25, 1.29) |
| Full-time job | 3997 | 21.3 | 78.7 | 0.46 (0.38, 0.56) *** | 851 | 7.8 | 92.2 | 0.29 (0.18, 0.48) *** |
| Student | 417 | 11.0 | 89.0 | 0.21 (0.15, 0.30) *** | 237 | 5.5 | 94.5 | 0.20 (0.10, 0.41) *** |
| Others | 82 | 23.8 | 76.2 | 0.53 (0.31, 0.91) * | 31 | 16.7 | 83.3 | 0.70 (0.25, 1.98) |
| Income level | | | | | | | | |
| None | 895 | 25.5 | 74.5 | 1.00 | 365 | 11.8 | 88.2 | 1.00 |
| $5000 or below | 190 | 18.7 | 81.3 | 0.67 (0.45, 1.00) | 83 | 12.0 | 88.0 | 1.02 (0.49, 2.12) |
| $5001-$10000 | 1906 | 25.1 | 74.9 | 0.98 (0.82, 1.18) | 436 | 10.5 | 89.5 | 0.87 (0.56, 1.36) |
| $10001-$20000 | 1846 | 21.3 | 78.7 | 0.79 (0.65, 0.96) * | 348 | 5.3 | 94.7 | 0.42 (0.24, 0.74) ** |
| Above $20000 | 424 | 10.5 | 89.5 | 0.35 (0.24, 0.49) *** | 80 | 6.3 | 93.7 | 0.50 (0.19, 1.31) |
| No. of days stay-over in mainland China last month | | | | | | | | |
| None | 1295 | 9.5 | 90.5 | 1.00 | 570 | 4.8 | 95.2 | 1.00 |
| 1-3 days | 2066 | 25.0 | 75.0 | 3.18 (2.57, 3.93) *** | 423 | 12.9 | 87.1 | 2.92 (1.80, 4.72) *** |
| 4-10 days | 862 | 30.8 | 69.2 | 4.25 (3.35, 5.38) *** | 133 | 15.5 | 84.5 | 3.63 (1.96, 6.70) *** |
| Above 10 days | 1023 | 26.2 | 73.8 | 3.40 (2.69, 4.29) *** | 179 | 9.1 | 90.9 | 1.99 (1.05, 3.79) * |
| All | 5309 | 22.4 | 77.6 | | 1318 | 9.4 | 90.6 | |

Note: *** p<0.001, ** p<0.01, * p<0.05

Table 9 Comparison of background characteristics by location of drug use (among male PDC)

| | | Male | | |
|---|---|---|---|---|
| | | Using drugs in mainland China only | Using drugs both in Hong Kong and in mainland China | $\chi^2$ |
| | N | Row % | Row % | p-value |
| Age | | | | 0.37 |
| 18-20 | 419 | 28.9 | 71.1 | |
| 21-25 | 492 | 28.5 | 71.5 | |
| 26-30 | 256 | 33.2 | 66.8 | |
| Education level | | | | 0.79 |
| Primary or below | 44 | 29.5 | 70.5 | |
| F.1-5 | 996 | 29.7 | 70.3 | |
| F.6-7 | 60 | 25.0 | 75.0 | |
| University or above | 66 | 33.3 | 66.7 | |
| Employment status | | | | 0.28 |
| Unemployed | 199 | 30.7 | 69.3 | |
| Part-time job | 66 | 36.4 | 63.6 | |
| Full-time job | 837 | 29.2 | 70.8 | |
| Student | 45 | 20.0 | 80.0 | |
| Others | 19 | 42.1 | 57.9 | |
| Income level | | | | 0.09 |
| None | 224 | 29.9 | 70.1 | |
| $5000 or below | 35 | 45.7 | 54.3 | |
| $5001-$10000 | 469 | 31.6 | 68.4 | |
| $10001-$20000 | 386 | 25.6 | 74.4 | |
| Above $20000 | 44 | 29.5 | 70.5 | |
| No. of days stay-over in mainland China last month | | | | 0.005 |
| None | 121 | 24.0 | 76.0 | |
| 1-3 days | 504 | 26.4 | 73.6 | |
| 4-10 days | 260 | 31.2 | 68.8 | |
| Above 10 days | 263 | 37.6 | 62.4 | |
| All | 1167 | 29.6 | 70.4 | |

Table 10 Comparison of background characteristics by location of drug use (among female PDC)

| | | Female | | |
|---|---|---|---|---|
| | | Using drugs in mainland China only | Using drugs both in Hong Kong and in mainland China | $\chi^2$ |
| | N | Row % | Row % | p-value |
| Age | | | | 0.68 |
| 18-20 | 74 | 23.0 | 77.0 | |
| 21-25 | 41 | 17.1 | 82.9 | |
| 26-30 | 7 | 28.6 | 71.4 | |
| Education level | | | | 0.18 |
| Primary or below | 1 | 0.0 | 100.0 | |
| F.1-5 | 103 | 18.4 | 81.6 | |
| F.6-7 | 8 | 37.5 | 62.5 | |
| University or above | 9 | 44.4 | 55.6 | |
| Employment status | | | | 0.04 |
| Unemployed | 29 | 27.6 | 72.4 | |
| Part-time job | 9 | 0.0 | 100.0 | |
| Full-time job | 65 | 15.4 | 84.6 | |
| Student | 13 | 46.2 | 53.8 | |
| Others | 5 | 40.0 | 60.0 | |
| Income level | | | | 0.11 |
| None | 43 | 34.9 | 65.1 | |
| $5000 or below | 10 | 20.0 | 80.0 | |
| $5001-$10000 | 45 | 13.3 | 86.7 | |
| $10001-$20000 | 18 | 11.1 | 88.9 | |
| Above $20000 | 5 | 20.0 | 80.0 | |
| No. of days stay-over in mainland China last month | | | | 0.04 |
| None | 27 | 7.4 | 92.6 | |
| 1-3 days | 54 | 18.5 | 81.5 | |
| 4-10 days | 20 | 25.0 | 75.0 | |
| Above 10 days | 16 | 43.8 | 56.3 | |
| All | 122 | 21.3 | 78.7 | |

Table 11 Frequency of using drugs in any place in the last month by location of drug use

| | Male | | | | Female | | | |
|---|---|---|---|---|---|---|---|---|
| | PDC | DOC | | | PDC | DOC | | |
| | Col % | Col % | $\chi^2$ p-value | Univariate OR (95%CI) | Col % | Col % | $\chi^2$ p-value | Univariate OR (95%CI) |
| Frequency of using drugs in any place in the last month | | | <0.001 | | | | 0.087 | |
| None | 34.2 | 56.2 | | 1.00 | 34.4 | 55.8 | | 1.00 |
| 1-2 Times | 37.7 | 30.9 | | 2.01 (1.45,2.79)*** | 38.5 | 23.3 | | 2.69 (1.15,6.26)* |
| 3-10 Times | 18.3 | 7.4 | | 4.09 (2.37,7.07)*** | 18.0 | 11.6 | | 2.51 (0.84,7.5) |
| >10 Times | 9.8 | 5.5 | | 2.91 (1.55,5.45)** | 9.0 | 9.3 | | 1.57 (0.45,5.48) |

Note: *** p<0.001, ** p<0.01, * p<0.05

Table 12 Perception of drug use among PDC (in the last 12 months)

| | Male Col % (N=1167) | Female Col % (N=122) | $\chi^2$ p-value | Univariate Odds Ratio (95% CI) |
|---|---|---|---|---|
| Whether had ability to quit using drugs | | | 0.99 | |
| No | 8.4 | 8.1 | | 1.00 |
| Yes | 87.1 | 87.4 | | 0.96 (0.47, 1.96) |
| Don't know | 4.5 | 4.5 | | 0.97 (0.31, 3.04) |
| Whether intake of drugs had severe negative impact on health | | | 0.01 | |
| No | 29.9 | 37.3 | | 1.00 |
| Yes | 64.3 | 51.8 | | 1.55 (1.01, 2.36)* |
| Don't know | 5.8 | 10.9 | | 0.66 (0.33, 1.32) |
| Perceived harmfulness | | | 0.24 | |
| Very/Quite harmful | 58.3 | 50.4 | | 1.00 |
| Average | 27.9 | 33.9 | | 0.71 (0.47, 1.08) |
| Not quite/Not harmful | 13.8 | 15.7 | | 0.76 (0.44, 1.31) |
| Perceived addictiveness | | | 0.39 | |
| Very easy/Easy | 30.0 | 33.3 | | 1.00 |
| Average | 33.7 | 36.7 | | 1.02 (0.65, 1.60) |
| Hard/Very hard | 36.3 | 30.0 | | 1.34 (0.84, 2.15) |
| Whether intake of drugs had effect on performance of sexual activity | | | 0.002 | |
| No effect | 40.6 | 57.9 | | 0.50 (0.31, 0.81) ** |
| Positive effect | 24.3 | 16.8 | | 1.04 (0.56, 1.93) |
| Negative effect | 35.1 | 25.2 | | 1.00 |

Note: *** p<0.001, ** p<0.01, * p<0.05

Table 13 Perception of drug use by age and education level among male PDC (in the last 12 months)

| | Age | | | | Education level | | |
|---|---|---|---|---|---|---|---|
| | 18-20 | 21-25 | 26-30 | | F.5 or below | F.6 or above | |
| | Col % (N=419) | Col % (N=492) | Col % (N=256) | $\chi^2$ p-value | Col % (N=1040) | Col % (N=126) | $\chi^2$ p-value |
| Whether had ability to quit using drugs | | | | 0.22 | | | <0.001 |
| No | 10.8 | 7.4 | 6.4 | | 7.4 | 16.9 | |
| Yes | 84.1 | 88.3 | 89.6 | | 87.6 | 82.2 | |
| Don't know | 5.1 | 4.2 | 4.0 | | 5.0 | 0.8 | |
| Whether intake of drugs had severe negative impact on health | | | | 0.24 | | | 0.61 |
| No | 33.3 | 29.1 | 25.8 | | 29.9 | 30.2 | |
| Yes | 60.5 | 64.9 | 69.4 | | 64.5 | 62.1 | |
| Don't know | 6.1 | 6.0 | 4.8 | | 5.6 | 7.8 | |
| Perceived harmfulness | | | | <0.001 | | | 0.02 |
| Very/Quite harmful | 52.3 | 57.1 | 70.3 | | 57.2 | 66.7 | |
| Average | 30.8 | 29.5 | 20.3 | | 29.2 | 17.5 | |
| Not quite/Not harmful | 16.9 | 13.4 | 9.4 | | 13.6 | 15.9 | |
| Perceived addictiveness | | | | 0.02 | | | 0.15 |
| Very easy/Easy | 25.1 | 30.8 | 36.5 | | 29.2 | 37.3 | |
| Average | 34.4 | 33.5 | 32.9 | | 34.0 | 31.7 | |
| Hard/Very hard | 40.4 | 35.7 | 30.6 | | 36.9 | 31.0 | |
| Whether intake of drugs had effect on performance of sexual activity | | | | <0.001 | | | 0.04 |
| No effect | 49.4 | 37.7 | 31.9 | | 39.9 | 47.0 | |
| Positive effect | 21.6 | 27.1 | 23.8 | | 23.9 | 28.7 | |
| Negative effect | 29.1 | 35.3 | 44.4 | | 36.3 | 24.3 | |

Table 14 Perception of drug use by age and education level among female PDC (in the last 12 months)

| | Age | | | | Education level | | |
|---|---|---|---|---|---|---|---|
| | 18-20 | 21-25 | 26-30 | | F.5 or below | F.6 or above | |
| | Col % (N=74) | Col % (N=41) | Col % (N=7) | $\chi^2$ p-value | Col % (N=104) | Col % (N=17) | $\chi^2$ p-value |
| Whether had ability to quit using drugs | | | | 0.81 | | | 0.25 |
| No | 9.0 | 7.9 | 0.0 | | 8.5 | 6.3 | |
| Yes | 85.1 | 89.5 | 100.0 | | 88.3 | 81.3 | |
| Don't know | 6.0 | 2.6 | 0.0 | | 3.2 | 12.5 | |
| Whether intake of drugs had severe negative impact on health | | | | 0.4 | | | 0.6 |
| No | 34.3 | 45.9 | 16.7 | | 38.7 | 31.3 | |
| Yes | 53.7 | 43.2 | 83.3 | | 49.5 | 62.5 | |
| Don't know | 11.9 | 10.8 | 0.0 | | 11.8 | 6.3 | |
| Perceived harmfulness | | | | 0.01 | | | 0.62 |
| Very/Quite harmful | 47.9 | 46.3 | 100.0 | | 49.0 | 58.8 | |
| Average | 30.1 | 46.3 | 0.0 | | 35.6 | 23.5 | |
| Not quite/Not harmful | 21.9 | 7.3 | 0.0 | | 15.4 | 17.6 | |
| Perceived addictiveness | | | | 0.01 | | | 0.88 |
| Very easy/Easy | 24.7 | 40.0 | 85.7 | | 32.7 | 37.5 | |
| Average | 38.4 | 37.5 | 14.3 | | 36.5 | 37.5 | |
| Hard/Very hard | 37.0 | 22.5 | 0.0 | | 30.8 | 25.0 | |
| Whether intake of drugs had effect on performance of sexual activity | | | | 0.43 | | | 0.15 |
| No effect | 55.4 | 66.7 | 33.3 | | 61.5 | 40.0 | |
| Positive effect | 16.9 | 16.7 | 16.7 | | 14.3 | 33.3 | |
| Negative effect | 27.7 | 16.7 | 50.0 | | 24.2 | 26.7 | |

Table 15 Perception of drug use among PDC versus DOC (among those who used drugs in the last 12 months)

| | Male | | | | Female | | | |
|---|---|---|---|---|---|---|---|---|
| | PDC | DOC | | | PDC | DOC | | |
| | Col % (N=1167) | Col % (N=217) | $\chi^2$ p-value | #Adjusted OR (95% CI) | Col % (N=122) | Col % (N=44) | $\chi^2$ p-value | #Adjusted OR (95% CI) |
| Whether had ability to quit using drugs | | | 0.02 | | | | 0.37 | |
| No | 8.4 | 3.2 | | 1.00 | 8.1 | 2.3 | | 1.00 |
| Yes | 87.1 | 93.5 | | 3.75(1.58, 8.89)** | 87.4 | 90.7 | | 3.97(0.39, 40.27) |
| Don't know | 4.5 | 3.2 | | 2.91(0.89, 9.49) | 4.5 | 7.0 | | 9.54(0.58, 157.26) |
| Whether intake of drugs had severe negative impact on health | | | 0.02 | | | | 0.72 | |
| No | 29.9 | 20.7 | | 1.00 | 37.3 | 41.9 | | 1.00 |
| Yes | 64.3 | 74.2 | | 1.73(1.18, 2.54)** | 51.8 | 51.2 | | 0.63(0.25, 1.62) |
| Don't know | 5.8 | 5.2 | | 1.13(0.52, 2.43) | 10.9 | 7.0 | | 0.35(0.07, 1.88) |
| Perceived harmfulness | | | 0.03 | | | | 0.07 | |
| Very/Quite harmful | 58.3 | 67.1 | | 1.00 | 50.4 | 68.2 | | 1.00 |
| Average | 27.9 | 19.9 | | 0.67(0.45,0.98)* | 33.9 | 15.9 | | 0.48(0.17,1.32) |
| Not quite/Not harmful | 13.8 | 13.0 | | 0.87(0.54,1.38) | 15.7 | 15.9 | | 0.87(0.27,2.79) |
| Perceived addictiveness: | | | 0.04 | | | | 1.00 | |
| Very easy/Easy | 30.0 | 37.2 | | 1.00 | 33.3 | 34.1 | | 1.00 |
| Average | 33.7 | 34.4 | | 0.78(0.54,1.12) | 36.7 | 36.4 | | 1.88(0.68,5.21) |
| Hard/Very hard | 36.3 | 28.4 | | 0.63(0.43,0.92)* | 30.0 | 29.5 | | 1.59(0.53,4.78) |
| Whether intake of drugs had effect on performance of sexual activity | | | 0.04 | | | | 0.83 | |
| No effect | 40.6 | 42.7 | | 1.00 | 57.9 | 62.8 | | 1.00 |
| Positive effect | 24.3 | 16.5 | | 0.68(0.43,1.06) | 16.8 | 16.3 | | 0.72(0.22,2.38) |
| Negative effect | 35.1 | 40.8 | | 1.35(0.95,1.93) | 25.2 | 20.9 | | 0.52(0.17,1.54) |

Note: # Odd Ratios are adjusted by age, education, employment status, income level and number of days stay-over in mainland China last month.
*** p<0.001 ** p<0.01 * p<0.05.

Table 16 Other perceptions related to drug use in mainland China among PDC in the last 12 months

| | Gender | | |
|---|---|---|---|
| | Male | Female | |
| | Col % (N=1167) | Col % (N=122) | $\chi^2$ p-value |
| Whether it is easy to obtain drugs | | | <0.001 |
| It is easier to obtain in China | 60.5 | 39.6 | |
| It is easier to obtain in Hong Kong | 15.2 | 22.5 | |
| No difference | 24.3 | 37.8 | |
| Chances of being arrested in mainland China due to drug use | | | 0.49 |
| No chance | 28.8 | 24.5 | |
| Small chance | 54.8 | 55.5 | |
| Large chance | 16.4 | 20.0 | |

Table 17 Patterns of drug use in mainland China (among PDC in the last 12 months)

| | Male<br>Col %<br>(N=1167) | Female<br>Col %<br>(N=122) | $\chi^2$<br>p-value |
|---|---|---|---|
| First use of drugs in mainland China | | | 0.01 |
| Less than 6 months ago | 48.1 | 36.0 | |
| 6-12 months ago | 19.3 | 30.7 | |
| 1-2 years ago | 13.5 | 16.7 | |
| More than 2 years ago | 19.1 | 16.7 | |
| Places of using drugs in the last episode of drug use in mainland China | | | 0.05 |
| Disco/Rave party | 87.9 | 84.0 | |
| Bar | 5.6 | 9.2 | |
| Hotel | 0.8 | 0.0 | |
| Home/Friends' home | 3.0 | 0.8 | |
| Others | 2.6 | 5.9 | |
| Sources of drugs in the last episode of drug use in mainland China | | | 0.001 |
| Obtained from friends for free | 54.7 | 61.9 | |
| Obtained from strangers for free | 8.5 | 16.1 | |
| Bought them by oneself in China | 31.7 | 14.4 | |
| Brought them by oneself from Hong Kong | 1.2 | 1.7 | |
| Others | 3.9 | 5.9 | |
| Whether had used drugs with others in the last episode of drug use in mainland China | | | 0.28 |
| Alone | 17.4 | 11.2 | |
| Friends | 77.0 | 81.0 | |
| Strangers | 1.4 | 2.6 | |
| Friends and strangers | 4.3 | 5.2 | |

Table 18 Patterns of drug use in mainland China by background characteristics (among PDC in the last 12 months)

| | Male | | | | | Female | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Age | | | | | Age | | | | |
| | 18-20 | 21-25 | 26-35 | All | | 18-20 | 21-25 | 26-35 | All | |
| | Col % (N=419) | Col % (N=492) | Col % (N=256) | Col % (N=1167) | $\chi^2$ p-value | Col % (N=74) | Col % (N=41) | Col % (N=7) | Col % (N=122) | $\chi^2$ p-value |
| First use of drugs in mainland China | | | | | 0.03 | | | | | 0.10 |
| Less than 6 months ago | 53.2 | 45.5 | 44.8 | 48.1 | | 44.9 | 25.6 | 0.0 | 36.0 | |
| 6-12 months ago | 19.9 | 17.5 | 22.0 | 19.3 | | 27.5 | 30.8 | 66.7 | 30.7 | |
| 1-2 years ago | 12.1 | 15.6 | 11.6 | 13.5 | | 15.9 | 17.9 | 16.7 | 16.7 | |
| More than 2 years ago | 14.8 | 21.4 | 21.6 | 19.1 | | 11.6 | 25.6 | 16.7 | 16.7 | |
| Places of using drugs in the last episode of drug use in mainland China | | | | | 0.08 | | | | | 0.64 |
| Disco/Rave party | 87.3 | 90.7 | 83.8 | 87.9 | | 86.1 | 80.5 | 83.3 | 84.0 | |
| Bar | 6.5 | 4.1 | 7.1 | 5.6 | | 9.7 | 9.8 | 0.0 | 9.2 | |
| Hotel | 0.0 | 1.0 | 1.6 | 0.8 | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Home/Friends' home | 3.4 | 2.3 | 4.0 | 3.0 | | 0.0 | 2.4 | 0.0 | 0.8 | |
| Others | 2.9 | 1.9 | 3.6 | 2.6 | | 4.2 | 7.3 | 16.7 | 5.9 | |
| Sources of drugs in the last episode of drug use in mainland China | | | | | 0.18 | | | | | 0.88 |
| Obtained from friends for free | 54.1 | 54.1 | 56.7 | 54.7 | | 60.6 | 65.9 | 50.0 | 61.9 | |
| Obtained from strangers for free | 10.8 | 6.6 | 8.3 | 8.5 | | 14.1 | 17.1 | 33.3 | 16.1 | |
| Bought them by oneself in China | 30.6 | 32.6 | 31.7 | 31.7 | | 15.5 | 12.2 | 16.7 | 14.4 | |
| Brought them by oneself from Hong | 1.4 | 1.7 | 0.0 | 1.2 | | 2.8 | 0.0 | 0.0 | 1.7 | |
| Others | 3.1 | 5.0 | 3.2 | 3.9 | | 7.0 | 4.9 | 0.0 | 5.9 | |
| Whether had used drugs with others in the last episode of drug use in mainland China | | | | | 0.05 | | | | | 0.71 |
| Alone | 19.2 | 18.8 | 11.6 | 17.4 | | 14.1 | 7.7 | 0.0 | 11.2 | |
| Friends | 77.0 | 74.7 | 81.2 | 77.0 | | 76.1 | 87.2 | 100.0 | 81.0 | |
| Strangers | 0.5 | 1.9 | 2.0 | 1.4 | | 2.8 | 2.6 | 0.0 | 2.6 | |
| Friends and strangers | 3.4 | 4.6 | 5.2 | 4.3 | | 7.0 | 2.6 | 0.0 | 5.2 | |

Table 19 Other drug-related behaviours among PDC (among those who used drugs in mainland China in the last 12 months)

| | Male Col % (N=1167) | Female Col % (N=122) | $\chi^2$ p-value | #Adjusted Odds Ratio (95% CI) |
|---|---|---|---|---|
| Whether had friends who used drugs in mainland China | | | 0.27 | |
| None | 36.6 | 32.4 | | 1.00 |
| 1-2 friends | 30.4 | 37.8 | | 0.67 (0.41, 1.10) |
| 3 friends or above | 33.0 | 29.7 | | 0.94 (0.55, 1.60) |
| Whether consumed alcohol before using drugs in the last episode of drug use | | | 0.009 | |
| No | 27.5 | 39.4 | | 1.00 |
| Yes | 72.5 | 60.6 | | 1.49 (0.96, 2.31) |
| Whether had sexual intercourse after using drugs in the last episode of drug use | | | 0.007 | |
| No | 57.3 | 70.6 | | 1.00 |
| Yes | 42.7 | 29.4 | | 1.68 (1.06, 2.65) * |

Note: *** p<0.001, ** p<0.01, * p<0.05

# Odd Ratios are adjusted by age, education, employment status, income level and number of days stay-over in mainland China last month, and having sexual intercourse after drug use was the dependent variable.

Table 20 Other drug-related behaviours among PDC versus DOC (among those who used drugs in the last 12 months)

| | Male | | | | Female | | | |
|---|---|---|---|---|---|---|---|---|
| | PDC | DOC | | | PDC | DOC | | |
| | Col % (N=1167) | Col % (N=217) | $\chi^2$ p-value | #Adjusted OR (95% CI) | Col % (N=122) | Col % (N=44) | $\chi^2$ p-value | #Adjusted OR (95% CI) |
| Whether had friends who always used drugs in mainland China | | | 0.008 | | | | 0.006 | |
| None | 36.6 | 47.6 | | 1.00 | 32.4 | 60.5 | | 1.00 |
| 1-2 friends | 30.4 | 26.9 | | 0.66(0.45,0.96)* | 37.8 | 20.9 | | 0.20(0.07,0.58)** |
| 3 friends or above | 33.0 | 25.5 | | 0.67(0.46,0.99)* | 29.7 | 18.6 | | 0.38(0.13,1.11) |
| Whether consumed alcohol before using drugs in the last episode of drug use | | | 0.01 | | | | 0.29 | |
| No | 27.5 | 35.8 | | 1.00 | 39.4 | 30.2 | | 1.00 |
| Yes | 72.5 | 64.2 | | 0.78(0.56,1.09) | 60.6 | 69.8 | | 2.20(0.87,5.59) |
| Whether had sexual intercourse after using drugs in the last episode of drug use | | | <0.001 | | | | 0.23 | |
| No | 57.3 | 75.5 | | 1.00 | 70.6 | 60.5 | | 1.00 |
| Yes | 42.7 | 24.5 | | 0.45(0.32,0.65)*** | 29.4 | 39.5 | | 2.34(0.93,5.89) |

Note: # Odd Ratios are adjusted by age, education, employment status, income level and number of days stay-over in mainland China last month.
*** p<0.001 ** p<0.01 * p<0.05

Table 21 Characteristics associated with having sexual intercourse after using drugs (among PDC in the last 12 months)

| | Sexual intercourse after using drugs in the last episode of drug use | | | | | |
|---|---|---|---|---|---|---|
| | Male | | | Female | | |
| | Yes Row % | No Row % | $\chi^2$ p-value | Yes Row % | No Row % | $\chi^2$ p-value |
| First use of drugs in mainland China | | | 0.57 | | | 0.79 |
| Less than 6 months ago | 41.2 | 58.8 | | 28.2 | 71.8 | |
| 6-12 months ago | 44.4 | 55.6 | | 35.3 | 64.7 | |
| 1-2 years ago | 40.5 | 59.5 | | 27.8 | 72.2 | |
| More than 2 years ago | 46.0 | 54.0 | | 22.2 | 77.8 | |
| Whether had used drugs with others in the last episode of drug use in mainland China | | | 0.07 | | | 0.2 |
| Alone | 34.4 | 65.6 | | 8.3 | 91.7 | |
| Friends | 44.0 | 56.0 | | 30.7 | 69.3 | |
| Strangers | 50.0 | 50.0 | | 66.7 | 33.3 | |
| Friends and strangers | 49.0 | 51.0 | | 33.3 | 66.7 | |
| Places of using drugs in the last episode of drug use in mainland China | | | 0.33 | | | 0.03 |
| Disco/Rave party | 42.7 | 57.3 | | 26.6 | 73.4 | |
| Bar | 40.0 | 60.0 | | 75.0 | 25.0 | |
| Hotel | 83.3 | 16.7 | | 0.0 | 0.0 | |
| Home/Friends' home | 38.2 | 61.8 | | 0.0 | 100.0 | |
| Others | 40.0 | 60.0 | | 16.7 | 83.3 | |
| Sources of drugs in the last episode of drug use in mainland China | | | <0.01 | | | 0.8 |
| Obtained from friends for free | 38.2 | 61.8 | | 29.4 | 70.6 | |
| Obtained from strangers for free | 44.4 | 55.6 | | 37.5 | 62.5 | |
| Bought them by oneself in mainland China | 47.6 | 52.4 | | 23.5 | 76.5 | |
| Brought them by oneself from Hong Kong | 64.3 | 35.7 | | 50.0 | 50.0 | |
| Others | 54.8 | 45.2 | | 16.7 | 83.3 | |
| Whether intake of drugs had effect on performance of sexual activity | | | <0.001 | | | 0.02 |
| No effect | 30.1 | 69.9 | | 28.1 | 71.9 | |
| Positive effect | 60.5 | 39.5 | | 56.0 | 44.0 | |
| Negative effect | 38.1 | 61.9 | | 27.8 | 72.2 | |

Table 22 The main reason for choosing to use drugs in mainland China (among PDC in the last 12 months)

| | Reasons of using drugs in mainland China | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male | | | | | | Female | | | | | |
| | N | Lower price Row % | Better availability Row % | Peer influence Row % | Others Row % | $\chi^2$ p-value | N | Lower price Row % | Better availability Row % | Peer influence Row % | Others Row % | $\chi^2$ p-value |
| Age | | | | | | <0.001 | | | | | | 0.46 |
| 18-20 | 419 | 35.1 | 17.8 | 25.1 | 22.0 | | 74 | 23.2 | 24.6 | 27.5 | 24.6 | |
| 21-25 | 492 | 31.4 | 17.5 | 22.5 | 28.6 | | 41 | 28.9 | 15.8 | 39.5 | 15.8 | |
| 26-30 | 256 | 18.1 | 20.9 | 33.3 | 27.7 | | 7 | 0.0 | 33.3 | 50.0 | 16.7 | |
| Education level | | | | | | 0.76 | | | | | | 0.23 |
| Primary or below | 44 | 27.9 | 20.9 | 27.9 | 23.3 | | 1 | 100.0 | 0.0 | 0.0 | 0.0 | |
| F.1-5 | 996 | 29.9 | 17.6 | 25.9 | 26.6 | | 103 | 18.9 | 23.2 | 34.7 | 23.2 | |
| F.6-7 | 60 | 31.6 | 24.6 | 17.5 | 26.3 | | 8 | 57.1 | 0.0 | 28.6 | 14.3 | |
| University or above | 66 | 28.6 | 22.2 | 30.2 | 19.0 | | 9 | 44.4 | 22.2 | 22.2 | 11.1 | |
| Employment status | | | | | | 0.08 | | | | | | 0.13 |
| Unemployed | 199 | 34.9 | 18.2 | 19.3 | 27.6 | | 29 | 17.9 | 17.9 | 53.6 | 10.7 | |
| Part-time job | 66 | 20.3 | 18.8 | 35.9 | 25.0 | | 9 | 12.5 | 62.5 | 12.5 | 12.5 | |
| Full-time job | 837 | 29.1 | 18.2 | 26.8 | 25.9 | | 65 | 30.0 | 16.7 | 26.7 | 26.7 | |
| Student | 45 | 42.2 | 17.8 | 24.4 | 15.6 | | 13 | 18.2 | 27.3 | 27.3 | 27.3 | |
| Others | 19 | 10.5 | 26.3 | 21.1 | 42.1 | | 5 | 20.0 | 20.0 | 40.0 | 20.0 | |
| Income level | | | | | | 0.04 | | | | | | 0.21 |
| None | 224 | 35.6 | 17.8 | 20.5 | 26.0 | | 43 | 17.5 | 22.5 | 45.0 | 15.0 | |
| $5000 or below | 35 | 28.6 | 22.9 | 31.4 | 17.1 | | 10 | 10.0 | 50.0 | 30.0 | 10.0 | |
| $5001-$10000 | 469 | 32.4 | 18.4 | 27.6 | 21.7 | | 45 | 28.2 | 20.5 | 23.1 | 28.2 | |
| $10001-$20000 | 386 | 23.5 | 18.1 | 26.9 | 31.5 | | 18 | 38.9 | 5.6 | 33.3 | 22.2 | |
| Above $20000 | 44 | 30.0 | 20.0 | 20.0 | 30.0 | | 5 | 20.0 | 20.0 | 20.0 | 40.0 | |
| No. of days stay-over in mainland China last month | | | | | | 0.02 | | | | | | 0.05 |
| None | 121 | 35.7 | 15.7 | 24.3 | 24.3 | | 27 | 39.1 | 13.0 | 30.4 | 17.4 | |
| 1-3 days | 504 | 32.9 | 18.4 | 27.6 | 21.2 | | 54 | 22.0 | 30.0 | 24.0 | 24.0 | |
| 4-10 days | 260 | 24.5 | 17.0 | 28.5 | 30.0 | | 20 | 30.0 | 25.0 | 25.0 | 20.0 | |
| Above 10 days | 263 | 26.4 | 20.5 | 21.3 | 31.8 | | 16 | 6.3 | 6.3 | 68.8 | 18.8 | |
| All | 1167 | 29.8 | 18.3 | 25.8 | 26.0 | | 122 | 23.9 | 22.1 | 32.7 | 21.2 | |

Table 23 Types of drug used in mainland China (among PDC in the last 12 months)

| Types of drug used | | Male Col % | Female Col % | $\chi^2$ p-value |
|---|---|---|---|---|
| Ecstasy | Yes | 86.5 | 81.0 | 0.10 |
| | No | 13.5 | 19.0 | |
| Ketamine | Yes | 79.4 | 70.2 | 0.02 |
| | No | 20.6 | 29.8 | |
| Cannabis | Yes | 65.7 | 47.1 | <0.001 |
| | No | 34.3 | 52.9 | |
| Methylamphetamine | Yes | 18.7 | 21.8 | 0.41 |
| | No | 81.3 | 78.2 | |
| Heroin | Yes | 10.9 | 7.6 | 0.26 |
| | No | 89.1 | 92.4 | |

Table 24 Types of drug used in mainland China by background characteristics (among PDC in the last 12 months)

| | | Types of drug used | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Male | | | | | | Female | | | | |
| | N | Using Ecstasy Row % | Using Ketamine Row % | Using Cannabis Row % | Using Methyl-amphetamine Row % | Using Heroin Row % | N | Using Ecstasy Row % | Using Ketamine Row % | Using Methyl-amphetamine Row % | Using Ice Row % | Using Heroin Row % |
| Age | | | | | | | | | | | | |
| 18-20 | 419 | 89.0* | 80.2*** | 64.0 | 19.6 | 11.2 | 74 | 85.1 | 71.6 | 52.8 | 26.4 | 9.7 |
| 21-25 | 492 | 87.1 | 83.2 | 66.3 | 20.5 | 12.0 | 41 | 78.0 | 70.7 | 39.0 | 14.6 | 4.9 |
| 26-30 | 256 | 81.1 | 70.9 | 67.3 | 13.8 | 8.3 | 7 | 50.0 | 50.0 | 33.3 | 16.7 | 0.0 |
| Education level | | | | | | | | | | | | |
| Primary or below | 44 | 86.4 | 81.8 | 72.7 | 29.5 | 27.3*** | 1 | 100.0 | 0.0* | 0.0 | 0.0 | 100.0** |
| F.1-5 | 996 | 86.8 | 80.2 | 65.4 | 17.7 | 9.2 | 103 | 79.4 | 75.5 | 51.0 | 23.0 | 7.0 |
| F.6-7 | 60 | 88.3 | 76.7 | 71.9 | 20.0 | 13.3 | 8 | 87.5 | 50.0 | 25.0 | 0.0 | 0.0 |
| University or above | 66 | 80.3 | 68.2 | 59.1 | 25.8 | 22.7 | 9 | 88.9 | 33.3 | 22.2 | 22.2 | 11.1 |
| Employment status | | | | | | | | | | | | |
| Unemployed | 199 | 88.4 | 82.7*** | 71.1 | 22.8 | 15.8 | 29 | 93.1 | 72.4 | 51.7 | 20.7 | 3.4 |
| Part-time job | 66 | 84.8 | 83.3 | 63.6 | 9.1 | 7.7 | 9 | 66.7 | 66.7 | 33.3 | 22.2 | 0.0 |
| Full-time job | 837 | 86.2 | 79.3 | 64.8 | 18.1 | 9.6 | 65 | 76.6 | 71.9 | 48.4 | 21.0 | 9.7 |
| Student | 45 | 86.7 | 55.6 | 57.8 | 20.0 | 15.6 | 13 | 84.6 | 61.5 | 46.2 | 30.8 | 15.4 |
| Others | 19 | 89.5 | 94.7 | 78.9 | 31.6 | 15.8 | 5 | 80.0 | 60.0 | 20.0 | 0.0 | 0.0 |
| Income level | | | | | | | | | | | | |
| None | 224 | 87.9 | 77.6 | 67.3 | 22.4 | 15.8** | 43 | 90.7 | 69.8 | 51.2 | 23.3 | 7.0 |
| $5000 or below | 35 | 85.7 | 71.4 | 65.7 | 11.4 | 11.4 | 10 | 90.0 | 60.0 | 30.0 | 10.0 | 10.0 |
| $5001-$10000 | 469 | 88.0 | 82.0 | 61.7 | 17.8 | 8.8 | 45 | 70.5 | 75.0 | 50.0 | 23.8 | 7.1 |
| $10001-$20000 | 386 | 84.4 | 79.4 | 69.5 | 17.4 | 9.1 | 18 | 83.3 | 72.2 | 38.9 | 11.1 | 5.6 |
| Above $20000 | 44 | 85.7 | 66.7 | 69.0 | 28.6 | 21.4 | 5 | 60.0 | 40.0 | 40.0 | 40.0 | 20.0 |
| No. of days stay-over in mainland China last month | | | | | | | | | | | | |
| None | 121 | 77.3** | 66.4*** | 52.9*** | 22.7 | 12.7 | 27 | 61.5* | 50.0* | 23.1* | 11.5 | 7.7 |
| 1-3 days | 504 | 86.7 | 78.2 | 61.1 | 19.4 | 11.4 | 54 | 83.3 | 75.9 | 50.9 | 20.8 | 7.5 |
| 4-10 days | 260 | 91.1 | 86.1 | 68.3 | 13.5 | 10.0 | 20 | 90.0 | 90.0 | 65.0 | 40.0 | 10.0 |
| Above 10 days | 263 | 85.5 | 80.5 | 76.7 | 20.2 | 9.2 | 16 | 93.8 | 62.5 | 43.8 | 18.8 | 6.3 |
| All | 1167 | 86.5 | 79.4 | 65.7 | 18.7 | 10.9 | 122 | 81.0 | 70.2 | 47.1 | 21.8 | 7.6 |

Note: $\chi^2$ tests was performed for each type of drugs.
*** p<0.001, ** p<0.01, * p<0.05.

Table 25 Some characteristics of male heroin-users in the last 12 months (among male PDC)

| | Used heroin in mainland China in the last 12 months | | |
|---|---|---|---|
| | Yes Col % (N=126) | No Col % (N=1032) | $\chi^2$ p-value |
| Main reason for using drugs in mainland China | | | <0.001 |
| Lower price | 55.0 | 26.8 | |
| Better availability | 15.8 | 18.6 | |
| Peer influence | 10.8 | 27.6 | |
| Others | 18.3 | 26.9 | |
| Whether it is easy to obtain drugs | | | 0.03 |
| It is easier to obtain in China | 70.2 | 59.4 | |
| It is easier to obtain in Hong Kong | 14.9 | 15.2 | |
| No difference | 14.9 | 25.4 | |
| Chances of being arrested in mainland China due to drug use | | | <0.001 |
| No chance | 58.8 | 25.2 | |
| Small chance | 27.7 | 58.0 | |
| Large chance | 13.4 | 16.7 | |
| Whether had used drugs with others in the last episode of drug use in mainland China | | | <0.001 |
| Alone | 48.4 | 13.6 | |
| Friends | 40.3 | 81.4 | |
| Strangers | 5.6 | 0.9 | |
| Friends and strangers | 5.6 | 4.1 | |

Table 26 Some characteristics of female heroin-users in the last 12 months (among female PDC)

| | Used heroin in mainland China in the last 12 months | | |
|---|---|---|---|
| | Yes Col % (N=9) | No Col % (N=110) | $\chi^2$ p-value |
| Main reason for using drugs in mainland China | | | 0.04 |
| Lower price | 62.5 | 21.0 | |
| Better availability | 12.5 | 22.9 | |
| Peer influence | 0.0 | 35.2 | |
| Others | 25.0 | 21.0 | |
| Whether it is easy to obtain drugs | | | 0.39 |
| It is easier to obtain in China | 62.5 | 37.9 | |
| It is easier to obtain in Hong Kong | 12.5 | 23.3 | |
| No difference | 25.0 | 38.8 | |
| Chances of being arrested in mainland China due to drug use | | | 0.13 |
| No chance | 50.0 | 22.5 | |
| Small chance | 50.0 | 55.9 | |
| Large chance | 0.0 | 21.6 | |
| Whether had used drugs with others in the last episode of drug use in mainland China | | | 0.04 |
| Alone | 33.3 | 9.3 | |
| Friends | 55.6 | 83.2 | |
| Strangers | 11.1 | 1.9 | |
| Friends and strangers | 0.0 | 5.6 | |

Table 27 Use of multiple drugs in mainland China (among PDC in the last 12 months)

| | Used more than one types of drug in mainland China in the last 12 months | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Male | | | | Female | | | |
| | | | | Univariate | | | | Univariate |
| | N | Row % | p-value | Odds ratio (95% CI) | N | Row % | p-value | Odds ratio (95% CI) |
| Age | | | 0.01 | | | | 0.14 | |
| 18-20 | 419 | 81.4 | | 1.00 | 74 | 72.2 | | 1.00 |
| 21-25 | 492 | 84.5 | | 1.25 (0.88,1.77) | 41 | 68.3 | | 0.83 (0.36,1.91) |
| 26-30 | 256 | 75.6 | | 0.71 (0.49,1.03) | 7 | 33.3 | | 0.19 (0.03,1.13) |
| Education level | | | 0.04 | | | | 0.05 | |
| Primary or below | 44 | 84.1 | | 1.00 | 1 | 100.0 | | 985.19 (0,$8.58x10^{21}$) |
| F.1-5 | 996 | 82.2 | | 0.87 (0.38,1.99) | 103 | 73.0 | | 5.41 (1.26,23.16)* |
| F.6-7 | 60 | 81.7 | | 0.84 (0.30,2.38) | 8 | 50.0 | | 2.00 (0.28,14.20) |
| University or above | 66 | 68.2 | | 0.41 (0.16,1.06) | 9 | 33.3 | | 1.00 |
| Employment status | | | 0.004 | | | | 0.31 | |
| Unemployed | 199 | 84.7 | | 1.00 | 29 | 79.3 | | 1.00 |
| Part-time job | 66 | 76.9 | | 0.60 (0.30,1.21) | 9 | 66.7 | | 0.52 (0.10,2.72) |
| Full-time job | 837 | 81.9 | | 0.82 (0.53,1.25) | 65 | 69.4 | | 0.59 (0.21,1.68) |
| Student | 45 | 62.2 | | 0.30 (0.15,0.61)** | 13 | 53.8 | | 0.30 (0.07,1.25) |
| Others | 19 | 94.7 | | 3.25 (0.42,25.24) | 5 | 40.0 | | 0.17 (0.02,1.29) |
| Income level | | | 0.43 | | | | 0.70 | |
| None | 224 | 80.6 | | 1.00 | 43 | 72.1 | | 1.00 |
| $5000 or below | 35 | 71.4 | | 0.60 (0.27,1.34) | 10 | 70.0 | | 0.90 (0.20,4.08) |
| $5001-$10000 | 469 | 82.8 | | 1.16 (0.77,1.75) | 45 | 69.0 | | 0.86 (0.34,2.20) |
| $10001-$20000 | 386 | 81.8 | | 1.08 (0.71,1.64) | 18 | 66.7 | | 0.77 (0.24,2.53) |
| Above $20000 | 44 | 76.2 | | 0.77 (0.35,1.68) | 5 | 40.0 | | 0.26 (0.04,1.74) |
| No. of days stay-over in mainland China last month | | | <0.001 | | | | 0.02 | |
| None | 121 | 66.9 | | 1.00 | 27 | 46.2 | | 1.00 |
| 1-3 days | 504 | 80.6 | | 2.0 5 (1.32,3.19)** | 54 | 77.4 | | 3.99 (1.46,10.88)** |
| 4-10 days | 260 | 86.9 | | 3.27 (1.93,5.53)*** | 20 | 80.0 | | 4.67 (1.22,17.82)* |
| Above 10 days | 263 | 83.6 | | 2.51 (1.52,4.16)*** | 16 | 62.5 | | 1.94 (0.55,6.94) |
| All | 1167 | 81.4 | | | 122 | 68.9 | | |

Note: *** p<0.001, ** p<0.01, * p<0.05.

# APPENDIX

問卷編號: _____

## 香港青年跨界濫用藥物情況調查(2002 年)

## 香港中文大學公共衛生學院臨床實驗及流行病學研究中心

## 禁毒常務委員會

先生/小姐，你好。我是中文大學的訪問員，我們受了香港禁毒常務委員會的委託，進行一項問卷調查，希望知道香港市民服用藥物的情況，用來幫助政府制定有關的政策。希望你能用幾分鐘的時間完成這個訪問，而你的答案會絕對保密，只會用作分析，請你放心作答，多謝你的幫忙。

1. 男　　2. 女

(1) 年齡

1. 18-20　　2. 21-25　　3. 26-30　　4. 其他 → **終止訪問**

(2) 你是否香港居民？

1. 是　　2. 不是 → **終止訪問**

(3) 在過去一個月，你有幾多晚在大陸過夜？

1. 冇　　2. 1- 3 日　　3. 4 – 10 日　　4. 10 日以上　　5. 唔記得

(4) 你覺得服用搖頭丸、K 仔、大麻、冰等藥物容唔容易上癮 ？

1. 十分容易上癮　　2. 頗易上癮　　3. 一般　　4. 頗難上癮　　5. 十分難上癮

(5) 你覺得服用搖頭丸、K 仔、大麻、冰等藥物，對身體有幾大損害 ？

1. 十分大損害　　2. 頗大損害　　3. 一般　　4. 頗小損害　　5. 十分小損害

(6) 教育程度

1. 冇正式受過教育　　2. 小學程度　　3. 中學程度 (F.1-F.4)　　4. 中學畢業 (F.5)
5. 預 科 (F6 – F.7)　　6. 大專或大學程度　　7. 大學以上

(7) 你現時有冇工作 ？

1. 學生　　2. 失業　　3. 兼職　　4. 全職　　5. 其他

(8) 你每月的平均收入

1. 冇　　2. ≤ $5000　　3. $5001 - $10000　　4. $10001 - $20000
5. >$20000

**以下部份是關於在中國大陸內服用精神藥物或海洛英的研究。由於內容比較敏感，所以會以電話錄音形式作調查，你的個人資料是絕對不被紀錄，請放心作答，你的答案對我們的研究非常重要，多謝你的回應。**

訪問員必須填寫：

1. 電話訪問完成。　　手電號碼：_____

2. 拒絕，原因：_____

3. 中斷訪問：_____

4. 訪問員姓名：_____

5. 日期：_____　時間：_____

問卷編號: _____

**第二部份　電話錄音形式的調查**

歡迎使用靈線資訊，以下題目係關於在國內濫用精神藥物或海洛英的調查，你只需輸入數字而無須講出答案，所以資料係絕對保密，請你放心作答。多謝你的幫忙。

(1) 在過去的一年，你有冇用過搖頭丸、K 仔、大麻、冰、海洛英等藥物?

"有" 按 1 字

"冇" 按 2 字→ **訪問完成**

(2) 在過去的三十日，你總共用過幾多次搖頭丸、K 仔、大麻、冰、海洛英等藥物?

"冇" 按 1 字

"1 – 2 次" 按 2 字

"3 – 10 次" 按 3 字

"多過 10 次"按 4 字

(3) 在過去一年，你是在香港、大陸或其他地方用過搖頭丸、K 仔、大麻、冰、海洛英等藥物?

"在香港、大陸兩地都有用過" 按 1 字

"只在大陸用過" 按 2 字

"只在香港用過" 按 3 字→ **跳問第 11 題**

"在其他地方用過" 按 4 字→ **跳問第 11 題**

在過去一年，你在大陸有冇以下的情況：

(3.1) 在大陸食過搖頭丸 ? – "有" 按 1 字 ， "冇" 按 2 字

(3.2) 在大陸食過 K 仔 ? – "有" 按 1 字 ， "冇" 按 2 字

(3.3) 在大陸食過大麻 ? – "有" 按 1 字 ， "冇" 按 2 字

(3.4) 在大陸食過 "冰"? – "有" 按 1 字 ， "冇" 按 2 字

(3.5) 在大陸注射或吸食過海洛英 ? – "有" 按 1 字 ， "冇" 按 2 字

(4) 上一次你在大陸用上述所講的精神藥物或海洛英是在什麼地方 ?

"的士高內、Rave Party" 按 1 字

"酒吧" 按 2 字

"酒店、渡假村" 按 3 字

"自己 / 朋友屋企" 按 4 字

"其他地方" 按 5 字

(5) 上一次你在大陸用上述所講的精神藥物或海洛英是怎樣得到的呢 ?

"從朋友處免費得到"按 1 字

"從陌生人處免費得到"按 2 字

"自己在大陸買" 按 3 字

"自己從香港帶去" 按 4 字

"其他" 按 5 字

(6) 上一次你主要係和那些人在大陸一起用上述所講的精神藥物或海洛英?

"自己一個人" 按 1 字

"和朋友一齊用" 按 2 字

"和陌生人一齊用" 按 3 字

"一齊同用的人中有朋友，亦有陌生人" 按 4 字

(7) 你第一次在大陸用精神藥物或海洛英係幾耐之前的事 ?

"呢半年內的事" 按 1 字

"半年至一年前的事" 按 2 字

"一至兩年前的事" 按 3 字

"超過兩年前的事" 按 4 字

(8) 以下那種是你選擇在大陸用精神藥物或海洛英的最主要的原因 -

"價錢平" 按 1 字

"容易找得到藥物" 按 2 字

"朋友影響" 按 3 字

"其他" 按 4 字

(9) 你覺得在大陸定在香港較爲容易取得精神藥物?

"大陸容易些"按 1 字

"香港容易些"按 2 字

"差不多"按 3 字

(10) 你覺得自己在大陸因服用精神藥物而被捕的機會有多少?

"完全冇" 按 1 字

"很小" 按 2 字

"頗大" 按 3 字

(11) 你覺得自己能否隨時停止服用這些藥物？

“能夠” 按 1 字

“不能夠” 按 2 字

“不知道”按 3 字

(12) 你有冇朋友經常在大陸服用搖頭丸、K 仔、大麻、冰、海洛英等藥物？

“冇” 按 1 字

“有，1-2 個” 按 2 字

“有，3 個或以上” 按 3 字

(13) 你覺得服食這些精神藥物或海洛英對你的健康有冇重大影響？

“有重大不良影響” 按 1 字

“冇重大不良影響” 按 2 字

“不知道” 按 3 字

(14) 上一次你在服食這些精神藥物或海洛英之前有冇飲酒?

“冇飲酒” 按 1 字

“有飲酒” 按 2 字

(15) 上一次你在服食這些精神藥物或海洛英之後有冇發生性行爲?

“冇發生性行爲” 按 1 字

“有發生性行爲” 按 2 字

(16) 你認爲服用搖頭丸、K 仔、大麻、冰、海洛英等藥物對性行爲的影響是?

“沒有影響” 按 1 字

“增加性能力” 按 2 字

“對性功能有壞影響” 按 3 字

－ 訪問完成，我們非常多謝你的合作 －

# Research Report on
# Cross-Boundary Substance Abuse Problem among Youths in Hong Kong

# Part II
# - A Supplementary Qualitative Study

**Submitted to:**

**Sub-committee on Research, ACAN**

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**9 December 2003**

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## BACKGROUND

The qualitative component of the study on cross-boundary substance abuse problem among youths in Hong Kong consisted of focus group interviews with youths who had an substance abuse experience in mainland China. Recruitment of subjects was mainly from social workers' referral and invitation at Lo Wu KCR station for those who had participated in the quantitative survey. Focus group discussions were conducted between December 2002 and January 2003. A total of four focus groups, two of age 18 to 20 (one male and one female group) and the other two of age 21-30 (one male and one female group), were conducted. In particular, there were 8 participants (most of them were of age 18, two aged 19, and one aged 20) in the "18-20 male" group and 6 participants (one aged 21, one aged 22, two aged between 23-25, one aged 28, and one aged 29) in the "21-30 male" group. The corresponding numbers of female participants in the two age groups respectively ("18-20" and "21-30") were 6 (two aged 18, one aged 19, and three aged 20) and 5 (three aged between 21-22, one aged 25, and one aged 26). For the two older age groups (i.e. aged 21-30), almost all of them were employed, whereas for the younger age groups, only about half of them were employed. None of them had used drugs for less than 6 months. All of them had used drugs in mainland China in the last 12 months and most of them had used drugs in Hong Kong as well.

The interview questions were developed to explore the youths' experiences with cross-boundary substance abuse and factors that contributed to have encouraged or discouraged such behaviours. A copy of the interview questions was attached (see Appendix). With the consent of the informants, the interviews were tape-recorded to facilitate subsequent data analysis. The facilitators were experienced in conducting focus group discussion; they encouraged discussions but remained as neutral as possible during the process. As soon as possible after the interview, the tapes were transcribed and content analysed to identify commonalities and differences in the data. On the basis of these, the views of youths who had substance abuse experience in mainland China were identified and presented below. Readers' attention is drawn to the fact that as the verbatim data presented in the results are a direct translation of the Chinese material, they may therefore appear grammatically incorrect in some places.

## I. Reasons for cross-boundary substance abuse

In the interviews, the informants disclosed a number of reasons for cross-boundary substance abuse. These mainly included issues related to peer influence and the differences in atmosphere, law and order, and consumer price between Hong Kong and mainland China.

### *Peer influence*

The influence of peers was cited as a most common and influential factor in cross-boundary substance abuse behaviours. Most informants pointed out that they went to mainland China because their friends went there. Some of them also have friends living or working in mainland China. They felt that since all of their friends abused drugs in mainland China, they therefore 'had to' conform and follow such practice. It was seen as difficult to refuse drugs that friends had offered them. Some informants said:

*"When you are in that environment, that is different, you will have the desire to take drug. Because your friends are taking together, then would you not take, would you? When friends play together, your friends take the drug and only you don't take it, you will be seen as strange, is it right? Of course we will take the drug together…"*

*"…do you understand? If you go to disco, you have to take MDMA…... Within the circle of friends, that is like customs."*

Majority of the male informants and some female informants expressed that if their friends went to mainland China in the future, they would follow as well. Some of them said that they would most likely visit mainland China to celebrate festivals or friend's birthday.

*"Anyway if my friends asked, and if I am free then I will go, if not of course I would not go, I have to work."*

***Atmosphere***

Most of the informants expressed that they abused drugs in mainland China because the atmosphere there was better than in Hong Kong. The discos, for example, were bigger and had more people. Informants therefore felt more free, happier and had more fun. Some revealed that:

*"…You can feel that the atmosphere (in mainland China) is different, and you will feel more free, and you can play happier."*

*"in there (mainland China) people dance more crazily, the atmosphere of dancing, that is…the atmosphere is much better, it is not like Hong Kong, so bored. There is less people in Hong Kong, not many people go to Hong Kong, there is no fun in discos in Hong Kong, no one plays in Hong Kong"*

As some of them felt bored in Hong Kong, they began visiting mainland China because their friends told them that the atmosphere was better there. In addition, informants also pointed out that anyone could be admitted to a disco in mainland China as long as he/she has paid the admission fee. In Hong Kong, however, they had to queue up and wait for a long time before they could be admitted to a disco.

A few of the informants also mentioned that the atmosphere was better in mainland China because of the availability of other forms of entertainment which could add so much fun to the trip. Examples of these include massage service and cyber bars.

***Consumer price***

All of the informants said that consumer price in mainland China was generally lower when compared with that of Hong Kong. Most of them were attracted by the cheaper price of drugs and the different forms of goods and entertainment in mainland

China such as alcohol and admission fees to discos. Some revealed that admission to discos and drugs were sometimes free of charge too. This cheaper consumer price was a great attraction, especially at times when informants were in short of money.

***Law & order***

Majority of the female and some male informants perceived that the enforcement of law was less strict in mainland China. They observed that there were not many policemen patrolling on the street and license inspection of disco was rather rare. Even when license inspection was performed, all the people were simply asked to leave the disco and not many people were prosecuted. As a result, the fear of getting prosecuted was greatly allayed and young people therefore felt 'safe' to take drugs in mainland China. One informant said:

*"I have never seen them (policemen) on the street. There is a police station on the street and they are smoking and chatting inside."*

*"Yes, yes, up there (in mainland China) there is no license inspection, in Hong Kong there is license inspection!"*

Most informants felt that the police in mainland China were not concerned about the problem of drug abuse and that people could take drugs openly. They said:

*"…said to be strict (law enforcement in mainland China); just said to be. Even if you carry a bag of drug and walk around on the street, no one will take notice of you."*

*"Yes, I felt safer in mainland China, and I play more happily there. In Hong Kong when you are playing, unexpectedly there is license inspection and people have to stop there, there is less fun, so it is better to go to mainland China."*

On the contrary, license inspection was more frequent and stricter in Hong Kong. Some informants said that they disliked this, and thought that it was simply a waste of time. They were worried that there would be a possibility of being prosecuted if they abused drugs in Hong Kong. Together with the less strict law and order in mainland China, informants therefore preferred to cross the border for substance use.

In addition, people younger than 18 years old were not allowed to be admitted into discos in Hong Kong. Some informants therefore started to go to discos in mainland China when they were still teenagers. They also successfully gained access to drugs there.

***Other reasons***

Some informants expressed that they had already developed the habit of abusing drugs in Hong Kong, it was therefore 'normal' for them to continue to abuse drugs when they visited mainland China. A few male interviewees revealed that another reason for cross-boundary drug abuse was that the drugs in mainland China were more potent and easier to obtain. They also pointed out that they could make more girl friends in discos in mainland China.

A few others also mentioned that they would go more often to mainland China if the travelling fees were reduced and new drugs were available.

## II. Experience of cross-boundary substance abuse

In the interviews, informants talked about their initial experience of cross-boundary substance abuse, the frequency of abuse, the substances that they abused, the circumstances under which the abuse occurred and their overall experience of substance abuse in mainland China.

### a. Reasons for the first cross-boundary substance abuse

#### *Peer Pressure*

Most of the informants regarded peer pressure as the main reason that started off their first episode of substance abuse in mainland China. Most of the female informants recalled that it was their friends or colleagues who suggested going to mainland China in the first instance, and they just followed what others had suggested.

Only one informant said that it was her wish to go to mainland China and she asked her friends to accompany her there. She explained:

*"I expected that (taking drugs) to happen, I basically expected that. Actually I invited my friends to go to mainland China many times, so we went there then. Then I expected to have such things (taking drugs). I did not need anyone to persuade me, they did not ask me to take drugs."*

Majority of the informants said that they started to abuse drugs in mainland China out of curiosity. They just followed the 'trend' and wanted to experience what their friends have experienced. Some also said that they conformed to their friends' persuasion just because they did not want to be like an 'outsider'. One explained:

*"At that time I played with my friends, we went to mainland China and went to the disco there. Someone passed the drug to us and my friends tried it. Then they passed the drug*

*to me, I was reluctant to try at first. They offered the drug again and again, and I saw that all the others have took it. They said that it was not addictive. As they offered several times again, finally I just took it."*

***Habit***

Some informants said that they have already been abusing drugs in Hong Kong for quite sometimes and this has become their habit. Thus when they went to mainland China, it was just 'logical' to abuse drugs there.

***Others reasons***

Several informants started to go to discos in mainland China at a rather young age. They said that at that time they were not old enough to be allowed to visit discos in Hong Kong. As a result, they also started to abuse drugs in mainland China. Interestingly, all the young female informants pointed out that cross-boundary drug abuse was not related at all to emotional problems. One of the informants was a cross-boundary drug trafficker. As he had to try the drug himself in mainland China, he might as well also used the drugs.

**b. <u>Frequency</u>**

Majority of the informants expressed that they abused substances in mainland China more frequently in the past, ranging from daily to every 1 to 2 months. The average frequency was about 2 to 3 times per week. Their frequent abuse in the past was due to the fact that they did not have a job, and that they were out of school as well. With nothing to do and being curious, they therefore adopted cross-boundary substance abuse frequently. For other informants, they abused drugs frequently in mainland China because they wanted to leave Hong Kong and relax after work.

At present, most of the informants reported less frequent episodes of

cross-boundary substance abuse, the frequency ranging from weekly to not having taking drugs for more than one year. The average frequency was about once a month. The main reason for this change in frequency was that their friends went to mainland China less frequent now. Having a job and the long traveling time to mainland China also reduced some of the informants' frequency of cross-boundary substance abuse. A few of them also said that they got bored with abusing drugs in mainland China. They felt that they had already grown up and wanted to be more serious with life. They therefore no longer wanted to take drugs in mainland China. Two informants said:

*"…now I do not have the habit to go up there (mainland China) and play, don't have the 'heart' to…recently I don't want to go (to mainland China), maybe I am grown up now… getting older, just don't want to go, want to be more serious."*

*"now I play in Hong Kong more, I don't know why, maybe my friends go to mainland China less often now, and I had to work, anyway the traveling time to mainland China is rather long."*

**c. <u>Where</u>**

Most of the informants reported that they abused drugs in discos while some reported taking drugs at karaokes. Some male informants said that they would take cannabis at friends' homes and restaurants. Other places where a few of the male informants abused drugs include hotels, TV game centers, cyber-cafés and bars. One also said that he had used drugs on the street.

**d. <u>With whom</u>**

Almost all informants revealed that they took drugs with friends in mainland China. Some female informants said that they would not take drugs alone. They felt happier

when drugs were taken together with friends. Some informants said that they would also take drugs with friends made in discos. Only a few informants reported that they would take drugs with strangers.

**e. <u>What substance</u>**

According to the informants, the most commonly used substances were MDMA and Ketamine. Cannabis was also quite commonly used. A few young female informants reported using ecstasy. The other drugs used by some male informants included Dextromethorphan, Coke, Methylamphetamine (Ice), heroin, midazolam and some tranquillizers (e.g. cocaine). On the whole, the drug used by male informants appeared to be more diverse and more potent. (It should be noted that the type of drugs used by the informants were based on their own understanding and it is possible that the drugs used were adulterated with other substances).

**f. <u>Multiple substance abuse</u>**

Majority of the informants expressed that they had the experience of adopting multiple substance abuse. The most common combination of mixed drug use was MDMA with Ketamine, or using more than 1 pills of MDMA at a time, or mixing MDMA pills of different ingredients. Other drugs that informants had used in multiple abuse include cannabis, heroin, methylamphetamine and dextromethorphan.

The methods that informants adopted in multiple substance abuse included taking the drugs in sequence, mixing them together, or increasing the drug dosage. They adopted multiple substance abuse because they wanted to speed up or potentiate the drug effect. Only a few informants reported that they had never mixed drugs.

**g. <u>Post-drug experience</u>**

After taking the drugs, most informants said that they felt very free, happier and wanted to laugh. Some of them became talkative and wanted to talk and share with others. Several informants also pointed out that after taking MDMA, they wanted to dance and felt like enjoying themselves more. They also got excited, energetic and very active. On the other hand, other negative feelings associated with drug use were also reported. These include unhappiness and suicidal thoughts. To a lesser extent, informants also reported feeling unsteady, funny, confused, dull and restless. Some informants said:

*"…very excited, yes, very excited, I felt myself "floating", the whole person really very "floating". I don't know why, but the teeth would grind too!"*

*"Actually if you take the drug when you are happy, you feel happier, if you take the drug when you are unhappy, you feel more unhappy…you will cry, cry continuously…"*

For most male respondents, they reported of having disoriented behaviour after taking Methylamphetamine (Ice), such as repeating the same things for a long time, but having no idea of what one was doing. They became very concentrated and devoted to doing certain things. When the drug effects were worn off, some informants reported having a bit of depressed mood. In the words of 2 informants:

*"I picked up the newspaper, picked up the page about horse racing, and watched for more than 10 hours…I don't know why I watched the same page for more than 10 hours…I have no idea what I am doing."*

*"…I want to get crazy, I cannot sleep, want to play around…that feeling is very happy, that is you may get very very excited, when the emotion slowly dies off, you will feel a bit depressed.…"*

## III. Effects of substance abuse

### *When taking the substance*

The most common effect experienced by informants was hallucination and teeth grinding. They became talkative and might bite their teeth with some wanting to chew gums. Other effects reported include weakness, drowsiness, unsteady gait, inability to maintain balance, disorientation, delusion, difficulty in urination and irritability such as violence, hostility, and crying :

*"…that is there are lots of different effects, I have cried, I would suddenly felt very unhappy, I would cry, really cried. When I looked at something, I don't know why, I felt confused, and the tears…I was emotionally unstable, keep crying but having no idea why…"*

*"I had (hallucination). Once a person…passed ketamine to me and I sniffed it forcefully. I then dropped onto the floor and closed my eyes, it was just like my spirit had escaped from my body…Yes, I closed my eyes, I can see the surroundings and saw myself lying on the floor…"*

### *After taking the substance*

The most common effects experienced by informants included slow response and cognitive changes. Many of the informants expressed that they had impaired memory, perception and thinking. They would forget things easily, or having lots of thoughts. In-coordination, dullness and disorientation were also reported. Other effects include mood swings, such as feelings of unhappiness, self-worthlessness, irritation or aggressiveness; panic, depression, suicidal thoughts and being pessimistic.

Some informants said that they experienced fatigue, headache, diarrhoea, nausea,

sleep disorder like insomnia or poor quality of sleep, loss of appetite and weight, palpitation, hand tremor, slurred speech, poor health and grinding of teeth. Some informants said:

*"the memory get impaired severely, when you just talked about something, done something, you forget that completely when you turn around. When going out to buy something, as you get down to the street you have completely forgotten what you want to buy…"*

*"Headache, always have headache, suddenly have great pain. Sometimes I would forget things, memory gets much poorer…"*

*"…I just know I was panic…had palpitation, hand tremor, stammering…"*

***Substance abuse and sexual behaviour***

All of the older male informants (21 years or older) reported a 'positive relation' between substance abuse and sexual behaviour. Some of them expressed that they felt sexually aroused after taking the drugs. They said that ice and cannabis in particular enhanced their sexual performance, but this decreased quickly as the drug effects worn off. Some others said that they became impotent in the following few hours after taking the drug even though they had sexual desire. When compared with the older male informants' data, it is worth noting that all of the young male informants (aged between 18 – 20 years old) reported inability to have sexual intercourse after drug abuse.

On the contrary, most female informants reported that sex and drugs were not related. Some said that when the drugs started to wean off, they would have mild sexual desire. In their words:

*"that is you would not feel that you have great desire (for sex)…Actually you will have some desire when the drug weans off. When you just took the drug, you just want to dance."*

*"…when the drug effects are at their peaks, you won't (want to have sex)..….you basically cannot perform (sexual intercourse)…"*

***Substance abuse and alcohol consumption***

Most of the informants expressed that the use of alcohol could potentiate or speed up the drug effects. Several of them even said that they would consume alcohol when the drug was considered as not effective. A few informants said that alcohol consumption and substance abuse were not related because the effects and side effects of taking drugs and consuming alcohol were rather different. Most of the older female informants said that they would drink wine and take drugs together because water and other drinks were not available in the discos.

***Substance abuse and heroin abuse***

All female and some male informants expressed that substance abuse would not lead to heroin abuse. They felt that taking heroin was completely different from substance abuse. According to them, substance abuse would not lead to addiction but heroin abuse would. Drugs and heroin in fact produced different effects and different feelings. Most of them found that substance abuse would only induce addition 'at heart' but would not induce dependence like what heroin would.

Some informants revealed that heroin would produce severe side effects and thus should not be used for fun. All the young male informants said that they would not take

heroin because they just wanted to take some drugs and danced more freely. The problem of taking heroin was that the abuser would feel sleepy and drowsy afterwards, with weakness over the 4 limbs and experience of low mood. Hence, those who would just want to 'go out and play' would not take heroin as it was seen as unsuitable and inconvenient for use in discos. As told by one informant:

*"heroin and MDMA are different things, that feeling (brought by heroin) is not the one that I desired."*

***Addiction***

All male and majority of the female informants expressed that they would not get addicted to using substance. They expressed that their main reason for taking drugs was to relax and play. It was regarded as a kind of 'addiction at heart' only. They would not therefore develop dependence on the drugs. In fact, when they were not in the discos, they would not think of taking the drugs. One of them said:

*"I would not get addicted, that is when you are not going to that environment (discos), you won't take drug. Yes, that's the situation for me."*

A few of the young female informants, however, reported of not being able to withdraw from substance use. One of them worked in a disco and drugs were offered to her whenever she went to work. As a result she developed a habit to take drugs. She said that she felt happier after taking the drug and could work harder. Another female informant said that she found it very difficult to withhold from taking drugs. One female informant said that she had stopped from taking drugs once, but she took up drugs again since she wanted to hurt herself.

**IV. Factors discouraging cross-boundary substance abuse:**

***Poor public order in mainland China***

Most of the informants reported that the poor public order in mainland China was the main factor discouraging cross-boundary substance abuse. They said that they were sometimes worried about the possibility of being robbed or killed in mainland China. One of them said:

*"…although it is fun in mainland China, but the public order is poor there. The people there are very fierce, they can take out their knives and rob you without reason…."*

Some of the female informants also expressed that they found it unsafe for a group of females to travel to mainland China alone. Majority of the informants was also concerned with the fact that as the 'police' was less 'professional' in mainland China, they would not be able to get adequate help if they had problems in mainland China. Some informants also mentioned about the problem of bribery in mainland China and were worried that they would be indefinitely detained if they did not have the money the police wanted. One of them said:

*"If they (police) felt you seemed to have taken drug, they will ask you to have urine check. In Hong Kong, this is done accordingly to law. But in mainland China, if you don't have money, or your family cannot afford the money, they will detain you…"*

***Lack of companionship***

Another major reason that would discourage informants from engaging in cross-boundary substance abuse was the lack of companionship. Most informants said that whether they would go to mainland China and abuse drugs there depended very much on whether their friends would also go there. One of them said:

*"…If your friends do not go to mainland China, then you naturally would not go there. Because you know I followed my friends there, so if my friends do not want to go, you basically will not go again."*

***Personal and family reasons***

Some female and most male informants expressed that they no longer wanted to go to mainland China to abuse drugs. They felt that they have already grown up and have to work to earn a living. They also did not want to waste money. Some of them also felt that they had 'played' enough and taken enough drugs. They felt a kind of 'bored' with such behaviours now. They said that if they had the money, they would prefer to stay and 'play' in Hong Kong. In the words of one informant:

*"Maybe my friends are getting older, they do not like these (drugs) much now. When I was young I had played enough, I am tired of that…everyone have their work, I will not use the money earned from hard work to take drugs…it might be better to save up the money. I am grown up now, I don't want to waste money, and I have already tried that (drugs)."*

For some young female informants, they preferred to stay and 'play' in Hong Kong when they were old enough to be admitted to discos in Hong Kong. Poor health, the declining trend of drug use in discos and family's opposition were also described as other factors that have discouraged cross-boundary substance abuse behaviours.

***Financial reasons***

The expensive transportation fees and cross-boundary tax were also seen as important in informants' consideration of cross-boundary substance abuse. Some other informants said that if the consumer price in mainland China is to become similar to that

of Hong Kong, they would prefer not to use drugs in mainland China.

***Other reasons***

Other reasons quoted by informants as discouraging their cross-boundary substance abuse behaviours included the long travelling time to mainland China and the closure of disco after 2 a.m. in mainland China. The extreme crowdiness during festivals and the lack of new stimulants in mainland China also led to decreased cross-boundary visits.

In addition, some informants also expressed that they would not go to mainland China if the enforcement of law and orders in discos became stricter. However, it is interesting to note that all the young male informants expressed that they did not belief this would ever occur in mainland China.

**VI. Changes in cross-boundary substance abuse**

In the interviews, informants also shared with the facilitators their observations with regard to the changes in the pattern of cross-boundary substance abuse behaviours among youths in Hong Kong. A general conclusion was that fewer Hong Kong people abused drugs in mainland China nowadays. This was a result of the fact that they were already bored with going to discos and had changed to going to karaokes and bars. The latter were more available in Hong Kong than in mainland China. Some also noticed that more and more young Hong Kong people travel to mainland China to abuse drug. Their age was generally around 11 to 14 years old, some even as young as 9 to 10 years old. These youngsters were too young to be admitted to discos in Hong Kong, so they would have to go to mainland China and take drugs there. Some said that these youngsters were

more ‘crazy’ than the adults, and they also initiated more fighting with others.

A few informants also talked about the changes in the potency and purity of drugs in mainland China. They found that the drugs in mainland China have more potent effects than those in Hong Kong. However, they were not certain about the ingredients of these drugs. Although the drugs in Hong Kong were found to be weaker, these informants considered them to be safer. They also expressed fear about the possibility of drug overdose in mainland China. One of them said:

*“…I mean the drugs in mainland China are stronger. It may be that the drugs are more mixed, i.e. the more ingredients mixed together makes the drug stronger. Yet, because you do not know what the mixture is, it becomes dangerous.”*

## VII. Conclusion

The analysis of data derived from the interviews with youths who had undertaken cross-boundary substance abuse has offered important understanding of the factors that have encouraged or discouraged such behaviours. It was very evident from the findings that the importance of peer influence has to be acknowledged in this regard. Other major factors identified include the cheap consumer price and law and order in mainland China. In general, it was found that the frequency of cross-boundary substance among youths in Hong Kong had generally declined. However, it is worth noting that the trend of cross-boundary substance abuse has become more prevalent in kids who may be as young as 10 years old. This is perhaps an important area that has to be further studied.

## DISCUSSION

As a general practice, qualitative studies, such as focus groups studies are always conducted with a small group of participants (very often under 10). Like quantitative studies, focus group studies have their own strength and limitations. In these studies, participants are not randomly selected and the sample size is small, so that they do not aim at producing inferential data. Unlike quantitative studies, no statistics could be applied to access reliability of the data obtained in qualitative studies, which is by definition not quantitative. The results may therefore not be generalizable to the target population. Yet, they are to provide some insights of areas that could not easily be captured by quantitative studies. In this case, it is meant to be supplementary to the quantitative data presented in another report (Part I Report). It provides a chance of interactive exchange of thoughts to clear or to confirm expressions, which was usually not feasible in quantitative studies. Besides, discussion in the focus groups may be dominated by some vocal individuals or that socially desirable responses may be given. The facilitators of this study hence made sure that all participants would have would have the full and equal opportunities to express themselves. They also create an atmosphere that all viewpoints are given equal weight, no matter they seem socially desirable or not. It is emphasized that the purpose of the meeting is to receive different viewpoints and no particular ones would be correct or wrong. They make sure that no reinforcements, in terms of verbal or body language, would be given to socially desirable or socially undesirable answers, or be given to innovative or unexpected answers. It is made sure that these experienced and trained facilitators would not express their opinions, or comment on the correctness of the answers given by the participants.

At times, focus group studies give some unexpected data, such as that some kids may start using drugs across the boundary when they were as young as 10 years old. These data should be interpreted with caution that it does not meant, as explained earlier,

that such is a common or representative phenomenon. However, it suggests that this aspect should not be neglected and should be given more attention. In this case, it raises a very important hypothesis that some young adolescents who may not be admitted to discos in Hong Kong, got a good chance of entering discos in mainland China. This hypothesis should further be tested and if found true, should have a prevention implication in seeking collaboration from the public security force in mainland China to enhance their age limitation for admission to these entertainment establishments. It should be kept in mind that the ACAN 2000 survey on drug use also found that some children were starting the use of substance when they were very young. Therefore, an open attitude should be given to unexpected findings, such as this one. Such data should not be interpreted as indicating the prevalence of the situation, instead, it generates further questions to be answered and provides better understanding of different reasons conducive to using drugs in mainland China.

# APPENDIX

Cross-Boundary Substance Abuse Problem among Youths in Hong Kong
--- A Supplementary Qualitative Study

**INTERVIEW QUESTIONS**

1. 爲什麼你在大陸服用精神藥物?

2. 你怎樣開始到大陸服用精神藥物?

3. 可否講一講你在大陸服用精神藥物的經驗?
   - 多久一次
   - 在哪裡服用
   - 和誰一起服用
   - 哪種藥物
   - 多種一起服用?
   - 感受

4. 在香港或到大陸服用精神藥物有什麼不同?

5. 有什麼原因/情況令你繼續到大陸服用這些藥物?

6. 在什麼情況下你不會再到大陸服用這些藥物?

7. 在大陸公安執法的情況如何?

8. 服藥後的各種反應:
   - 會否上癮?
   - 副作用?
   - 性行爲等?

9. 服用精神科藥品跟飲酒和使用海洛英等有沒有關係?

# Research Report on
# Cross-Boundary Substance Abuse Problem among Youths in Hong Kong

# Part III
# – Synthesis & Recommendations

**Submitted to:**

**Sub-committee on Research, ACAN**

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**9 December 2003**

## INTRODUCTION

The purpose of this Report III is not to compare point by point the results of the quantitative study and the qualitative study. Instead, a synthesis is done to highlight significant findings obtained from the two studies. Relevant recommendations are also given in this report.

## SALIENT RESULTS

### I. Reasons for using or not using drugs in mainland China

1. A number of reasons for cross-boundary drug use have been identified:

i). *Availability* - The quantitative study showed that many drug users perceived that it was easier to obtain drugs in mainland China, than to obtaining drugs in Hong Kong. This is also shown by the data that the great majority of the respondents who had used drugs in mainland China in the last 12 months ("PDC") obtained their drugs in mainland China. Given that most of the drug use took place in discos etc., potential users easily knew the whereabouts to obtain drugs, availability was therefore enhanced.

ii). *Price* - Availability can also be affected by affordability. Many respondents used drugs in mainland China because they were cheaper there, as indicated by the quantitative study. The results of the qualitative study further elaborate the point about price. It is not only the direct price of the drug, but the price of the entire entertainment package. For instance, you may be admitted free to discos in Shenzhen, but you need to spend HK$100-200 to

enter a disco in Hong Kong. Price is especially relevant in the case of cross-boundary drug use behaviors, as many of the PDC were young and unemployed or had no income (this is especially true for female PDC), who may be very price-sensitive. The quantitative study found that in fact, many PDC were obtaining the drugs free from their friends. Again, this is especially true for female PDC. Further, the quantitative study pointed out that heroin-users were also more price-sensitive than other drug users in the PDC group. It seems that control of supply is a key element in reducing cross-boundary drug use behaviors.

iii). *Fun* - This reason has mainly been highlighted by the results of the qualitative study. To the PDC, drug use in mainland China may not only be cheaper and more available, it is fun. The atmosphere may be better there ("bigger", "better"); people are "crazy" there; there were fewer police interference (license inspection); one may have other forms of entertainment there; male PDC may meet some girls there etc.. It is also important that quite a few focus group participants perceived that drugs obtained in mainland China have higher potency. Such a misconception should be rectified and the danger about impure drugs etc. should be publicized.

iv). *Legal enforcement* - Data from both the quantitative and the qualitative studies seem to point out that law enforcement in mainland China has not been strict, at least in the perceptions of the PDC. This may be one of the reasons why a substantial proportion of the PDC were heroin-users, who shared such feeling as well. Customers of discos in Shenzhen were less likely to experience "license inspection", carried out by the police. Few believed that legal enforcement would get stricter in mainland China (qualitative study). Another very important aspect is that age restriction for entry to discos does not

seem to be enforced strictly in mainland China, so that many adolescents who could not enter discos in Hong Kong could do so in mainland China, and took drugs in these discos (qualitative study). A phenomenon of lowering age at first use of drugs had been observed by other studies (Lau et al., 2002). Allowance of young adolescents to enter discos etc. and obtain drugs in mainland China may substantiate the above-mentioned trend. Therefore, there was no strong legal factor deferring young adults to use drugs in mainland China.

v). *Peer influence and peer pressure* - Peer influence definitely plays an important role in cross-boundary drug use behaviors. The quantitative study shows that drugs are often used with some friends, rather than being used alone or used with strangers (though it is worrying to see that a noticeable proportion of female PDC were using drugs with strangers). Many PDC had some friends who were frequent cross-boundary drug users. The qualitative study further points out some salient points - the normative aspect of cross-boundary drug use. Firstly, such cross-boundary drug use behaviors were likely to be initiated and accompanied by some friends. Second, it may have become a norm, that it is “normal and expected” that drugs "should be" used when someone is going to discos in mainland China. It is simply "logical" and "natural" that it happens. Otherwise, one may face pressure for conformity, or lose the sense of being an insider (qualitative study).

2. Considerations that may not facilitate cross-boundary drug use include:

i). Travel cost, inconvenience, and poor public order have been cited as factors discouraging cross-boundary drug use.

ii). Personal growth was another mentioned factor discouraging the practice of cross-boundary drug use. That may explain why the quantitative study showed that a very high percentage of the drug users had been using drugs in mainland China for only less than six months. As described by the focus group participants, out of curiosity, many youths would like to try possessing such an experience, and when curiosity fade and personal growth set in, many stopped going to mainland China for drug use. Personal development may be a promising strategy to prevent cross-boundary drug use in specific or drug use in general.

## II. Special problems associated with cross-boundary drug use

i). *Use of alcohol before taking drugs* - The quantitative study found that male PDC were more likely to intake alcohol before intaking drugs, as compared to male DOC (drug users who had only used drugs outside mainland China in the last 12 months). Firstly, the venue of drug use, such as discos, makes alcohol highly available when drug use takes place. It is known that alcohol affects judgment. It is yet worse that the PDC used alcohol to speed up the drug response (qualitative study). The particular danger should be emphasized in relevant educations.

ii). *Mixing drugs* - The quantitative study showed that a high percentage of the PDC had used more than one types of drugs in the last 12 months. Further, it is those who did not perceive drug use to be harmful that had used multiple drugs in mainland China. This observation is further elaborated by the results of the qualitative study that most of the PDC may be using mixed types of drugs in a single occasion of cross-boundary drug use.

The purpose is to speed up the drug reactions. The danger has to be made known to those who are at-risk. Unfortunately, there is no data for DOC to examine whether such mixing behavior is more or less common for when drug was used in Hong Kong.

iii). *Sexual behaviors* - The results of the quantitative study showed that a high percentage of the PDC, especially male PDC had had sexual intercourse with someone after taking drugs. The likelihood was also higher among male PDC, as compared to male DOC. It also showed that PDC, when compared with DOC, were also more likely to believe that drug use contributes to better sexual functioning. Such a perception was in turn significantly associated with a higher likelihood of having had sexual intercourse after intaking drugs. The misconception therefore also needs to be rectified. More in-depth studies should be conducted to investigate the dynamics between sex and drug use in mainland China. For instance, whether commercial sex or non-regular sex partnership is involved and whether unprotected unsafe sex is common. Both the quantitative and qualitative studies show that male PDC of 21 years or older of age, were more likely than those who were of age 18-20 to be engaged in sexual intercourse after using drugs in mainland China. Other studies have reported a high prevalence of HIV/STD-related risk behaviors among cross-boundary sex-networkers and a high prevalence of sexually transmitted diseases had also been reported (Lau & Thomas, 2001; Lau, Tang, & Tsui, 2003). It is expected that the PDC group, were more likely to be practicing unsafe sex, as many of them were under drug (and alcohol) influences. The health and well being of PDC should be considered by a holistic approach, rather than tackling the drug abuse problem and neglecting the HIV-risk problems etc.. It offers a good opportunity of drug prevention workers to collaborate with HIV workers.

## III. Size of the problem and trends

Unfortunately, there is no formal estimation for the size (prevalence) of the cross-boundary drug use problem, due to the limitation of the study design. Using data obtained from another survey conducted in 2002 (Lau, Kim, & Tsui, 2003), the prevalence seems noticeable. Judging from the proportions of travelers admitting having used drugs in our survey, it is speculated that the practice of cross-boundary drug use is still common. The qualitative study results however, suggest that the prevalence might have been decreasing; further study is required to clarify the fact. Surveillance of risk behaviors, including drug use behaviors and including cross-boundary risk behaviors have been used in other fields of research and it can be applied to our area of concern.

## IV. Characteristics of the cross-boundary drug users

As expected, there were more male PDC than female PDC sampled; however, the proportion of female PDC among all travelers is higher than we expected. Female PDC tended to be younger than the male PDC. It is also noted that many of the female PDC were not employed full time and were having low or no income. The results of the quantitative study showed that PDC seemed to be visiting mainland China and used drugs quite frequently. Frequency of drug use was significantly higher among PDC than among DOC (quantitative study).

The type(s) of drug used does not seem to be very different from those used by young

people in Hong Kong, except that it seems that heroin-users may be making up a noticeable proportion of PDC. It is seen that the characteristics of the heroin-users may be quite different from those of the other PDC. The former tended to be more price driven, believed that drugs are more easily available in mainland China than in Hong Kong, that the chance of being arrested in mainland China is low and used drug unaccompanied (quantitative study).

## V. Difficulties/obstacles of preventing cross-boundary drug use

i). Drug prevention may not be seen as relevant as most of the PDC as well as the DOC were likely to believe that they could quit the drug use habit any time. Similar impression was obtained from results of both the quantitative and qualitative studies. Further, PDC were more likely than DOC to perceive drug use as not addictive and not harmful (quantitative study). Therefore, elements such as perceived susceptibility or perceived severity of the problem, as depicted by the health belief model, did not exist in the mind of many PDC, making behavioral changes more difficult.

ii). To our knowledge, there are not many NGOs that are offering drug use prevention programs in Shenzhen or other cities in the Guangdong province.

iii). The supply of the drug cannot be controlled by the Hong Kong side.

iv). Further integration between Hong Kong and mainland China, such as the opening up

of the checkpoints for 24-hour services, may remove some of the factors discouraging cross-boundary drug use.

v). It is not clear whether the increasing unemployment rate would lead to more cross-boundary drug use among the young adults, since many of them could get free drugs in mainland China.

## VI. Suggested strategies for prevention of cross-boundary drug use

i). *Surveillance* - A surveillance system should be established to understand and monitor changes and trends. Such is not available now. Population based telephone surveys using special design, rapid assessments of samples of travelers, focus group techniques all have their own limitations, but they can be all used in supplement with each other. A drug use behavior surveillance system, similar to those monitoring HIV-related behaviors (e.g., Lau & Tsui, 2003) could be set up. Without a surveillance system, programmers are handicapped when trying to respond to new trends.

ii). *Control of supply* - It seems that availability, free or cheap price has been a strong pulling force for cross-boundary drug use. Reduction of supply should therefore be an important strategy to deal with the problem. Questions about law enforcement, control and regular inspection of discos in mainland China have to be discussed with the mainland authorities. It is also possible that a tightened supply in mainland China would drive drug users to use drugs in Hong Kong, so supply reduction both in the mainland

China and in Hong Kong needs to be synchronized.

iii). *Taking a holistic approach* - Contents of programs aiming at preventing cross-boundary drug use should be considered together with other issues, such as unsafe sex and alcohol use. It should also take other issues such as personal growth, interpersonal skills and unemployment among youths into account, rather than just dealing with the problem of cross-boundary drug use in a narrow sense.

iv). *Rectifying misconceptions* - The misconceptions that drug is not harmful and not addictive etc. seem to be common among most of the drug users. However, it is even more common among PDC than among DOC. Continuous efforts to remove these misconceptions are therefore necessary. Other relevant misconceptions or perceptions that need to be rectified or reverted may include drug use improves sexual functioning, drugs obtained in mainland China have higher potencies, legal enforcement is not strict in mainland China (and possibly that one could easily get away from it, even being arrested) etc.. It is also important to explain the dangers of using mixed types of psychoactive substances and using alcohol together with psychoactive substances. It is important to increase the sense of danger, including personal safety, for using drugs in mainland China.

v). *Tightening control on discos* - It is quite clear that discos in mainland China play an important role in the gathering of cross-boundary drug users and dissemination. A tight control may alleviate the problem, this includes as well age limitation on entry, use of alcohol and drugs etc..

vi). *Joint efforts with NGOs working in other fields* - As drugs and sex are much in strong

association among PDC, drug prevention workers should consider working more closely with HIV workers.

vii). *Special attention given to heroin-users* - Further understanding needs to be gained about the pattern of heroin use across the boundary. The pattern may be quite different from those using other types of drugs.

## LIMITATONS OF THE STUDY

The limitation of the study is discussed in the Discussion sections of Report I and II.

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