I-TRACK 2009
Special Study

Monitoring Trends in the Prevalence of HIV and Hepatitis C and Associated Risk Behaviours Among People Who Inject Drugs in Victoria, BC

Summary Report

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ACT – Assertive Community Treatment Team

AVI - AIDS Vancouver Island

PEERS – PEERS Victoria Resource Society

SOLID – Society of Living Intravenous Drug Users

VARCS – Victoria AIDS Resource & Community Service Society

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ABBREVIATIONS

ACT – Assertive Community Treatment Team

AIDS – Acquired Immune Deficiency Syndrome

AVI – AIDS Vancouver Island

DBS – Dried Blood Specimen

HCV – Hepatitis C virus

HIV – Human Immunodeficiency Virus

IDU – Injection Drug User/Person who Injects Drugs

MHAOW – Mental Health and Addictions Outreach Worker

NEX – Needle Exchange

NEP – Needle Exchange Program

PEERS – PEERS Victoria Resource Society

PHAC – Public Health Agency of Canada

PPHO – Public and Population Health Observatory

SOLID – Society of Living Intravenous Drug Users

UVIC – University of Victoria

VARCS – Victoria AIDS Resource & Community Service Society

VIHA – Vancouver Island Health Authority

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EXECUTIVE SUMMARY

The I-Track survey is a national, enhanced surveillance program implemented by the Centre for Infectious Disease Prevention and Control at the Public Health Agency of Canada (PHAC), in collaboration with the Vancouver Island Health Authority (VIHA) and other regional health authorities and partners throughout the country. The I-Track program monitors the prevalence of human immunodeficiency virus (HIV) and hepatitis C (HCV) and associated risk behaviours among people who inject drugs, referred to as IDU. The program uses cross-sectional surveys that consist of an anonymous and confidential interviewer-administered questionnaire and finger-prick blood sample. The I-Track survey was conducted in Victoria as part of national survey rounds in 2002 (pilot), 2003 (Phase I), and 2005 (Phase II). The Vancouver Island Health authority and local community agencies have used the results to guide decision making to improve services to people who inject drugs.

In 2009, PHAC, VIHA and the University of Victoria (UVIC) collaborated to complete a special round of I-Track in the Greater Victoria area, in between national phases of the I-Track survey. Two hundred and fifty-six eligible participants were recruited into the study over a 5 1/2-week period throughout May and June 2009. Recruitment sessions took place at seven locations in the Victoria area and included four fixed sites and three outreach locations. Outreach recruitment sessions were conducted in the back of a parked cargo truck set up for this purpose. Two thirds of survey respondents were registered at the former fixed needle exchange site.

Data from this 'Special Study' was compared to previous I-Track rounds to help detect changes and trends in risk behaviours, drug use patterns, and disease prevalence that may have occurred since 2003 when Phase I of I-Track was conducted. Because participants are not recruited randomly, the results describe the survey sample in each round, but it is not known how representative the results are of the broader population of IDU in Victoria.

The survey recruited participants 17 years of age or older who had injected drugs within the previous six months. The average age of respondents was 41 years. Approximately one third were female and two thirds were male. Those who identified themselves as Aboriginal represented 18% of the sample population. Fifty-five percent had completed high school education, and 23% reported living on the street at the time the survey took place.

Almost 40% of respondents reported first injecting drugs before they were 19 years old, and the average time since first injecting was 17 years. About three quarters (74%) of respondents reported injecting cocaine during the preceding six months, and 37% said they injected cocaine

more than any other drug. Although cocaine was the most common drug of choice for those surveyed, cocaine injection declined across phases of I-Track. In contrast, the injection of crack, oxycodone and non-prescribed morphine increased across phases. In terms of non-injection drug use, approximately 86% of respondents smoked crack in the previous six months, and 41% said they used it more frequently than any other non-injected drug, a percentage that is substantially higher than in previous phases. These results suggest that there has been a marked shift in drug use and injecting behaviour across phases of I-Track.

About 75% of respondents reported injecting in the street at least once in the previous six months, and over 26% injected in the street more often than in any other location. An additional 16% injected most frequently in other public places such as vehicles and public bathrooms. The percentage of respondents who shared used needles (lending and/or borrowing) decreased substantially across phases; however 23% of those surveyed did share used needles. Respondents who lived in their own home were less likely to lend used needles and to inject in public places than respondents who lived in a shelter or on the street. Approximately 22% of respondents who were aware they were HCV(+) reported lending their used needles to someone else. The lending and borrowing of used equipment was highly prevalent; over 40% shared some type of equipment, e.g., water, filters, cookers, tourniquets, or swabs.

Close to 98% of respondents had ever used a needle exchange, and about 75% reported using a mobile needle exchange in the previous six months to exchange, drop off, or receive needles. The majority of respondents obtained their clean needles through AIDS Vancouver Island (AVI) and through friends. Many others reported getting clean needles from Cool Aid's Community Health Centre, the Victoria AIDS Resource & Community Service Society (VARCS) and the Society of Living Intravenous Drug Users (SOLID). At least 22% obtained needles from questionable sources including dealers and other illicit market sources. Approximately 70% discarded their used needles at drop boxes located at strategic sites in downtown Victoria, and about 46% reported returning their used needles to a needle exchange program.

About 97% of respondents agreed to provide a dried blood specimen (DBS) which was tested for HIV and HCV. The presence of HIV antibodies in a DBS indicates HIV infection, while the presence of HCV antibodies can indicate either past exposure or current infection. Among respondents who provided a DBS, the prevalence of HIV was 13.3%, which is in the same range as the previous survey samples. The prevalence of HCV was 63.1%, which is somewhat lower than either Phase I (68.5%) or Phase II (73.8%). The percentage of respondents who reported having tested for HIV or HCV within the past two years increased substantially across survey samples. The percentage of

respondents testing for HIV rose from 76% to 87%, and the percentage testing for HCV rose from 64% to 85%. About 82% of HIV(+) respondents were aware of their positive status, and this was higher than in previous years. However 30% of respondents who were HCV(+) were not aware that they had been previously exposed, and this suggests there is a need for enhanced testing and follow-up by the healthcare community with clients who are at risk for HIV and HCV.

Some respondents reported that the closure of the fixed needle exchange site in Victoria in May 2008 impacted their drug use and health. A number reported difficulty disposing of their used needles safely and also reused their needles more often. Some respondents reported smoking crack cocaine more often and injecting drugs less often. Health impacts reported by respondents included difficulty accessing street nurses for health concerns, difficulty accessing drug counseling services, and more frequent use of emergency departments. While the frequency of emergency room visits increased for some respondents, approximately 44% of respondents reported visiting an emergency department or being admitted to hospital in the past six months, and this percentage was about the same as in previous phases.

Although the survey results cannot be generalized beyond the sample with any known degree of certainty, these findings are important and suggest that changes in drug use and risk behaviours associated with HIV and hepatitis C transmission may be occurring in the Victoria IDU community. It is hoped that the results of this report will inform harm reduction practice in Victoria and help to improve the health and well-being of people who inject drugs.

1.0 INTRODUCTION

Individuals who inject drugs (IDU) are at higher risk than the general population of acquiring human immunodeficiency virus (HIV) and hepatitis C (HCV) through risk behaviours that precede and facilitate disease transmission, such as the sharing of needles, frequent injection, and unprotected sex. The Public Health Agency of Canada (PHAC) monitors the prevalence and trends of both risk behaviours and infection in people who inject drugs through a national enhanced surveillance program called I-Track. This multi-site cross-sectional survey is conducted every three to five years at various sites across Canada and provides a methodology by which data can be compared across sites and over time.

Since 2002, the Vancouver Island Health Authority (VIHA) has participated in four nationally funded survey rounds. A pilot survey was conducted successfully in Victoria in 2002, followed by Phase I (2003) and Phase II (2005). In the fall of 2008, Phase II was expanded to include six communities throughout Central and North Vancouver Island.

Data is collected by an interviewer-administered questionnaire and finger-prick blood sample. Recruitment and interviews generally take place in fixed locations such as needle exchange sites, emergency shelters, and offices of mental health, addictions, and public health services. The analysis of survey data over time is used to track changes in risk behaviours and disease prevalence at both a national and local level. This information is especially important to local agencies and health authorities for planning and evaluating harm reduction services and prevention measures, which help to reduce disease transmission.

This report presents a summary of the results of a special survey in 2009 that took place in Victoria between the national Phase II and Phase III survey rounds. The Public Health Agency of Canada recently started funding Phase III surveys, and VIHA is currently working with PHAC and other partners regarding its Phase III participation.

2.0 BACKGROUND

2.1 NEEDLE EXCHANGE CLOSURE

In May 2008, Victoria's fixed needle exchange program closed after 20 years of operation. At the time of its closure, the program was providing needle exchange and harm reduction services to an estimated 1500 registered clients, in addition to other services such as outreach clinics, hot meals, and social support. While efforts to find an alternative fixed site for a needle exchange continue,

teams from VIHA, AIDS Vancouver Island (AVI), Cool Aid, the Society of Living Intravenous Drug Users (SOLID), and Victoria AIDS Resource & Community Service Society (VARCS) have intensified their efforts to provide mobile needle exchange and other services to people who inject drugs.

Despite the efforts to provide intensive mobile needle exchange, data from these agencies suggested that there was a decline in the number of needles distributed and recovered in Victoria during 2008.[1] This raised concerns that there might have been an increase in needle sharing and other risky behaviours that followed the closure of the fixed-site needle exchange, particularly if the IDU population were having difficulty accessing clean supplies. However, anecdotal reports also suggested that a shift in drug use patterns away from injection and towards inhalation was occurring at this time. Additional data were therefore needed to identify factors associated with these changes and to guide current and future program planning to support this vulnerable and unique population.

In early 2009, VIHA, the University of Victoria (UVIC), and PHAC arranged to collaborate on a disease prevalence and risk behaviour survey in the IDU population using the I-Track methodology and protocol. Data from this survey will be compared to local survey data from I-Track Phase I and Phase II to inform harm reduction programs.

2.2 Advisory Committee

An advisory committee was consulted on matters relating to population characteristics, survey promotion and recruitment strategies, site-specific questions to add to the national core questionnaire, and logistics. The advisory committee included the Victoria Needle Exchange (NEX) Service Providers Group, VIHA public health staff who work with individuals who inject drugs, representatives from the city emergency shelters, and I-Track research team members. The NEX provider group includes staff from the following agencies: Society of Living Intravenous Drug Users, AIDS Vancouver Island, Victoria AIDS Resource and Community Service Society, Victoria Cool Aid Society, PEERS Victoria Resource Society, and VIHA outreach nurses.

3.0 METHODS

3.1 Ethical Review Process

The I-Track survey received approval from both the Joint UVIC/VIHA ethics review board, which is a subcommittee of VIHA and UVIC review boards, and the Health Canada Research Ethics Board.

[1] Vancouver Island Health Authority. (2010). *Needle Exchange Services Distribution and Collection*. Victoria: Author. http://www.viha.ca/mho/disease/harm_reduction.htm

3.2 CONFIDENTIALITY

Survey respondents were asked to provide a personal code consisting of their initials, date of birth and gender. The personal code is entered into an encryption program which generates a unique ID number that cannot be traced back to the personal code or the participant. The questionnaire and blood specimen are linked by the encrypted code ensuring respondent anonymity. This encrypted code can also be used to track respondents who have participated in previous phases of the survey.

3.3 SURVEY DESIGN

I-Track 2009 is a cross-sectional survey that uses a combination of convenience and snowball sampling methodology to identify potential respondents. It includes an interviewer-administered questionnaire and finger-prick blood sample. Participants were recruited from multiple fixed and mobile locations in collaboration with VIHA and other community agencies that serve the IDU population.

3.4 TARGET SAMPLE SIZE AND POPULATION

A target sample size of 250 was determined based on the estimated population size and recruitment success of previous I-Track survey rounds. Two hundred and seventy-one interviews were conducted resulting in 256 eligible respondents.

3.5 ELIGIBILITY CRITERIA AND SCREENING

Respondents were screened for eligibility using the following criteria:

- Aged 17 years or older
- Have injected drugs within the past six months
- Appear capable of understanding information about the survey and therefore be able to provide informed consent
- Not have already participated in the current survey round

Approximately 300 individuals were screened with a screen-failure rate of about 15%. At the beginning of the survey round, the primary reasons for respondents failing eligibility screening were 'never having injected' and 'not having injected within past six months.' Towards the end of the survey round, the majority of screen fails were individuals attempting to repeat the survey. Fifteen of those who completed the survey were later found to be ineligible for a variety of reasons.

3.6 DUPLICATION AND ELIGIBILITY

A master list of personal codes provided by previous participants was updated each recruitment session and used to screen out respondents who attempted to repeat the current survey round. Prior to administering the survey, interviewers compared the codes of new respondents with those who had previously participated. At the end of the survey round, the code lists were reviewed

again. Six questionnaires with similar or transposed codes were inspected by the coordinator and research team on responses to questions regarding drug use, HIV and HCV status, testing behaviours, demographics and 'drug used most in past 1 month', both injected and non-injected. These six questionnaires were determined not to be duplicates and remained in the sample. At the end of survey round, twelve individuals were determined to have repeated the survey undetected, and their second surveys were excluded at that time. An additional three surveys were excluded for one of the following reasons: i) ineligible (had not injected within past six months, ii) poor quality responses, and iii) non-responder (participant decided not to continue with the survey after giving consent and answering only a few questions).

3.7 PROMOTION

The primary methods of promotion were word of mouth and printed materials (posters, flyers, and business cards) which were distributed by members of the advisory committee and community agencies to the IDU population.

3.8 RECRUITMENT SITES

Recruitment sessions were scheduled at a variety of sites in Victoria which serve distinct populations of IDU. In addition to operating at fixed recruitment sites (VIHA Pandora office, Streetlink Emergency Shelter, Sandy Merriman Shelter, and AVI), the survey team also accompanied outreach mobile needle exchange staff from AVI, VARCS and PEERS.

3.9 QUESTIONNAIRE AND SURVEY ADMINISTRATION

The I-Track 2009 special survey adopted the national I-Track core questionnaire with the addition of 18 site-specific questions based on recommendations of the advisory committee. The core questionnaire is divided into the following four sections: i) drug use and injecting behaviours, ii) sexual behaviours, iii) HIV/HCV testing and awareness, and iv) demographics. Site-specific questions added to the core questionnaire related to the following topics: i) crack use ii) changes in drug use, iii) needle disposal, iv) location of drug use, v) use of needle exchange services, vi) impact of fixed needle exchange site closure on drug use and health, vii) access to health services, and viii) social networking.

The survey was administered by a research assistant or project coordinator in a private room at fixed recruitment sites and in the back of either a cargo truck and/or outreach van during mobile recruitment sessions.

3.10 Blood Specimen

Dried blood specimens were collected from 249 eligible respondents. A sterile lancet was used to collect a finger-prick blood sample which was preserved on a small card provided by the National Microbiology Laboratory. The blood samples were sent to the national laboratory for analysis of HIV and hepatitis C and, if participants consented, were stored for future testing.

3.11 Local Analysis and Approach

A private consultant was contracted to clean and enter survey data. Local analysis was carried out using SPSS 17.0 software. Descriptive analyses were conducted on variables related to the following: demographics; drug use; needle sharing; sexual behaviours; use of needle exchange services; HIV/HCV testing, awareness and care; HIV/HCV prevalence; use of emergency services; needle disposal; and impact of the closure of the fixed needle exchange site on drug use and health. In many instances, the results of this analysis have been compared to Phase I and Phase II results and presented in this report.[2]

3.12 Limitation of Analysis and Interpretation of Results

Interpretation of these results must take into account several limitations of the survey design and methodology. First, the recruitment methods used (convenience and snowball) resulted in a sample population which was not random and therefore may not be representative of all those who inject drugs in Greater Victoria. Second, because the sample is not randomized, the results presented are descriptive, and no statistical tests for significance were performed. Extrapolation of these results beyond the study sample population could be misleading. Thirdly, sampling bias may have been introduced as respondents self-selected themselves, and those who were clients of community agencies and who were street-involved were more likely to hear about the survey and therefore be included in the sample. Also recall and response bias may have resulted in misreporting and/or under-reporting of risk behaviours if respondents felt reluctant to disclose such behaviours to the interviewer. Certain analyses gave results which represented a small number of respondents, and these results might have identified individual people who participated in the survey. In these circumstances, the results were not included in this report but were represented in tables with an asterisk.

In addition, the recruitment strategies used in this survey were modified from previous phases. In the absence of a fixed needle exchange site, the survey team adopted a mobile approach, partnering

[2] Epidemiology & Disease Control and Population Health Surveillance Unit. (2006). *I-Track survey: Enhanced surveillance of risk behaviours and prevalence of HIV and hepatitis C among people who inject drugs.* Victoria: Vancouver Island Health Authority. http://www.viha.ca/mho/publications

with several outreach programs. This may have resulted in a sample population with different characteristics from those recruited in previous surveys. However 60% of those who participated in the 2009 survey had been clients of the fixed needle exchange site, and a comparison of demographics across phases suggests these sample populations are similar.

Literature has shown that women who inject are less likely than men to visit needle exchange sites and shelters, and this suggests that women are likely to be underrepresented as a group in this survey. Youth under 17 years of age are also not represented,

4.0 RESULTS

4.1 Sample Size and Characteristics of Respondents

The survey recruited 256 eligible respondents. The demographic characteristics of respondents are shown in Table 1. The average age of respondents was 41 years, an increase of 6.8 years across phases. Female respondents represented just under a third of the sample population, which was slightly higher than in Phase I and Phase II where female respondents comprised approximately a quarter of the survey sample. Eighteen percent of respondents identified themselves as Aboriginal which was similar to previous survey rounds. Fifty-five percent of respondents had completed high school, slightly more than in previous phases. Approximately 33% of respondents reported living in their own house or apartment at the time of the interview which is a substantial decrease across phases. One quarter of respondents lived in a shelter or hostel at the time of the survey, and this was an increase from previous samples. About 23% of respondents lived on the street at the time of the survey; there was no clear trend across phases relating to the percentage of respondents living on the street.

Table 1: Characteristics of Respondents – All Phases

Demographics	Phase I %	Phase II %	Victoria 2009 %
Age group			
17 – 29 yrs	25.3	20.8	11.3
30 – 39 yrs	34.8	29.2	31.6
40 – 49 yrs	33.2	36.4	39.5
50+ yrs	6.7	13.6	17.6
Total	***100.0***	***100.0***	***100***
Average yrs (range)	*34.6 (17 - 61)*	*38.8 (19 - 61)*	*41.4 (21 - 62)*
Sex			
Males	73.5	76.0	67.6
Females	26.5	23.6	31.6
Transgender	-	0.4	0.8
Total	***100.0***	***100.0***	***100***
Ethnicity			
Non-Aboriginal	79.4	79.1	82.0
Aboriginal	20.6	20.9	18.0
Total	***100.0***	***100.0***	***100***
Education			
Less than high school	51.6	49.8	44.9
High school or greater	48.4	50.2	55.1
Total	***100.0***	***100.0***	***100***
Current place of residence			
House or Apartment	44.7	35.1	32.7
Street	19.5	27.8	23.1
Shelter/Hostel	17.9	21.0	25.1
Parents/Relatives/Friends	7.2	6.0	5.2
Other*	10.7	10.1	13.9
Total	***100***	***100***	***100***

*Other includes squats, recovery house/detox, hotel/motel room, and rooming/boarding house.

4.2 DRUG USE HISTORY

Tables 2 and 3 summarize information on respondents' history of injection drug use. Approximately 39% of respondents reported being less than 20 years of age when they first injected drugs, which is slightly lower than Phase I (44.9%) and Phase II (46.8%) samples. Close to ten percent of respondents reported having first injected within the past two years, which appears

to be a decrease from Phase I (16.2%) and Phase II (11.2%). The average amount of time since first injection was 17 years, and this number has gradually increased across phases.

Table 2: Age First Injected Drugs – All Phases*

Age Group	Phase I %	Phase II %	Victoria 2009 %
Less than 14 yrs	13.0	12.8	8.2
15 - 19 yrs	31.9	34.0	30.5
20 – 29 yrs	31.1	32.4	33.6
30 – 39 yrs	18.5	15.6	19.5
40 + yrs	5.5	5.6	8.2
Total	***100***	***100***	***100***
Average yrs	*23.0 (4-59)*	*22.8 (3-59)*	*24.46 (8-59)*

*Data includes self-injection and situations where someone else first injected the respondent.

Table 3: Time Since First Injection – All Phases

	Phase I %	Phase II %	Victoria 2009 %
< 1 yr	5.5	4.8	3.1
1 – 2 yrs	10.7	6.4	6.7
3 – 5 yrs	10.3	10.8	11.8
6 – 10 yrs	23.7	14.4	13.3
11 – 20 yrs	26.5	29.2	26.3
21 + yrs	23.3	34.4	38.8
Total	***100***	***100***	***100***
Average yrs	*13.4*	*16.0*	*17.0*

4.3 DRUGS USED

4.3.1 Drugs Injected

Table 4 summarizes information about the use of drugs injected in the six months prior to the respondent completing the survey, and Table 5 and Figure 1 report on the drug a respondent used most often during the six months before the survey. Close to 75% of the respondents reported injecting cocaine in the past six months, and 37% reported it was the drug they injected most often in the past six months. In previous phases of the survey, cocaine had been injected by over 90% of participants during the previous six months and was the drug injected most often by about two thirds of survey participants. In addition, there has been a corresponding increase in the percentage

of respondents who report injecting the crack form of cocaine at all in the previous six months; however only a small percentage reported injecting crack most frequently during that time.

The decrease in cocaine injection from over 90% to 74% in 2009 is not simply due to respondents switching from injecting cocaine to injecting crack. Generally in the three phases, the respondents who reported injecting cocaine were the same as those reporting the injection of crack. While over 90% of respondents reported injecting cocaine or crack in Phases I and II, 78% reported injecting cocaine or crack in 2009.

Table 4: Percentage of Respondents who Reported Injecting Drug At All in the Past Six Months - All Phases*

Drug	Phase I %	Phase II %	Victoria 2009 %
Cocaine	93.3	90.4	74.2
Heroin	59.7	62.8	55.5
Morphine (non-prescribed)	39.5	45.6	48.8
Dilaudid	40.3	39.6	40.6
Crack**	11.9	14.8	33.2
Heroin + Cocaine	33.8	37.2	26.2
Methamphetamine	26.5	32.4	23.0
Oxycodone	0.4	0.8	19.5
Morphine (prescribed)	10.3	7.2	12.1
Amphetamines	14.2	9.2	9.0
Methadone (non-prescribed)	4.3	7.2	6.6
Benzodiazepines	8.3	5.2	5.5

*The following drugs are not listed as 5% or less of respondents in the I-Track 2009 survey reported using them: Ritalin, Talwin and Ritalin, prescribed methadone, PCP, barbiturates, steroids, and fentanyl.

**Cocaine and crack cocaine are treated as separate drugs for the purposes of this survey.

Table 5: Percentage of Respondents who Reported Injecting Drug Most Often in the Past Six Months - All Phases*

Drug	Phase I	Phase II	Victoria 2009
Cocaine	70.4	63.7	37.3
Morphine (non-prescribed)	3.6	7.3	19.8
Heroin	13.4	17.7	18.7
Crack	0.4	0	7.5
Methamphetamine	4.7	3.2	5.2
Morphine (prescribed)	1.2	0.4	4.0
Dilaudid	2.4	2.4	2.8
Heroin + Cocaine	2.4	4.4	2.4
Oxycodone	0	0	0.8
Amphetamines	0.4	0	0.8
Talwin and Ritalin	0	0	0.4
Methadone (non-prescribed)	0.4	0.4	0.4

*All drugs reported for 2009 survey are listed.

Figure 1 - Percentage of Respondents who Reported Injecting Drug Most Often in Past Six Months – All Phases

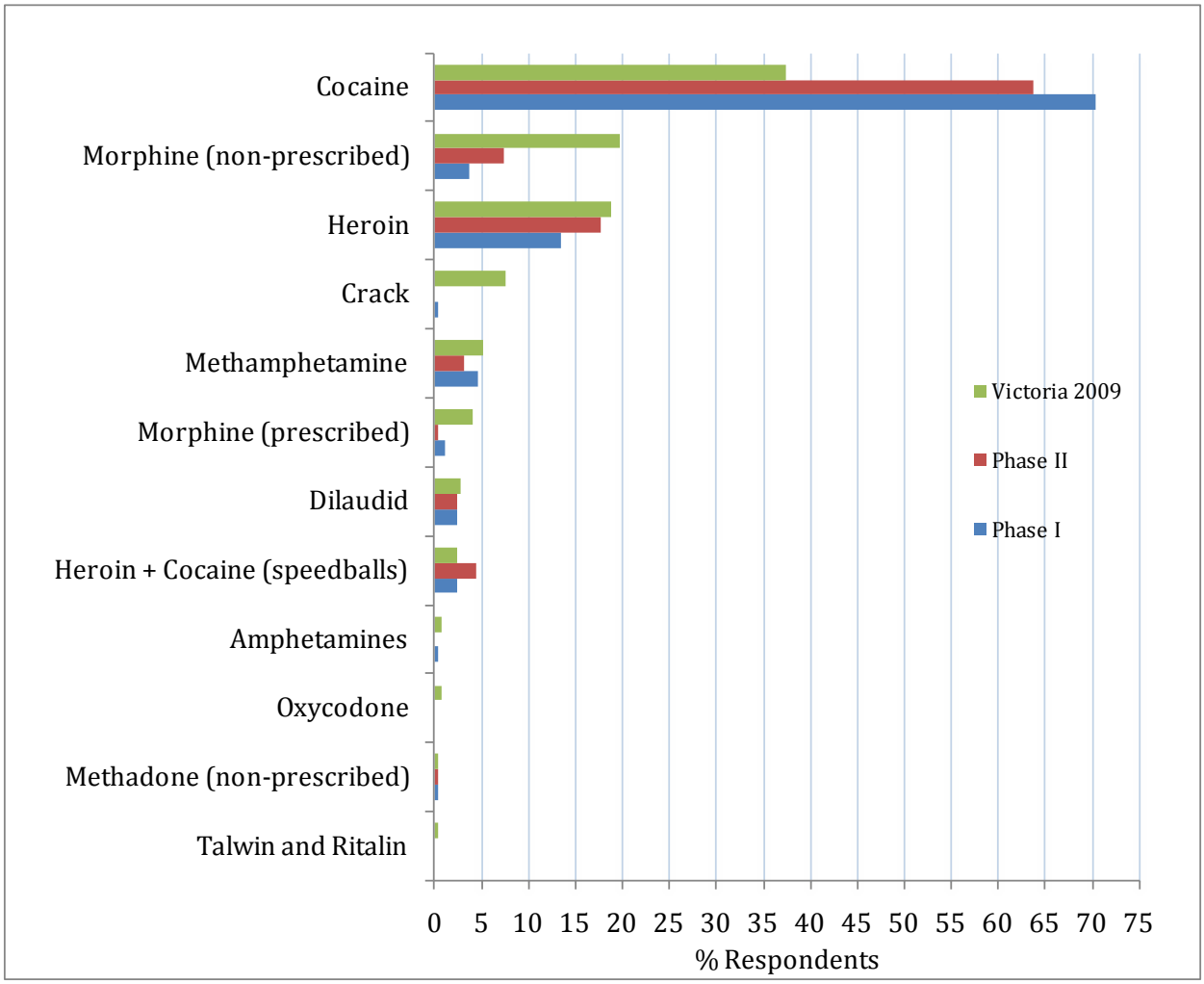


Table 4 shows that the injection of oxycodone in the previous six months was reported by a substantially higher percentage of respondents in the 2009 sample than in previous samples. Injected use of heroin and Dilaudid was relatively unchanged across the phases. The injection of non-prescribed morphine over the previous six months was reported by about half of the respondents, and its use appears to have increased across phases.

There appear to be changes over time in the drugs that respondents reported injecting most often during the six months prior to being interviewed (Table 5 and Figure 1). As mentioned, the percentage of respondents who reported injecting cocaine most often decreased from 70% to 37% across phases; however it remained the drug of choice for just over a third of respondents in this survey. Morphine (non-prescribed) was injected most often in the past six months by almost 20% of respondents, a substantial increase from the Phase I and II values of 3.6% and 7.3% respectively. A small percentage of respondents (7.5%) injected crack most often; however this was higher than

in previous phases. Figure 1 presents graphically the results from three phases for the drug most often injected in the six months prior to being interviewed.

4.3.2 Non-Injected Drugs

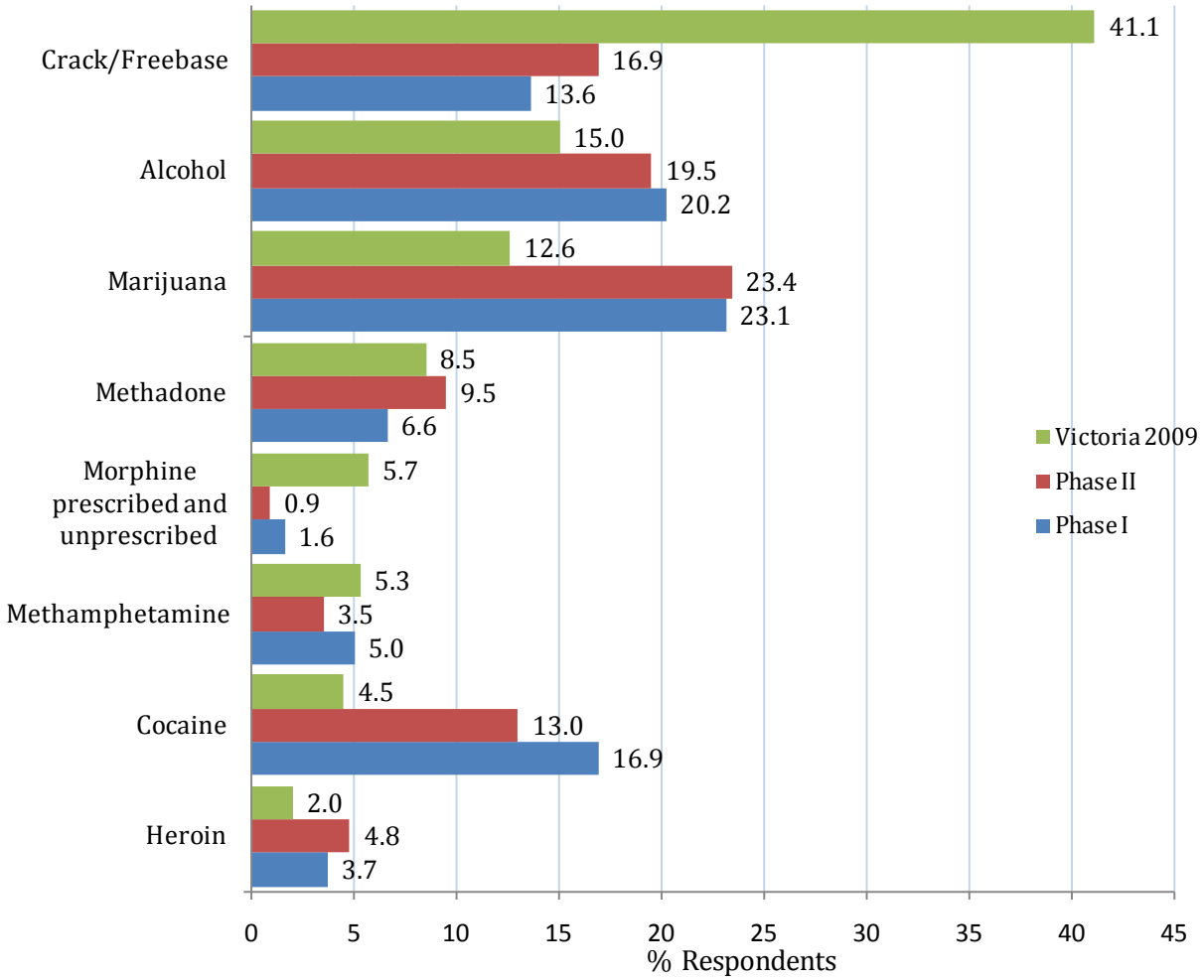
Table 6 and Figure 2 present data on drugs that respondents used, without injecting, during the six months prior to the survey. Non-injected crack use in the past six months was reported by the majority of respondents (86%), and 41% of those surveyed indicated that crack was the non-injected drug they used most frequently, which was an increase from previous phases. Similarly, the use of non-injected oxycodone was reported by 20% of respondents, and this appears to be an increase across phases. Only 4.5% of respondents reported using non-injected cocaine most often which is lower than the percentages for previous phases.

Table 6: Non-Injected Drugs Used by IDU in the Past Six Months – All Phases*

	Phase I %	Phase II %	Victoria 2009 %
Crack	60.6	59.4	85.9
Cocaine	63.8	51.4	66.8
Marijuana	75.2	73.9	73.4
Alcohol	70.5	72.3	70.7
Tylenol with codeine	47.6	31.2	45.7
Methadone (prescribed + non-prescribed)	26.8	33.0	30.1
Heroin	28.3	24.5	29.7
Oxycodone	7.9	15.2	20.3
Morphine (non-prescribed)	26.0	27.3	25.8
Dilaudid	24.4	24.1	26.6
Benzodiazepines	33.9	31.2	22.7
Methamphetamine (crystal meth)	28.0	31.7	22.7
Mushrooms	14.6	11.2	10.2
Amphetamines	18.5	12.0	16.8
Ecstasy	11.0	11.2	16.0

*Other drugs reported were used by less than 10% of respondents and are not included in the table.

Figure 2: Non-Injected Drugs Used Most Often by IDU in the Past Six Months – All Phases*



*The following non-injected drugs were used by less than 3% of respondents in any of the phases: oxycodone, benzodiazepines, Tylenol with codeine, Dilaudid, barbiturates, amphetamines, Demerol, and mushrooms.

4.3.3 Crack Use

Respondents were asked detailed questions about crack use. About 83% reported smoking crack cocaine at the time of the interview. Just over 50% of these respondents said they smoked crack more frequently than one year before. Of respondents who smoked crack cocaine more often, 70% (n=76) reported that crack cocaine was more available than injectable cocaine. About 57% (n=62) indicated that smoking crack more was a personal preference, and this category included switching to crack as a drug of choice and trying to stop using needles. Close to 19% (n=20) smoked crack more often because of less access to clean needles. About 17% (n=18) of respondents provided other reasons for smoking crack more often than one year ago, and these reasons included respondents finding crack more affordable, using crack because of depression, and being more exposed to crack use by others.

4.4 Injecting Behaviours

4.4.1 Frequency of Injection

Table 7 summarizes how often respondents injected during the previous month. About 21% injected every day, a decrease from previous surveys. Twenty-five percent reported injecting once or twice a week, which was more than in the previous two samples. Thirty percent reported injecting once in a while but not every week, also an increase from the previous two samples.

Table 7: Frequency of Injection in the Past Six Months – All Phases

	Phase I %	Phase II %	Victoria 2009 %
Every day	36.6	38.2	20.8
Regularly (3 times or more /week)	14.6	19.7	16.1
Regularly (once or twice /week)	18.5	14.9	25.1
Once in awhile but not every week	22.8	16.9	30. 2
Not at all	7.5	10.4	7.8
Total	***100***	***100***	***100***

The respondents in the 2009 survey were asked how the frequency of their drug injection had changed over the previous year. Close to 70% of respondents reported injecting less often than one year prior to the survey. Among those respondents who reported injecting less often, 80% (n=140) indicated it was a personal preference, a category which included wanting to stop using drugs, wanting to avoid using needles and switching to non-injectable drugs. Thirty-two percent (n=55) reported injecting drugs less often because injectable cocaine was less available, and close to 13% (n=22) stated that they were injecting less often than one year ago because it was harder to get clean needles. About 16% (n=27) reported other reasons for injecting less often which included taking methadone, poor quality of available cocaine, and financial considerations.

4.4.2 Injecting Partners

Table 8 presents data on people with whom respondents most often injected during the past six months. Close to 50% of respondents reported injecting alone most frequently, and this appeared to be an increase across phases. Injecting most frequently with close friends or regular sex partners was also common, and these numbers varied somewhat across phases. Eleven percent of people reported injecting with others they did not know well.

Table 8: People with whom Respondents Injected Most Often in Past Six Months - All Phases

	Phase I %	Phase II %	Victoria 2009 %
Regular Sex Partner(s)	17.6	19.2	14.6
Family	3.2	2.0	1.6
Close Friends	31.2	27.6	24.0
People I Don't Know Well	8.0	5.2	11.0
People I Don't Know At All	0.4	0.4	0.4
No One	39.6	45.6	48.4
Total	***100***	***100***	***100.0***

4.4.3 Places of Injection

Figures 3 and 4 provide a breakdown of the types of places and neighbourhoods where participants reported that they most often injected drugs during the previous six months. Approximately one quarter of respondents reported injecting in the street most often, and an additional 16% said they injected most frequently in another public place such as vehicle or public bathroom. About 35% reported injecting most often in their own apartment or house. This appears to be a decrease across phases and is consistent with the trend showing fewer people residing in their own homes. About 75% reported injecting in the street, at least once, during the previous six months, a higher percentage than in Phase I (64.2%) or Phase II (70.8%).

Figure 3: Places Where People Injected Most Often in the Past Six Months – All Phases

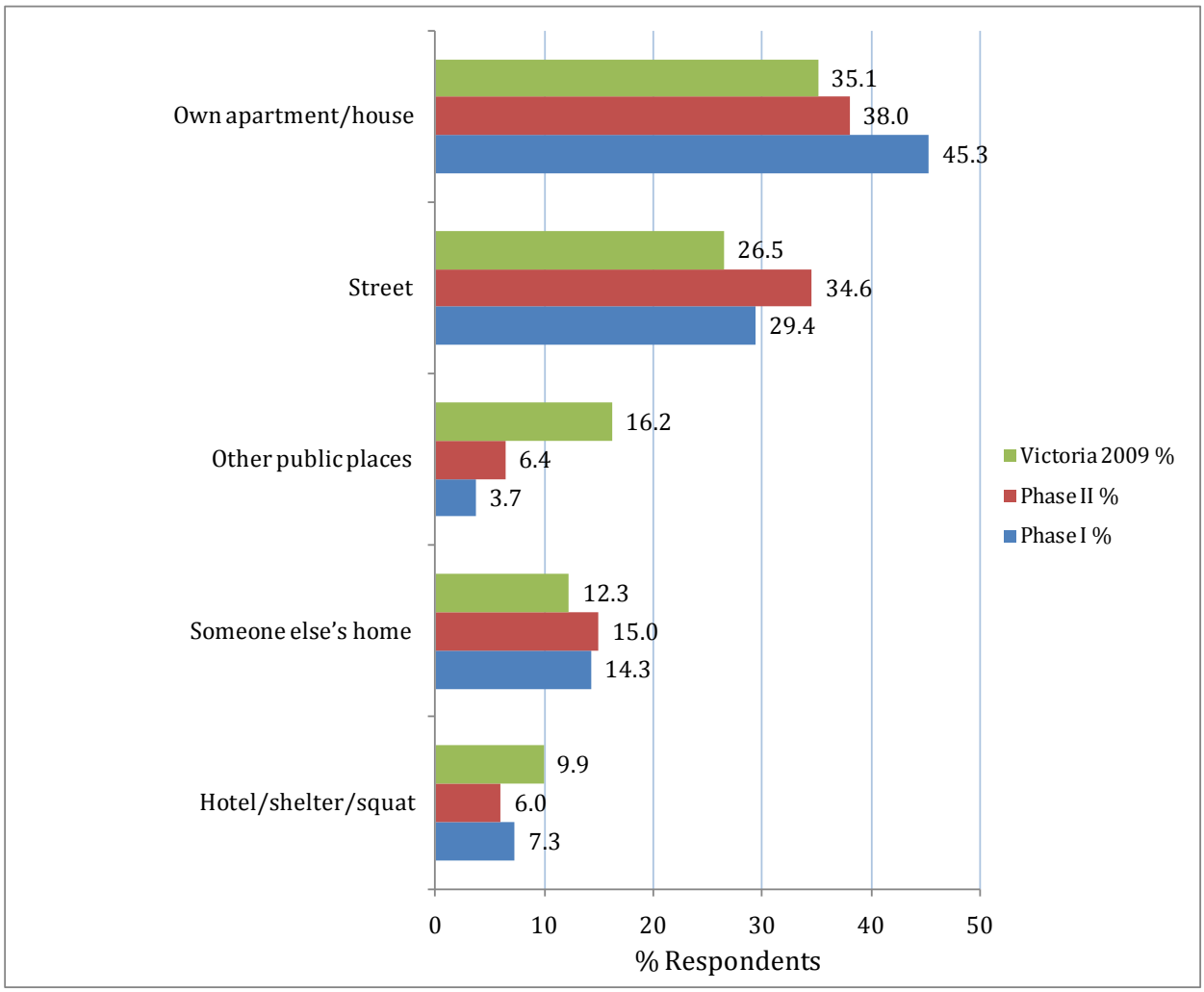
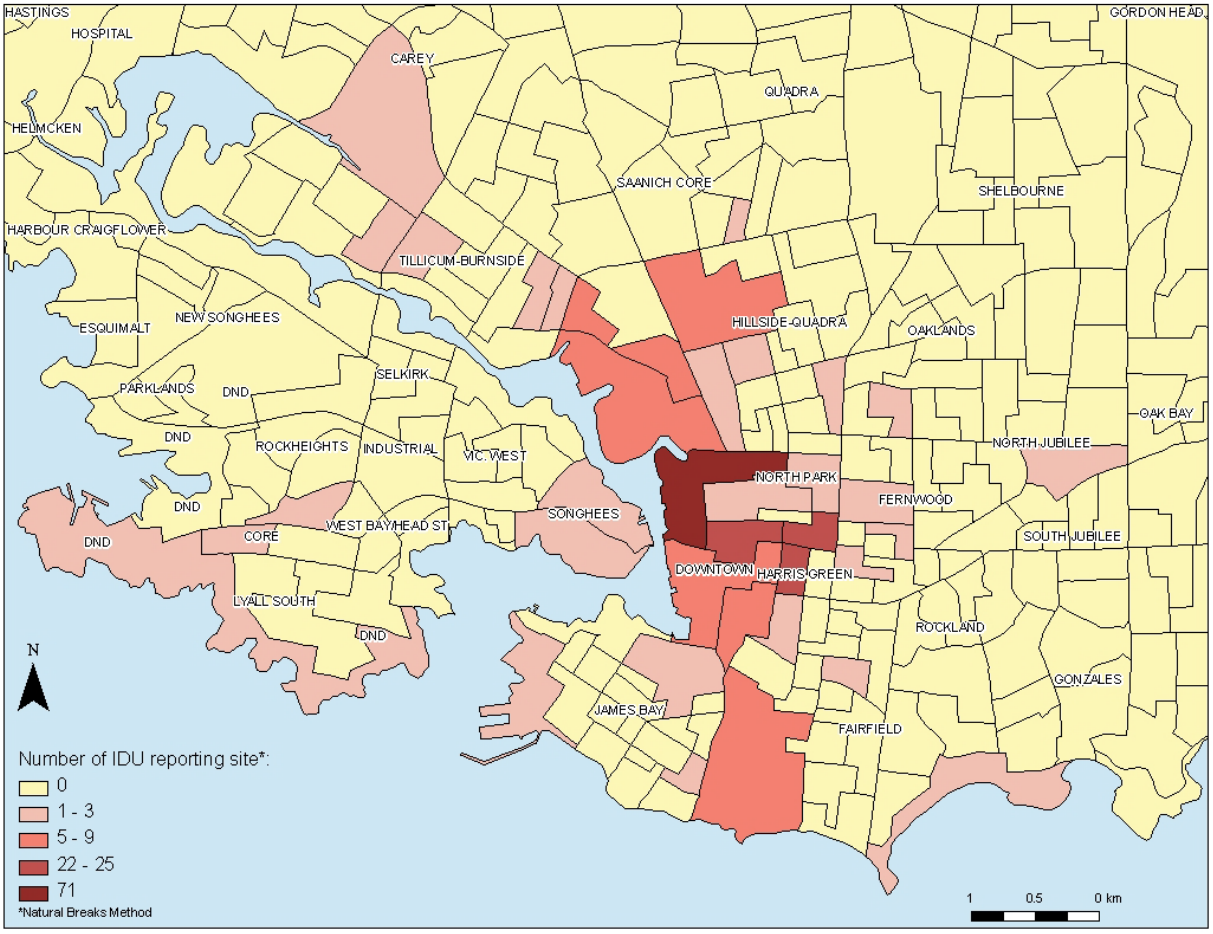


Figure 4: Map of Neighbourhoods Where Clients Reported Injecting Most Often in the Past Six Months – Victoria 2009



Note: To maintain confidentiality, this map presents injection locations by dissemination area, which is a unit of geography comprised of adjacent blocks. Statistics Canada uses dissemination areas for the Census.

4.5 Disease Prevalence

About 97% of respondents agreed to provide a dried blood specimen (DBS) which was tested for HIV and HCV. The overall prevalence of HIV among respondents who provided blood samples was 13.3% (see Table 9) which is in the same range as the prevalence in the previous samples. With regards to hepatitis C, the dried blood specimens were tested for antibodies, and a positive result indicated a current or past infection.[3] Among respondents who provided a blood sample, 63.1%

[3] HCV testing was performed using the Ortho® HCV version 3.0 enzyme immunoassay (EIA). Confirmatory testing is not performed for samples that test positive. A positive result indicates past or present HCV infection and does not discriminate acute from chronic or resolved infections. Validation of commercially available laboratory tests on dried blood spot specimens for HCV is ongoing.

were positive for hepatitis C antibodies, slightly lower than previous samples of the survey. All respondents who tested positive for HIV were also positive for HCV antibodies.

Table 9: DBS Results – Estimated Prevalence of HIV, Hepatitis C and HIV/Hepatitis C Co-Infections – All Phases*

Test Result	Phase I % (n)	Phase II % (n)	Victoria 2009 % (n)
HIV(+)	15.4 (36)	12.5 (30)	13.3 (33)
HCV(+)	68.5 (161)	73.8 (177)	63.1 (157)
HIV(+)/HCV(+) coinfection	15.4 (36)	12.1 (29)	13.3 (33)

*A positive HCV result indicates past or present infection.

Tables 10 and 11 compare the prevalence of HIV and hepatitis C by demographic characteristics and time since first injection. The prevalence of HIV and hepatitis C is higher among females than males and in those 30 years of age or older. There was no substantial difference in HIV or HCV prevalence among Aboriginal and non-Aboriginal respondents. The prevalence of HIV and HCV is substantially higher among respondents who first injected more than five years prior to the survey, and this is consistent across the samples. Slightly greater than one third of respondents who had injected for five years or less were positive for HCV antibodies, and this was substantially lower than in the other two phases.

Table 10: The Prevalence of HIV by Age, Sex, Ethnicity and Time since First Injection – All Phases

	Phase I % (n)	Phase II % (n)	Victoria 2009 % (n)
Age (yrs)			
Less than 30	10.9 (6)	*	*
30 and greater	16.8 (30)	15.0 (29)	14.9 (33)
Sex			
Male	14.9 (26)	10.9 (20)	11.8 (20)
Female	16.9 (10)	17.9 (10)	16.7 (13)
Ethnicity			
Non-Aboriginal	15.8 (29)	11.2 (21)	13.8 (28)
Aboriginal	14.3 (7)	18.0 (9)	10.9 (5)
Time since first injection (yrs)			
5 years or less	10 (6)	*	*
Greater than 5 years	17.2 (30)	13.8 (26)	15.8 (31)

*The number is too small to report.

Table 11: The Prevalence of HCV by Age, Sex, Ethnicity and Time since First Injection – All Phases

	Phase I % (n)	Phase II % (n)	Victoria 2009 % (n)
Age (yrs)			
Less than 30	49.1 (27)	53.2 (25)	48.1 (13)
30 and greater	74.4 (134)	78.8 (152)	64.9 (144)
Sex			
Male	68.0 (110)	73.2 (134)	59.2 (100)
Female	70.0 (42)	75 (42)	71.8 (56)
Ethnicity			
Non-Aboriginal	67.0 (124)	73.9 (139)	63.5 (129)
Aboriginal	73.5 (36)	72.0 (36)	60.9 (28)
Time since first injection (yrs)			
5 years or less	48.3 (29)	55.8 (29)	36.5 (19)
Greater than 5 years	75.4 (132)	78.7 (148)	69.9 (137)

4.6 Testing, Treatment and Awareness of HIV and HCV

The majority of respondents indicated they had been tested for HIV (87.2%) and HCV (85.4%) within the past two years, an increase across phases. Of all respondents who provided a blood specimen for the survey, 18% of those who tested HIV(+) were not aware they were infected, and 30% who tested HCV(+) were unaware they were infected or had been exposed to the virus at some

point. Across phases, there was a decrease in the percentage of respondents who were unaware that they were HIV(+), but there was an increase in the percentage who were unaware that they were HCV(+). (See Figures 5 and 6.)

Figure 5: Respondents Who Reported Testing for HIV and HCV in Past 2 Years – All Phases

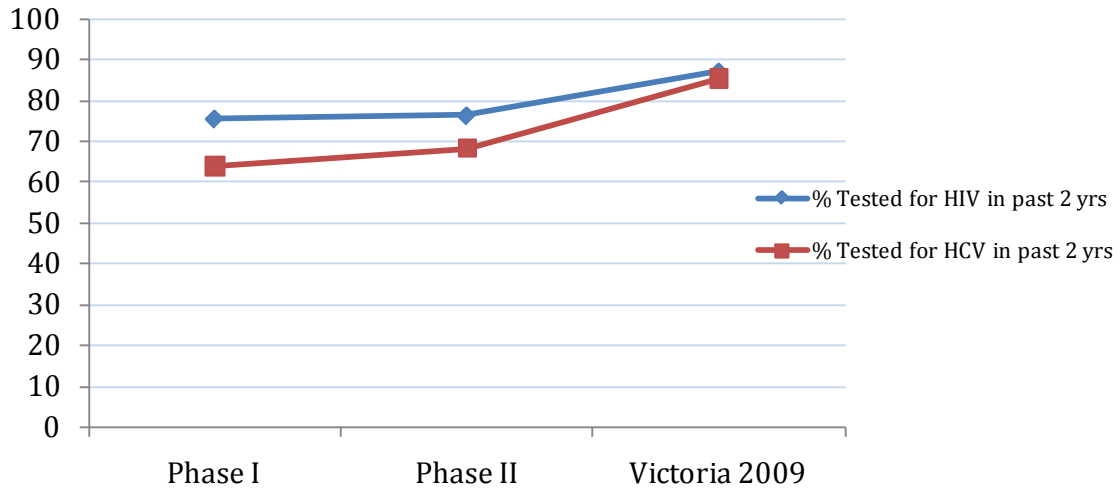
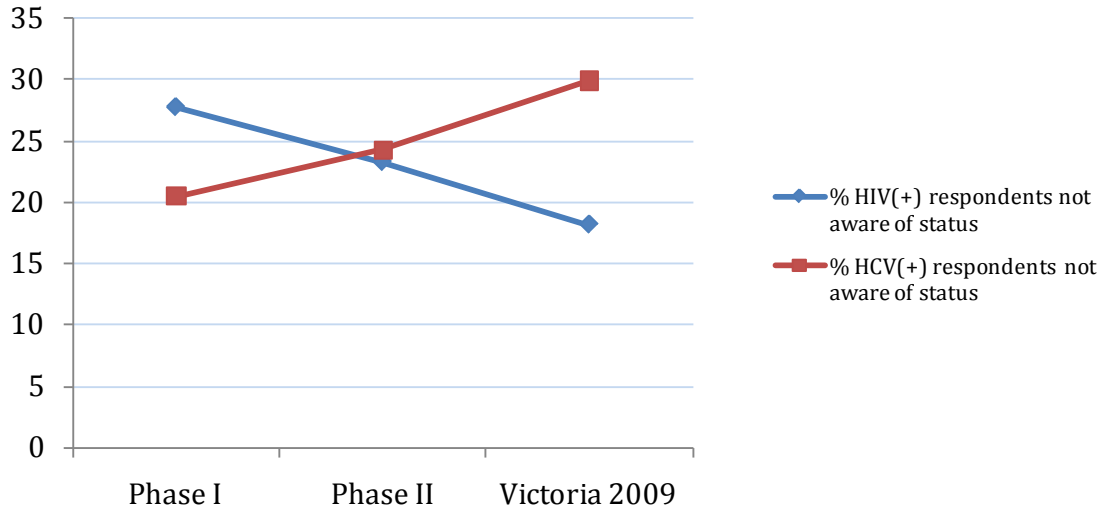


Figure 6: Lack of Awareness of HIV/Hepatitis C Status* – All Phases



*This includes those who did not report being tested previously and those who reported their previous HIV or HCV test as negative, indeterminate or unknown.

Close to 90% of respondents who self-reported as HIV(+) had seen a doctor at least once during the past six months for HIV. Seventy-two percent of those who self-reported as HIV(+) had ever taken medication for HIV, and 51.7% were currently taking medication for HIV. This is considerably

higher than previous surveys (see Table 12). One possible explanation for the increase in the percentage of respondents taking HIV medication has to do with a change in HIV treatment guidelines. HIV antiretroviral treatment is now recommended for more HIV(+) individuals than in previous years, including those with less advanced disease.[4]

Almost 60% of those who self-reported ever testing HCV(+) had seen a doctor at least once during the preceding six months for HCV care, and close to 10% had ever taken medication for hepatitis C. Fewer than 2% were taking medication for hepatitis C at the time of the survey, which is slightly lower than previous survey rounds. (See Table 12.)

Table 12: Doctor Care and Treatment for HIV and Hepatitis C – All Phases

Respondents who self-reported (+) disease status	Phase I %	Phase II %	Victoria 2009 %
Seen doctor at least once for HIV, in past 6 months	71.4	91.7	89.7
Currently taking medication for HIV	37.0	37.5	51.7
Seen doctor at least once for HCV, in past 6 months	56.5	54.6	59.4
Currently taking medication for HCV	3.8	5.2	1.8

4.7 Risk Behaviours – Needle Sharing

Overall sharing of used needles (lending and/or borrowing) increased between Phase I and II samples but decreased substantially in the 2009 sample (see Table 13). However in 2009, almost one quarter of respondents still reported either receiving and/or lending used needles. Table 14 summarizes needle sharing behaviour among specific groups. The trend for needle sharing to increase between Phases I and II and then decrease in the 2009 sample continued to be observed when data were analyzed by age group, sex, and ethnicity. Needle sharing appears to be higher in respondents who were less than 30 years of age and among females, and this has also been consistently reported across phases. Results of the 2009 survey indicate that respondents reporting Aboriginal ethnicity were more likely to share used needles than non-Aboriginal respondents, which differs from results of previous I-Track surveys.

[4] BC Centre for Excellence in HIV and AIDS. (February 2009). *Therapeutic Guidelines: Antiretroviral Treatment of Adult HIV Infection*. Vancouver: Author.
http://www.cfenet.ubc.ca/sites/default/files/uploads/docs/Adult_Therapeutic_Guidelines.pdf

Table 13: Prevalence of Overall Sharing, Lending, and Borrowing of Used Needles in the Past Six Months - All Phases

Needle Sharing	Phase I %	Phase II %	Victoria 2009 %
Lending used needles	31.7	31.0	17.1
Borrowing used needles	19.2	28.3	12.3
Overall sharing of used needles	36.8	41.8	23.3

Table 14: Needle Sharing Behaviours among Respondents by Age, Sex, and Ethnicity in the Past Six Months – All Phases*

Demographics	Phase I %	Phase II %	Victoria 2009 %
% of all respondents	36.8	41.8	23.3
Age Group			
< 30 yrs old	48.4	51.0	32.1
=> 30 yrs old	33.0	39.4	22.2
Sex			
Males	34.3	40.7	21.6
Females	43.9	46.4	27.5
Ethnicity			
Non-Aboriginal	37.9	42.9	22.0
Aboriginal	33.3	37.5	29.5

*Needle sharing includes lending or borrowing.

Individuals who are infected with HIV and/or hepatitis C, and who share their used needles and equipment, put IDU who are not infected at risk of acquiring these infections. Likewise, IDU who are negative for HIV and/or HCV are at risk of becoming infected when they inject with previously used needles or equipment. Tables 15 and 16 summarize lending and receiving used needles by lab reported disease status (DBS), self-reported disease status, and demographic characteristics. Seventeen percent of all respondents reported lending their used needles. Six percent of HIV(+) respondents and 21.3% of HCV(+) respondents lent their used needles to someone else during the previous six months. Close to 14% of respondents who were HIV(-) and 11% of those who were HCV(-) reported injecting drugs with used needles within the past six months, putting themselves at risk of becoming infected.

Some respondents who self-reported that they were positive for HIV and/or hepatitis C lent their used needles to others. About 7% of individuals who self-reported an HIV(+) result and 22% of those who self-reported an HCV(+) result lent their used needles to others in the six months prior to the survey.

Respondents under 30 years of age and those who reported Aboriginal ethnicity were more likely both to lend and receive used needles in the 2009 survey. The percentage of females who reported lending used needles (23.5%) was higher than males (14.3%); however there were no substantial differences regarding the borrowing of used needles -- approximately 11% of females compared to 13% of males.

Table 15: Lending of Used Needles in the Past Six Months – All Phases

	Phase I % (n)	**Phase II % (n)**	**Victoria 2009 % (n)**
% of all respondents	31.7 (79)	31.1 (77)	17.1 (43)
Disease Status (DBS)			
% of HIV(+) respondents	38.8	6.7	6.1
% of HCV(+) respondents	37.7	31.8	21.3
Self-Reported Disease Status			
% of self-reported HIV(+) respondents	17.9	4.1	6.9
% of self-reported HCV(+) respondents	35.6	32.8	21.7
Age			
% of respondents <30 yrs	40.6	48.1	25.0
% of respondents = >30 yrs	28.6	26.5	16.1
Sex			
% of Males	28.4	28.0	14.3
% of Females	40.9	41.4	23.5
Ethnicity			
% of Non-Aboriginal respondents	34.0	31.0	15.5
% of Aboriginal respondents	23.5	32.7	24.4

Table 16: Borrowing of Used Needles in the Past Six Months – All Phases

	Phase I % (n)	Phase II % (n)	Victoria 2009 % (n)
% of all respondents	19.2 (48)	28.3 (68)	12.3 (31)
Disease Status (DBS)			
% of HIV(-) respondents	15.8	27.5	13.6
% of HCV(-) respondents	9.6	11.5	11.1
Self-Reported Disease Status			
% of self-reported HIV(-) respondents	16.9	27.8	11.8
% of self-reported HCV(-) respondents	17.8	20.6	8.9
Age			
% of respondents <30 yrs	27.4	27.5	17.2
% of respondents = >30 yrs	16.5	28.6	11.7
Sex			
% of Males	18.0	27.9	12.9
% of Females	22.4	30.4	11.3
Ethnicity			
% of Non-Aboriginal respondents	20.2	29.1	11.6
% of Aboriginal respondents	15.7	24.5	15.6

4.8 Housing Status, Injection Behaviours, and Needle Sharing

The relationships between respondents' housing status, injecting behaviours, and needle sharing behaviours were analyzed (see Table 17). In general, respondents who lived in their own home were less likely to lend used needles and to inject in public places than respondents who lived in a shelter or on the street. There was no clear relationship in our sample between housing status and the borrowing of used needles, nor between housing status and frequent injection, which was defined as injection at least three times per week in the past six months.

Table 17: Current Residence, Needle Sharing, and Injection Behaviours in the Past Six Months

Current Residence	Borrowed used needles in the past 6 months	Lent used needles in the past 6 months	Injected at least 3 times/week in the past 6 months	Injected, most often, in a public place in the past 6 months	Injected, at all, in a public place in the past 6 months
	%	%	%	%	%
Own house/apartment	11.3	6.3	62.2	13.6	65.9
Shelter/hostel	6.6	14.5	49.2	46.0	81.0
Street	12.1	17.9	65.5	76.8	94.9

4.9 Risk Behaviours – Equipment Sharing

Respondents were asked whether they had passed used injection equipment to others or had received injection equipment that had been used by someone else, during the past six months. Injection equipment included water, filters, cookers, tourniquets, swabs and acidifiers. Tables 18 and 19 show equipment sharing by disease status and types of equipment. Just over 40% of respondents reported borrowing or lending used equipment. While the percentage of respondents who lent their used equipment has not shown a consistent trend across phases, the percentage of respondents who received used equipment has steadily increased across survey rounds.

One quarter of respondents who shared equipment reported lending and borrowing water, and about one third of equipment sharers lent and borrowed cookers. It is important to note that, since the time of the survey, cookers were added to the provincial harm reduction supply by the BC Centre for Disease Control. These cookers are distributed to users on Vancouver Island by VIHA and community agencies.

Table 18: HIV/HCV Status and Equipment Sharing Behaviours of Respondents in the Past Six Months – All Phases

	Phase I %	Phase II %	Victoria 2009 %
Lending used equipment			
% Lending used equipment	37.5	44.8	41.2
% HIV(+) lending used equipment	38.9	23.3	27.3
% HCV(+) lending used equipment	38.1	40.7	37.2
Receiving used equipment			
% Receiving used equipment	31.0	34.4	43.7
% HIV(-) receiving used equipment	29.8	33.8	44.9
% HCV(-) receiving used equipment	31.1	31.7	50.0

Table 19: Percentage of Equipment Sharers who Lent and Received Different Types of Equipment in the Past Six Months

	Victoria 2009 %
Type of equipment lent	
cooker	34.5
tourniquet	25.6
water	24.8
filter	17.5
swab	3.8
Type of equipment borrowed	
cooker	34.7
water	25.3
tourniquet	21.0
filter	15.6
swab	3.4

4.10 New Users

New users were defined as those who had injected drugs for the first time not more than five years before they completed the survey. This definition was chosen in Phase I of the I-Track Survey (2003) because of the number of respondents who were positive for HIV and hepatitis C after five years of use. Table 20 compares across phases the disease status and needle-sharing behaviours of this IDU group.

New users represented 21.6% of the sample in the Victoria 2009 survey, which is similar to previous survey rounds. The prevalence of HIV and hepatitis C in new users is lower than in previous survey rounds. There is no clear trend regarding the lending of used needles by new users; however the borrowing of used needles by this IDU group appears to be lower than in previous phases.

Table 20: New Users – Disease Prevalence and Needle Sharing Behaviours in the Past Six Months - All Phases

	Phase I % (n)	Phase II % (n)	Victoria 2009 % (n)
% of all respondents who are new users	26.5 (67)	22 (55)	21.6 (55)
Disease Prevalence (DBS)			
% of new users who are HIV(+)	10 (6)	*	*
% of new users who are HCV(+)	48.3 (29)	55.8 (29)	36.5 (19)
Needle Sharing			
% of new users who lend their used needles	12.1 (8)	26.9 (14)	17.3 (9)
% of new users who borrow used needles	34.4 (23)	42.6 (23)	16.7 (9)

*The number is too small to report.

4.11 Needle Exchange Use and Needle Disposal

4.11.1 Needle Exchange Use

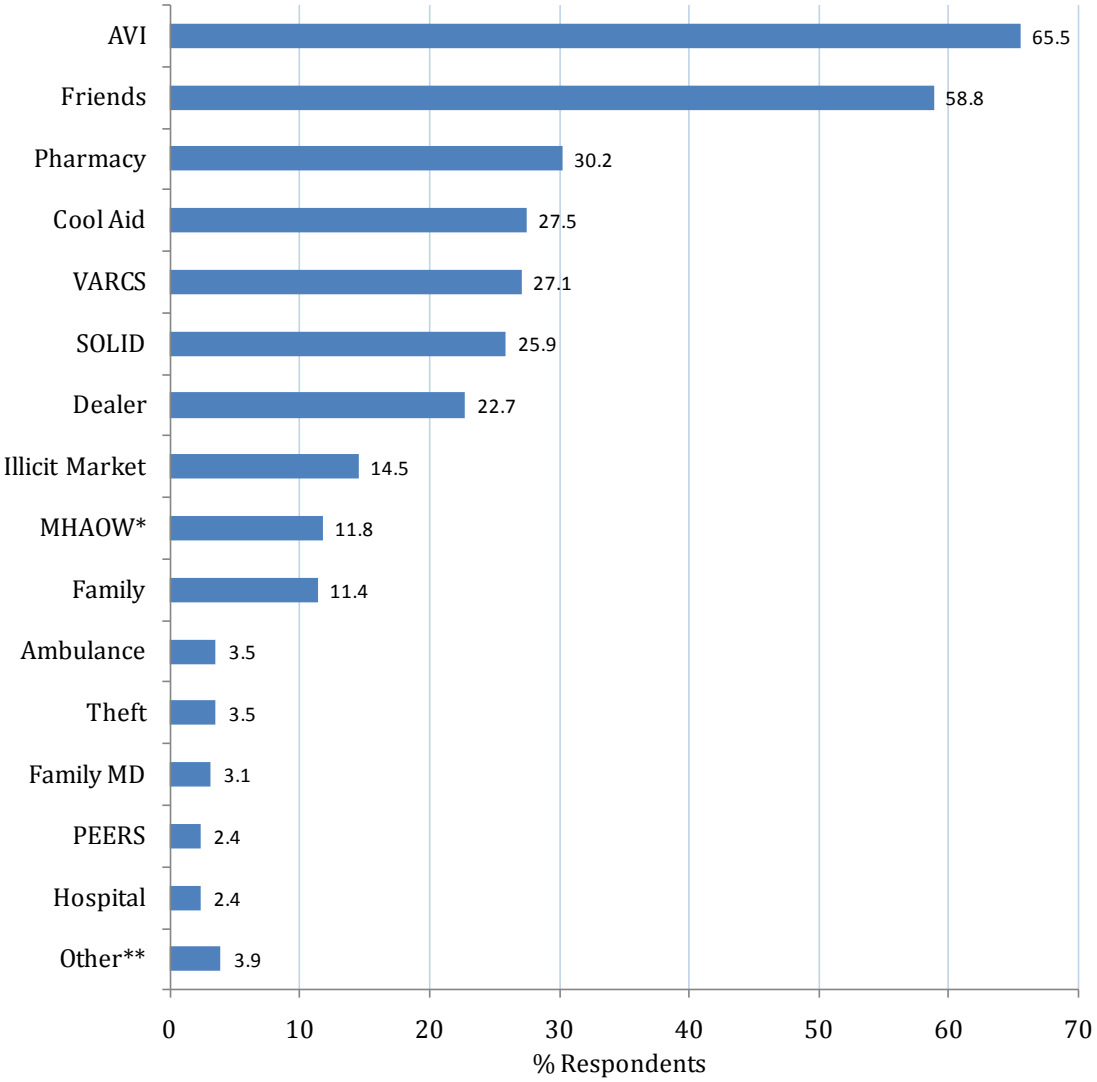
Close to 98% of respondents reported ever using any needle exchange, which included mobile, outreach and other places where they could exchange, drop off or receive needles. This was higher than in Phase I (88.5%) and Phase II (91.2%).

Because the fixed needle exchange site in Victoria was closed prior to the survey, respondents were asked about their use of mobile needle exchange services. Approximately 75% (192 respondents) reported using a mobile needle exchange service to exchange, drop off, or receive needles in the six months prior to the survey. Among those who reported using a mobile needle exchange, 64% (122 respondents) reported using it once in awhile but not every week, and 20% used it once or twice a week. Twelve percent of respondents used a mobile needle exchange three or more times per week, and 4% used it on a daily basis.

4.11.2 Sources of Clean Needles

Respondents were asked where they obtained their unused clean needles in the previous six months. The majority of the respondents obtained their needles through AVI mobile needle exchange (65.5%) and through friends (59%). Pharmacies, other service agencies, and outreach programs were also common sources of clean needles. At least 23% of respondents obtained their needles from questionable sources including dealers and other illicit market sources. (See Figure 7.)

Figure 7: Places Where Respondents get their Clean Needles



*Mental Health and Addictions Outreach Worker
**Other includes methadone clinic, STI clinic, street nurses, and Vancouver sites.

4.11.3 Disposal of Used Needles

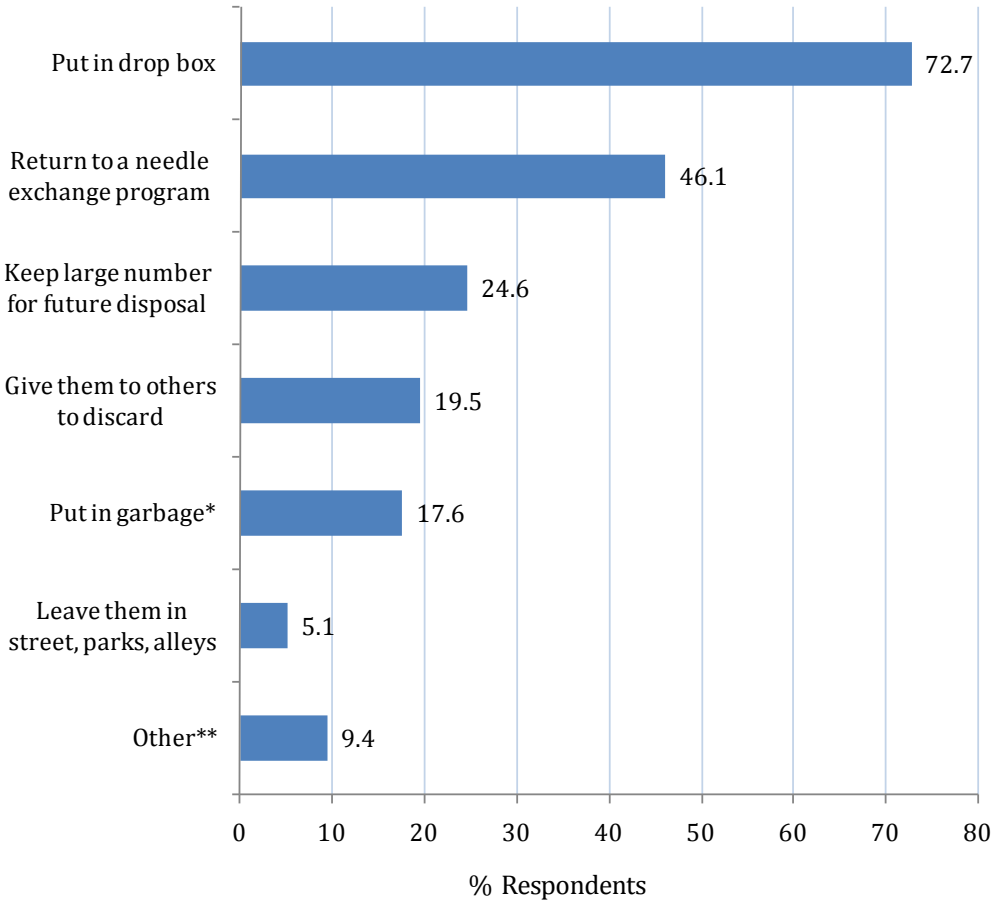
Respondents were asked about the various ways they disposed of used needles. The safe disposal of used needles is a service provided by fixed and mobile needle exchanges, and 46% (118 respondents) reported disposing of their used needles in this way. Of these 118 respondents, 72% used AVI, and 36.4% used VARCS. Thirty-six percent used SOLID, and 14% used other needle exchanges.

About 73% of survey respondents reported disposing of used needles in a drop box, and 69.5% of respondents discarded their needles in drop boxes placed by the City of Victoria at five locations on

the street. Of the five Victoria drop boxes, two drop boxes were used most frequently. The drop box outside Our Place on Pandora Avenue was used by 48.3% of the respondents who discarded needles in drop boxes, and the drop box located near Streetlink Emergency Shelter on Fisgard was used by 45.5%. Respondents who did not use drop boxes were asked why they didn't use them, and responses included not knowing the drop box locations, not finding the drop boxes convenient, and not wanting to be seen using them.

Just under 18% of respondents reported discarding their used needles in the garbage; however, many of these respondents reported breaking off the needle tips or putting the needles in hard containers before placing them in the garbage. Five percent reported discarding their used needles in the street, in parks or in alleys. Figure 8 summarizes methods of needle disposal used by respondents.

Figure 8: Needle Disposal Behaviours Among Respondents



*This includes respondents who break off needle tips and/or put needles in a container before putting them in the garbage as well as those who report directly discarding used needles into the garbage.

**Other includes pharmacy, doctor, hospital, clinic, PEERS, drain, sewer, and sharps container.

4.12 Use of Cormorant Street Needle Exchange Site and Effects of its Closure

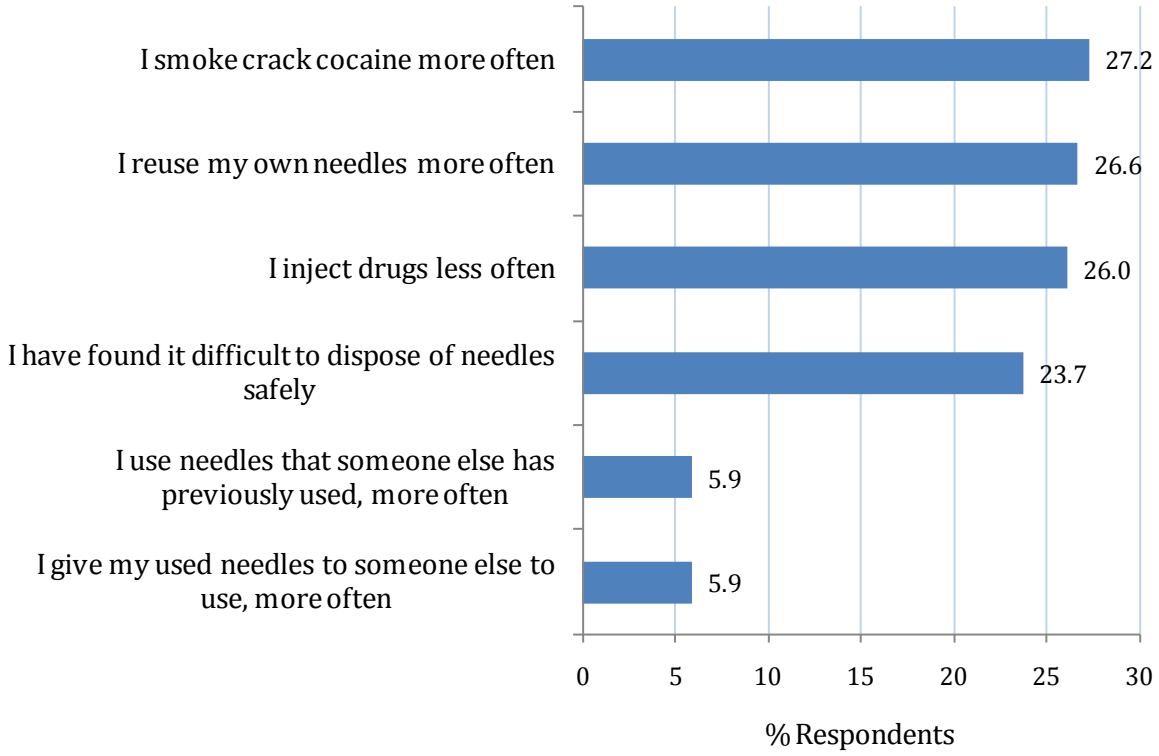
4.12.1 Use of Victoria Needle Exchange on Cormorant Street

Respondents were asked questions related to their use of the fixed-site needle exchange on Cormorant Street prior to its closure and the impact that the closure had on their drug use and health. Prior to the closure, 66.8% of respondents had ever used this needle exchange program to exchange, drop off or pick up needles. Twenty-six percent of these respondents used this exchange site every day. About 13% used it three or more times per week but not daily, and 26% used its services at least once or twice per week.

4.12.2 Closure's Effect on Drug Use

Respondents were asked about whether the closure of the fixed-site needle exchange affected their drug use. Of the 169 respondents who had ever used the needle exchange on Cormorant Street, 46.7% or 79 people said that the closure had affected their drug use. Figure 9 summarizes the ways in which the closure affected the drug use of former clients of the needle exchange. In addition to the responses presented in Figure 9, 9.5% of those who had ever used the needle exchange reported other ways that the closure had affected their drug use, the most common response being that it was harder to get clean needles (4%).

Figure 9: The Effect of the Closure on the Drug Use of Respondents who had ever used the Cormorant Street Needle Exchange*

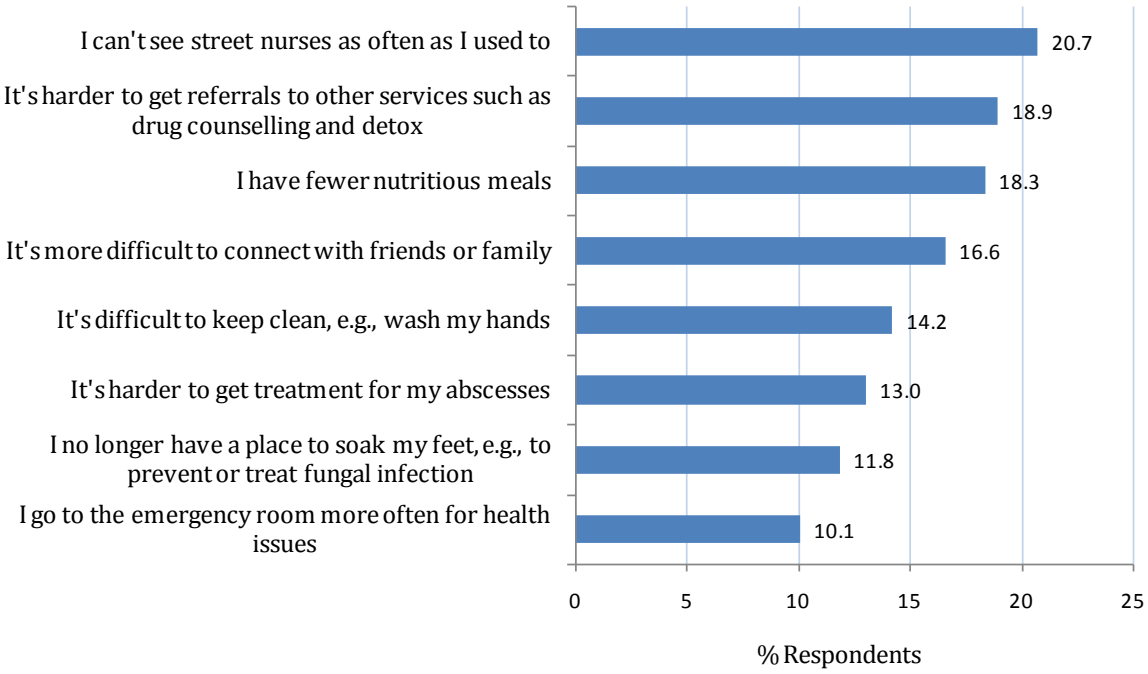


*Percentages based on the 169 respondents who reported ever having used the needle exchange.

4.12.3 Closure's Effect on Health

Respondents were asked about whether the closure of the fixed-site needle exchange affected their health. Of the 169 respondents who had ever used the needle exchange on Cormorant Street, 35% or 59 people said that the closure had affected their health in some way. Figure 10 summarizes the ways in which the closure affected the health of former clients of the needle exchange. In addition to the responses presented in Figure 10, 18% of those who had ever used the needle exchange reported other ways that the closure had affected their health, the most common response being that they missed the social support of the staff (4%).

Figure 10: The Effect of the Closure on the Health of Respondents who had ever used the Cormorant Street Needle Exchange*



*Percentages based on the 169 respondents who reported ever having used the needle exchange.

4.13 Emergency Room Visits and Hospital Admissions

Approximately 44% of respondents reported visiting the emergency room or being admitted to hospital in the past six months. This percentage is similar to the percentages reported in previous phases. There are some slight variations across phases in the frequency of visits and admissions in the previous six months, including a decrease in the percentage of respondents who visited the hospital only once. Table 21 summarizes the frequency of emergency room visits and hospital admissions across phases.

Table 21: Visits to Emergency or Admission to Hospital in the Past Six Months – All Phases

	Phase I %	Phase II %	I-Track 2009 %
Respondents who report emergency department visits or hospital admissions in past six months	43.4	46.4	44.3
Number of emergency department visits and hospital admissions in past 6 months			
1	51.8	46.8	42.6
2	22.7	23.9	25.9
3	14.5	12.8	11.1
4	4.5	4.6	9.3
5 or more	6.5	11.9	11.1
Total	***100***	***100***	***100***

4.14 SEXUAL BEHAVIOURS

Respondents were asked about sexual behaviours including condom use with regular, casual, and client sex partners. About 56% of respondents reported having sex in the past month, and slightly more than half of these respondents did not use a condom when they last had sex.

Table 22 presents data on the condom use and disease status of survey respondents. Forty-five percent of respondents who were HIV(+) reported having sex in the past month (including vaginal, anal, and oral sex). However, the percentage of these respondents who did not use a condom when they last had sex has declined across phases and is now too small to report. Fifty percent of HCV(+) respondents who had sex in the past month stated they did not use a condom when they last had sex (43 people).

Table 22: Sexual Risk Behaviours Among Respondents – All Phases

Condom Use and Disease Status	Phase I %	Phase II %	Victoria 2009 %
% who had sex in past month	55.0	57.3	55.9
% who did not use a condom when last had sex in past month	55.5	64.9	55.3
% of HIV(+) who did not use condom when last had sex	50.0	45.5	*
% of HCV(+) who did not use condom when last had sex	56.4	68.0	50.0

*The number is too small to report.

Approximately 19% (48 respondents) reported having sex with a male and/or female client. For the purposes of the I-Track survey, a client sex partner was defined as a sex partner who gave money, drugs, goods, or anything else in exchange for sex. Of the 48 respondents who had sex with a client, 85.4% of the respondents were female, and 10% percent were male. Table 23 summarizes the percentage of respondents who reported always using condoms with male client sex partners during vaginal, anal and oral sex in the preceding six months. Of respondents who had sex with male clients, 86% reported always using condoms when having vaginal sex, and 91% reported always using condoms when having anal sex. Condoms were always used by approximately two-thirds of respondents who had oral sex with male clients. The number of respondents who had sex with female clients was too small to report.

Table 23: Condom Use with Male Client Sex Partners in the Past Six Months

Type of Sex	# of Respondents Having Type of Sex with Male Clients	% of Respondents who Always Used Condoms
Vaginal	36	86.1
Oral	41	65.8
Anal	11	90.9

5.0 CONCLUSIONS

The Victoria 2009 survey results presented in this report suggest that changes in IDU risk behaviours and drug use patterns have occurred over the past six years which have implications for the transmission of blood-borne diseases among people who inject drugs.

Demographic characteristics of the samples have changed slightly across phases. An increase in the overall average age of respondents and a decrease in the percentage of IDU in the youngest age group may indicate a cohort effect, in other words the re-sampling of an aging population of people who inject. This may be due to sampling strategies that no longer reach younger IDU, or it may mean that the population of IDU in Victoria is getting older. A higher percentage of respondents in the 2009 sample were female compared to earlier samples, and this may reflect an increase in injecting behaviour among females or be the result of a change in recruitment strategies between surveys. There has been a marked decrease in the percentage of respondents who live in their own home and an increase in the numbers who are homeless and reside in shelters and hostels.

The overall injection of cocaine has declined across phases; however cocaine remains the injected drug of choice for the majority of those surveyed. Crack injection and crack smoking appear to have increased, as has non-injected use of cocaine although cocaine is less likely to be a non-injected

drug of choice than in previous surveys. Fewer respondents report injecting daily, and there is a rise in the number of respondents who report injecting once or twice a week or less frequently. This may reflect the drug availability at the time of the survey, but it is also consistent with a decline in the overall use of cocaine by injection. In addition, close to 70% of respondents reported they inject less often than one year prior to the survey, and the majority indicated it was a personal preference. Thus, while the closure of the fixed-site needle exchange in 2008 may have accounted for some decrease in the number of needles distributed and recovered, it is also likely that this shift in drug use behaviour may explain the decrease. The injection of non-prescribed morphine and oxycodone has increased across phases, and the injection of heroin and Dilaudid remains high but is relatively unchanged across phases.

Many IDU, over 40%, inject most often in public places -- an unsafe practice which puts them at risk for a variety of adverse health events including infection, abscesses, and overdose. Respondents who live in their own home are less likely to inject in public places and to lend used needles than respondents who live in a shelter or on the street. Almost 98% of respondents had ever used a needle exchange. Although the majority of respondents report using needle exchange programs to obtain unused clean needles, at least 22% obtain needles from dealers and other illicit sources which may be of unknown quality. Many respondents dispose of used needles through needle exchange programs and drop boxes. About 18% report discarding their used needles in the garbage; however the majority of these respondents report breaking off the tips and/or placing the needles in a hard container prior to placing them in the garbage. Five percent of respondents report discarding their used needles in the street, in parks, or in alleys, which highlights the need for ongoing and enhanced efforts in needle-return strategies.

The sharing of used needles, i.e., lending and/or receiving them, has declined across phases. However 23% of respondents in the 2009 sample still shared used needles, particularly IDU under 30 years of age. Many respondents who lend their used needles are aware they are infected with or have been exposed to HCV, potentially putting those they share with at risk of becoming infected. Many respondents also report sharing equipment related to drug injection, and the sharing of water and cookers used to inject drugs is common. It is important to note that, since the time of the survey, cookers were added to the provincial harm reduction supply by the BC Centre for Disease Control. These cookers are distributed to users on Vancouver Island by VIHA and community agencies.

The prevalence rate of HIV has remained relatively unchanged in the samples across the three phases, and the prevalence of HCV is somewhat lower than in previous phases. The percentage of

respondents who reported testing for HIV and HCV within the previous two years has increased. Although the majority of those infected with HIV are aware of their infection, many respondents are unaware they may have been exposed to or are infected with the hepatitis C virus. This may indicate a need for increased testing and improved follow-up of clients to provide them with test results and counseling. There was a marked increase in the percentage of HIV(+) respondents who were currently taking medication for HIV compared to previous phases. One possible explanation for the increase has to do with a change in HIV treatment guidelines. HIV antiretroviral treatment is now recommended for more HIV(+) individuals than in previous years, including those with less advanced disease.[5]

The results from this sample suggest that the percentage of respondents who are new users (those who first injected within the past five years) has not changed much across phases, but the prevalence of hepatitis C in this group is lower than in previous phases. Although it is unclear whether there is a trend regarding the lending of used needles by new users, the borrowing of used needles by this IDU group appears to be lower than in previous phases. This may be one explanation for the lower prevalence of HCV found in this group.

A number of the respondents report that the closure of the needle exchange on Cormorant Street has impacted their drug use and health, and the impacts vary by respondent. Reported effects of the closure on drug use include increased reuse of needles, difficulty discarding needles safely, injecting less often, and smoking crack more often. In terms of reported effects on health, the impacts of the needle exchange's closure include increased difficulty accessing outreach nurses, reduced access to referrals for drug use counseling and detox, and more frequent visits to hospital emergency departments.

Although the study's design and recruitment methods limit the extension of the results to the IDU population outside of the sample, this survey suggests that important trends in drug use and risk behaviours have occurred over the past six years. A number of findings in this survey are consistent with the assessment that there is a shift away from cocaine injection to less frequent drug injection and needle sharing as well as to increased smoking of crack. The decline in the number of needles exchanged through needle exchange programs may in part be an effect of changes in the needle exchange services provided since the closure of the fixed-site needle exchange. However, it is also very likely that the reduction in needles distributed and recovered is the result of a decrease in

[5] BC Centre for Excellence in HIV and AIDS. (February 2009). *Therapeutic Guidelines: Antiretroviral Treatment of Adult HIV Infection*. Vancouver: Author.
http://www.cfenet.ubc.ca/sites/default/files/uploads/docs/Adult_Therapeutic_Guidelines.pdf

injecting in the IDU population, associated with a change in drug use preferences. Additional research may help to provide information on factors which are contributing to this shift in drug use.

This Victoria I-Track survey data reflects the situation of our respondents as of mid-2009. Because of service changes since then, such as those in street nurse availability and housing availability, a survey completed today might generate different results. As shifts in risk behaviours occur, harm reduction practice may need to be modified to stay effective. The varied experiences of our survey respondents underscore the value of offering multiple strategies to address the needs of those who are at risk.

Changing patterns of risk behaviour emphasize the need for continued monitoring as well as the importance of disseminating research findings to the IDU community, service providers and policy makers. It is hoped that the I-Track survey results will offer guidance to those who provide services to the IDU population in order to further reduce the transmission of HIV, hepatitis C and other blood-borne diseases and improve the health of people who inject drugs.