

Summary of Key Findings from the Tracks survey of people who inject drugs in Canada, Phase 4

THUNDER BAY SITE, 2019

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This report

This report provides a summary of key findings from Phase 4 (2019) in Thunder Bay. The data in this report are shown for the overall sample, as well as by sex/gender¹ for certain variables, allowing for comparisons between subgroups. In text, comparisons by sex/gender are noted only when there was a statistically significant difference between the subgroups. Where data in the table contain small cell counts², the results should be interpreted with caution.

Overview of the Tracks survey of people who inject drugs in Canada

(Public Health Agency of Canada [PHAC], 2019).

What?

The *Tracks survey of people who inject drugs in Canada* (formerly known as I-Track) is a behavioural and biological surveillance system that monitors the prevalence of HIV and hepatitis C as well as the associated risk behaviours among people who inject drugs in Canada. Information is collected through cross-sectional surveys conducted periodically at sentinel sites across Canada. Consenting participants complete an interviewer-administered questionnaire covering demographics, drug use and injecting behaviours, sexual behaviours, HIV and hepatitis C testing and treatment history, and use of health services. Participants are also asked to provide a biological sample which is tested for HIV (antibodies) and hepatitis C (antibodies and RNA).

Who?

The target population is people who have injected drugs in the 6 months prior to recruitment and who meet the minimum age of consent as per provincial requirements. Participation is voluntary and completely anonymous.

When and Where?

Survey participants are recruited from sentinel sites across Canada. Surveys are conducted at regular intervals, generally every 3 to 5 years. The pilot survey was conducted from 2002–2003 in 4 sites, followed by 4 phases of data collection: Phase 1 from 2003–2005 in 7 sites, Phase 2 from 2005–2008 in 10 sites, Phase 3 from 2010–2012 in 11 sites, and Phase 4 from 2018–2019 in 14 sites.

Why?

Certain risk behaviours, such as the sharing of needles and other injecting equipment as well as unprotected sex, are associated with transmission of blood-borne infections including HIV and hepatitis C among people who inject drugs. The ongoing monitoring of risk behaviours among people who inject drugs can therefore serve as an early warning system for the spread of blood-borne infections in Canada. In addition, the survey results can help inform and evaluate existing public health responses to HIV and hepatitis C among people who inject drugs in Canada.

¹ There were no differences between reported sex and gender among participants.

² The definition of small cell size varies, but it is often defined as a cell count greater than zero but less than three, five, or six, depending on the nature of the data and the sources.

Key Findings

Demographic characteristics

Table 1. Demographic characteristics of Phase 4 participants (Thunder Bay site)

	TOTAL (n=200)	MALE (n=118)	FEMALE (n=82)
Age in years (n=200)			
Under 30	34.5% (69)	25.4% (30)	47.6% (39)
30-49	48.5% (97)	50.8% (60)	45.1% (37)
50 and over	17.0% (34)	23.7% (28)	7.3% (6)
Identified as Indigenous (n=200)	68.8% (137)	60.7% (71)	80.5% (66)
Sexual orientation (n=200)			
Heterosexual or straight	92.0% (184)	97.5% (115)	84.2% (69)
Gay, lesbian, bisexual, two-spirit or other	8.0% (16)	***	***
Level of education (n=199)			
Some high school or less	51.8% (103)	47.9% (56)	57.3% (47)
Completed high school	26.6% (53)	25.6% (30)	28.0% (23)
More than high school	21.6% (43)	26.5% (31)	14.6% (12)
Proportion who were unemployed (n=200)	65.0% (130)	65.2% (77)	64.6% (53)
Proportion who ever had difficulty making ends meet (n=200)	80.0% (160)	78.0% (92)	82.9% (68)
Most commonly reported living situations in the 6 months prior to interview ^a			
Own apartment or house	63.5% (127)	65.2% (77)	61.0% (50)
Family or friend's place	60.0% (120)	60.2% (71)	59.8% (49)
Shelter or hostel	52.5% (105)	57.6% (68)	45.1% (37)
Proportion who had ever lived in a correctional facility (n=200)	76.5% (153)	88.1% (104)	59.8% (49)
Self-rated mental health (n=200)			
Good, very good or excellent	54.5% (109)	65.2% (77)	39.0% (32)
Fair or poor	45.5% (91)	34.8% (41)	61.0% (50)
Proportion who had ever experienced any stigma or discrimination based on their drug or alcohol use (n=200)	72.0% (144)	67.0% (79)	79.3% (65)
Proportion who experienced any form of abuse ^b when they were a child or adolescent (n=199)	77.9% (155)	77.1% (91)	78.0% (64)
Proportion who had previously experienced any form of partner abuse ^b (n=199)	76.9% (153)	67.8% (80)	89.0% (73)
Proportion who were currently experiencing any form of partner abuse ^b (n=199)	43.2% (86)	36.4% (43)	52.4% (43)
Proportion who were ever, or had any family members who were ever, a student at a residential school (among participants who identified as Indigenous, n=137)	60.0% (120)	49.2% (58)	75.6% (62)

Note: Missing, don't know and refused responses were removed prior to calculating percentages.

***Values suppressed due to small cell counts.

^a Participants recorded all of their living situations in the 6 months prior to interview. The most commonly reported living situations among all participants are presented. As participants could select more than one response, the total denominator is not shown.

^b Types of abuse included emotional, psychological or verbal abuse; physical abuse; and/or sexual abuse.

Two-hundred individuals participated in TRACKS Phase 4 in Thunder Bay, Ontario. Over half of participants were male (59.0%) and the largest proportion of participants were between the ages of 30 and 49 years (48.5%). A large proportion of participants self-identified as Indigenous (68.8%). This is well above the proportion of self-identified Aboriginal people among the Thunder Bay population (12.8%; Statistics Canada, 2016 Census of the Population). A significantly higher proportion of females than males self-identified as Indigenous (80.5% vs. 60.7%). The majority of participants identified as heterosexual or straight (92.0%). However, a significantly higher proportion of males than females self-identified as heterosexual or straight (97.5% vs. 84.2%). Among participant who self-identified as Indigenous, 60.0% reported either being a student at a residential school or having a family member who was a student at a residential school. A significantly higher proportion of female participants reported this as compared to males (75.6% vs. 49.2%).

Over half (51.8%) of participants reported having less than a high school education. A large proportion of participants were unemployed (65.0%), with 80.0% reporting every having difficulty making ends meet. In the past 6 months, 63.5% of participants reported living in their own apartment or house; 60.0% reported living at a family or friend's place; and 52.5% reported living in a shelter or hostel. Over three-quarters of participants reported that they had, at some time in their lives, been incarcerated (76.5%); the proportion of males that reported a history of incarceration was significantly higher as compared to females (88.1% vs. 59.8%). Unstable housing and incarceration may lead to several risk behaviours, such as borrowing needles, and thus, present challenges to the prevention and control of HIV and other blood-borne infections among people who inject drugs (Corneil et al., 2006 and PHAC, 2010; as cited by PHAC (2014)).

Almost half of participants self-rated their mental health as fair or poor (45.5%); this varied between males and females. A large proportion of participants (72.0%) reported that they had, at some point in their lives, experienced any stigma or discrimination based on their drug and alcohol use. A large proportion of participants (77.9%) also reported having experienced emotional, psychological, verbal abuse; physical abuse; and/or sexual abuse when they were a child or adolescent. Over three-quarters of participants (76.9%) reported that they had experienced some form of partner abuse in the past with 43.2% of participants reporting that they had experienced some form of partner abuse in the past 12 months. A higher proportion of female participants reported experiencing some form of abuse compared to male participants.

HIV and hepatitis C Status

Table 2. HIV and hepatitis C (HCV) seroprevalence based on testing of biological specimens collected at the time of interview³ (Thunder Bay site)

	TOTAL	MALE	FEMALE
HIV prevalence and awareness of infection status (among participants who provided a blood sample, n=182)			
HIV seropositive	7.7% (14)	***	***
Proportion of HIV seropositive participants who were unaware of their HIV positive status	50.0% (7)	***	***
HCV prevalence and awareness of infection status (among participants who provided a blood sample of sufficient quantity for testing, n=182)			
Previously infected with HCV	23.4% (39)	22.9% (22)	23.9% (17)
Currently infected with HCV (n=92) ^a	34.1% (57)	38.5% (37)	28.2% (20)
Proportion of HCV+ participants unaware of lifetime exposure to HCV	35.8% (39)	21.4% (22)	22.1% (17)

Note: Missing, don't know and refused responses were removed prior to calculating percentages.

^aAmong participants who tested positive for HCV serology and provided sufficient DBS quantity for testing.

***Values suppressed due to small cell counts.

In total, 7.7% of the participants who provided a biological sample of sufficient quantity for testing were HIV positive. Lifetime exposure to HCV was high – 23.4% of participants were previously infected with HCV and 34.1% of participants were currently infected with HCV.

Routine and integrated HIV and hepatitis C testing among people who inject drugs is necessary, as testing provides an opportunity to link individuals to required health and social support services (PHAC, 2014). It was found that only half of the participants who tested positive for HIV based on the biological sample provided at the time of interview were aware of their infection. Further, 35.8% of those with lifetime exposure to HCV were unaware of their exposure. When individuals are unaware of their infection status, they likely do not access treatment, care and support services or take measures to reduce the risk of transmitting their infection to others (PHAC, 2014).

³ See Appendix A for HIV and HCV testing algorithms.

Testing, care and treatment for HIV and HCV

Table 3. Testing, care and treatment for HIV and HCV (Thunder Bay site)

	TOTAL	MALE	FEMALE
HIV			
Proportion who had ever tested for HIV (n=197)	86.3% (170)	85.3% (99)	87.6% (71)
Proportion who had tested for HIV in the year prior to interview (n=197)	52.8% (104)	50.9% (59)	55.6% (45)
Frequency of HIV testing (among participants who were HIV-negative, n=161)			
Every six months or more often	34.8% (56)	32.3% (31)	38.5% (25)
Once a year	23.0% (37)	26.0% (25)	18.5% (12)
Once every two years	8.1% (13)	***	***
Not planned/when needed	31.7% (51)	33.3% (32)	29.2% (19)
Reasons for avoiding HIV testing (fear of, or concern about...) ^a			
Stigma by staff or neighbours	10.5% (20)	6.1% (7)	17.1% (13)
Someone may learn they inject drugs	14.7% (28)	8.8% (10)	23.7% (18)
Violence	6.8% (13)	***	***
Police harassment or arrest	11.6% (22)	8.0% (9)	17.1% (13)
Proportion who were aware of PrEP (n=198)	18.7% (37)	20.7% (24)	15.8% (13)
Proportion who were aware of nPEP (n=198)	18.2% (36)	19.7% (23)	16.0% (13)
Hepatitis C			
Proportion who had ever tested for HCV (n=195)	90.3% (176)	87.7% (100)	93.8% (76)
Proportion who had tested for HCV in the year prior to interview (n=194)	58.0% (113)	51.8% (59)	66.7% (54)
Frequency of HCV testing (among participants who were HCV-negative, n=136)			
Every six months or more often	38.2% (52)	38.0% (30)	38.6% (22)
Once a year	17.6% (24)	20.2% (16)	14.0% (8)
Once every two years	9.6% (13)	***	***
Not planned/when needed	31.6% (43)	32.9% (26)	29.8% (17)
Proportion who ever took medications for HCV that were prescribed to them (among participants who self-reported being currently infected with HCV, n=39)	23.1% (9)	***	***

Note: Missing, don't know and refused responses were removed prior to calculating percentages.

***Values suppressed due to small cell counts.

^a Participants recorded all reasons for avoiding HIV testing. The most commonly reported reasons among all participants are presented. As participants could select more than one response, the total denominator is not shown.

Most participants reported that they had, at some point in their lives, been tested for HIV (86.3%), with over half (52.8%) reporting they had been tested for HIV in the past year. Among participants who were HIV-negative, over one-third (34.8%) reported that are tested for HIV every six months or more often, while 31.7% reported that they do not plan when they will be tested for HIV or only get tested when they feel it is needed. No significant differences were found between male and female participants with respect to history of HIV testing. Reasons for avoiding HIV testing included fear of, or concern about: stigma by staff or neighbours (10.5%);

someone may learn they inject drugs (14.7%); violence (6.8%); and police harassment or arrest (11.6%). These reasons varied by sex/gender. Only 18.7% of participants were aware of pre-exposure prophylaxis (PrEP) and only 18.2% of participants were aware of post-exposure prophylaxis (nPEP).

Most participants reported that they had, at some point in their lives, been tested for hepatitis C (90.3%), with over half (58.0%) reporting they had been tested for hepatitis C in the past year. A higher proportion of females reported being tested for hepatitis C in the past year as compared to males (66.7% vs. 51.8%). Among participants who were hepatitis C-negative, over one-third (38.2%) reported that are tested for hepatitis C every six months or more often, while 31.6% reported that they do not plan when they will be tested for hepatitis C or only get tested when they feel it is needed. Among participants who were currently infected with hepatitis C, only 23.1% reported taking medications for hepatitis C that were prescribed to them.

Drug use and injecting behaviours

Table 4. Drug use and injecting behaviours (Thunder Bay site)

BEHAVIOUR	TOTAL	MALE	FEMALE
Injection drug use			
Proportion who first injected drugs when they were 16 years or younger (n=200)	22.0% (44)	16.1% (19)	30.5% (25)
Most commonly reported injection drugs used in the 6 months prior to interview ^a			
Cocaine	94.0% (188)	94.9% (112)	92.7% (76)
Morphine	50.2% (100)	41.9% (49)	62.2% (51)
Crack	42.0% (84)	33.9% (40)	53.7% (44)
Most commonly reported location of injection in the 6 months prior to interview ^b			
Family or friend's place	63.8% (127)	65.8% (77)	61.0% (50)
Own apartment or house	56.8% (113)	51.3% (60)	64.6% (53)
Public place ^c	48.7% (97)	49.6% (58)	47.6% (39)
Proportion who had used a sterile needle and syringe at last injection (n=199)	187 (94.0%)	95.7% (112)	91.5% (75)
Proportion who had injected with other used injection equipment ^d in the 6 months prior to the interview (n=199)	35.2% (70)	29.9% (35)	42.7% (35)
Most commonly reported person with whom participants shared injection equipment ^{d, e}			
Friend(s) or others they knew well	58.6% (41)	65.7% (23)	51.4% (18)
Regular sex partner ^f	54.3% (38)	48.6% (17)	60.0% (21)
Family	18.6% (13)	***	***
Non-injection drug use^g			
Most commonly reported drugs used (not injected) in the 6 months prior to interview ^a			
Cocaine	84.9% (169)	83.8% (98)	86.6% (71)
Crack or freebase	84.4% (168)	82.0% (96)	87.8% (72)
Alcohol	65.8% (131)	63.2% (74)	69.5% (57)
Frequency of reusing non-injection drug equipment ^h			
Every time	7.2% (14)	5.2% (6)	10.0% (8)
Sometimes	51.8% (101)	50.4% (58)	53.8% (43)
Once	7.2% (14)	5.2% (6)	10.0% (8)
Never	33.8% (66)	39.1% (45)	26.2% (21)
Overdose			
Proportion who experienced an overdose in the 6 months prior to the interview (n=195)	22.1% (44)	19.7% (23)	25.6% (21)
Most commonly reported substances involved in most recent overdose (among participants who reported experiencing an overdose) ^a			
Heroin	62.8% (27)	53.8% (14)	59.1% (13)
Fentanyl	40.9% (18)	30.4% (7)	52.4% (11)
Cocaine	36.4% (16)	43.5% (10)	28.6% (6)
Naloxone			
Proportion who were aware of naloxone (n=199)	95.0% (189)	94.9% (112)	93.9% (77)

Proportion who carried an overdose kit (among participants who were aware of naloxone, n=189)	47.6% (90)	39.0% (46)	53.7% (44)
Proportion who used an overdose kit on anyone (among participants who were aware of naloxone, n=189)	45.5% (86)	38.1% (45)	50.0% (41)

Note: Missing, don't know and refused responses were removed prior to calculating percentages.

***Values suppressed due to small cell counts.

^a Participants recorded all drugs that they had used for non-medicinal purposes in the 6 months prior to interview. The most commonly reported drugs among all participants are presented. As participants could select more than one response, the total denominator is not shown.

^b Participants indicated all locations where they had injected drugs in the 6 months prior to interview. The most commonly reported locations among all participants are presented. As participants could select more than one response, the total denominator is not shown.

^c Public place included street, park, squat, subway, etc.

^d Other used injection equipment included water, filters, cookers, spoons, tourniquet, ties, swabs and acidifiers.

^e Participants reported all types of people with whom they had shared injection drug equipment. The most commonly reported people are presented. As participants could select more than one response, the total denominator is not shown.

^f A regular sex partner was defined as someone with whom the participant had a relationship and with whom the participant was emotionally involved.

^g Means of consuming drugs without injecting included snorting, eating, drinking, or using as a patch.

^h Non-injection drug equipment included straws, dollar bills, or pipes.

Overall, 22.0% of all participants reported that they had injected drugs for the first time before the age of 16 years, with a significantly higher proportion of females than males reporting early use of injection drugs (30.5% vs. 16.1%). Participants reported a variety of substances that they had injected in the past 6 months. Cocaine was most commonly reported among all participants (94.0%), followed by morphine (50.2%) and crack (42.0%). A significantly higher proportion of female than male participants reported injecting morphine (62.2% vs. 41.9%) and crack (53.7% vs. 33.9%).

Participants reported a range of locations where they had injected in the past 6 months. The most commonly reported were: family or friend's place (63.8%); own apartment or house (56.8%); and public place (48.7%). The latter item, injecting drugs in a public place, is of concern since it has been found that public injection is linked with several risk behaviours, including borrowing needles, which can lead to increased transmission of HIV and HCV among people who inject drugs (Corneil et al (2006) and PHAC (2010), as cited by PHAC (2014)). Almost all participants reported using a sterile needle and syringe during their last injection (94.0%). However, 35.2% of participants reported injecting with other used injection equipment in the last 6 months. The most commonly reported person with whom participants shared injection equipment with were their friend(s) or others they knew well (58.6%), their regular sex partner (54.3%) or their family (18.6%).

Participants also reported a variety of substances that used in ways other than injection in the past 6 months. Cocaine was most commonly reported among all participants (84.9%), followed by crack or freebase (84.4%) and alcohol (65.8%). Over half of participants (51.8%) reported reusing non-injection drug equipment 'sometimes', while 7.2% of participants reported reusing non-injection drug equipment 'every time'.

In the past 6 months, 22.1% of participants reported experiencing an overdose. Participants reported a variety of substances involved in their most recent overdose. Heroin was most commonly reported among participants who experienced a recent overdose (62.8%), followed by fentanyl (40.9%) and cocaine (36.4%). Most participants were aware of naloxone (95.0%), but less than half of these participants (47.6%) carried an overdose kit and only 45.5% had used an overdose kit on someone.

Sexual risk behaviours

Table 5. Sexual risk behaviours (Thunder Bay site)

BEHAVIOUR	TOTAL	MALE	FEMALE
Proportion who had two or more sex partners in the 6 months prior to interview (n=186)	32.8% (61)	37.4% (43)	25.4% (18)
Proportion who had been given money, drugs, goods or anything else in exchange for sex (among participants with at least one sex partner, n=170)	14.1% (24)	***	***
Frequency of drug or substance use during sex or within 2 hours before sex in the 6 months prior to interview (among participants who had at least one sex partner, n=167)			
Never	15.0% (25)	12.1% (12)	19.1% (13)
Sometimes	39.5% (66)	37.4% (37)	42.6% (29)
Frequently	24.6% (41)	28.3% (28)	19.1% (13)
Always	21.0% (35)	22.2% (22)	19.1% (13)
Most commonly reported strategies used to reduce risk of HIV through sex (among participants with more than one sex partner) ^b			
Condoms	61.8% (105)	65.4% (66)	56.5% (39)
Reduced partner numbers	58.2% (99)	64.4% (65)	49.3% (34)
Chose same 'HIV status' partner	12.7% (21)	***	***

Note: Missing, don't know and refused responses were removed prior to calculating percentages.

***Values suppressed due to small cell counts.

^a A regular sex partner was defined as someone with whom the participant had a relationship and with whom the participant was emotionally involved.

^b Participants recorded all safe sex strategies they used in the 6 months prior to interview. The most commonly reported safe sex strategies among all participants are presented. As participants could select more than one response, the total denominator is not shown.

Overall, 32.8% of all participants reported having two or more sex partners in the past 6 months. Of these, 14.1% reported being given money, drugs, goods or anything else in exchange for sex. This was significantly higher among female participants compared to male participants. Among participants who reported having multiple sex partners, 24.6% reported 'frequently' and 21.0% reported 'always' using drugs or substances during sex or within 2 hours before sex in the past 6 months. Using drugs before sexual interactions may increase risky behaviours during sex, such as inconsistent condom use, among people who inject drugs in Canada (as cited in PHAC (2013) as cited in PHAC (2014)). The most common strategies reported for reducing risk of HIV through sex were: condom use (61.8%); reduced partner numbers (64.4%), which was significantly higher in males compared to females; and choosing a partner with the same HIV status (12.7%), which also differed among males and females.

Use of health services

Table 6. Use of health services (Thunder Bay site)

	TOTAL	MALE	FEMALE
Proportion who use healthcare (n=195)	75.4% (147)	79.7% (94)	64.6% (53)
Most common types of healthcare accessed ^a			
Walk-in clinic	69.4% (102)	72.3% (68)	64.2% (34)
Hospital emergency room	68.0% (100)	64.9% (61)	73.6% (39)
Community health or wellness centre	63.3% (93)	60.6% (57)	67.9% (36)
Proportion who reported use of the following health care services ^b			
Needle and syringe distribution	87.9% (174)	85.5% (100)	91.4% (74)
Opioid substitution therapy	53.3% (106)	59.8% (70)	43.9% (36)
Condom distribution programs	40.9% (81)	37.6% (44)	45.7% (37)
Treatment services for substance use	17.6% (35)	16.9% (20)	18.3% (15)
Supervised injection/consumption site	15.1% (30)	12.0% (14)	19.5% (16)
Proportion who reported using mental health counselling services in the year prior to interview (n=199)	24.1% (48)	23.1% (27)	25.6% (21)
Reasons for avoiding health care services (fear of, or concern about...) ^c			
Stigma by staff or neighbours	28.8% (57)	22.2% (26)	38.3% (31)
Someone may learn they inject drugs	30.3% (60)	18.8% (22)	46.9% (38)
Violence	18.1% (36)	7.7% (9)	32.9% (27)
Police harassment or arrest	27.3% (54)	22.2% (26)	34.6% (28)
Proportion who accessed Indigenous health or healing practices in year prior to interview (among participants who identified as Indigenous, n=134)	23.9% (32)	27.5% (19)	20.0% (13)

Note: Missing, don't know and refused responses were removed prior to calculating percentages.

^a Participants recorded all types of health care they accessed. The most commonly reported types among all participants are presented. As participants could select more than one response, the total denominator is not shown.

^b Participants recorded all health care services they accessed. The most commonly reported services among all participants are presented. As participants could select more than one response, the total denominator is not shown.

^c Participants recorded all reasons for avoiding health care. The most commonly reported reasons among all participants are presented. As participants could select more than one response, the total denominator is not shown.

Almost three-quarters of participants (75.4%) reported using health services; most commonly, walk-in clinics (69.4%), hospital emergency room (68.0%), and community health or wellness centre (63.3%). A higher proportion of males reported using healthcare as compared to females (79.7% vs. 64.6%). Participants reported using a variety of health services aimed to reduce the harms associated with injection and non-injection drug use, including needle and syringe distribution (87.9%), opioid substitution therapy (53.3%), condom distribution programs (40.9%), treatment services for substance use (17.6%), and supervised injection/consumption site (15.1%). Of these, a higher proportion of males reported using opioid substitution therapy as compared to females (59.8% vs. 43.9%).

Less than one-quarter (24.1%) of participants reported using mental health counselling services in the past year. Reasons for avoiding healthcare services included fear of, or concern about: stigma by staff or neighbours (28.8%); someone may learn they inject drugs (30.3%); violence (18.1%); and police harassment or arrest (27.3%). These reasons varied by sex/gender. Among participants who self-identified as Indigenous, only 23.9% reporting accessing Indigenous health or healing practices in the past year.

Conclusions

Overall, lifetime prevalence of HCV infection was high among Phase 4 (2019) participants in Thunder Bay. Even more concerning is the high proportion of participants infected with HIV and/or HCV who were unaware of their positive status. This may lead to limited use of care, treatment and support services, which in turn, can result in increased transmission.

Even though many participants reported safe injection and safe sexual practices, many participants still reported factors and behaviours that place them at increased risk of sexually transmitted and blood-borne infections (STBBIs, PHAC, 2014). As such, people who inject drugs should continue to be a target population for STBBI infection prevention and treatment efforts (PHAC, 2014). The findings from Phase 4 (2019) in Thunder Bay can be used to inform existing and new health and social support services for people who inject drugs in Thunder Bay (PHAC, 2014).

There are limitations to the TRACKS findings that should be taken into consideration when interpreting the results. First, participants were identified through non-random sampling methods. Therefore, the findings may not be generalizable to all people who inject drugs. Second, the findings are based on factors and behaviours that participants chose to self-report to the researchers. As such, it is possible that certain risk behaviours may not accurately reflect actual risk behaviours in the population studied (PHAC, 2014).

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Appendix A: HIV and HCV testing algorithms

HIV testing algorithms

HIV screening was performed using the Bio-Rad GS HIV Combo Ag/Ab assay (Bio-Rad). A non-reactive result indicated no HIV infection. Confirmatory testing was performed on screened reactive results using a second EIA, the AVIOQ HIV-1 Microelisa System (Avioq). A reactive result indicated an HIV infection. In instances where the Bio-Rad was reactive, and the Avioq was non-reactive or indeterminate (i.e., absorbance results that were near, but did not overlap, the cut-off value for a reactive/non-reactive result), the Roche COBAS AmpliPrep/COBAS Taqman HIV-1 Qualitative Test v2.0 (Roche) was used as a tie-breaker. A reactive result on the Bio-Rad and a detected result on the Roche indicated an HIV infection. A reactive result on the Bio-Rad, non-reactive or indeterminate result on the Avioq, and a not detected result on the Roche, was interpreted as an overall indeterminate result.

Hepatitis C testing algorithms

Hepatitis C screening testing was performed using the Ortho[®] HCV version 3.0 EIA (Ortho). A non-reactive result indicated never having been infected with hepatitis C. A reactive result indicated lifetime exposure to hepatitis C. Confirmatory testing was performed on screened reactive and indeterminate results (i.e., absorbance results that were near, but did not overlap, the cut-off value for a reactive/non-reactive result) using the Roche COBAS AmpliPrep/COBAS Taqman HCV Quantitative test v2.0 (Roche). A detected result indicated a current hepatitis C infection and a not detected result indicated a lifetime exposure to hepatitis C. For those that screened indeterminate on the Ortho, a detected result on the Roche indicated a current hepatitis C infection and a not detected result on the Roche was interpreted as an indeterminate result.

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