



Sex Worker HIV Risk



Question

What are the risks and rates of HIV infection among people involved in commercial sex work in Canada?

Key Take-Home Messages

- ◆ The Canadian literature primarily encompasses female sex workers in Vancouver, and studies from other high income countries often addressed demographic niches that were not transferrable to the Canadian setting.
- ◆ Establishing the prevalence of HIV among sex workers is challenging because they are a hard-to-reach population. Estimates range from 1% to 60%.
- ◆ There are three main categories of risk for HIV infection among commercial sex workers in Canada: high risk sex or sex with high risk partners, illicit drug use, and unstable living and working environments. Other risk factors include young age, tattooing or body piercing, and a history of sexual abuse.
- ◆ Decriminalization of commercial sex activities is essential for the protection of sex workers. Other interventions should target sex workers specifically and should involve harm reduction activities that are contextually and culturally appropriate for this population.

The Issue and Why It's Important

There is a considerable body of literature describing the risks and rates of HIV infection in sex workers in low-income settings, but little is known about these issues in Canada and other high-income countries. In the Canadian context, injection drug use among sex workers and heterosexual transmission to clients and then to their sexual networks is contributing to the HIV epidemic. By understanding the factors that place people involved with sex work at risk for HIV infection, we can develop interventions to reduce those risks and curb the spread of HIV.

EVIDENCE INTO ACTION

The OHTN Rapid Response Service offers HIV/AIDS programs and services in Ontario quick access to research evidence to help inform decision making, service delivery and advocacy. In response to a question from the field, the Rapid Response Team reviews the scientific and grey literature, consults with experts, and prepares a brief fact sheet summarizing the current evidence and its implications for policy and practice.

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What We Found

We reviewed 11 studies investigating various populations involved in sex work in Canada. Four studies assessed street youth specifically (1–4), one recruited Aboriginal women only (5), three included only female drug users (6–8), and two addressed women working in indoor settings.(9,10) Three studies included participants that resided in Montréal (1,3,7), eight included participants that resided in Vancouver or Prince George (2,4–10), and one included participants from Ontario.(11)

HIV Prevalence

The prevalence of HIV among the participants included in these studies varied widely. Among a population of male street youth involved in survival sex in Montréal, HIV prevalence was 2.1%, compared to 0.3% among those who have never been involved in survival sex.(1) The prevalence was roughly 1% among a population of female street youth in the same region who had and had not been involved in survival sex.(3) Haley et al reported findings of HIV prevalence of 10–50% among youth involved in sex work in other studies.(1) Shannon et al reported HIV prevalence of 58.1% among 198 female sex workers under the age of 18 in Vancouver.(12) In a study of sex workers of all ages, including youth, Miller et al found an HIV prevalence of 23% in Vancouver.(2) In the study by Mehrabadi et al, of Aboriginal women involved in sex work, an HIV prevalence of 17% was reported in Vancouver and 12% in Prince George.(5) Spittal et al reported that drug using women with sex trade involvement in Vancouver were significantly more likely to be HIV-infected than peers who were not involved in sex work.(8)

Risky Sexual Partners and Activities

The nature of the commercial clients and non-commercial partners that sex workers engage in sex with contributes to their risk of HIV infection. The risk of HIV infection is amplified among youth, who are physiologically more susceptible to HIV transmission.(3,13) Female street youth in Montréal who are involved in sex work were significantly more likely to report female partners and greater numbers of regular or casual male sex partners; more likely to engage in anal sex, which carries a greater risk of HIV transmission; and more likely to report risky sexual partners, including those who are gay or bisexual men, or are involved in the sex trade themselves.(2,3) These girls reported using condoms during oral or vaginal sex less than 10% of the time.(3)

Among male street youth in Montréal who engage in sex work, 64.7% have had sexual partners who inject drugs – this is significantly more than the 32.5% who are not involved in survival sex.(1) 10.7% of these youth have had sexual partners who they have known to be HIV positive – significantly more than the 3.3% who are not involved in survival sex.(1) Among male youth with female clients, 40% did not use condoms consistently during vaginal or anal penetration, and 80% did not use a protective barrier during oral sex(1). Among male youth with male clients, 25% did not use condoms consistently during anal penetration and 71% did not use condoms consistently during oral sex(1).

Male and female youth involved in sex work are more likely than their adult counterparts to report inconsistent condom use.(2) They are also more likely than their uninvolved peers to be involved in risky sexual activity even with partners with whom no exchange is being made.(1) Unprotected sex with these partners is more common than with partners with whom an exchange is being made.(1)

Like youth, adult women are more likely to have unprotected sex with regular clients, which may increase rates of heterosexual HIV transmission.(4,7,9) Among these women are the 80% of sex workers who recruit clients in indoor settings.(9) Many reported knowing whether their clients frequented more than one sex work establishment, engaged in sexual activity with more than one sex worker, or also sought sex from street-level sex workers, but they only reported knowing the HIV status of roughly half of their clients.(9) Sex with clients who bridge establishments, have sex with multiple workers, or hire street-level sex workers is especially risky, and in the study by Remple et al, only clients in these categories were known by sex workers to be HIV positive.(9)

Many women involved in sex work are involved in relationships with ‘pimps’, or men who hold power over their work environments and their transactions with clients.(4) These men are typically drug users who use female sex workers to obtain money and drugs, and then take ownership and control of the money and drugs.(4) To exert their power, these men may monitor the sex worker’s place of work or income – strategies include limiting the number of condoms available in order to track how many clients are serviced and how much money is expected. (4) Sex workers are not only exploited by ‘pimps’, but also by men who are known as ‘bad dates’.(4) ‘Bad dates’ are clients who use physical or sexual violence during encounters, are typically one-time or first-time clients.(4) The clients may coerce sex workers into unprotected sex and prevent them from negotiating safe sex and HIV prevention measures.(10) The legal system has taken little action on this issue, and it places women in extremely vulnerable situations where they are unable to insist on safe sex practices.(4)

Some studies reported different findings. Especially in studies that recruited only drug using sex workers, unsafe sex practices and pregnancy were not found to be associated with sex trade involvement.(5,7) This may be because of an association between drug use and unsafe sex.(7) There were also studies that reported very high levels of knowledge among sex workers about condom use and safe sex practices, and high levels of condom use with commercial partners.(5,7,9) This may be more representative of sex workers employed in more structured, indoor environments.

Drug Use

Youth who are involved in sex work are significantly more likely than their uninvolved peers to inject drugs.(1,3) In Vancouver, these youth had higher proportional odds of using crystal methamphetamine and heroin on a frequent basis than their adult counterparts.(2) Female youth involved in survival sex were more likely than their uninvolved peers to binge on alcohol, twice as likely to use all drugs (except marijuana), and more likely to report always or often being under the influence of substances during sex.(3) These girls were more likely than their adult counterparts to rely on an older male partner for drugs, require assistance injecting drugs, and be second to use shared needles.(2) Compared to their adult counterparts, youth were significantly more likely to have drug use paraphernalia confiscated by police without arrest.(2) This places youth in a vulnerable position where they may be forced to practice unsafe sex in exchange for drugs or paraphernalia that they require to support their addiction.(2) It was also found that a youth’s unsuccessful attempt to access addiction services in the past was found to be associated with a two-fold increase in the odds of client-perpetrated violence.(2)

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Compared to drug users that are not involved in sex work, drug users of all ages who do engage in sex work are significantly more likely to inject drugs daily, inject cocaine and heroin specifically, and smoke crack daily.(5,7) There may be a connection between involvement in sex work and the transition from non-injection drug use to injection drug use.(2) Among drug using Aboriginal sex workers in Vancouver and Prince George, daily opiate use was found to be much higher in Vancouver.(5) The chaotic and intense patterns of cocaine injection, in particular, increase the vulnerability of women involved in sex work.(5,7) In youth and adults who use drugs, especially those who inhale drugs, the risk of HIV transmission during unprotected oral sex is increased due to oral lesions. (1,5)

Reductions in the price of drugs over time, particularly crack, can drive down the price of sex and increase the likelihood of a sex worker accepting more money for unprotected sex.(6) If one sex worker in the area allows clients to forego the use of condoms, it becomes much more difficult for all of the other workers in the area to demand condom use.(4) Similarly, police crackdowns that remove large volumes of drugs from circulation can raise the price of drugs and require sex workers who use drugs to agree to unsafe sex in order to earn enough money to afford drugs.(6)

The use of drugs reduces cognition and thereby reduces the ability of people involved in the sex trade to perceive risk, negotiate condom use, and engage in safe sex.(3) Clients sometimes target sex workers who are using drugs specifically because they are more vulnerable and easier to take advantage of, and sex workers are more likely to use drugs during encounters with regular clients when the likelihood of unprotected sex is already increased.(4,7,9) The effects of drug withdrawal can also lead to vulnerability and can severely limit the capacity of sex workers to take measures to prevent HIV transmission. (4,6,7) Heroin withdrawal is particularly severe, and can cause users to require assistance injecting – an activity that is strongly associated with HIV sero-conversion among female sex workers.(7) Sex workers are significantly less likely than their uninformed peers to access to methadone maintenance treatment.(2,7)

There is debate about the relationship between injection drug use, sex work, and HIV infection.(7) Some studies have found no significant differences between unsafe sexual practices or the prevalence of sexually transmitted infections, including HIV, among drug using sex workers(7). In one study, needle sharing remained the only risk factor independently associated with sex trade involvement, and it was suggested that the association between HIV transmission and sex work is related largely to injection drug use.(7)

Living and Working Environments

Homelessness is well known as a structural risk factor for HIV infection.(14) Female youth involved in survival sex had lived in the streets for longer than those not involved and first reported having no place to sleep an average of one year younger.(3) 69% of youth compared to 36% of adults involved in sex work reported 'absolute homelessness', but unstable housing was also associated with sex work among adult women.(2,7,8) Homelessness was significantly associated with sex work among Aboriginal women who use drugs.(5)

Youth were also more likely than their adult counterparts to service clients in public places.(2) Evidence has shown that poor environments increase the

number of anonymous sexual encounters one experiences, can reduce the capacity of youth to negotiate safe sex with clients, and can lead to a three-fold increase in the odds of coercive unprotected sex and physical violence.(2) Policing practices often force women to work in dark and deserted areas, alleys, and industrial settings.(4,10) The lack of safe places to take clients limits the sex worker's control over the situation, increases the risk of violence, and reduces her ability to negotiate condom use.(4) Women report losing all control over an encounter the moment they enter a client's vehicle.(4) Sex work that takes place in managed, indoor environments, even when unsanctioned, can reduce the exposure of workers to violence and exploitation, increase safety and peer support, and reduce client anonymity.(9,10)

Other Risk Factors

Age is a risk factor for HIV infection among sex workers. Female youth involved in survival sex were an average of one year younger than their uninvolved peers when they participated in their first consensual sexual act – an earlier age of involvement in sex work is associated with a two-fold increase in the odds of HIV infection.(2,3) When young female sex workers were compared to their older counterparts, they were significantly more likely to be infected by HIV and to transmit it to partners.(12) Sex workers who inject drugs in Vancouver and Montréal were also found to be significantly younger than people who inject drugs but are not involved in sex work.(7) Other HIV risk factors that differed significantly between youth involved and uninvolved in survival sex include tattooing and body piercing.(1,3) Male youth involved in survival sex were also significantly more likely to undergo scarification and inject steroids.(1)

What Can Be Done?

One of the most pressing issues in the prevention of HIV in sex workers is the legal status of sex work (10). Sex work must be decriminalized across the country, particularly in indoor settings.(10) Recent changes in Ontario that now allow brothels to be legally kept and for sex workers to live off of the money they earn through sex work should be implemented nationally.(10) This would give law enforcement the capacity to regulate the industry, empower sex workers, and make sex work safer for those involved.(4,6,8,10) Currently, the criminal justice and social welfare systems fail to provide options for safer sex work, and lead to incarceration and the return of youth to families and homes that may perpetuate the challenges they face.(2)

Access by people involved in sex work to harm reduction strategies that include reduced needle sharing, providing clean needles at all hours of the day, and promoting condom use; addiction services; HIV testing and counselling; and sexual health education must be increased.(3,5,6) Both sex workers and their clients should be targeted in sexual health education initiatives.(9) Many women involved in the sex trade face barriers to accessing antiretroviral therapy – increasing access to treatment and managing HIV infection more effectively in this population may reduce its rate of transmission.(8) Integrated services to address housing, mental health, and addiction are also needed.(2,4) These interventions and services must be developed with the input of sex workers and offered in a way that is targeted, and contextually and culturally appropriate.(1–4,8,11) Youth and Aboriginal people should be targeted as specific populations of people involved in sex work.(2,5,10)

Shannon et al recommend interventions that offer long-term economic alternatives to sex work, coupled with drug maintenance therapy.(4) They also reported that unions and cooperatives of people involved in sex work have been

shown to effectively increase condom use and decrease HIV incidence in low-income nations.(4) Deering et al noted that opiate substitution therapy can lead to the use of less expensive drugs, and can decrease the vulnerability of drug using sex workers to clients who insist on unprotected sex for a higher price.(6)

The stigma and taboo associated with drug use, sex work and HIV can make it very difficult for people involved in sex work to access services and have open discussions about HIV risks.(11) This stigma can also make it difficult for any person who is HIV-positive to disclose their status, which can increase the risk of transmission among at-risk populations, including sex workers.(11) Education for the general public to reduce the stigma that surrounds drug use, HIV, and sex work.(11)

Factors That May Impact Local Applicability

The following factors impose limitations upon many of the studies included in this report:

- ◆ Many of the studies included here relied on self-reported data from study participants that were not randomly recruited. Participants may be hesitant to disclose information on illegal, socially unacceptable, or highly stigmatized activities, including drug use, sex work, and HIV transmission, so study findings may be conservative estimates of effects.(1,2,5-7,11)
- ◆ The majority of the studies included do not meet criteria for inferring causation.(15) For example, it is not possible to ascertain from these studies whether injection drug use leads to sex work, or sex work leads to injection drug use.
- ◆ The studies that were found are not nationally representative. The majority of the studies were conducted in British Columbia, namely Vancouver, with some representation from Ontario and exclusively Montréal.
- ◆ Definitions of unstable housing and homelessness; and survival sex, exchange sex, sex work, and commercial sex vary.(1,8)
- ◆ These studies addressed only people who acknowledged involvement in sex work, and in some cases only people who self-identified as sex workers.(4)
- ◆ There are ethical constraints to including people under the age of 18 in research, which can place limitations on studies involving youth.(2,13)
- ◆ With the exception of the study by Remple et al., the studies included only sex workers involved in the visible street-based sex trade, although up to 80% of sex workers in Canada work in indoor environments (massage parlours, escort agencies, private calls, and private indoor brothels).(9)
- ◆ In Vancouver, there is anecdotal evidence that there is a large population of Asian immigrant women who are involved in sex work, who are underrepresented in these studies.(9)

What We Did

We conducted a search in Medline using the filter for optimizing the retrieval of reviews by combining the following terms: (Prostitution (MeSH term) OR Sex Workers (MeSH term)) AND HIV. We also searched the Cochrane Library by searching for sex work* AND HIV. In addition, we conducted a related articles search in PubMed using a relevant review by Cwikel et al.(16)