



Enhanced Street Youth Surveillance in Ottawa 2011

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Guide to this report



Provincial case definitions for all diseases discussed in this report are detailed in the Ontario Public Health Standards, Infectious Disease Protocol 2009, Appendix B—Provincial Case Definitions at: www.health.gov.on.ca/english/providers/program/pubhealth/oph_standards/ophs/progstds/idprotocol/appendixb/appendix_b.pdf.

Methodology

Data sources

The data in this report come from Cycle VI of the Enhanced Street Youth Surveillance Study (E-SYS). In 2009, the Epidemiology Section and the Sexual Health Centre at OPH interviewed 200 street youth in Ottawa. Participants were French- or English-speaking youth 15–24 years old with no fixed address for three or more consecutive days in the six months prior to the interview.

Youth were recruited at Operation Come Home and the Youth Services Bureau shelters and drop-in centre. After obtaining informed verbal consent, a nurse administered the anonymous survey and collected biological samples for sexually transmitted and blood-borne infection testing.

The survey was conducted in Ottawa in 1999, 2001, 2003, 2005 and 2009.

Data limitations

The survey sample was collected through snowball recruitment (i.e., one youth advertising the survey to another and so on) and therefore may not be representative of the entire street youth population. Because recruitment took place in service venues, the sample may underrepresent youth who do not access services. In addition, self-reporting may result in under- or over-reporting due to social desirability or recall bias.

Data analysis

Data were analyzed using Stata 11.1. For trend analysis, data from Cycles II–VI were analyzed; 95% confidence intervals were calculated for comparisons over time and between groups.

Executive summary



This report is one of a series of health status reports published by Ottawa Public Health (OPH). These comprehensive reports are an important part of the public health mandate to report on population health status. They provide the evidence necessary to identify trends and health issues of public health significance in Ottawa. Local evidence helps tailor planning and decision-making to enhance the health of the Ottawa population.

This report is an epidemiological overview of street-involved youth in Ottawa: their risk-taking behaviours related to sex, drugs and alcohol; resulting prevalence of sexually transmitted and blood-borne infections (STBBIs); and access to support services.

These data support the Ontario Public Health Standards requirement to survey sexually transmitted infections, blood-borne infections, risk behaviours and substance use among priority populations. The Ontario Public Health Standards' goals related to sexually transmitted infections and substance use include:

- To prevent or reduce the burden of sexually transmitted infections
- To promote healthy sexuality
- To reduce the frequency, severity and impact of preventable injury and of substance misuse



Executive summary

Enhanced Street Youth Surveillance Study 2009 Findings

- Most street youth are white and born in Canada.
- Half of street youth surveyed left home more than a year ago.
- Most street youth have not completed the high school grade appropriate for their age.
- Many street youth break the law to make money and most have spent time in prison, jail or youth detention centre.
- Street youth use a variety of services but report barriers to accessing health services.
- Most street youth start sex young, don't use protection and don't understand the risks.
- More than half of female street youth have been pregnant.
- Alcohol use, non-injection drug use and injection drug use are common among street youth, but the number using drugs has not changed over time.
- Blood-borne infection rates are high among street youth who use injection drugs.
- Chlamydia is the most prevalent reportable sexually transmitted infection among street youth. In 2009, 8.8% were infected.
- Hepatitis C is being transmitted when street youth share drug equipment.

About the Enhanced Street Youth Surveillance Study (E-SYS)

E-SYS is funded by the Centre for Communicable Diseases and Infection Control of the Public Health Agency of Canada. Since 1999 E-SYS has studied street youth—a vulnerable population not represented in school- or residence-based studies.

There are seven E-SYS sites across Canada. For more information about E-SYS and these other sites, visit www.phac-aspc.gc.ca/sti-its-surv-epi/youth-jeunes-eng.php.

In 2009, Ottawa Public Health (OPH) interviewed 200 street youth as part of Cycle VI of E-SYS in Ottawa. The median age of participants was 19 years; 55% were male.



THE FACTS

- Most street youth are white and born in Canada
- Half of street youth left home more than a year ago
- Most street youth are not in school
- Many street youth break the law to make money

Street-involved youth is a broad term that includes youth who live at home and are marginally involved in the street scene; victimized youth who seek safety and solace in the street and are vulnerable to its dangers; delinquent youth who participate in the illegal and dangerous activities characteristic of street culture; and entrenched youth who are both homeless and heavily involved in street life.¹

Ottawa's street youth are mainly white and born in Canada. Many have poor mental and physical health and half left home more than a year ago. They are at risk for not completing school and for engaging in criminal activity. Alienated from the school system, they do not benefit from the supports their school-attending peers enjoy. Preventive efforts are needed to keep high-risk youth in school. There is also significant opportunity to reach these youth through their involvement in the justice system.

Most street youth are white and born in Canada

Ottawa's street youth mirror the general youth population in terms of ethnicity and origin. The majority (74%) of street youth are of white European ancestry, followed by black (7%) and First Nations (7%) (Table 1). Almost all (90%) of street youth are born in Canada.

Table 1: Reported ethnicity among Ottawa street youth and among all Ottawa youth, 2009

Ethnicity	Percentage of street youth surveyed	Percentage of general youth population
White/European	74%	78%
Multi-ethnic	10	1
Black	7	6
First Nations	7	5
Arab / Southwest Asian	2	5
Latin American	1	1

^{*}Data source: Statistics Canada, 2006 Census.



Most street youth are heterosexual

Of the youth surveyed, 77% identified as straight/heterosexual, while 18% identified as two-spirited/bisexual and 7% identified as other/gay/homosexual/lesbian/queer.

Many street youth have poor mental and physical health

Almost one-third (32%) of street youth rated their own mental health as poor or fair, compared to 10% among the general youth population.² Twenty-nine per cent rated their physical health as fair or poor, compared to 11% among the general youth population.²

Half of street youth left home more than a year ago

Of those street youth who were not sleeping at the home of a parent, relative or caregiver, 60% had left home more than one year before. Over half (56%) had not slept in their own or a caregiver's house in the last three months. Few street youth (10%) sleep outdoors (such as in the street, parks or other public places).

Table 2: Most frequently reported sleeping place in the 3 months prior to interview, Ottawa street youth, 2009

Place	Percentage
Own apartment, house, or room	24%
Parent, caregiver, relative's house, group home or foster care	20
Shelter or hostel	18
Friend's, boyfriend's or girlfriend's place	15
Street, park or other public place (stairwell, washroom, under a bridge, etc.)	10
Different place every night	8
Other (transition house, detention, detox, etc.)	6

Data note: Only places reported by 5% or more are listed.

Most street youth are not in school

Unlike most youth in the general population, many street youth don't attend school. As a result, they miss access to the structure and support provided by the school environment. Poor school completion rates also translate to limited opportunities for these youth.

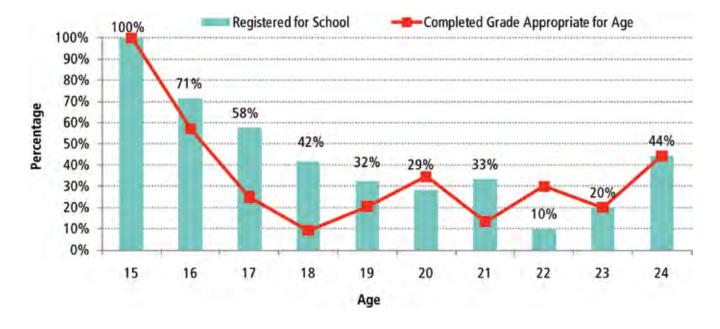
Older youth less likely to be in school

- The proportion of street youth registered for school declines with age between ages 15 (100%) and 20 (29%) years.
- Only 42% of Ottawa's 15–24-year-old street youth are registered for school. Among school-aged respondents (aged 15–17 years), 63% are registered for school.

Street youth are falling behind

- Although 100% of 15-year-old street youth surveyed had completed the school grade appropriate to their age, only 9% of 18-year-olds had done so.
- This steep decline accounts for the fact that, on average, only 25% of street youth had completed the high school grade appropriate for their age.

Figure 1: Percentage of youth who report being registered for school and having completed the grade appropriate for their age, by age, Ottawa street youth, 2009



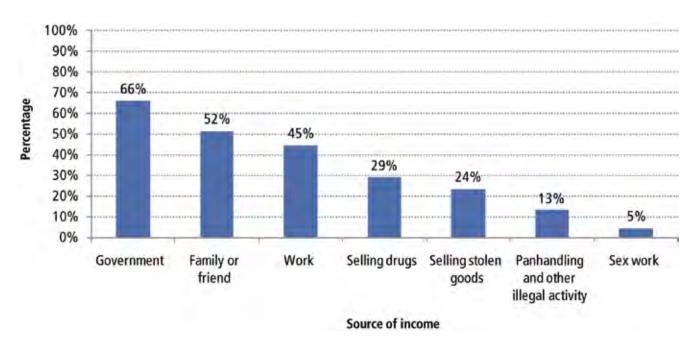


Many street youth break the law to make money

Rates of illegal activity to generate income are high in the street youth population. However, two-thirds of them receive income from governmental or provincial agencies, and almost half have jobs.

- 66% of street youth receive income from the government.
- 45% of street youth receive income through legal employment.
- 45% of street youth receive income from illegal activities such as selling drugs, selling stolen goods, sex work or unconventional sources such as panhandling.

Figure 2: Sources of income for Ottawa street youth, 2009



Many street youth have spent time in prison, jail or youth detention

A third of street youth have spent time in jail or prison; 68% have been in youth detention. Overall, 70% of street youth have spent time in prison, jail or youth detention.

Table 3: Percentage of street youth ever held in a youth detention centre, jail or prison, by duration of stay, Ottawa street youth, 2009

Duration of stay	Percentage reporting time in jail or prison	Percentage reporting time in a youth detention centre
At least once	33%	68%
Overnight	5	27
1 month or less	13	28
1 year or less	11	11
Over a year	5	4

Access to services



THE FACTS

- Street youth use a variety of services across Ottawa
- Many street youth report barriers to accessing health services

Although several agencies across Ottawa provide services to youth and to street-involved individuals, many street youth are not accessing these services. They reported barriers to accessing care and offered ideas for improving their options.

Street youth use a variety of services across Ottawa

Many agencies across the city provide services targeted to youth or street-involved clients.

- Most Ottawa street youth report using services provided by the Youth Services Bureau, Operation Come Home and shelters.^a
- One-third of street youth identified gaps in service—mostly related to housing.

Table 4: Reported use of services, Ottawa street youth, 2009

Service	Percentage
Youth Services Bureau	86%
Operation Come Home	71
Shelters	61
Outreach worker	56
Community health/resource centre	31
Addiction treatment	14
SITE van or office	11
Clarence STI clinic	11
Wabano Centre	6

Data note: Only services reported by 5% or more are listed.

a Recruitment for the E-SYS study took place at Youth Services Bureau and Operation Come Home. For this reason, it is expected that most participants report using their services.

Access to services

Table 5: Service gaps identified by Ottawa street youth (n=68), 2009

Service	Percentage reporting a service gap
Housing	18%
Safer drug use	9
Sports and recreation	9
More drop-ins	9
Drug treatment	6
Employment	6
Food	6

Data note: Only services reported by 5% or more are listed.

Access to services

Many street youth report barriers to accessing health services

Access to health care services is important for quality of life and for health equity. However, street youth say they feel barred from accessing health services. This perception may prevent them from seeking health care services, thus denying them the opportunity to interact with agencies that could provide them with care or access to care.

- 64% of street youth report barriers to accessing health services.
- Most commonly reported barriers include transportation to services, long waiting times for service and lack of a health card.

Table 6: Reported barriers to accessing health services, Ottawa street youth (n=128), 2009

Barrier	Percentage reporting a barrier
Services are hard to get to	25%
Long waiting times	17
Does not have health card	16
Has had bad experience(s) with health care	13
Opening hours restrictive	9
Cost of services	6
Local social norms	5
Fear	5
Unfamiliarity with services	5
Limited information about symptoms, testing and treatment	5
The way health care is delivered	5
Anonymity and confidentiality issues	5

Data note: Only barriers reported by 5% or more are listed. The sample size only includes respondents who identified one or more barrier (128/200 respondents or 64%).



THE FACTS

- Most street youth start sex young and don't use protection
- Few street youth understand the risks
- Some street youth have sex that is coerced or transactional
- More than half of female street youth have been pregnant

Many street youth are having sex in contexts in which they may not be in control, such as coerced sex or sex under the influence of drugs and alcohol. They are engaging in risky sexual practices but few of them acknowledge the risk of acquiring a sexually transmitted infection (STI). In addition, a high proportion of female street youth have been pregnant.

Most street youth start sex younger and don't use protection

Youth are still developing their critical and decision-making abilities. This means they may misjudge the risk of their actions.

Almost all Ottawa street youth report some type of sexual activity (vaginal, oral or anal). More than half of both males and females had sex for the first time before age 15. In contrast, only 8.3% of their counterparts off the street have had intercourse before age 15.³ (95% CI: 3.0–13.7%)

Unprotected sex is the main way of acquiring an STI. The earlier youth are sexually active, the higher the risk for long-term STIs.

Street youth do not consistently use condoms and use varies by type of sex. About half reported using a condom during their last vaginal sexual encounter (48%) or anal sexual encounter (51%), while 15% reported using a condom during their last oral sexual encounter. In contrast, 74.4% (95% CI: 66.6–82.2%) among the general Ottawa youth population reported using a condom during their last vaginal sexual encounter.³

The number of lifetime sexual partners is high among street youth; 91% report having had more than three partners. Males report slightly more partners than females.

Table 7: Type of sex, age at first time and condom use among Ottawa street youth, 2009

Type of sex	Percentage reporting ever having sex	Reported median age at first time (years)	Percentage reporting using condom last time
Vaginal	99%	14	48%
Oral	93	14	15
Anal	93	16	51



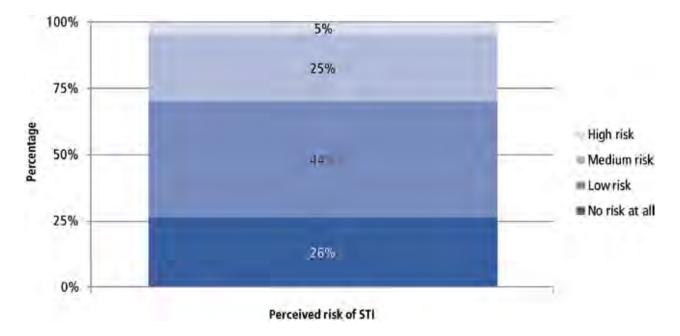
Table 8: Lifetime number of sexual partners, Ottawa street youth, 2009

Lifetime number of partners	Percentage
0	0%
1 to 2	9
3 to 9	34
10 to 50	46
50 or more	11

Few street youth understand the risks

Despite lower condom use and higher number of partners, 70% of street youth believe they have low or no risk of getting an STI. Among those who didn't use a condom in their last vaginal sexual encounter, 60% rated their risk of getting an STI as low or zero.

Figure 3: Self-perceived risk of acquiring a sexually transmitted infection, Ottawa street youth, 2009



Street youth have sex that is coerced or transactional

Youth are sometimes powerless to protect themselves against STIs or unwanted pregnancy.

- 43% of street youth reported having coerced sex
- 25% of street youth reported having sex out of obligation (e.g., for food or a place to sleep) or for money
- Many street youth reported having sex while under the influence of alcohol or drugs

Table 9: Sex under the influence in past 3 months, Ottawa street youth, 2009

Sex under the influence	Percentage
No	31%
Yes	69
High when having sex	63
Drunk when having sex	62

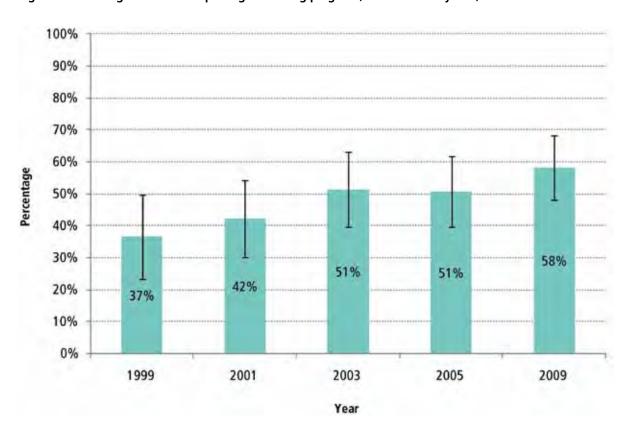
More than half of female street youth have been pregnant

Pregnancy can be a stressful event, particularly for transient youth. The proportion of female street youth reporting ever being pregnant has been high since the start of data collection in 1999 and may be increasing. In this survey, 58% (95% CI: 48–68%) of female street youth reported being pregnant at least once and 9% were pregnant at the time of interview.

Table 10: Pregnancy outcome among female street youth who have ever been pregnant (n=53), 2009

Pregnancy outcome	Percentage among females ever pregnant
Abortion	32%
Miscarriage	30
Live birth	21
Currently pregnant	15
Refused to say	2

Figure 4: Percentage of females reporting ever being pregnant, Ottawa street youth, 1999–2009





THE FACTS

- Alcohol use, non-injection drug use and injection drug use are common among street youth.
- The number of street youth using non-injection and injection drugs has not changed over time.

Street youth are using legal and illegal substances with high frequency. Substance use has serious and detrimental shortand long-term consequences for youth, including blood-borne infection.

Frequent alcohol use is common among street youth

Adverse short-term and long-term health effects of using alcohol include physical impairment and liver damage. Alcohol also affects behaviour and decision-making, especially in young adults. Intoxication from alcohol can lead to risky or dangerous behaviours such as drunk driving, drug use and risky sexual behaviour.⁴

Research shows that young people, whose brains are still developing, may be at greater risk than mature adults of lasting brain damage from binge drinking, yet 45% (95% CI: 38–51%) of Ottawa street youth report binge drinking^b once or more per month.

As a comparison, only 29% (95% CI: 21–37%) of grade 9–12 students in Ottawa report drunkenness^c at least once during a four-week period, as measured by the Ontario Student Drug Use and Health Survey (OSDUHS).²

Table 11: Reported frequency of alcohol binging^b in the 3 months prior to interview, Ottawa street youth, 2009

Frequency	Percentage
Never or less than once a month	55%
One or more times a month	11
One or more times a week	25
Every day	9

b Alcohol binging in the E-SYS study is defined as "drinking to get smashed or drunk for a long period of time."

^cDrunkenness is defined as drinking so much that you could not do what you wanted to do or you threw up.



Most street youth use non-injection drugs

Non-injection drug use refers to the consumption of illegal substances by ingestion, inhalation or smoking. Many such substances pose a risk to youths' health due to the mode of consumption (e.g. sharing crack pipes can transmit hepatitis C), direct physical effects or behavioural effects.

- 91% (95% CI: 87–95%) of Ottawa street youth report using non-injection drugs in the past year.
- 85% (95% CI: 81–91%) report using non-injection drugs in the past month.
- 70% (95% CI: 64–77%) report using non-injection drugs other than marijuana or non-medicinal prescription drugs, compared with 11% (95% CI: 9%–14%) of Ottawa grade 9–12 students surveyed by the OSDUHS.²
- Non-injection drugs used by 20% or more of street youth to get high in the past three months are marijuana, MDMA (ecstasy), hallucinogens, amphetamines, cocaine and prescription pain killers.

Table 12: Reported frequency of non-injection drug use (including marijuana) in the past month, Ottawa street youth, 2009

Frequency	Percentage
Never or less than once per month	14
One or more times per month	10
One or more times per week	27
Every day	49%

Table 13: Non-injection drugs used at least once in the past three months and most frequently in the past three months to get high, Ottawa street youth, 2009

Non-injection drug	Percentage using at least once (n=200)	Percentage using most frequently (n=173)
Marijuana/cannabis	86%	83%
MDMA/ecstasy	36	6
Hallucinogens (LSD, PCP)	30	1
Amphetamines	26	2
Cocaine/crack cocaine	23	6
Prescription painkillers	20	0
Prescription sedatives	15	1
Prescription stimulants	10	0
DACS (codeine, pseudoephedrine)	6	0
Methamphetamine	6	0
Sniffed glue, gasoline or other products (solvents)	5	0

Data note: Only drugs reported as being used in the past three months by 5% or more are listed.

Injection drug use among street youth is a concern

Although 12% (95% CI: 7–17%) had used injection drugs in the past year, 19% (95% CI: 14–24%) of Ottawa street youth report using injection drugs at least once.

- 5% (95% CI: 2–8%) report using injection drugs in the past month.
- Of the 5% who used injection drugs in the past month, 60% injected daily.

More than half (53%–67%) of those injecting drugs in the past three months chose morphine or other opiates, cocaine, heroin or Dilaudid.

Table 14: Reported frequency of injection drug use in the past month, Ottawa street youth (n=199), 2009

Frequency	Percentage
Never	81%
Not at all in the past month	14
One per month	1
One or more times per week	1
Every day	3

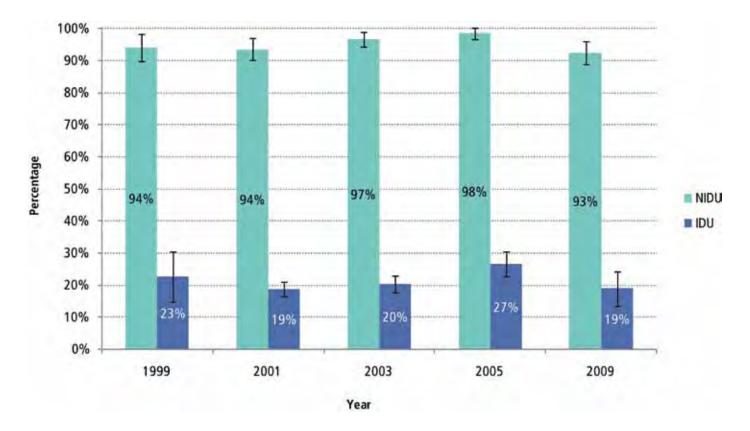
Table 15: Injection drugs used at least once in the past three months and used most frequently in the past three months, among those injecting in the past three months (n=15), Ottawa street youth, 2009

Injection drug	Percentage using at least once	Percentage using most frequently
Morphine or other opiates	87%	67%
Cocaine or crack cocaine	53	13
Heroin	53	20
Dilaudid	53	0
Speedball	20	0
Amphetamines	13	0
Ritalin + Talwin	7	0
Methamphetamine	7	0
Methadone	7	0

Street youth drug use has not changed significantly over time

Reported lifetime use of non-injection and injection drugs reported over the past 11 years averages 95% and 22%, respectively.

Figure 5: Reported lifetime use of non-injection drugs (NIDU) and injection drugs (IDU), Ottawa street youth, 1999–2009





THE FACTS

- Blood-borne infection rates are high among street youth who use drugs.
- Chlamydia is the most prevalent reportable sexually transmitted infection among street youth. In 2009, 8.8% were infected.
- The prevalence of viral sexually transmitted and blood-borne infections including hepatitis C and HIV is of concern.
- Hepatitis C is being transmitted when street youth share drug equipment.

Sexually transmitted and blood-borne infections are prevalent among street youth. The number of street youth infected with chlamydia, HIV and hepatitis C is particularly concerning and shows the need for intervention in this population.

Blood-borne infection rates are high among street youth who use drugs

Blood-borne pathogens such as hepatitis C virus (HCV) or human immunodeficiency virus (HIV) can be transmitted by blood left on shared drug equipment, including straws, pipes and needles. Street youth who are infected with a blood-borne pathogen are likely recently infected and thus still asymptomatic. An asymptomatic infection can go undiagnosed if the youth does not get tested, increasing the risk for transmission to others.

Among street youth who have used non-injection drugs, 5% (95% CI: 1–9%) are infected with HCV and 2% (95% CI: 0–5%) are infected with HIV. This is high compared with the estimated prevalence of HCV in the Canadian population aged 15–24 years (0.20%)⁵ and HIV in the Canadian population of all ages (0.20%)^d, respectively.

Among street youth who have used injection drugs, 24% (95% CI: 7–41%) are infected with HCV and 4% (95% CI: 0–12%) are infected with HIV.

Chlamydia is increasing among street youth

The most common bacterial sexually transmitted infections cause pelvic inflammatory disease (PID), infertility or damage to other reproductive organs. Many can be passed on to babies born of infected women, with mild to severe outcomes. Those infected are often not aware of their infection.

OPH tested 85% of the survey population for chlamydia, gonorrhea and infectious syphilis. Among these youth, 8.8% (95% CI: 4.6–13.1%) were infected with chlamydia, 0.6% (95% CI: 0–1.7%) gonorrhea, and 0% with infectious syphilis.

These diseases occur proportionately in the general population of 15–24 year-olds in Ottawa in 2009.⁶

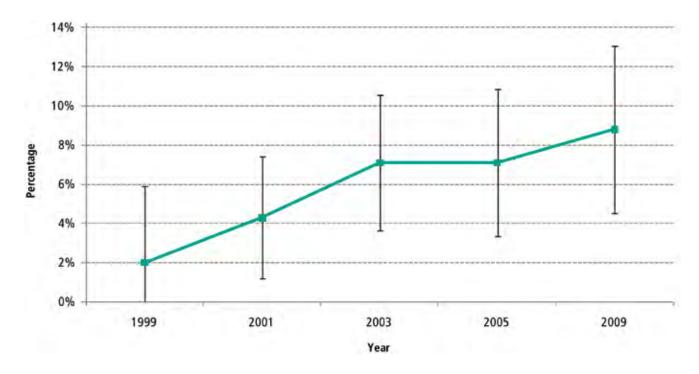
^dThe prevalence of HIV in the general Canadian population of all ages is based on the estimated number of prevalent HIV infections in Canada (Public Health Agency of Canada, HIV/AIDS Epi Updates, July 2010) and the estimated population (Statistics Canada, 2006 Census) for 2008.

While comparable estimates are not available, chlamydia is a significant concern in youth both on and off the street. ^{6, e} Reported cases in the general youth population have increased significantly over time, and prevalence in the street youth population appears to be following the same trend. ^f Up to 70% of women and half of men with chlamydial infections experience no symptoms at all. Both symptomatic and asymptomatic infections can lead to the development of serious complications. ⁷

Table 16: Prevalence of the most common bacterial sexually transmitted infections among Ottawa street youth, 2009

Infection	Prevalence Percentage (95% CI)
Chlamydia	8.8% (5–13%)
Gonorrhea	0.59% (0–2%)
Infectious syphilis	0%

Figure 6: Percentage testing positive for chlamydia, Ottawa street youth, 1999–2009



^{*85%} of all E-SYS participants were tested for chlamydia but only an estimated 7% at most of the general youth population is tested. Because many individuals with asymptomatic infection are not tested, there are likely many more cases in the general population than recognized.

¹The small number of youth tested in the survey does not allow us to draw definitive conclusions about trends over time.



Viral sexually transmitted and blood-borne infections

Many viruses can be transmitted sexually or through contact with blood (often by sharing drug equipment).

Herpes simplex viruses are the most prevalent infections for which OPH tests. Herpes simplex virus type 1 (HSV-1) is spread primarily by oral contact and is present in half the street youth population. HSV-2 is spread primarily by genital-genital contact and oral-genital contact, and infects 6.3% of the street youth population.^g

Street youth are 10 times as likely (2.3%) to have HIV than are Canadians of all ages (0.20%). Worse, one in three of the youth who tested positive for HIV also reported injecting drugs.

Relatively few street youth are infected with hepatitis B, an infection that can cause liver cancer. However, 29.9% are susceptible to this infection despite the provincial universal vaccination program that is administered in schools or during infancy. It is likely that many of these youth were not vaccinated or did not receive all three doses required for full protection.

Table 17: Prevalence of viral sexually transmitted and blood-borne infections, Ottawa street youth aged 15–24 years, 2009

Infection	Prevalence Percentage (95% CI)
Herpes simplex virus 1 (HSV-1)	51% (42–59%)
Herpes simplex virus 2 (HSV-2)	6.3% (2–10%)
Hepatitis C virus (HCV), acute, chronic or past infection	4.7% (1–9%)
Human Immunodeficiency virus (HIV)	2.3% (0–5%)
Hepatitis B virus (HBV), current	0.75% (0–2%)

⁹HSV-1, HSV-2 and HTLV are not reportable diseases in Ontario; therefore, we do not know the incidence of these infections in Ottawa. However, seroprevalence studies among 15–16-year-old Ontarians indicate that 32% of females not under prenatal care and approximately 30% of males are infected with HSV-1, and 1.8% of females and 3.8% of males are infected with HSV-2 (from Howard M. Regional distribution of antibodies to herpes simplex virus type I (HSV-1) and HSV-2 in men and women in Ontario, Canada. J Clin Micro. 2003. Jan; (41):84-9).

^hThe prevalence in the general Canadian population is based on the estimated number of prevalent HIV infections in Canada (Public Health Agency of Canada, HIV/AIDS Epi Updates, July 2010) and the estimated population (Statistics Canada, 2006 Census) for 2008.

Hepatitis C is prevalent among street youth who share drug equipment

Infection with hepatitis C virus (HCV) causes a contagious liver disease that ranges in severity from a mild illness lasting a few weeks to a serious, lifelong illness that attacks the liver and may cause death. Approximately 70%–80% of people with acute hepatitis C do not have any symptoms. HCV is transmitted primarily through blood exposure, typically through sharing of injection and non-injection drug equipment.

- 4.7% of street youth had an acute, chronic or past HCV infection. This is almost 24 times higher than the estimated prevalence in the Canadian population aged 15–24 years (0.20%).⁵
- All street youth infected with HCV had used injection and non-injection drugs. Of these youth, 83% had shared injection equipment and 50% had shared non-injection equipment such as pipes or straws in the past three months.

Ottawa Public Health services for street-involved youth



Ottawa Public Health (OPH) offers direct and indirect care to street-involved clients.

The **Sexual Health Centre (SHC)** offers direct care by a public health nurse (PHN) during weekly visits to the Youth Services Bureau Health Clinic and Operation Come Home drop-in. The PHN provides counselling; testing and treatment for sexually transmitted and blood-borne infections; contraception and pregnancy management; and vaccinations. The PHN facilitates street youth clients' access to community services.

The OPH's **Street Health Program** also facilitates access to services through weekly visits to shelters and drop-in centres. During these visits, vulnerable clients are assessed and referred for medical assessment where necessary and counselled on ways to reduce health risk. The OPH Street Health Program hosts educational sessions for shelter and drop-in centre staff on infection prevention and control.

OPH's Site Clean Needle & Syringe Program uses education and harm reduction to decrease the risk of hepatitis and HIV in the drug-using population. An OPH PHN is available to clients during operating hours to provide anonymous HIV testing, confidential hepatitis B and C testing, hepatitis A and B vaccinations, HIV and hepatitis C counselling and partner follow-up. We offer testing and follow-up of all reportable sexually transmitted infections.

The Site Program goals include

- Increasing awareness of the risks involved in needle-sharing, equipment-sharing, other drug-using behaviours and unprotected sex
- Enhancing the skills needed to change high risk behaviours and/or maintain low and no risk behaviours
- Referring drug users to treatment, counselling services, medical and other social service supports
- Providing tools for harm reduction, including education, safe needle disposal, condoms and clean needles
- Providing HIV testing, and accurate information on all modes of HIV transmission and prevention

Ottawa Public Health services for street-involved youth

OPH Sexual Health Centre

The Sexual Health Centre promotes healthy sexuality. Its objectives are to:

- reduce the burden of sexually transmitted and blood-borne infections (STBBIs)
- increase awareness and knowledge of risks and remedies
- build skills for healthier relationships, sexuality, and physical and mental health

OPH's sexual health clinics include the main clinic on Clarence Street and 11 satellite clinics at schools, youth resource centres, locations targeting men who have sex with men, and locations targeting street youth. Clients are seen by appointment or they can walk in.

Services include free screening and treatment of STIs, provision of low- or no-cost contraception and emergency contraception, anonymous or confidential HIV testing (including rapid point-of-care testing), Pap testing, hepatitis A, B and human papillomavirus (HPV) vaccinations, and counselling on STBBIs, contraception, safer sex and healthy relationships.

In addition to providing direct care to clients, the SHC aims to increase public and health care professionals' knowledge, awareness and management of STBBIs through one-on-one counselling, support and education.

The SHC investigates all cases of reportable STBBIs diagnosed within Ottawa. In accordance with provincial and federal guidelines, this work involves:

- appropriate treatment of cases
- notification, testing and treatment of sexual partners of clients with an STI
- notification, testing and treatment of drug-equipment-sharing partners and household contacts of clients with BBIs

Find out more

Ottawa Public Health Information Line: 613-580-6744

The Site Clean Needle & Syringe Program: 613-232-3232

OPH Sexual Health Centre: 179 Clarence Street, Ottawa, K1N 5P7

Clinic locations and hours:

Sexual health clinics: http://ottawa.ca/health_safety/sexual/centre/index_en.html

The Site: http://ottawa.ca/health_safety/living/dat/index_en.html



References



- ¹Caputo, Tullio, R. Weiler and Katherine Kelly (1994). Phase II of the Runaways and Street Youth Project: The Saskatoon Case Study. Final Report No. 1994-12. Ottawa: Solicitor General Canada referenced at http://www.justice.gc.ca/eng/pi/rs/rep-rap/2002/rr02_8/a1.html
- ²Ottawa Public Health. (2010). Public Health Monitoring of Risk Factors in Ontario Ontario Student Drug Use and Health Survey 2009. Available online at: http://ottawa.ca/health_safety/about/oph/statistics/index_en.html
- ³ Statistics Canada. Canadian Community Health Survey (CCHS), 2008.
- ⁴Cooper ML. Alcohol use and risky sexual behaviour among college students and youth: evaluating the evidence. J Stud Alcohol Suppl. 2002. Mar;(14):101-17.
- ⁵ Remis R. Modelling the incidence and prevalence of hepatitis C infection and its sequelae in Canada, 2007. Public Health Agency of Canada. Available online at: http://www.phac-aspc.gc.ca/sti-its-surv-epi/model/pdf/model07-eng.pdf
- ⁶Chlamydia case counts: integrated Public Health Information System (iPHIS), Ontario Ministry of Health and Long Term Care (MOHLTC), downloaded April 12, 2011 by Epidemiology Section, Ottawa Public Health.
- ⁷World Health Organization Sexually Transmitted Diseases Fact Sheet 110 August 2011 Accessed Au-24-11. http://www.who.int/mediacentre/factsheets/fs110/en/



