



## HIV/AIDS Among Aboriginal People in Canada

### At a Glance

- Aboriginal people remain overrepresented in the HIV/AIDS epidemic in Canada.
- Among Aboriginal Canadians, the estimated proportion of new HIV infections in 2008 attributed to the IDU exposure category (66%) was much higher than among all Canadians (17%).
- HIV/AIDS has a significant impact on Aboriginal women in particular. During 1998-2008, women represented 48.8% of all positive HIV test reports among Aboriginal people as compared with 20.6% of reports among those of other ethnicities.
- The age at HIV diagnosis for Aboriginal people tends to be lower than for people of other ethnicities. Almost a third (32.6%) of the positive HIV test reports from 1998 to the end of 2008 among Aboriginal people were youth aged 15-29, as compared with 20.5% among those of other ethnicities.

### Introduction

In Canada, Aboriginal populations are very diverse, with communities (First Nations, Métis and Inuit) that reflect unique historical backgrounds, languages and cultural traditions. According to data on self-identified ethnicity from the 2006 Census, 1.2 million people identified themselves as “Aboriginal”, constituting 3.8% of the Canadian population in 2006. The number of people in Canada who reported having some Aboriginal ancestry\* was 1.7 million. About 60% of the Aboriginal population identified themselves as First Nations, 33% as Métis, 4% as Inuit and 3% as Other or as a combination of Aboriginal identities. Eight in 10 Aboriginal people lived in Ontario and the four western provinces, and around 54% lived in urban areas.<sup>1</sup> However, these numbers may underestimate the actual Aboriginal population, as 22 Indian reserves and settlements did not participate in the 2006 Census, and it is likely that others may have chosen not to self-identify to government workers. Aboriginal communities are disproportionately affected by many social, economic and behavioural factors, such as high rates of poverty, substance abuse, sexually transmitted infections and limited access to, or use of, health care services, all of which increase their vulnerability to HIV infection.

This report updates current information on the status of the HIV/AIDS epidemic among Aboriginal people in Canada. Wherever possible, in the summaries of Canadian HIV and AIDS surveillance data Aboriginal people are identified as First Nations, Inuit or Métis. The category “Aboriginal Unspecified” is also used if no further details are known.

The findings in this report are presented as emergent themes with supporting information from routine surveillance systems, enhanced surveillance systems and published research. National HIV and AIDS surveillance data that appear in this document are from both (a) *HIV and AIDS in Canada. Surveillance Report to December 31, 2008*<sup>1</sup> and (b) unpublished data from the Surveillance and Risk Assessment Division, Centre for Communicable Diseases and Infection Control (CCDIC), Public Health Agency of Canada (PHAC).

\*“Aboriginal ancestry” refers to the ethnic or cultural origin of a person’s ancestors, an ancestor being usually more distant than a grandparent. In the 2006 Census, if a person reported at least one Aboriginal ancestry response, the person was counted in the Aboriginal ancestry population.

## National Estimates of HIV Prevalence and Incidence

PHAC uses multiple methods to provide an overall picture of the HIV epidemic among all Canadians living with HIV (including AIDS), both diagnosed and undiagnosed. Using these combined methods, PHAC produces two types of estimate: prevalence, the number of people living with HIV (including AIDS), and incidence, the number of new infections in a 1-year period. PHAC produces estimates of national HIV prevalence and incidence approximately every 3 years. Please refer to Chapter 1 for a full description of national HIV prevalence and incidence estimates for 2008.

- Aboriginal people continue to be overrepresented in the HIV epidemic in Canada. They represented 3.8% of the Canadian population according to the 2006 Census,<sup>2</sup> and yet an estimated 4,300 to 6,100 Aboriginal people were living with HIV (including AIDS) in Canada in 2008 (8.0% of all prevalent HIV infections). This represents an increase of 24% from the 2005 estimate of 3,500 to 4,900 (7.4% of all prevalent infections in 2005).
- Aboriginal people accounted for an estimated 300 to 520 new HIV infections in 2008 (12.5% of all new infections), higher than the corresponding figure for 2005, of 240 to 430 (10.5% of all estimated new infections). These proportions for 2008 are much higher than the proportion of Aboriginal people in the general Canadian population. Furthermore, the estimated new infection rate among Aboriginal people was about 3.6 times higher than among non-Aboriginal people in 2008.<sup>3</sup>
- The estimated distributions of exposure categories of incident infections among Aboriginal people in 2005 and 2008 are indicated in Table 1. The proportion of estimated new HIV infections in 2008 among those who inject drugs (IDU) in this population (66%) was much higher than among all Canadians (17%).<sup>3</sup> This highlights the uniqueness of the HIV epidemic among Aboriginal people and underscores the complexity of Canada's HIV epidemic.
- In terms of the estimated number of new infections among Aboriginal people by exposure category, a slight increase attributed to IDU was also estimated in 2008, which is related to the recently reported increase in new HIV diagnoses among IDU in Saskatchewan.

**Table 1. Distribution of exposure category for estimated incident HIV infections among Aboriginal people in Canada**

Exposure category	Year 2005 (n = 240-430)	Year 2008 (n = 300-520)
IDU	63%	66%
Heterosexual contact	24%	23%
MSM	11%	9%
MSM/IDU	2%	2%

IDU: people who inject drugs; Heterosexual contact: people born in a country where HIV is endemic, people who report heterosexual contact with a person who is either HIV-infected or at increased risk of HIV infection, and people who report heterosexual contact as the only risk factor; MSM: men who have sex with men.

## Routine Surveillance

The CCDIC collects surveillance data on positive HIV test reports and reported AIDS cases in Canada. Epidemiologic information includes (but is not limited to) age, sex, risks associated with the transmission of HIV and self-reported ethnicity. For AIDS cases, death data are also collected.

Health care providers and/or laboratories forward this information to provincial and territorial public health officials, who, in turn, voluntarily submit positive HIV test reports and AIDS diagnoses to the Centre, where the data are synthesized and analyzed at the national level. There are several limitations regarding surveillance data, including reporting delays, underreporting, missing information and individuals with undiagnosed infection.

(Please refer to Chapter 3 for a full description of HIV/AIDS surveillance in Canada.)

## Note regarding reporting of ethnicity information

An adequate description of the HIV/AIDS epidemic among Aboriginal people in Canada requires accurate and complete access to ethnicity data about AIDS cases and positive HIV test reports. Of all AIDS cases reported between 1979 and December 31, 2008, 79% included ethnicity data. For new positive HIV test reports from 1998 (when ethnicity reporting began) to the end of 2008, ethnicity data are reported for 29.8% of records and are not available for all provinces and territories. Provinces and territories that report ethnic information with their HIV reports are British Columbia, Yukon, Alberta, Northwest Territories, Nunavut, Saskatchewan, Manitoba, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. As a result, only data from these provinces and territories are used when examining positive HIV test data on Aboriginal people.

In the provinces/territories that provide race/ethnicity information with positive HIV test reports, data on self-identified ethnicity from the 2006 Census indicate that Aboriginal people make up 6.9% of their overall population, with concentrations in the Territories (Yukon, Northwest Territories and Nunavut 25.0%, 49.8% and 84.5% of the respective populations) and other western provinces, such as Saskatchewan (14.7%) and Manitoba (15.3%).<sup>1</sup> Ethnic information on positive HIV test reports is well reported for all of these provinces/territories. However, the 2006 Census data also indicate that Ontario and Quebec, provinces that do not provide ethnic information with their positive HIV test reports, account for 29.9% of Canadians who self-identified as Aboriginal (i.e. 350,925 of 1,172,790), and this represents 1.8% of the population of these provinces (i.e. 350,925 of 19,706,413).<sup>2</sup>

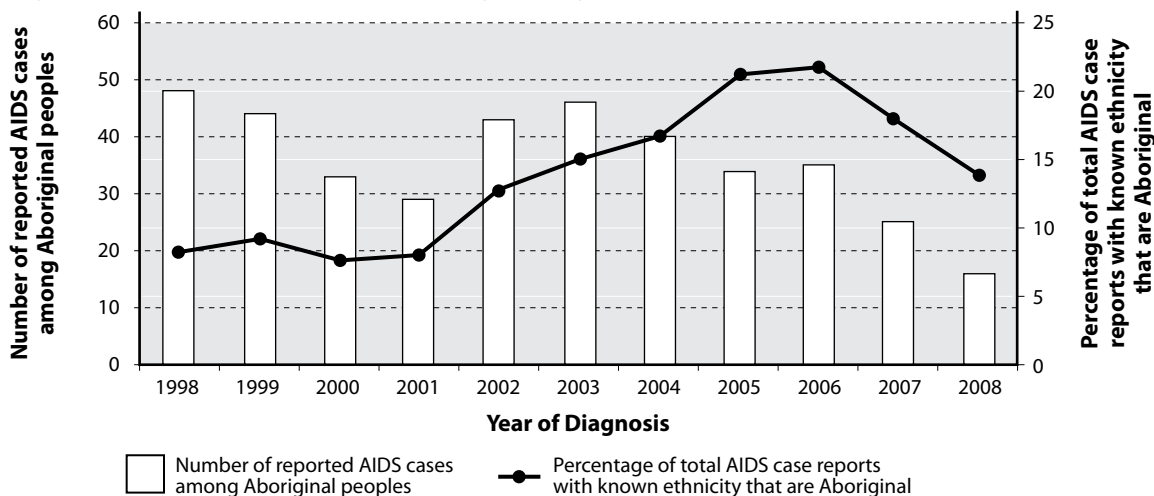
### AIDS surveillance data summary

Between 1979 and December 31, 2008, there were 21,300 AIDS cases reported to CCDIC. Of these, 16,824 (79.0%) included information on ethnicity, of which 690 (4.1%) were reported to be Aboriginal people.

In 2008, ethnicity data were available for 45.1% of reported AIDS cases. This decline in data completeness was in part due to a change in an information technology application in Ontario, where information on ethnicity and exposure category was not available for AIDS cases reported after the second half of 2005. When interpreting data for 2005-2008, caution must be used because of small numbers.

Between 1979 and 1998, there were 14,026 reported AIDS cases with information on ethnicity, and 345 of these, or 2.4%, were from Aboriginal people. Figure 1 shows that in 1998 the number of reported AIDS cases in this population constituted 8.2% of the reported AIDS cases with known ethnicity, and this proportion increased to 9.1% in 1999 before a decline was noted. In 2002, the proportion increased to 12.9% and then steadily increased, rising to 21.7% in 2006. Although there are some limitations associated with the data from Ontario and Quebec for more recent years, in 2008 Aboriginal people accounted for 13.9% of the total reported AIDS cases for which ethnicity was known.

**Figure 1. Reported AIDS cases among Aboriginal people in Canada**



\* Quebec AIDS data by ethnicity have not been available since June 30, 2003, and Ontario AIDS data by exposure category and ethnicity have not been available since the second half of 2005.

### Exposure category

People who inject drugs (IDU) continue to represent a significant exposure category in the Canadian HIV epidemic. Trends observed in surveillance data suggest that injecting drug use is a particularly important risk factor for HIV and AIDS among Aboriginal people and accounts for more HIV infections and AIDS cases among Aboriginal women than Aboriginal men.

As Table 2 indicates, there are notable differences in exposure categories between Aboriginal and non-Aboriginal HIV and AIDS case reports. Although the proportion attributed to heterosexual contact exposure is similar, Aboriginal people have a higher proportion of reports attributed to IDU and a smaller proportion to MSM.

**Table 2. Comparison of selected exposure categories for reported AIDS cases and positive HIV test reports\* among Aboriginal and non-Aboriginal people**

	Aboriginal	Non-Aboriginal
<i>n</i> = number of cases with available information on exposure category and ethnicity		
<b>AIDS diagnoses 1979-2008</b>	<b><i>n</i> = 664</b>	<b><i>n</i> = 15,716</b>
MSM	27.1%	68.1%
MSM/IDU	7.2%	4.5%
IDU	42.2%	7.5%
Heterosexual	20.5%	15.8%
Perinatal	1.2%	1.0%
Other	1.8%	3.1%
<b>Positive HIV test reports 1998-2008</b>	<b><i>n</i> = 1,843</b>	<b><i>n</i> = 5,838</b>
MSM	6.5%	39.9%
MSM/IDU	3.3%	2.8%
IDU	60.0%	23.4%
Heterosexual	28.4%	31.7%
Perinatal	0.5%	0.4%
Other	1.2%	1.7%

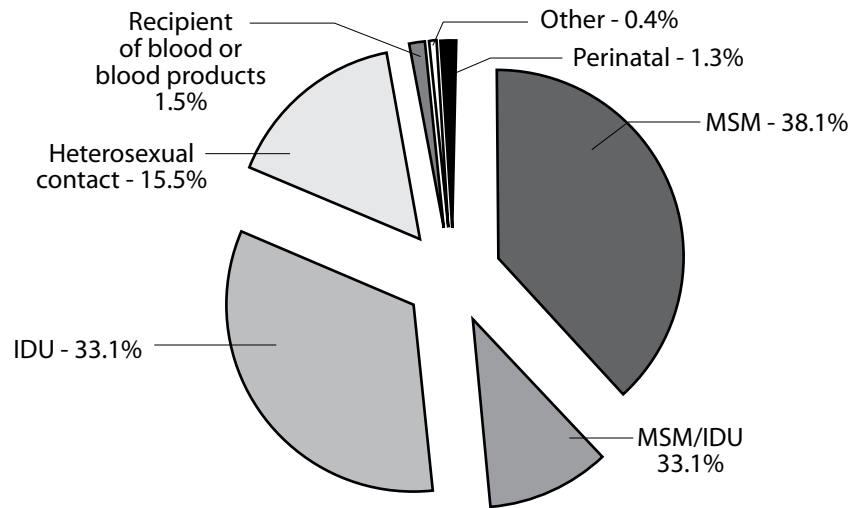
MSM: men who have sex with men; MSM/IDU: individuals self-reporting both MSM and IDU; IDU: people who inject drugs; Other: recipient of blood/clotting factor, occupational exposure and Other.

\*For positive HIV test reports, the data are from provinces/territories with reported ethnicity.

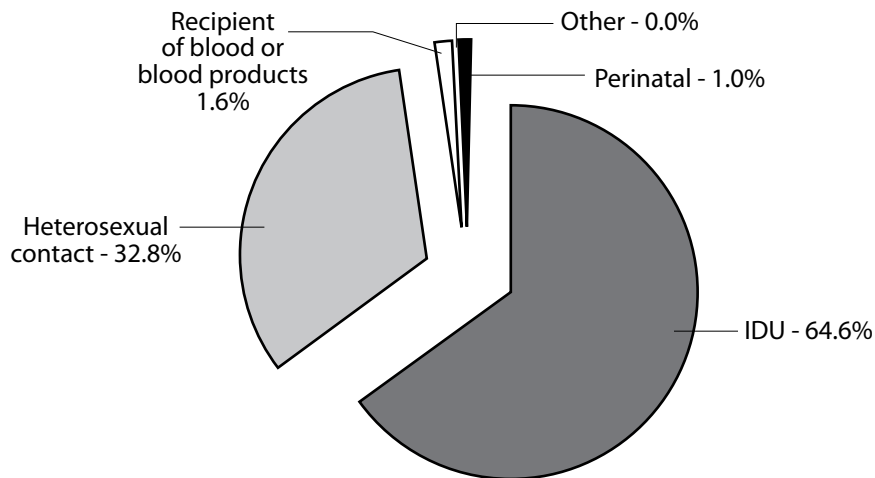
Note: Percentages rounded to one decimal point.

- Of reported AIDS cases with known exposure, the proportion of Aboriginal cases attributed to injecting drug use has increased over time, from 18.0% before 1995 to 48.6% during 1995-2000 to over 50% during 2001-2008, for an overall 42.2% of reported AIDS cases among Aboriginal people over the years 1979 to 2008.
- Of the 664 reported AIDS cases with known exposure category among Aboriginal people between 1979 and December 31, 2008, there were 472 male cases and 192 female cases. Of female reports, 64.6% were attributed to IDU and 32.8% to heterosexual exposure, and of male reports 38.1% were attributed to MSM, 33.1% to IDU, 10.2% to MSM/IDU and 15.5% to heterosexual exposure. Figures 2a and 2b display how these cases were distributed by exposure category in males and females respectively.

**Figure 2a. Distribution of exposure categories of reported AIDS cases among Aboriginal males (n = 472), November 1979 to December 31, 2008**



**Figure 2b. Distribution of exposure categories of reported AIDS cases among Aboriginal females (n = 192), November 1979 to December 31, 2008**



**Sex**

In contrast to HIV and AIDS cases in the non-Aboriginal population, females make up a comparatively large portion

of the Aboriginal HIV epidemic. Table 3 shows the distribution of sex in reported AIDS cases and positive HIV test reports for Aboriginal and non-Aboriginal people.

**Table 3. Comparison of sex of reported AIDS cases and positive HIV test reports\* among Aboriginal and non-Aboriginal people**

	Aboriginal	Non-Aboriginal
<i>n</i> = number of cases with available information on sex and ethnicity		
<b>AIDS diagnoses, 1979-2008</b>	<b><i>n</i> = 689</b>	<b><i>n</i> = 16,131</b>
Female	29.0%	9.1%
<b>Positive HIV test reports, 1998-2008</b>	<b><i>n</i> = 1,886</b>	<b><i>n</i> = 5,975</b>
Female	48.8%	20.6%

\* For positive HIV test reports, the data are from provinces/territories with reported ethnicity.

- Before 1998, females represented 19.2% of reported AIDS cases with known sex among Aboriginal people (57/297), and this has ranged from 36.5% between 1998 and 2008 to a high of 50.0% in 2008.
- Between 1979 and 2008, females made up 29.0% of reported AIDS cases among Aboriginal people, as compared with 9.1% of female cases among non-Aboriginal people for that same period. Since 2001, females represented above 30.0% of reported AIDS cases among Aboriginal people every year to 2008.

### Age

HIV and AIDS among young people in Aboriginal communities is an increasing concern. Understanding the epidemic in this group will help target early intervention strategies appropriately; however, caution should be used when reviewing proportions by age group, as they can change considerably with the addition of only a few cases, particularly when total numbers are small, as in the case of youth (15-29) or children (14 and under).

As indicated in Table 4, among positive HIV test reports and reported AIDS diagnoses, Aboriginal cases tended to be younger than non-Aboriginal cases.

**Table 4. Age group comparison for HIV and AIDS case reports among Aboriginal and non-Aboriginal people\***

	Aboriginal	Non-Aboriginal
<i>n</i> = number of cases with available information on age and ethnicity		
<b>Reported AIDS diagnoses 1979-December 31, 2008</b>	<b><i>n</i> = 690</b>	<b><i>n</i> = 16,134</b>
< 15 years	1.2%	1.2%
15-19 years	0.1%	0.3%
20-29 years	19.1%	14.5%
30-39 years	45.2%	43.4%
40-49 years	25.7%	28.5%
50-59 years	6.7%	8.9%
60+ years	2.0%	3.2%
<b>Positive HIV test reports 1998-December 31, 2008</b>	<b><i>n</i> = 1,891</b>	<b><i>n</i> = 5,986</b>
< 15 years	0.8%	0.6%
15-19 years	4.8%	1.0%
20-29 years	27.9%	19.6%
30-39 years	36.0%	35.8%
40-49 years	23.4%	27.6%
50-59 years	7.2%	15.4%

\* For positive HIV test reports, the data are from provinces/territories with reported ethnicity. Note: Percentages rounded to one decimal point.

Between 1979 and 2008, 19.3% of reported AIDS cases among Aboriginal people were between 15 and 29 years old, compared with 14.8% of reported AIDS cases among non-Aboriginal people in the same age group.

The MSM and IDU exposure categories accounted for a large proportion of AIDS cases reported from 1979 to the end of 2008 among Aboriginal people aged 15-29. At 43.8%, the IDU exposure category represented the largest proportion of cases, and this was followed by MSM at 28.5% and then the heterosexual exposure category at

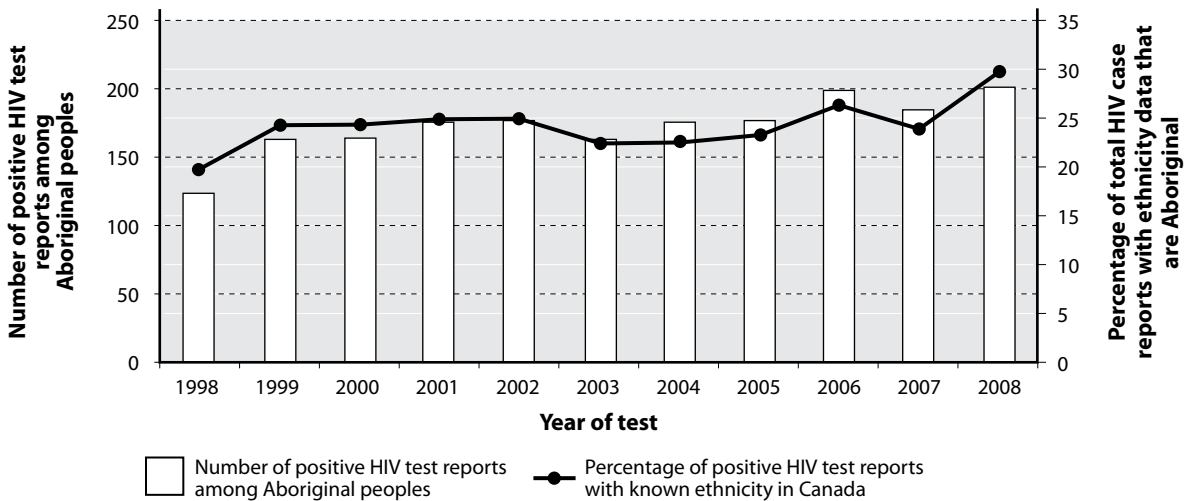
13.8%. A somewhat similar pattern was observed among Aboriginal people aged 30 to 39 years. The distribution of AIDS reports by exposure category differed with older age groups, heterosexual exposure accounting for a larger proportion of reports. Among Aboriginal people aged 40 to 49 years, IDU exposure accounted for 44.0% of reports, heterosexual exposure for 29.2% and MSM exposure for 19.6%. Among Aboriginal people aged 50 years or more, heterosexual exposure accounted for 44.6% of reports, IDU exposure for 28.6% and MSM for 21.4%.

### HIV surveillance data summary

Between 1998 and the end of December 2008, there were 26,408 positive HIV tests reported to CCDIC, 7,880 of which contained information on ethnicity (29.8%). Of these 7,880, there were 1,892 positive test reports identified from Aboriginal people (24.0%). As ethnicity data for positive HIV test reports have only been available since 1998, comparisons are only possible for this limited period of time.

Figure 3 shows that since 1999 the proportion of positive HIV test reports attributed to Aboriginal people has remained somewhat steady, at over 20%. Of the 644 positive HIV tests reported for 1998 by provinces and territories with ethnicity reporting, 123 were among Aboriginal people, representing 19.1% of such tests reported in that period. This proportion was 24.8% (176/710) in 2002, following which a slight decrease was noted. However, in 2006 the proportion of positive HIV test reports attributed to Aboriginal people increased to 26.2% and in 2008 to 29.4% among the provinces and territories reporting ethnicity information with their HIV reports.

**Figure 3. Positive HIV test reports among Aboriginal people in Canada\***



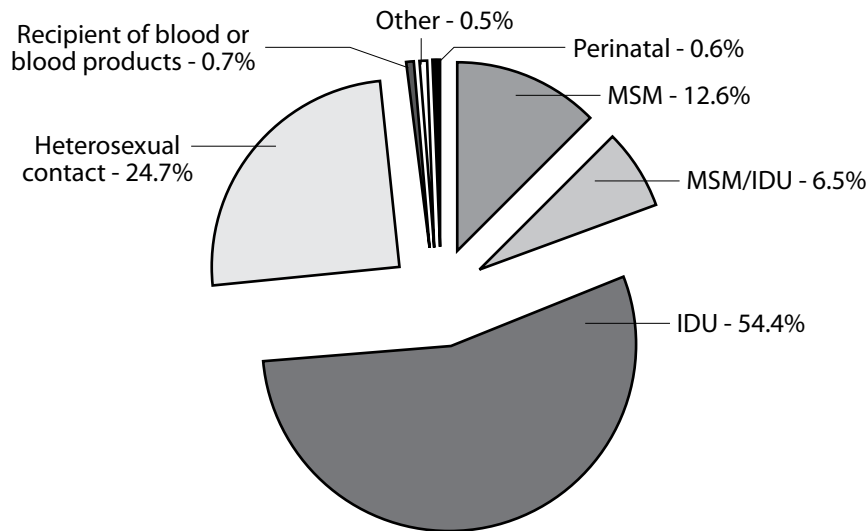
### Exposure category

- A review of positive HIV test reports between 1998 and 2008 indicates that injection drug use was the most common identified route of transmission among Aboriginal people, accounting for 60.0% of reports in this population.
- Of the 1,843 positive HIV test reports with known exposure category reported among Aboriginal people between 1998 and December 31, 2008, there were 945 male cases and 893 female cases (information on sex was missing for five cases). Figure 4a displays the distribution of exposure

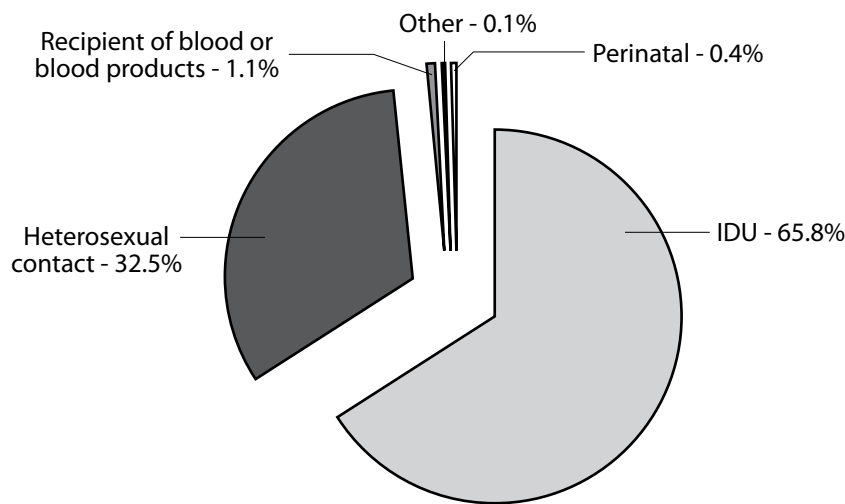
categories among males: 12.6% were attributed to MSM, 54.4% to IDU and 24.7% to heterosexual contact. Of female reports (summarized in Figure 4b), 65.8% were attributed to IDU and 32.5% to heterosexual contact, proportions similar to those of reported AIDS cases.

- There is a substantial difference between Aboriginal people and the general Canadian population in the injection drug use exposure category. In 2008, 63.6% of positive HIV test reports with known exposure category reported among Aboriginal people were attributed to injection drug use, compared with just 11.3% among non-Aboriginal Canadians.

**Figure 4a. Distribution of exposure categories of positive HIV test reports among Aboriginal males ( $n = 945$ ), January 1998 to December 31, 2008**



**Figure 4b. Distribution of exposure categories of positive HIV test reports among Aboriginal females ( $n = 893$ ), January 1998 to December 31, 2008**



### Sex

- Of positive HIV test reports with known sex among Aboriginal people, the proportion attributed to females ranged from 43.0% to 52.8% between 1998 and 2008, with a high of 56.6% (99/175) in 2005.
- Between 1998 and 2008, females made up nearly half (48.8%) of all positive HIV test reports among Aboriginal people, whereas only 20.6% of positive HIV test reports were reported among non-Aboriginal females for the same period.

### Age

Between 1998 and 2008, almost one-third (32.6%) of Aboriginal people with a diagnosis of HIV infection were youth aged 15-29, compared with 20.5% of HIV-positive tests among non-Aboriginal people in the same age group.

Aboriginal people aged less than 40 years accounted for a greater proportion of HIV test reports (69.5%) from 1998 to the end of 2008 than people of other ethnicities (Table 4). The proportion of positive HIV test



reports from this period among Aboriginal people aged 15-29 (32.6%) differs from the proportion among non-Aboriginal people in the same age group (20.5%). The IDU exposure category accounted for 64.7% of HIV test reports among Aboriginal youth between 15 and 29 years of age, heterosexual exposure accounted for 25.1% and MSM exposure for 6.4%. Somewhat similar distributions were noted for test reports among Aboriginal people aged 30 to 49, IDU exposure accounting for 60.8% of HIV test reports, heterosexual exposure for 28.1% and MSM for 6.2%. Among Aboriginal people aged 50 years or more the distribution of HIV reports changes, heterosexual exposure accounting for 48.5%, IDU exposure for 36.2% and MSM for 9.2%.

## HIV/AIDS Surveillance Data in Canada's Three Aboriginal Communities

When compared with non-Aboriginal communities, the number of positive HIV test reports and reported AIDS cases in Aboriginal communities may appear small; however, it is important to understand that these are individual cases, and every new diagnosis has a significant impact on the total counts for an Aboriginal community. Caution should be used when reviewing community proportions, as they can change considerably with the addition of only a few cases, particularly when total numbers are small.

**Table 5. Sex, age groups, and exposure categories of reported AIDS cases in Aboriginal groups in Canada between 1979 and December 31, 2008**

	First Nations	Métis	Inuit	Aboriginal, unspecified
<i>n</i> = number of cases with available information on age and ethnicity				
<b>Sex</b>	<b><i>n</i> = 502</b>	<b><i>n</i> = 52</b>	<b><i>n</i> = 22</b>	<b><i>n</i> = 113</b>
Female	29.9%	19.2%	40.9%	27.4%
<b>Age (years)</b>	<b><i>n</i> = 503</b>	<b><i>n</i> = 52</b>	<b><i>n</i> = 22</b>	<b><i>n</i> = 113</b>
< 15 years	1.0%	1.9%	0.0%	1.8%
15-19 years	0.2%	0.0%	0.0%	0.0%
20-29 years	18.7%	30.8%	31.8%	13.3%
30-39 years	45.5%	34.6%	54.5%	46.9%
40-49 years	25.0%	28.8%	9.1%	30.1%
50-59 years	7.8%	1.9%	0.0%	5.3%
60+ years	1.8%	1.9%	4.5%	2.7%
<b>Exposure category</b>	<b><i>n</i> = 482</b>	<b><i>n</i> = 51</b>	<b><i>n</i> = 22</b>	<b><i>n</i> = 109</b>
MSM	23.7%	43.1%	27.3%	34.9%
MSM/IDU	7.7%	5.9%	4.5%	6.4%
IDU	47.5%	29.4%	31.8%	26.6%
Heterosexual	18.5%	17.6%	31.8%	28.4%
Perinatal	1.0%	2.0%	0.0%	1.8%
Other	1.7%	2.0%	4.5%	1.8%

## AIDS surveillance data

According to the 2006 Census, 60% of Aboriginal people in Canada self-identified as First Nations, 33% as Métis, 4% as Inuit and another 3% as being from multiple communities.<sup>1</sup> Data suggest that First Nations people are overrepresented among reported Aboriginal AIDS cases. Of the 690 Aboriginal AIDS cases reported up to the end of 2008, 503 (72.9%) were among First Nations, 52 (7.5%) among Métis, 22 (3.2%) among Inuit and 113 (16.4%) were in the category Aboriginal Unspecified.

The data on reported AIDS cases in terms of exposure categories, females and youth in specific Aboriginal communities and in the Aboriginal Unspecified category are summarized in Table 5. The figures demonstrate that the proportions of female Aboriginal AIDS cases are different for First Nations, Inuit and Métis.

### First Nations

Of the AIDS case reports to date, a majority (47.5%) of those self-identified as First Nations were attributed to the injecting drug use exposure category (229/482) and 23.7% to the MSM category (114/482). Females represented 29.9% of reported cases (150/502), compared with 9.1% of reported AIDS cases among non-Aboriginal people. Youth (aged 15-29) accounted for 18.9% of all First Nations cases (95/503), compared with 14.8% of reported cases among non-Aboriginal youth. Moreover, people aged 50 and older made up 9.6% of reported AIDS cases among First Nations people.

### Métis

Of self-identified Métis people in the AIDS case reports to date, a majority (43.1%, 22/51) were attributed to the MSM exposure category and 29.4% (15/51) to the IDU exposure category. Females represented 19.2% of reported cases (10/52), compared with 9.1% of reported cases among non-Aboriginal people. It was noted that 30.8% of reported AIDS cases (16/52) among the Métis were in individuals between 15 and 29 years of age, compared with 14.8% of reported cases among non-Aboriginal youth. Those aged 50 and older made up 3.8% of reported AIDS cases among Métis people.

### Inuit

Among self-identified Inuit people in the AIDS case reports to date, the most common exposure categories were IDU and heterosexual contact, accounting for 31.8% each of reports (7/22). A notable proportion of cases were female (9/22 or 40.9%), compared with 9.1% of reported cases among non-Aboriginal people.

Youth (15-29 years) represented 31.8% of cases (7/22), compared with 14.8% of reported cases among non-Aboriginal youth. Those aged 50 and older made up 4.5% of reported AIDS cases among Inuit people.

### Aboriginal unspecified

Among those for whom the Aboriginal community was unspecified in the AIDS case reports, the MSM exposure category accounted for the largest proportion of cases, at 34.9% (38/109), and both the heterosexual and IDU exposure categories accounted for large proportions, at 28.4% (31/109) and 26.6% (29/109) respectively. Females constituted 27.4% of cases (31/113), compared with 9.1% of reported cases among non-Aboriginal people. Youth (15-29 years) made up 13.3% of cases (15/113), compared with 14.8% of reported cases among non-Aboriginal youth.

## Summary of Recent Research on HIV Prevalence and Risk Behaviours Among Aboriginals

### Injection drug use continues to be a key mode of transmission in the Aboriginal community

Aboriginal people are overrepresented in the IDU population and are at even higher risk than other members of this high-risk population.

- The CEDAR Project (2003-2005) found an HIV prevalence of 8.5% (46/543) among Aboriginal youth aged 14-30 years who used injection and non-injection drugs in two urban centres in British Columbia.<sup>4</sup> The study also reported a prevalence of hepatitis C virus (HCV) infection of 59.4% at enrolment among those who injected drugs.<sup>5</sup>
- In a study of Calgary's Needle Exchange Program, most participants were White (75%), but Aboriginal people were the second highest ethnic/racial group, representing 20% of total participants.<sup>6</sup>
- The Vancouver Injection Drug Users Study (VIDUS) is an open cohort of IDUs. Of the 1,400 recruited between May 1996 and May 2000, 25% were Aboriginal people, more than half of whom were female (54% female, 46% male). In contrast, females accounted for 29% of non-Aboriginal participants.<sup>7</sup> The VIDUS investigators found that Aboriginal status was significantly associated with new HIV infection in both men and women<sup>8</sup> and also with age of 24 years or younger.<sup>9</sup>

- VIDUS reported that, as of December 2001, 19.1% of Aboriginal participants had seroconverted, compared with 9.6% of people who identified themselves as non-Aboriginal.<sup>10</sup> In a 2003 publication, the investigators found that the incidence of HIV among Aboriginal IDUs was considerably higher than among their non-Aboriginal counterparts, and about half of the Aboriginal IDUs were women; they concluded that, in Vancouver, Aboriginal IDUs were becoming HIV positive at twice the rate of non-Aboriginal IDUs.<sup>11</sup>
- Furthermore, the VIDUS investigators found that 16% of young IDUs (78/479) aged 29 or younger were coinfecting with HIV and HCV at baseline, and 45% (35/78) of these were Aboriginal. Of participants who returned for follow-up, a further 15% became coinfecting during the study, and about 45% of the seroconverters were Aboriginal participants. The median number of years' injecting for youth who seroconverted to a secondary infection was 3 years.<sup>12</sup> Further examination of the VIDUS data for young IDUs (aged 13-24 years) revealed that 27% of the youth (80/291) were Aboriginal, and they were more likely than non-Aboriginal youth to test seropositive for HIV and HCV at baseline.<sup>13</sup> Also, young participants aged 13-24 years who injected drugs were more likely to be female and to be engaged in commercial sex work or have casual sexual partners.<sup>14</sup>
- Of 910 MSM surveyed in Vancouver between 1995 and 2000, 106 (12%) had injected drugs in the previous year. MSM/IDU were younger than MSM and more likely to be HIV seropositive, Aboriginal, economically disadvantaged, engaged in the trade of sex for money and drugs, and to report having female partners.<sup>15</sup>
- In a prenatal HIV screening program study conducted in Alberta of 38,712 pregnant women, 2,549 (6.6%) were First Nations and 36,163 (93.4%) were women of other ethnicities. A total of 593 pregnant women (1.5%) declined HIV testing: 55 First Nations women (2.2%) and 538 women of other ethnicities (1.5%). Overall, the pregnant women of First Nations were on average about twice as likely to decline HIV testing as pregnant women of other ethnicities, particularly when they were under the care of male practitioners.<sup>18</sup>
- Despite high numbers of Aboriginal women seen at HIV clinics and pediatric centres, during the period from 1995 to 1997 pregnant Aboriginal women were as likely to be taking antiretroviral therapy (62%) as pregnant White women (66%) and pregnant Black women (63%).<sup>19</sup>
- In a 2001 study of antiretroviral therapy in a cohort of HIV-positive pregnant women recruited at seven sites in Ontario, Manitoba and Saskatchewan, 20% of women were Aboriginal. Late use of antiretroviral therapy (in third trimester or intrapartum) was unequally distributed by ethnic/racial status, occurring in 38% of Aboriginal, 27% of Black and 9% of White women.<sup>20</sup>
- Of the infants known to have contracted HIV through perinatal transmission in British Columbia between 1994 and 1999, 50% were Aboriginal.<sup>21</sup>
- A 3-year study (2000-2003) was conducted in British Columbia by the Chief's Health Committee of the First Nations Summit in partnership with Health Canada and the Canadian Blood Services, during which blood samples were taken from 5,242 pregnant Aboriginal women. A total of 15 tested positive for HIV for a prevalence rate of approximately 30 per 10,000.<sup>22</sup> This is about three times higher than the rate of 9 per 10,000 seen in a study of the general population of women in BC who had prenatal testing during 2003.<sup>23</sup>
- The MAKKA Project done in Vancouver in 2004 found that 32.4% of Aboriginal women (36/111) were HIV positive at baseline compared with 18.4% of non-Aboriginal women, and the baseline HIV infection was associated with early age of sex work initiation (<18 years).<sup>24</sup>
- The CEDAR Project done between 2003 and 2005 among Aboriginal participants (14-30 years of age) in two urban centres of British Columbia found a higher proportion of HIV infection among women (13.1%) than men (4.3%) and a significant relation between HIV positive status at baseline and a history of sexual abuse.<sup>25</sup>

### **Impact of HIV on Aboriginal women and heightened risk of mother-to-child transmission**

Pregnant women infected with HIV are at risk of transmitting the virus to their unborn child. Data from some sites in western Canada have shown that a high proportion of HIV-infected pregnant women who deliver are Aboriginal. At all pediatric centres across Canada where children and HIV-infected mothers were followed between 1995 and 1997, 19% of the women seen (49/259) were Aboriginal women.<sup>16</sup> Of 32 HIV-infected women who delivered in northern Alberta or the Northwest Territories in 1996-98, 29 (91%) were Aboriginal.<sup>17</sup>

## Young Aboriginals are at greater risk of HIV infection

- A study of risk factors among 232 young people (below 25 years) who inject drugs in Vancouver found that 9 of 16 incident HIV cases (56%) were Aboriginal.<sup>11</sup>
- The At-Risk Youth Study, conducted between 2005 and 2006 among drug-using and street-involved youth (14-26 years of age) in Vancouver Downtown East, found that 46.7% of the participants who were HIV positive at baseline were Aboriginal and were more likely to report injection drug use and to be co-infected with HCV; over half of HIV-positive Aboriginal participants also reported a history of sexual abuse.<sup>26</sup>
- The CEDAR Project (2003-2005) among Aboriginal participants aged 14-30 years in two urban centres of British Columbia found at enrolment that 400 participants (74%) reported having had an HIV test during their lifetime, of whom 183 (46%) were tested regularly. Overall, 8% (46/543) tested HIV positive.<sup>27</sup>
- A mixed methods study (2004-2005) among Aboriginal youth aged 15-30 years across Canada found that 50.8% of the survey participants (210/413) and 89.3% of the interview participants (25/28) had previously been tested for HIV. The most common reasons for not getting tested were the self-perceptions of being at low risk of HIV and not having sex with an infected person.<sup>28</sup>

## Conclusion

The available evidence suggests that the HIV epidemic in the Aboriginal community shows no sign of abating. Injecting drug use is currently the most common mode of HIV transmission among Aboriginal people, Aboriginal women make up a large part of the HIV epidemic in their community, and Aboriginal people appear to be infected at a younger age than non-Aboriginals. This indicates the different characteristics of the HIV epidemic among Aboriginal people and emphasizes the complexity of Canada's HIV epidemic. Better data on HIV/AIDS epidemiology and HIV testing among Aboriginal people and culturally appropriate community-based programs are needed to guide prevention and control strategies. In addition, it is vital to conduct further research to increase our understanding of the specific impact HIV has on Aboriginal people.

### For more information, please contact:

Surveillance and Risk Assessment Division  
 Centre for Communicable Diseases and Infection Control  
 Public Health Agency of Canada  
 Tunney's Pasture  
 Postal locator: 0602B  
 Ottawa, ON K1A 0K9  
 Tel: (613) 954-5169  
 Fax: (613) 957-2842  
 www.phac-aspc.gc.ca

### Mission

To promote and protect the health of Canadians through leadership, partnership, innovation and action in public health.

*Public Health Agency of Canada*

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