

HIV AND AIDS IN CANADA

SURVEILLANCE REPORT TO DECEMBER 31, 2012



PROTECTING CANADIANS FROM ILLNESS



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To obtain additional copies, please contact:

Centre for Communicable Diseases and Infection Control
Public Health Agency of Canada
100 Eglantine Driveway, Health Canada Building
A.L. 0603C, Tunney's Pasture
Ottawa, ON K1A 0K9
E-mail: ccdic-clmti@phac-aspc.gc.ca

OR FROM:

CATIE
555 Richmond Street West, Suite 505
Toronto, ON M5V 3B1
Tel.: 1-800-263-1638
E-mail: orderingcentre@catie.ca

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CENTRE FOR COMMUNICABLE DISEASES AND INFECTION CONTROL

Director General

Howard Njoo

SURVEILLANCE AND EPIDEMIOLOGY DIVISION

Director

Chris Archibald

Executive Assistant

Louise Chevrier

HIV/AIDS AND TB SURVEILLANCE SECTION

A/Manager

Susanna Ogunnaike-Cooke

Senior Surveillance Analyst

Kristina Tomas

A/Research Analyst

Chris Houston

A/Surveillance Officer

Nirmal Summan

A/Surveillance Officer

Kelly Sullivan

NOTIFIABLE DISEASES AND FIELD SURVEILLANCE SECTION—FIELD SURVEILLANCE OFFICERS (FSO)

British Columbia

Elsie Wong

Alberta and Northwest Territories

Kate Zhang

Saskatchewan

Vacant

Manitoba

Tracey Russnak-Redden

Ontario

Ashleigh Sullivan

Nova Scotia

Angela Mask

Please send any inquiries to: ccdic-clmti@phac-aspc.gc.ca

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PHAC also acknowledges the Canadian AIDS Pediatric Research Group (CPARG) and Citizen and Immigration Canada (CIC) for the provision of HIV data related to perinatal exposure and immigration processes respectively.

Without the close collaboration and participation of all of our partners in HIV and AIDS surveillance, the publication of this report would not have been possible. A complete listing of these contributors is available in Appendix 5.

N.B. This document must be cited as the source for any extracted information.

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INFORMATION TO THE READERS OF *HIV AND AIDS IN CANADA*

On behalf of the HIV/AIDS and Tuberculosis Section, we would like to present you with the following report, *HIV and AIDS in Canada: Surveillance Report to December 31, 2012*. This report is part of an annual series providing a review of available HIV and AIDS surveillance data in Canada.

The HIV/AIDS and Tuberculosis Section is part of the Surveillance and Epidemiology Division, which is situated within PHAC's Centre for Communicable Diseases and Infection Control. This section is responsible for collecting and analyzing national HIV and AIDS data and for producing reports on the Canadian epidemic. In addition, we continue to improve data quality, define and set surveillance standards, and support the use of these data to inform public health and policy action.

Further analysis of HIV and AIDS surveillance data is available in the reports of the HIV/AIDS Epi Updates series, available on our website at: www.phac-aspc.gc.ca/aids-sida/publication/epi/2010/index-eng.php

Since surveillance data describe only the diagnosed portion of the epidemic, modeling and additional sources of information are required to produce the estimates that describe the epidemic among all Canadians living with HIV and AIDS, both diagnosed and undiagnosed. The latest estimates were produced for the year 2011 and are available on the PHAC website at: www.phac-aspc.gc.ca/aids-sida/publication/survreport/estimat2011-eng.php

The publication of this report would not be possible without the submission of HIV and AIDS surveillance data from all provinces and territories (see Appendix 5 for further details). Their ongoing contribution to national HIV and AIDS surveillance is gratefully acknowledged.

Yours sincerely,

Susanna Ogunnaike-Cooke

Acting Manager

HIV/AIDS and Tuberculosis Section
Surveillance and Epidemiology Division
Public Health Agency of Canada

Kristina Tomas

Senior Surveillance Analyst



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AT A GLANCE

HIV/AIDS SURVEILLANCE IN CANADA

HIV and AIDS in Canada: Surveillance Report to December 31, 2012 presents an overview of the HIV/AIDS situation in Canada based on case reports of HIV and AIDS submitted by all provinces and territories (P/T). This report is published on an annual basis as part of the Public Health Agency of Canada's (PHAC) mandate to collect and analyze surveillance data at the national level. The report assesses the epidemiology of HIV and AIDS in Canada by identifying trends by sex, age group, race/ethnicity, exposure category and geographic location.

Technical note

Surveillance data are critical for understanding the ways in which HIV and AIDS affect a given population; however, they tend to understate the magnitude of the HIV epidemic. Surveillance data do not represent the total number of people infected with HIV (prevalence) or the number of people newly infected each year (incidence); surveillance data can only tell us about people who have been tested and diagnosed with HIV or AIDS. Furthermore, because HIV is a chronic infection with a long latency period, many individuals who are newly infected in a given year may not receive a diagnosis until much later. As well, surveillance data are subject to delays in reporting, to underreporting and to changing patterns in HIV testing behaviours.

One of the ways in which to improve understanding of the incidence and prevalence of HIV infection is through estimation. Estimates allow for an improved analysis of the epidemic in Canada and guide the work undertaken by PHAC and other federal departments under the *Federal Initiative to Address HIV/AIDS in Canada*. In 2012, PHAC published estimates of incidence and prevalence to the end of 2011¹, in which it was estimated that there were approximately 71,300 (range: 58,600 to 84,000) people living with HIV (including AIDS) in Canada in 2011, 25% of whom were unaware of their infection (because of a lack of testing and/or diagnosis). The estimated number of new HIV infections in 2011 was 3,175 (range: 2,250 to 4,100), which was similar to the estimate for 2008.

Inclusion of new exposure category and race/ethnicity data from Ontario

Of the HIV case reports submitted to PHAC, the majority are reported from a few provinces; Ontario, Quebec, British Columbia and Alberta together have contributed 93% of the total HIV tests reported to PHAC since 1985; Ontario and Quebec alone account for 66% of cases. The completeness of epidemiologic information collected and submitted to PHAC varies by jurisdiction, however, and exposure category information is incomplete in many case reports. Most significantly, Quebec does not submit exposure category or race/ethnicity information to PHAC. This has implications for the representativeness of data at the national level, particularly with regards to identification and interpretation of trends. Provincial-level surveillance programs in Ontario and other provinces (including Quebec²) publish reports that include information on exposure category and race/ethnicity.

¹ Public Health Agency of Canada. Summary: Estimates of HIV Prevalence and Incidence in Canada, 2011 (2012). www.phac-aspc.gc.ca/aids-sida/publication/index-eng.php#er

² For more information on Quebec's provincial surveillance system: www.inspq.qc.ca/publications/theme78.asp

In 2013, in partnership with Public Health Ontario³, PHAC included data collected through the Laboratory Enhancement Program (LEP) into the national HIV surveillance dataset; for the first time, LEP data from Ontario are incorporated into all tables in this report. The LEP is an enhanced surveillance system collecting supplemental data on risk factors and HIV testing history for HIV-positive reports. While the number of test reports did not change, the completeness and proportions changed with this new information on exposure category and race/ethnicity. In terms of exposure category, the inclusion of the LEP data increased the overall proportion of tests that could be classified by exposure category. For example, for 2012, the proportion of tests with known exposure category increased from 52.4% to 64.3% after the addition of the LEP data. Similarly, the proportion of tests with known race/ethnicity increased from 34.8% to 62.2%.

This surveillance report includes data provided by provincial/territorial surveillance programs to PHAC as of June 2013. As more information is received by provincial/territorial HIV surveillance programs on diagnosed tests, there may be differences between the data published in this report and the data in provincial reports published using finalized data. Where such differences are noted, we recommend that the provincial/territorial report be used as the data source. For more information on provincial trends, please refer to provincial reports (see Appendix 5).

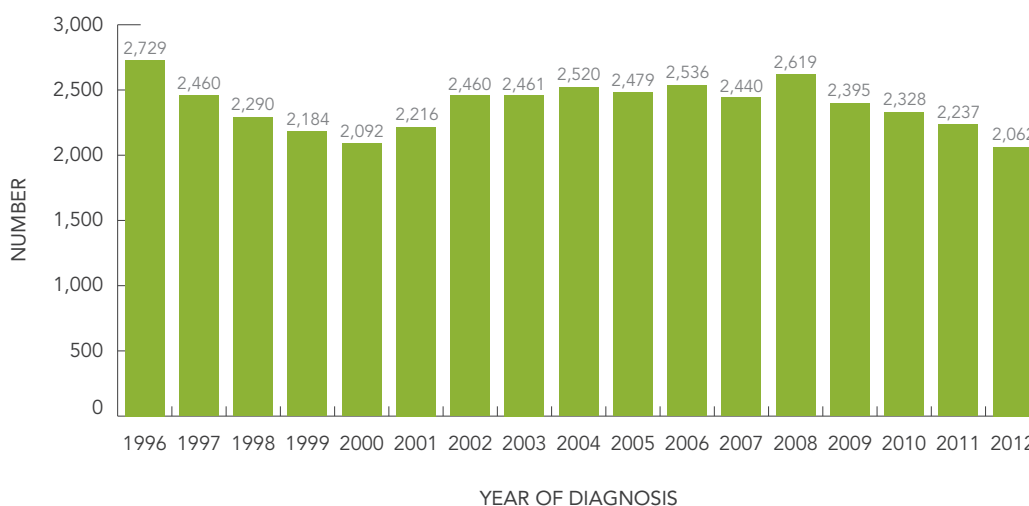
HIV SURVEILLANCE

Number of tests

Since HIV reporting began in Canada in 1985, a cumulative total of 76,275 positive HIV test reports have been reported to PHAC. In 2012 alone, 2,062 HIV tests were reported up to December 31st, which represents a 7.8% decrease from the 2011 reports (2,237 tests) and is the lowest number of annual HIV tests since reporting began in 1985.

Figure 1 illustrates the trend in annual HIV test reports since 1996, highlighting a steady decrease in the number of reported tests up until the year 2000. During the period 2002 through 2008, the annual number of HIV test reports fluctuated between 2,440 and 2,619, and since 2008 there has been a steady decrease.

FIGURE 1: Number of positive HIV test reports by year of diagnosis—Canada: 1996–2012



³ For more information on the Laboratory Enhancement Program: www.ohemu.utoronto.ca/tech%20reports.html

Geographic distribution

In 2012, as in previous years, Ontario accounted for the highest number of tests (843) followed by Quebec (450), Alberta (239), British Columbia (238) and Saskatchewan (184). Both Ontario and British Columbia noted a decrease in their annual number of tests from 2011 to 2012—a 10.8% decrease in Ontario and a 17.4% decrease in British Columbia.

The rate per population highlights unique aspects of the HIV epidemic. The national rate for positive HIV test reports (all ages) in Canada for 2012 was 5.9 per 100,000 population; however, provincial and territorial rates reveal notable variation across the country. There has been a significant increase in the rate of positive HIV test reports (all ages) in Saskatchewan in recent years, reaching a high of 19.4 per 100,000 in 2009. The rate in Saskatchewan decreased to 16.6 in 2010 and was 17.0 in 2012, a rate nearly three times the national 2012 rate (5.9). The next highest provincial rates in 2012 were reported in Alberta and Ontario (both at 6.2 per 100,000 population). Figure 2 illustrates these regional differences. See also Table 6D.

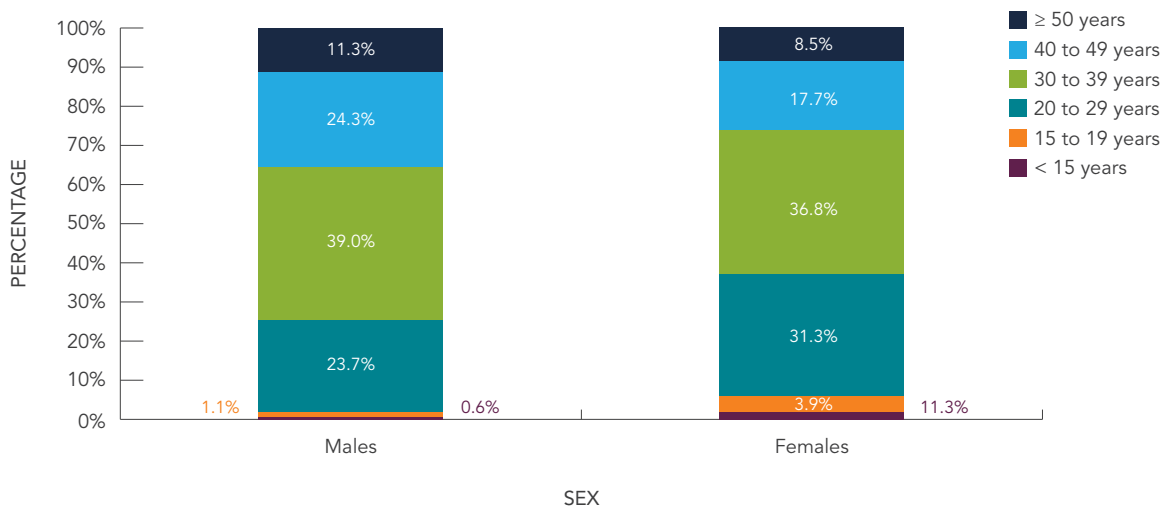
FIGURE 2: Rate (per 100,000 population) of positive HIV test reports (all ages) by province/territory—Canada: 2012



Age and sex distribution

In 2012, 23.1% of all tests were females. Over the past decade, the proportion of female tests has remained generally stable at approximately one-quarter, with only slight fluctuations since 2001 and a peak of 27.8% in 2006. It is important to note that, overall, the age distribution of positive HIV test reports for females varies from that for males, the diagnosis generally being made at a younger age in females. From 1985 to 2012, the proportion of test reports attributed to the three youngest age groups was higher among female than male tests: 1.9% of female tests versus 0.6% of male tests were within the 0 to 14 years age group; 3.9% of females versus 1.1% of males were within the 15 to 19 years age group; and 31.3% of females versus 23.7% of males were within the 20 to 29 years age group. In contrast, among males there was a higher proportion of test reports attributed to the three oldest age groups: 39.0% of male tests versus 36.8% of female tests were within the 30 to 39 years age group; 24.3% of males versus 17.7% of females were within the 40 to 49 years age group; and 11.3% of males versus 8.5% of females were within the 50 years and older age group (See Figure 3).

FIGURE 3: Age group distribution of positive HIV test reports by sex—Canada: 1985–2012



Exposure category distribution⁴

Trends in exposure category have shifted since HIV reporting began in 1985. In the early stages of the epidemic, over 80% of all tests with known exposure category were attributed to the “men who have sex with men” (MSM) exposure category. Although this exposure category is still the predominant one in Canada, the proportion has decreased significantly over the years. In 2012, 50.3% of all adult (≥15 years) positive HIV test reports with known exposure category were attributed to the MSM exposure category; in adult males alone, the MSM exposure category accounted for 65.1% of positive HIV test reports.

⁴ For further information on PHAC's exposure categories, please see Appendix 1.

The second most reported exposure category among adults in 2012 was heterosexual contact, at 32.6% of test reports; 13.2% were attributed to heterosexual contact among people born in a country where HIV is endemic (Het-Endemic), 9.9% were attributed to heterosexual contact with a person at risk (Het-Risk), and 9.6% were attributed to having heterosexual contact with someone with no identified risk (NIR-Het). These proportions varied by sex, heterosexual contact being the most reported exposure category among adult females at 73.2% versus 20.7% among adult males. The Het-Endemic exposure sub-category showed the biggest difference between the sexes, accounting for 51.8% of heterosexual contact tests among females and 28.6% among males.

The third most frequently reported exposure category among adults in 2012 was injection drug use (IDU), accounting for 14.0% of positive HIV test reports. Overall, a higher proportion of adult females than adult males acquired HIV through IDU exposure (24.5% versus 10.9%). See Figures 4 and 5 for complete exposure category breakdowns by sex.

FIGURE 4: Proportion of positive HIV test reports among adult males (≥15 years) by exposure category —Canada: 2012

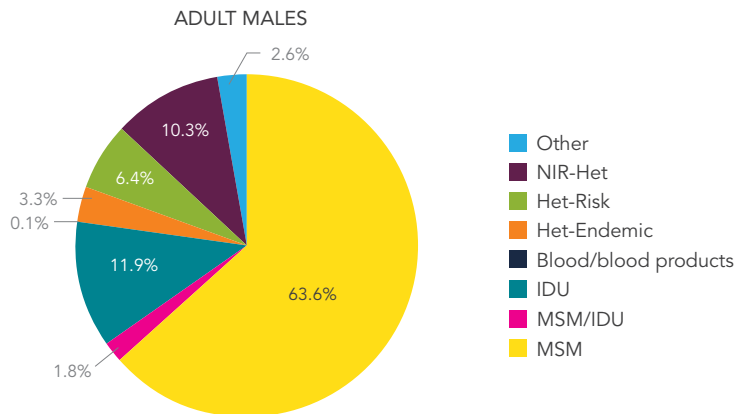
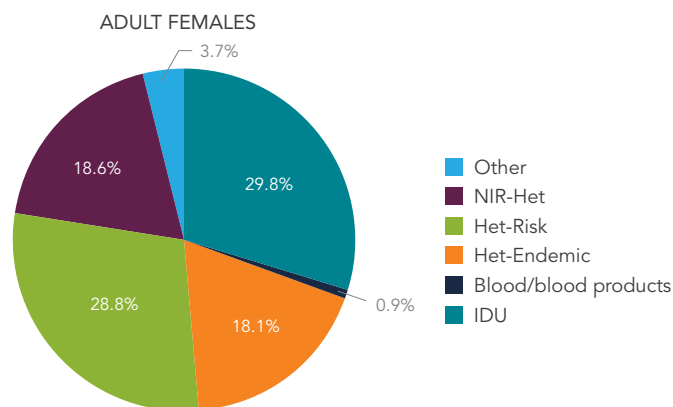


FIGURE 5: Proportion of positive HIV test reports among adult females (≥15 years) by exposure category—Canada: 2012



Some variations were also observed in exposure category breakdowns across the provinces. Specifically, MSM was the most frequently reported exposure category in 2012 in Ontario, British Columbia and the Atlantic provinces. By contrast, IDU was the most frequently reported exposure category in Saskatchewan and heterosexual contact the most frequently reported category in Alberta and Manitoba.

Race/ethnicity distribution

HIV reporting in Canada has included a race/ethnicity component since 1998⁵. The LEP program in Ontario began collecting race/ethnicity data in 2009. In 2012, nearly two-thirds (62.2%) of positive HIV test reports included race/ethnicity information. While this is an improvement over previous years' completion rates, the national trends presented herein must still be interpreted with caution given the large proportion of tests that are not included in the race/ethnicity analysis. Of the HIV test reports with race/ethnicity information, 52.7% were attributed to the White category, and 23.3% to the Aboriginal category⁶. This was followed by the Black⁷ category (at 13.1%) and Asian (4.3%), Latin American (3.1%) and South Asian/West Asian/Arab (2.5%) categories. An additional 1.0% were identified as "Other".

AIDS SURVEILLANCE

Number of tests

Since AIDS reporting began in 1979, there has been a cumulative total of 22,702 AIDS cases reported to PHAC through December 31, 2012. The annual number of reported AIDS cases in Canada has decreased steadily since 1993, largely as a result of the introduction of highly active antiretroviral therapy (HAART) in 1996. In more recent years, there has also been a decrease in reporting due to certain provinces having ceased AIDS reporting for various reasons.

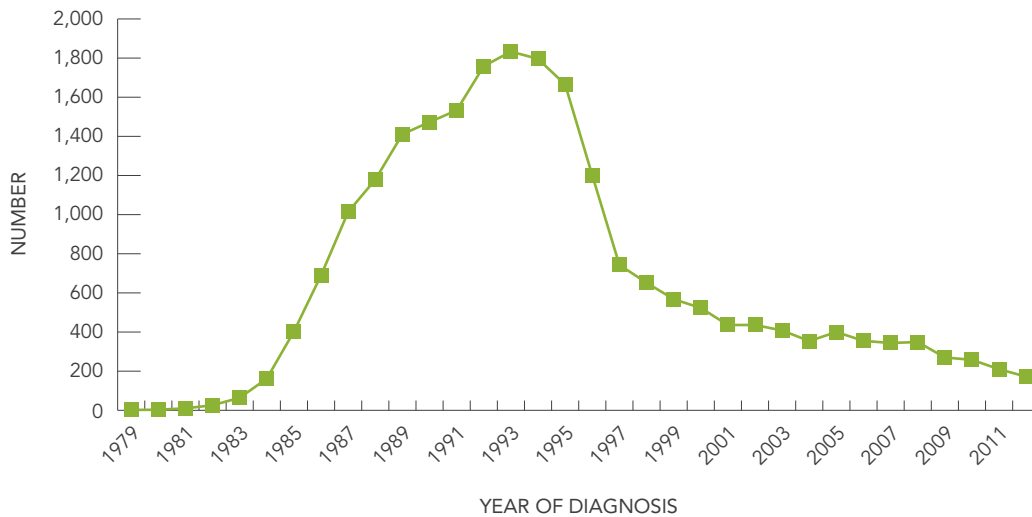
In 2012⁸, 172 AIDS cases were reported to PHAC, representing an 18.1% decrease from 2011 and a 90.6% decrease since 1993, when 1,833 AIDS cases were reported (the highest number ever in Canada in a single year). See Figure 6.

⁵ Quebec does not submit race/ethnicity data with HIV test reports, therefore the following data should be interpreted with caution, and not be considered nationally representative.

⁶ This includes Status and non-Status Aboriginals, First Nations, Inuit and Métis peoples.

⁷ Primarily people of African and/or Caribbean descent.

⁸ AIDS surveillance data have not been available from Quebec since July 2003 and from Newfoundland and Labrador since 2009. AIDS data from Ontario have not included exposure category or race/ethnicity data since 2005, therefore it is recommended to interpret these data with caution. See Section III for additional information.

FIGURE 6: Number of reported AIDS cases by year of diagnosis—Canada: 1979–2012

Geographic distribution

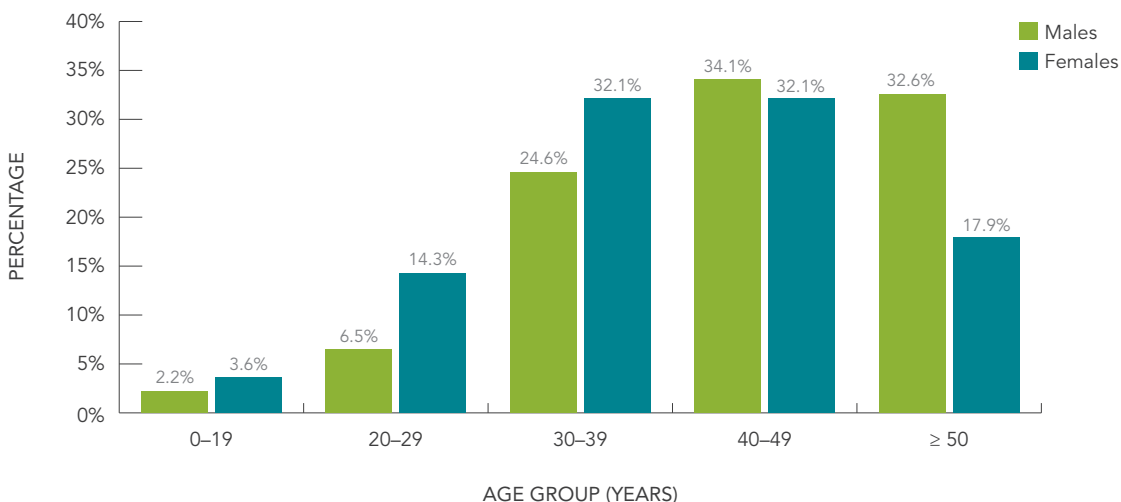
In 2012, the largest proportion of AIDS cases were reported in Ontario (33.7%), followed by British Columbia (24.4%), Saskatchewan (19.2%) and Alberta (16.9%).

Age and sex distribution

In 2012, the majority of AIDS cases were among those aged 40 to 49 years (34.9%), followed by 30 to 39 years (25.6%), and 50 years and over (18.0%).

In 2012, there was one reported pediatric AIDS test. Adult (≥ 15 years) AIDS diagnoses occurred predominantly among males: 137 cases (83.0% of all reported cases) compared with 28 female cases (17.0%). As with HIV trends, the age distribution of female AIDS cases varied significantly from that of male cases. Females had a higher proportion of AIDS case reports in the younger age groups, i.e. those aged 20 to 29 years (females 14.3% versus males 6.6%) and 30 to 39 years (females 32.1% versus males 24.8%). By contrast, males had a higher proportion of AIDS case reports in the oldest age groups, those in the 40 to 49 year age category accounting for the highest proportion (33.4% of male cases versus 32.1% of female cases), followed by those aged 50 years and over (males 32.8% versus females 17.9%). See Figure 7.

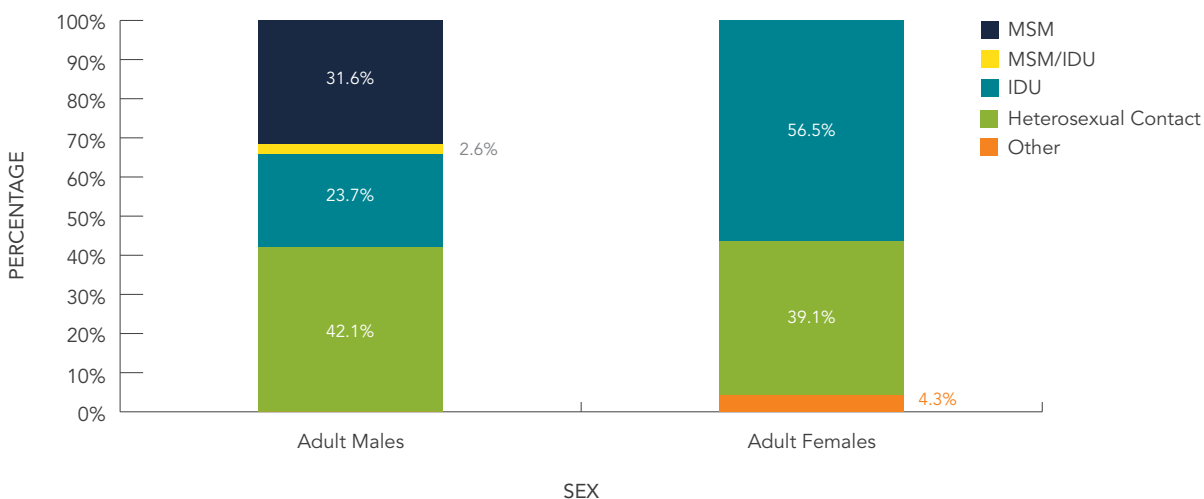
FIGURE 7: Proportion of reported AIDS cases by sex and age group—Canada: 2012



Exposure category

In 2012, 57.9% of all reported adult (≥ 15 years) AIDS cases included information on exposure category. The largest proportion of AIDS cases among adult males was attributed to the heterosexual contact exposure category (42.1%). This was followed by the MSM (31.6%) and the IDU (23.7%) exposure categories. In 2012, the majority of adult female AIDS cases were attributed to the IDU exposure category (56.5%), followed by the heterosexual contact exposure category (39.1%). See Figure 8.

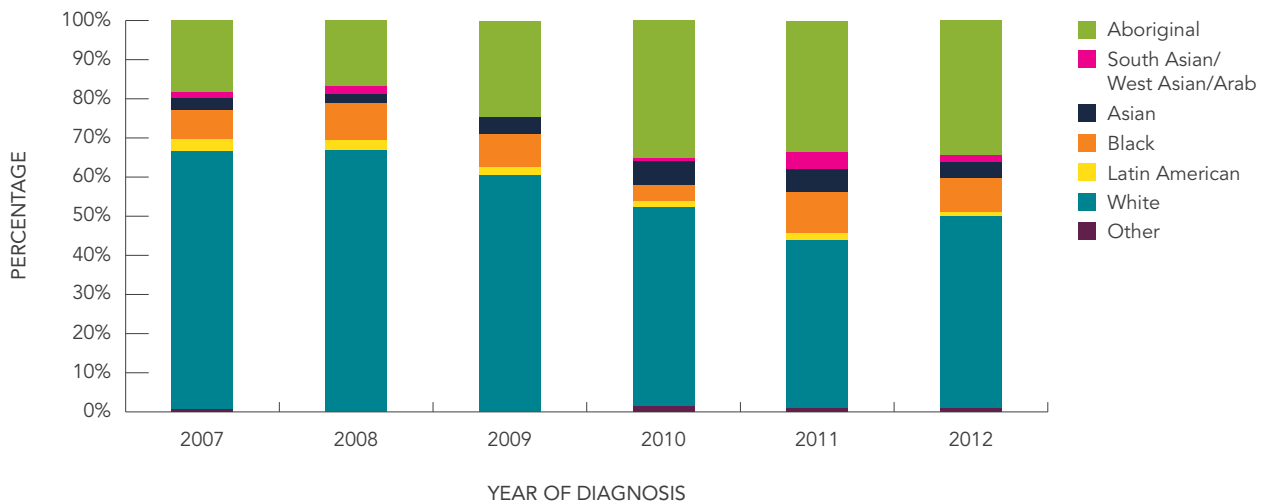
FIGURE 8: Proportion of reported AIDS cases among adults (≥ 15 years) by sex and exposure category—Canada: 2012



Race/ethnicity

In 2012, 59.3% of all reported AIDS cases included information on race/ethnicity. Of these, 49.0% of AIDS cases identified themselves as White, 34.3% as Aboriginal and 8.8% as Black. See Figure 9.

FIGURE 9: Proportion of reported AIDS cases among adults (≥15 years old) by race/ethnicity—Canada: 2007–2012



IMMIGRATION

On January 15, 2002, Citizenship and Immigration Canada (CIC) added routine HIV screening to the Immigration Medical Examination (IME)⁹. IME HIV testing undertaken in Canada is managed and reported in the same manner as all other positive HIV tests among Canadians. As well, since September 2004 CIC has been reporting positive HIV test reports for immigrants tested overseas to provincial/territorial health authorities.

Between January 15, 2002, and December 31, 2012, 5,777 applicants who underwent an IME tested positive for HIV¹⁰. In 2012 alone, 534 applicants who underwent an IME tested HIV positive. Of these, 231 were identified through HIV testing in Canada, and 303 were identified outside of Canada.

Of the 534 HIV-positive diagnoses in 2012, 312 (58.4%) were born in Africa and the Middle East, 139 (26.0%) in the Americas, 58 (10.9%) in Asia and Oceania, and 25 (4.7%) in Europe.

⁹ For all applicants who require an IME and are 15 years of age or older, as well as for children who have received blood or blood products and/or have or had a known HIV-positive mother (and up until 2004, for children who were potential adoptees as well).

¹⁰ Health Branch (HB), formerly Health Management Branch (HMB), Citizenship and Immigration Canada—Database on HIV, as of June 2013.

CANADIAN PERINATAL HIV SURVEILLANCE PROGRAM

The Canadian Perinatal HIV Surveillance Program is administered by the Canadian Pediatric AIDS Research Group (CPARG) and provides data on perinatal HIV to PHAC for national reporting. The surveillance program collects data on all identified infants and children born to mothers who are known to be infected with HIV in Canada. The program includes infants identified as exposed to HIV during pregnancy, older infants and children not identified in the perinatal period, and those born outside Canada who are receiving care for HIV infection.

Between 1984 and 2012, there were 3,805 infants in Canada who were identified as being perinatally exposed to HIV. The number of HIV-exposed infants reported per birth year increased between 2005 and 2008 (from 191 to 241), and has fluctuated in recent years. In 2012, there were 225 reported tests of infants who were perinatally exposed to HIV, down from 234 in 2011.

Although the number of infants perinatally exposed to HIV has increased over time, the proportion of infants born in Canada and confirmed to be HIV infected has decreased gradually from greater than 25% before the advent of antiretroviral treatment during pregnancy (AZT monotherapy after 1994, HAART after 1996) to less than 2% in 2011. At the time this report was prepared, there were no confirmed HIV transmissions in the 225 perinatally exposed infants born in 2012. Correspondingly, the proportion of HIV-positive mothers receiving antiretroviral therapy has increased over time and was 94.2% in 2012¹¹.

Between 1984 and 2012, 74.0% of HIV-exposed infants were born to mothers whose HIV status was attributed to the heterosexual contact exposure category, and 23.7% were attributed to IDU exposure.

On examination of the racial/ethnic distribution of perinatally HIV-exposed infants, it was found that the highest proportion were reported as Black and represented nearly half (49.0%) of all tests for the period 1984 to 2012. This was followed by 25.8% of tests reported as White and 16.7% reported as Aboriginal. The remainder were reported as Asian (3.3%), Latin American (1.2%) and Other (1.7%).

INTERPRETATION

The annual number of HIV tests reported to PHAC for the year 2012 was the lowest reported since HIV reporting began in 1985. At 5.9 per 100,000, the 2012 rate of positive HIV test reports is the lowest reported to date. PHAC will continue to monitor HIV test report data to see whether this decreasing trend continues.

Overall, when the different risk exposure categories for HIV are examined, the MSM category is still the leading reported exposure category in Canada, followed by heterosexual contact and IDU exposures. However, the pattern of risk exposure differed by province/territory as well as by race/ethnicity.

¹¹ See Section II for additional information.

Positive HIV test report rates in Saskatchewan continued to exceed the national average in recent years, although the annual number of cases in Saskatchewan was lower in 2010, 2011 and 2012 than in 2009. The majority of HIV cases in Saskatchewan have been identified as Aboriginal, and IDU has been the most common exposure category, in contrast to declining numbers attributed to IDU at the national level. In response to this situation, Saskatchewan Health continues to implement its provincial HIV strategy to further investigate these case reports.

At the national level, distinct differences were observed between the sexes in terms of age at diagnosis of HIV and of AIDS, whereby diagnosis tended to be made at a younger age in females than males. In addition, the proportion of HIV cases among older Canadians (50 years and older) has been gradually increasing since reporting began in 1985, and males outnumber females in the older age groups, particularly in the 30 to 39 and the 40 to 49 year age groups.

Given the variations in the HIV and AIDS case reports across different P/T, as well as variations in demographic information (e.g. race/ethnicity, age and sex), the data presented in this surveillance report highlight the need for population-specific interventions.

SECTION I

HIV IN CANADA: POSITIVE HIV TEST REPORTS TO DECEMBER 31, 2012, AND REPORTED TO PHAC UP TO MARCH 15, 2013

TABLE 1: Number of positive HIV test reports by year of test (all ages)^{1,2}

YEAR OF TEST	NUMBER OF TESTS REPORTED TO PHAC
1985–1995	35,767
1996	2,729
1997	2,460
1998	2,290
1999	2,184
2000	2,092
2001	2,216
2002	2,460
2003	2,461
2004	2,520
2005	2,479
2006	2,536
2007	2,440
2008	2,619
2009	2,395
2010	2,328
2011	2,237
2012	2,062
Total	76,275

¹ Annual data on positive HIV test reports before 1995 are not available for all jurisdictions.

² Positive HIV test reports from each province/territory vary for cases under 2 years of age (see Appendix 2).

TABLE 2: Cumulative number of positive HIV test reports occurring in **adults and children** by sex between November 1, 1985, and December 31, 2012¹

AGE AND SEX	NUMBER OF TESTS REPORTED	% ²
Children (< 15 years)	602	0.8
Males	340	57.7
Females	249	42.3
Sex not reported/transsexual/transgender	13	
Adults (≥ 15 years)³	72,152	99.2
Males	57,970	81.8
Females	12,897	18.2
Sex not reported/transsexual/transgender	1,285	
Age group not reported	3,521	
Males	1,986	
Females	174	
Sex not reported/transsexual/transgender	1,361	
Total	76,275	100.0
Males	60,296	81.9
Females	13,320	18.1
Sex not reported/transsexual/transgender	2,659	

¹ Positive HIV test reports from each province/territory vary for cases under 2 years of age (see Appendix 2).

² Percentages by age are based on total number minus reports for which age was not reported. Percentages by sex are based on total number minus those reports for which sex was not reported or was reported as transsexual or transgender.

³ Between 1985 and 1996, 47 positive HIV test reports among children were reported from Alberta. Because of limitations with the data, these cases have been reported as adults.

TABLE 3: Number of positive HIV test reports among adults (≥ 15 years) by year of test and sex

Year of test	MALES		FEMALES		SEX NOT REPORTED ¹		TOTAL	
	No. of tests	Cumulative total	No. of tests	Cumulative total	No. of tests	Cumulative total	No. of tests	Cumulative total
1985–2001	38,404	38,404	6,332	6,332	1,199	1,199	45,935	45,935
2002	1,801	40,205	614	6,946	6	1,205	2,421	48,356
2003	1,809	42,014	619	7,565	5	1,210	2,433	50,789
2004	1,834	43,848	647	8,212	3	1,213	2,484	53,273
2005	1,813	45,661	620	8,832	5	1,218	2,438	55,711
2006	1,811	47,472	691	9,523	6	1,224	2,508	58,219
2007	1,800	49,272	600	10,123	8	1,232	2,408	60,627
2008	1,916	51,188	664	10,787	4	1,236	2,584	63,211
2009	1,756	52,944	604	11,391	6	1,242	2,366	65,577
2010	1,768	54,712	521	11,912	22	1,264	2,311	67,888
2011	1,688	56,400	517	12,429	15	1,279	2,220	70,108
2012	1,570	57,970	468	12,897	6	1,285	2,044	72,152
Total²	57,970		12,897		1,285		72,152	

¹ This category includes reports in which sex was not indicated, was unknown or was reported as transsexual or transgender.

² Between 1985 and 1996, 47 positive HIV test reports among children were reported from Alberta. Because of limitations with the data, these cases have been reported as adults.

TABLE 4A: Number of positive HIV test reports by age group and year of test¹

Age group	YEAR OF TEST										TOTAL	
	1985-2006	2007	2008	2009	2010	2011	2012	n	% ²			
Children < 15 years	491	19	26	23	15	12	16	602	0.8			
Adults	58,219	2,408	2,584	2,366	2,311	2,220	2,044	72,152	99.2			
15 to 19 years	900	40	60	48	46	39	33	1,166	1.6			
20 to 29 years	15,014	489	548	531	497	497	455	18,031	25.0			
30 to 39 years	23,459	798	780	715	709	677	613	27,751	38.5			
40 to 49 years	12,564	698	800	715	623	574	567	16,541	22.9			
≥ 50 years	5,365	383	396	357	436	433	376	7,746	10.7			
Adult, age unknown³	917	0	0	0	0	0	0	917	1.3			
Age group not reported	3,484	13	9	6	2	5	2	3,521				
Total	62,194	2,440	2,619	2,395	2,328	2,237	2,062	76,275	100.0			

¹ Positive HIV test reports from each province/territory vary for reports for those under 2 years of age (see Appendix 2).

² Percentages based on total number minus reports for which age group was not reported.

³ Between 1985 and 1996, 47 positive HIV test reports among children were reported from Alberta. Because of limitations with the data, these cases have been reported as adults and added to "Adult, age unknown".

TABLE 4B: Number of positive HIV test reports among males by age group and year of test¹

Age group	YEAR OF TEST										TOTAL	
	1985-2006	2007	2008	2009	2010	2011	2012	n	% ²			
Male Children < 15 years	282	11	17	9	7	5	9	340	0.6			
Adult males	1,800	1,916	1,756	1,768	1,688	1,570	1,570	57,970	99.4			
15 to 19 years	518	17	25	21	27	20	21	649	1.1			
20 to 29 years	11,485	316	378	373	371	371	342	13,636	23.5			
30 to 39 years	19,396	571	546	493	514	487	449	22,456	38.7			
40 to 49 years	10,770	573	632	574	517	456	454	13,976	24.1			
≥ 50 years	4,527	323	335	295	339	354	304	6,477	11.2			
Adult, age unknown³	776	0	0	0	0	0	0	776	1.3			
Age group not reported	1,972	6	2	2	0	3	1	1,986				
Total	49,726	1,817	1,935	1,767	1,775	1,696	1,580	60,296	100.0			

¹ Positive HIV test reports from each province/territory vary for reports for those under 2 years of age (see Appendix 2).

² Percentages based on total number minus reports for which age group was not reported.

³ Between 1985 and 1997, not all data were available by sex and age group from Alberta. As a result 633 positive HIV test reports among males have been added to "Adult, age unknown".

TABLE 4C: Number of positive HIV test reports among females by age group and year of test¹

Age group	YEAR OF TEST										TOTAL	
	1985–2006	2007	2008	2009	2010	2011	2012	n	% ²			
Female Children < 15 years	196	8	9	14	8	7	7	249	1.9			
Adult females	9,523	600	664	604	521	517	468	12,897	98.1			
15 to 19 years	369	23	35	27	19	19	12	504	3.9			
20 to 29 years	3,231	172	170	158	122	123	110	4,086	31.7			
30 to 39 years	3,588	225	232	221	190	188	161	4,805	37.3			
40 to 49 years	1,553	121	167	137	105	114	113	2,310	17.9			
≥ 50 years	695	59	60	61	85	73	72	1,105	8.6			
Adult, age unknown³	87	0	0	0	0	0	0	87	0.7			
Age group not reported	168	2	2	0	2	0	0	174				
Total	9,887	610	675	618	531	524	475	13,320	100.0			

¹ Positive HIV test reports from each province/territory vary for reports for those under 2 years of age (see Appendix 2).

² Percentages based on total number minus reports for which age group was not reported.

³ Between 1985 and 1997, not all data were available by sex and age group from Alberta. As a result 64 positive test reports among females have been added to "Adult, age unknown".

TABLE 5A: Number and percentage distribution of positive HIV test reports among **adults** (≥ 15 years) by exposure category and year of test

Exposure category	YEAR OF TEST												TOTAL			
	1985-2006		2007		2008		2009		2010		2011		2012		n	% ¹
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
MSM	18,456	56.8	645	40.5	710	43.6	656	41.3	707	46.9	665	46.5	661	50.3	22,500	54.1
MSM/IDU	856	2.6	39	2.4	29	1.8	50	3.1	40	2.7	36	2.5	29	2.2	1,079	2.6
IDU	5,569	17.1	320	20.1	308	18.9	316	19.9	266	17.6	263	18.4	184	14.0	7,226	17.4
Blood/blood products²																
a) recipient of blood/clotting factor	138	0.4	0	0.0	1	0.1	1	0.1	1	0.1	0	0.0	0	0.0	141	0.3
b) recipient of blood	394	1.2	9	0.6	11	0.7	11	0.7	6	0.4	7	0.5	4	0.3	442	1.1
c) recipient of clotting factor	315	1.0	1	0.1	0	0.0	1	0.1	1	0.1	1	0.1	0	0.0	319	0.8
Heterosexual contact																
a) origin from an HIV-endemic country	1,903	5.9	239	15.0	250	15.4	193	12.2	156	10.3	171	11.9	173	13.2	3,085	7.4
b) sexual contact with a person at risk	2,048	6.3	131	8.2	158	9.7	151	9.5	170	11.3	144	10.1	130	9.9	2,932	7.1
c) NIR-Het	2,485	7.6	199	12.5	153	9.4	196	12.3	154	10.2	137	9.6	126	9.6	3,450	8.3
Other	327	1.0	9	0.6	7	0.4	13	0.8	7	0.5	7	0.5	8	0.6	378	0.9
NIR	3,120	-	120	-	102	-	95	-	74	-	88	-	58	-	3,657	-
Not reported ³	22,608	-	696	-	855	-	683	-	729	-	701	-	671	-	26,943	-
Total⁴	58,219	100.0	2,408	100.0	2,584	100.0	2,366	100.0	2,311	100.0	2,220	100.0	2,044	100.0	72,152	100.0

¹ Percentages based on total number minus reports for which exposure category was not reported and for which there was no identified risk (NIR).

² It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

³ Information on exposure categories of individuals who have tested positive for HIV is not available for Quebec and a portion of the data from Ontario. These data are presented as "Not reported".

⁴ Between 1985 and 1996, 47 positive HIV test reports among children were reported from Alberta. Because of limitations with the data, these cases have been reported as adults.

TABLE 5B: Number and percentage distribution of positive HIV test reports among **adult males** (≥ 15 years) by exposure category and year of test

Exposure category	YEAR OF TEST												TOTAL			
	1985–2006		2007		2008		2009		2010		2011		2012		n	% ¹
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
MSM	18,364	67.8	645	54.6	710	59.5	656	56.4	707	60.1	665	60.5	661	65.1	22,408	66.1
MSM/IDU	854	3.2	39	3.3	29	2.4	50	4.3	40	3.4	36	3.3	29	2.9	1,077	3.2
IDU	3,683	13.6	185	15.7	185	15.5	187	16.1	165	14.0	161	14.6	111	10.9	4,677	13.8
Blood/blood products²																
a) recipient of blood/clotting factor	105	0.4	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	106	0.3
b) recipient of blood	241	0.9	6	0.5	8	0.7	9	0.8	4	0.3	4	0.4	1	0.1	273	0.8
c) recipient of clotting factor	270	1.0	1	0.1	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0	273	0.8
Heterosexual contact																
a) origin from an HIV-endemic country	843	3.1	105	8.9	90	7.5	67	5.8	72	6.1	81	7.4	60	5.9	1,318	3.9
b) sexual contact with a person at risk	978	3.6	64	5.4	74	6.2	72	6.2	90	7.6	74	6.7	61	6.0	1,413	4.2
c) NIR-Het	1,486	5.5	129	10.9	94	7.9	117	10.1	93	7.9	74	6.7	89	8.8	2,082	6.1
Other	247	0.9	8	0.7	3	0.3	5	0.4	4	0.3	5	0.5	4	0.4	276	0.8
NIR	2,446	-	84	-	76	-	68	-	50	-	60	-	47	-	2,831	-
Not reported	17,955	-	534	-	647	-	524	-	541	-	528	-	507	-	21,236	-
Total³	47,472	100	1,800	100	1,916	100	1,756	100	1,768	100	1,688	100	1,570	100	57,970	100

¹ Percentages based on total number minus reports for which exposure category was not reported and for which there was no identified risk (NIR).

² It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

³ Number includes an unknown proportion of 47 positive HIV test reports among children from Alberta between 1985 and 1996. Because of limitations with the data, these cases have been reported as adults.

TABLE 5C: Number and percentage distribution of positive HIV test reports among **adult females** (≥ 15 years) by exposure category and year of test

Exposure category	YEAR OF TEST												TOTAL			
	1985-2006		2007		2008		2009		2010		2011		2012		n	% ¹
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
IDU	1,832	35.0	133	32.7	123	28.3	129	30.4	101	30.6	102	30.9	73	24.5	2,493	33.5
Blood/blood products²																
a) recipient of blood/clotting factor	33	0.6	0	0.0	1	0.2	1	0.2	0	0.0	0	0.0	0	0.0	35	0.5
b) recipient of blood	147	2.8	3	0.7	3	0.7	2	0.5	2	0.6	3	0.9	3	1.0	163	2.2
c) recipient of clotting factor	32	0.6	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	33	0.4
Heterosexual contact																
a) origin from an HIV-endemic country	1,055	20.2	134	32.9	160	36.9	126	29.7	83	25.2	89	27.0	113	37.9	1,760	23.6
b) sexual contact with a person at risk	1,053	20.1	66	16.2	84	19.4	79	18.6	80	24.2	70	21.2	68	22.8	1,500	20.1
c) NIR-Het	999	19.1	70	17.2	59	13.6	79	18.6	61	18.5	63	19.1	37	12.4	1,368	18.4
Other	76	1.5	1	0.2	4	0.9	8	1.9	3	0.9	2	0.6	4	1.3	98	1.3
NIR	519	-	33	-	24	-	24	-	22	-	28	-	10	-	660	-
Not reported	3,777	-	160	-	206	-	156	-	169	-	159	-	160	-	4,787	-
Total³	9,523	100	600	100	664	100	604	100	521	100	517	100	468	100	12,897	100

¹ Percentages based on total number minus reports for which exposure category was not reported and for which there was no identified risk (NIR).

² It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

³ Number includes an unknown proportion of 47 positive HIV test reports among children from Alberta between 1985 and 1996. Because of limitations with the data, these cases have been reported as adults

TABLE 5D: Number and percentage distribution of positive HIV test reports among children (< 15 years) by exposure category and year of test¹

Exposure category	YEAR OF TEST												TOTAL			
	1985–2006		2007		2008		2009		2010		2011		2012		n	% ²
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Blood/blood products³																
a) recipient of blood/clotting factor	4	1.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	1.0
b) recipient of blood	20	6.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	20	5.1
c) recipient of clotting factor	67	19.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	67	17.1
Perinatal transmission	214	63.7	11	84.6	11	73.3	12	100.0	6	75.0	3	75.0	0	0.0	257	65.7
Other ⁴	31	9.2	2	15.4	4	26.7	0	0.0	2	25.0	1	25.0	3	100.0	43	11.0
NIR	14	-	1	-	0	-	0	-	0	-	0	-	0	-	15	-
Not reported	141	-	5	-	11	-	11	-	7	-	8	-	13	-	196	-
Total⁵	491	100.0	19	100.0	26	100.0	23	100.0	15	100.0	12	100.0	16	100.0	602	100.0

¹ Positive HIV test reports from each province/territory vary for cases under 2 years of age (see Appendix 2).

² Percentages based on total number minus reports for which exposure category was not reported and for which there was no identified risk (NIR).

³ It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

⁴ "Other" includes positive HIV test reports in which the mode of HIV transmission is known but cannot be classified into any of the major exposure categories listed here.

⁵ Number excludes 47 positive HIV test reports among children from Alberta between 1985 and 1996. Because of limitations with the data, these cases have been reported as adults

TABLE 5E: Number of positive HIV test reports by exposure category and age group between January 1, 2012, and December 31, 2012¹

Exposure category	AGE GROUP (YEARS)													Total	
	CHILDREN						ADULTS						Not reported		
	< 1	1-4	5-9	10-14	15-19	20-29	30-39	40-49	≥ 50	Adult, age unknown	Total				
MSM	0	0	0	0	10	198	174	182	97	0	661	0	661	0	661
MSM/IDU	0	0	0	0	0	7	13	6	3	0	29	0	29	0	29
IDU	0	0	0	1	3	45	50	58	28	0	184	0	184	0	185
Blood/blood products²															
a) recipient of blood/clotting factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
b) recipient of blood	0	0	0	0	0	0	0	2	2	0	4	0	4	0	4
c) recipient of clotting factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heterosexual contact															
a) origin from an HIV-endemic country	0	0	1	1	1	30	72	52	18	0	173	0	173	0	175
b) sexual contact with a person at risk	0	0	0	0	3	17	35	32	43	0	130	0	130	0	130
c) NIR-Het	0	0	0	0	2	17	40	42	25	0	126	0	126	0	126
Perinatal transmission	0	0	0	0	0	2	2	2	1	0	7	0	7	0	7
Other ³	0	0	0	0	2	6	23	16	11	0	58	0	58	0	58
NIR	0	2	8	3	12	132	204	175	148	0	671	2	671	2	686
Total	0	2	9	5	33	455	613	567	376	0	2,044	2	2,044	2	2,062

¹ Positive HIV test reports from each province/territory vary for cases under 2 years of age (see Appendix 2).

² It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

³ "Other" includes positive HIV test reports for children in which the mode of HIV transmission is known but cannot be classified into any of the major exposure categories listed here.

TABLE 6A: Number of positive HIV test reports and **male:female** ratio by province/territory and sex between November 1, 1985, and December 31, 2012 (**all ages**)¹

Province/territory	NUMBER OF TESTS		RATIO Male:Female ²	TOTAL
	Male	Female		
British Columbia	12,048	2,117	6:1	14,165
Yukon	40	16	3:1	56
Alberta	4,641	1,274	4:1	5,915
Northwest Territories	40	12	3:1	52
Nunavut ³	3	0	N/A	3
Saskatchewan	1,046	692	2:1	1,738
Manitoba	1,385	537	3:1	1,922
Ontario	27,158	5,148	5:1	32,306
Quebec ⁴	12,656	3,294	4:1	15,950
New Brunswick	359	60	6:1	419
Prince Edward Island and Nova Scotia ⁵	703	114	6:1	817
Newfoundland and Labrador ⁶	217	56	4:1	273
Total	60,296	13,320	5:1	73,616

¹ Positive HIV test reports from each province/territory vary for cases under 2 years of age (see Appendix 2).

² Ratio based on those reports for which sex was reported.

³ Data prior to 2000 are not available for Nunavut as it became a Canadian territory in April 1999 and began reporting in 2000.

⁴ For Quebec, the number of positive HIV test reports is based on the minimum number of HIV-positive individuals (see Appendix 2, Data Limitations, Province of Quebec).

⁵ Because of small annual HIV case numbers, the data for Prince Edward Island and Nova Scotia are combined.

⁶ Prior to 2011, cases diagnosed with HIV outside of Newfoundland were not counted in Newfoundland surveillance data. Starting in 2011, these cases have been included in the Newfoundland data reported to PHAC.

TABLE 6B: Number of positive HIV test reports by province/territory and year of test (all ages)¹

Province/territory	YEAR OF TEST										TOTAL	
	1985–2006	2007	2008	2009	2010	2011	2012	n	%			
British Columbia	12,611	391	345	337	300	288	238	14,510	19.0			
Yukon	48	0	2	3	1	1	1	56	0.1			
Alberta	4,570	226	233	219	204	225	239	5,916	7.8			
Northwest Territories	42	4	0	2	0	3	1	52	0.1			
Nunavut ²	3	0	0	0	0	0	0	3	0.0			
Saskatchewan	702	127	174	200	173	188	184	1,748	2.3			
Manitoba	1,380	75	88	103	122	80	74	1,922	2.5			
Ontario	27,428	1,049	1,102	999	1,024	945	843	33,390	43.8			
Quebec ³	14,072	534	636	512	475	478	450	17,157	22.5			
New Brunswick	368	14	14	1	8	10	4	419	0.5			
Nova Scotia and Prince Edward Island ⁴	723	20	22	13	16	16	19	829	1.1			
Newfoundland and Labrador ⁵	247	0	3	6	5	3	9	273	0.4			
Total	62,194	2,440	2,619	2,395	2,328	2,237	2,062	76,275	100.0			

¹ Positive HIV test reports from each province/territory vary for cases under 2 years of age (see Appendix 2).

² Data prior to 2000 are not available for Nunavut as it became a Canadian territory in April 1999 and began reporting in 2000.

³ For Quebec, the number of positive HIV test reports is based on the minimum number of HIV-positive individuals. (See Appendix 2, Data Limitations, Province of Quebec).

⁴ Because of small annual HIV case numbers, the data for Prince Edward Island and Nova Scotia are combined.

⁵ Prior to 2011, cases diagnosed with HIV outside of Newfoundland were not counted in Newfoundland surveillance data. Starting in 2011, these cases have been included in the Newfoundland data reported to PHAC.

TABLE 6C: Rate of positive HIV test reports among **adults** (≥ 15 years) (per 100,000 population) by province/territory and year of test¹

Province/territory	2004	2005	2006	2007	2008	2009	2010	2011	2012
British Columbia	12.7	11.4	10.1	10.8	9.2	8.9	7.8	7.4	6.0
Yukon	15.7	3.9	7.6	0.0	7.3	10.8	3.5	3.4	3.3
Alberta	6.6	6.5	7.9	7.8	7.8	7.3	6.6	7.2	7.5
Northwest Territories	3.1	9.1	6.0	8.9	0.0	5.9	0.0	8.6	2.9
Nunavut ²	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
Saskatchewan	6.9	9.6	12.3	15.1	21.2	23.9	20.3	21.8	20.9
Manitoba	10.6	11.8	8.0	7.8	9.0	10.4	12.1	7.9	7.1
Ontario	11.3	10.6	10.7	9.8	10.1	9.0	9.2	8.4	7.4
Quebec	8.3	8.7	9.1	8.2	9.6	7.7	7.0	7.0	6.5
New Brunswick	5.3	3.4	3.7	3.2	3.3	2.0	2.3	2.3	2.6
Nova Scotia and Prince Edward Island ³	0.9	0.8	2.7	1.5	1.6	0.1	1.0	1.2	0.6
Newfoundland and Labrador ⁴	2.1	1.6	1.6	0.0	0.7	1.4	1.1	0.7	2.1
Total	9.5	9.2	9.3	8.8	9.3	8.4	8.1	7.7	7.0

¹ Population data source: Annual Demographic Statistics, Demography Division, Statistics Canada, July 2012.

² HIV data prior to 2000 are not available for Nunavut as it became a Canadian territory in April 1999 and began reporting in 2000.

³ Because of small annual HIV case numbers, the data for Prince Edward Island and Nova Scotia are combined.

⁴ Prior to 2011, cases diagnosed with HIV outside of Newfoundland were not counted in Newfoundland surveillance data. Starting in 2011, these cases have been included in the Newfoundland data reported to PHAC.

TABLE 6D: Rate of positive HIV test reports (per 100,000 population) by province/territory and year of test (all ages)¹

Province/territory	2004	2005	2006	2007	2008	2009	2010	2011	2012
British Columbia	10.6	9.5	8.5	9.1	7.9	7.6	6.6	6.3	5.1
Yukon	12.7	3.1	6.2	0.0	6.0	8.9	2.9	2.8	2.8
Alberta	5.3	5.2	6.5	6.4	6.5	6.0	5.5	6.0	6.2
Northwest Territories	2.3	6.9	4.6	9.2	0.0	4.6	0.0	6.8	2.3
Nunavut ²	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
Saskatchewan	5.5	8.1	10.2	12.7	17.2	19.4	16.6	17.8	17.0
Manitoba	8.6	9.8	6.5	6.3	7.3	8.4	9.9	6.4	5.8
Ontario	9.4	8.8	8.9	8.2	8.5	7.6	7.7	7.1	6.2
Quebec	7.0	7.4	7.7	6.9	8.2	6.5	6.0	6.0	5.6
New Brunswick	0.8	0.9	2.5	1.9	1.9	0.1	1.1	1.3	0.5
Nova Scotia and Prince Edward Island ³	3.3	2.0	2.6	1.9	2.0	1.2	1.5	1.5	1.7
Newfoundland and Labrador ⁴	1.7	1.6	1.4	0.0	0.6	1.2	1.0	0.6	1.8
Total	7.9	7.7	7.8	7.4	7.9	7.1	6.8	6.5	5.9

¹ Population data source: Annual Demographic Statistics, Demography Division, Statistics Canada, July 2012.

² HIV data prior to 2000 are not available for Nunavut as it became a Canadian territory in April 1999 and began reporting in 2000.

³ Because of small annual HIV case numbers, the data for Prince Edward Island and Nova Scotia are combined.

⁴ Prior to 2011, cases diagnosed with HIV outside of Newfoundland were not counted in Newfoundland surveillance data. Starting in 2011, these cases have been included in the Newfoundland data reported to PHAC.

TABLE 7: Number of positive HIV test reports by exposure category and province/territory between January 1, 2012, and December 31, 2012 (all ages)¹

Exposure category	PROVINCE/TERRITORY											TOTAL		
	BC	YT	AB	NT	NU	SK	MB	ON	QC ²	NB	PE/NS ³	NL ⁴	n	% ⁵
MSM	145	1	72	0	0	13	14	393	0	3	13	7	661	50.2
MSM/IDU	4	0	3	0	0	1	1	19	0	0	1	0	29	2.2
IDU	29	0	18	0	0	91	9	37	0	0	1	0	185	14.0
Blood/blood products⁶														
a) recipient of blood/clotting factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
b) recipient of blood	2	0	0	0	0	1	0	1	0	0	0	0	4	0.3
c) recipient of clotting factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Heterosexual contact														
a) origin from an HIV-endemic country	0	0	34	1	0	4	14	120	0	0	1	1	175	13.3
b) sexual contact with a person at risk	26	0	37	0	0	17	29	19	0	0	1	1	130	9.9
c) NIR-HET	24	0	21	0	0	9	0	70	0	0	2	0	126	9.6
Perinatal transmission	0	0	0	0	0	0	0	1	0	0	0	0	1	0.1
Other	2	0	0	0	0	5	0	0	0	0	0	0	7	0.5
NIR	1	0	0	0	0	2	7	47	0	1	0	0	58	
Not reported	5	0	54	0	0	41	0	136	450	0	0	0	686	
Total	238	1	239	1	0	184	74	843	450	4	19	9	2,062	100.0

¹ Positive HIV test reports from each province/territory vary for cases under 2 years of age (see Appendix 2).

² For Quebec, the number of positive HIV test reports is based on the minimum number of HIV-positive individuals (see Appendix 2, Data Limitations, Province of Quebec).

³ Because of small annual HIV case numbers, the data for Prince Edward Island and Nova Scotia are combined.

⁴ Prior to 2011, cases diagnosed with HIV outside of Newfoundland were not counted in Newfoundland surveillance data. Starting in 2011, these cases have been included in the Newfoundland data reported to PHAC.

⁵ Percentages based on total number minus reports for which exposure category was not reported or for which there was no identified risk (NIR).

⁶ It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

REPORTED RACE/ETHNICITY DATA LIMITATIONS

There are several limitations associated with reported race/ethnicity, and thus caution is recommended in interpreting the data presented in Table 8.

Reporting of race/ethnicity is not complete for positive HIV test reports

When examining HIV data, it is important to consider that information on race/ethnicity is not available for all P/T. Provinces and territories that provide race/ethnicity data in positive HIV test reports include British Columbia, Yukon Territory, Alberta, Northwest Territories, Nunavut, Saskatchewan, Manitoba, Ontario (since 2009), New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador.

As a result of the variation in reporting, race/ethnicity data included in positive HIV test reports **should not** be viewed as representative of all of Canada, particularly as these data are not included in the positive HIV test reports from jurisdictions with larger racial/ethnic populations than other parts of Canada. This may result in differential representation of specific communities.

The percentages presented in Table 8 are based on the total number of positive HIV test reports minus reports for which race/ethnicity was not reported.

Limited choice for identification of race/ethnicity

When HIV infection is confirmed or AIDS is diagnosed, health care providers are asked to consult with the individual for assistance in determining race/ethnicity. Misclassification may result if patients are not carefully consulted. In addition, there is only a defined list of racial/ethnic groups for reporting. As a result, the choice may be artificially constrained and thus affect accurate reporting. In addition, underrepresentation of specific racial/ethnic groups may result from patients not wishing to identify their racial/ethnic background.

TABLE 8: Number and percentage distribution of positive HIV test reports by year of test and race/ethnicity for those provinces/territories that submitted race/ethnicity data between 1998 and December 31, 2012 (all ages)^{1,2}

Race/Ethnicity	YEAR OF TEST												TOTAL			
	1998-2006		2007		2008		2009		2010		2011		2012		n	% ³
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Aboriginal ⁴	1,564	24.1	213	26.5	259	31.0	298	21.3	262	19.7	281	21.6	247	19.3	3,124	23.3
South Asian/ West Asian/Arab ⁵	142	2.2	14	1.7	13	1.6	44	3.1	35	2.6	40	3.1	51	4.0	339	2.5
Asian ⁶	215	3.3	27	3.4	40	4.8	71	5.1	70	5.3	73	5.6	79	6.2	575	4.3
Black ⁷	619	9.6	84	10.4	112	13.4	231	16.5	201	15.1	236	18.1	281	21.9	1,764	13.1
Latin American ⁸	127	2.0	22	2.7	31	3.7	77	5.5	53	4.0	65	5.0	44	3.4	419	3.1
White	3,782	58.4	439	54.5	369	44.2	663	47.3	690	52.0	584	44.8	559	43.6	7,086	52.7
Other	30	0.5	6	0.7	11	1.3	18	1.3	17	1.3	24	1.8	22	1.7	128	1.0
Not reported	14,759		1,635		1,784		993		1,000		934		779		21,884	
Total	21,238	100.0	2,440	100.0	2,619	100.0	2,395	100.0	2,328	100.0	2,237	100.0	2,062	100.0	35,319	100.0

¹ It is important to note the limitations associated with this table, as outlined in Appendix 2, Data Limitations.

² Provinces/territories that submitted data include BC, AB, SK, MB, NS, PE, NL, YT, NT, NU. Race/ethnicity data on HIV became part of provincial/territorial submission in 1998.

³ Percentages based on total number minus reports for which race/ethnic status was not reported.

⁴ Includes Inuit, Métis, First Nations and Aboriginal unspecified.

⁵ For example, Pakistani, Sri Lankan, Bangladeshi as well as Armenian, Egyptian, Iranian, Lebanese, Moroccan.

⁶ For example, Chinese, Japanese, Vietnamese, Cambodian, Indonesian, Laotian, Korean, Filipino.

⁷ For example, Somali, Haitian, Jamaican.

⁸ For example, Mexican, Central/South American.

SECTION II

REPORT OF THE CANADIAN PERINATAL HIV SURVEILLANCE PROGRAM: 1984–2012

National data on the HIV status of infants exposed perinatally to HIV infection are collected through the Canadian Perinatal HIV Surveillance Program, an initiative of the Canadian Pediatric AIDS Research Group (CPARG). Support for the development of the Canadian Perinatal HIV database has been provided by the Canadian HIV Trials Network and the Surveillance and Epidemiology Division at the Public Health Agency of Canada. As a result, data on infants born to women who are known to be HIV positive during their pregnancy are shared for publication in this report.

Data in this section were obtained through a national, non-nominal, confidential survey on infants known to pediatricians in tertiary care centres and to specialists in HIV clinics across Canada. The HIV status of infants is reported as “confirmed infected”, “confirmed not infected” or “infection status not confirmed”, according to the Centers for Disease Control and Prevention’s surveillance case definitions for HIV infection¹². Virologic tests of HIV DNA or RNA polymerase chain reaction (PCR) are used to develop criteria that allow infant status to be confirmed as “not infected with HIV” by 4 months of age, well before seroreversion; infants are classified as “not confirmed” if they have not yet received the required number of tests to determine their HIV status. The current status of confirmed infected infants is defined as asymptomatic, symptomatic, died of AIDS, died of a cause other than AIDS or lost to follow-up.

The perinatal data presented in this section are based on infants born to women who were known to be HIV-positive during their pregnancy. The numbers presented reflect all infants perinatally exposed to HIV infection currently receiving care in Canada; however, not all pregnant women were aware of their HIV status and able to benefit from antiretroviral therapy in pregnancy. It would not, therefore, be valid to calculate vertical transmission rates from these data.

¹² Centers for Disease Control and Prevention. *Morbidity and Mortality Weekly Report*, Appendix: Revised Surveillance Case Definition for HIV infection. December 10, 1999, 48(RR13);29–31. Available at: www.cdc.gov/mmwr/preview/mmwrhtml/rr4813a2.htm

TABLE 9: Number of Canadian perinatally HIV-exposed infants by maternal exposure category and year of infant birth, 1984–2012

Maternal exposure category	YEAR OF BIRTH												TOTAL							
	1984–2004		2005		2006		2007		2008		2009		2010		2011		2012		n	% ¹
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
IDU	514	27.2	37	20.9	26	15.7	53	27.0	39	18.1	30	16.5	43	19.3	47	21.4	33	16.3	822	23.7
Blood products/ transfusion/ medical	35	1.9	1	0.6	1	0.6	2	1.0	4	1.9	5	2.7	5	2.2	1	0.5	3	1.5	57	1.6
Heterosexual contact	1,338	70.8	138	78.0	136	81.9	135	68.9	171	79.2	143	78.6	172	77.1	172	78.2	164	81.2	2,569	74.0
Mother to child ²	0	0.0	1	0.6	0	0.0	4	2.0	1	0.5	3	1.6	3	1.3	0	0.0	2	1.0	14	0.4
Other	4	0.2	0	0.0	3	1.8	2	1.0	1	0.5	1	0.5	0	0.0	0	0.0	0	0.0	11	0.3
NIR	179	-	14	-	27	-	13	-	25	-	14	-	23	-	14	-	23	-	332	-
Total	2,070	100.0	191	100.0	193	100.0	209	100.0	241	100.0	196	100.0	246	100.0	234	100.0	225	100.0	3,805	100.0

¹ Percentages based on total number minus reports for which there was no identified risk (NIR).

² This category includes infants whose mothers contracted HIV at birth from their own mothers.

TABLE 10: Number of Canadian perinatally HIV-exposed infants by year of birth, current status and use of antiretroviral therapy (ART) for prophylaxis, 1984–2012

	YEAR OF BIRTH												TOTAL	
	1984–2004	2005	2006	2007	2008	2009	2010	2011	2012					
No perinatal ART prophylaxis														
Confirmed infected	508	10	5	7	3	4	7	2	0					546
Asymptomatic	100	6	3	7	1	2	6	1	0					126
Symptomatic	31	0	0	0	0	2	1	1	0					35
Died of AIDS	100	0	0	0	0	0	0	0	0					100
Died of other	9	1	0	0	0	0	0	0	0					10
Lost to follow-up ¹	126	3	2	0	2	0	0	0	0					133
Adult care ²	142	0	0	0	0	0	0	0	0					142
Confirmed NOT infected	414	16	15	21	24	17	13	11	10					541
Infection status not confirmed	28	2	1	0	0	0	0	3	3					37
Indeterminate	0	0	0	0	0	0	0	0	3					3
Lost to follow-up	28	2	1	0	0	0	0	3	0					34
Subtotal	950	28	21	28	27	21	20	16	13					1,124
Any perinatal ART prophylaxis														
Confirmed infected	16	3	1	1	1	1	4	2	0					29
Asymptomatic	4	0	0	1	0	1	4	2	0					12
Symptomatic	3	1	0	0	0	0	0	0	0					4
Died of AIDS	1	0	0	0	0	0	0	0	0					1
Died of other	1	0	0	0	0	0	0	0	0					1
Lost to follow-up	6	2	1	0	1	0	0	0	0					10
Adult care	1	0	0	0	0	0	0	0	0					1
Confirmed NOT infected	1,064	155	169	177	208	172	219	212	181					2,557
Infection status not confirmed	27	2	0	1	2	1	1	2	30					66
Indeterminate	0	0	0	0	0	0	0	0	30					30
Lost to follow-up	27	2	0	1	2	1	1	2	0					36
Subtotal	1,107	160	170	179	211	174	224	216	211					2,652
Perinatal ART prophylaxis exposure unknown	13	3	2	2	3	1	2	2	1					29
Total	2,070	191	193	209	241	196	246	234	225					3,805

¹ A child is considered to be lost to follow-up if there are no current status data for the past 3 years or for the 3 years before the child turned 18 years old.

² These are individuals who were 18 years of age or over by the end of 2012 and who are now followed in adult care.

TABLE 11: Number of Canadian perinatally HIV-exposed infants by geographic region and status at last report, 1984–2012

Region	CONFIRMED INFECTED							CONFIRMED NOT INFECTED			INFECTION STATUS NOT CONFIRMED			TOTAL	
	Asymptomatic	Symptomatic	Died of AIDS	Died of other	LFU ¹	Adult care ²	Subtotal	Indeterminate	LFU	Subtotal	n	%	TOTAL		
													n	%	
BC	25	4	4	2	1	24	60	4	8	12	529	13.9			
Alberta	23	2	5	1	13	9	53	8	15	23	497	13.1			
Saskatchewan	12	0	1	0	0	2	15	6	1	7	161	4.2			
Manitoba	1	0	1	0	4	2	8	2	2	4	186	4.9			
Ontario	32	18	40	6	96	43	235	8	17	25	1,330	35.0			
Quebec	51	17	44	1	28	62	203	6	28	34	1,060	27.9			
Atlantic	0	0	5	1	1	3	10	0	0	0	40	1.1			
Yukon/NWTT	0	0	1	0	0	0	1	0	0	0	2	0.1			
Total	144	41	101	11	143	145	585	34	71	105	3,805	100.0			
% of subtotal	24.6	7.0	17.3	1.9	24.4	24.8	100.0	32.4	67.6	100.0	-	-			
% Total	3.8	1.1	2.7	0.3	3.8	3.8	15.4	0.9	1.9	2.8	-	-			

¹ LFU denotes "lost to follow-up."

² "Adult care" refers to perinatally infected youth who have transitioned from pediatric to adult HIV care.

TABLE 12: Cumulative number of Canadian perinatally HIV-exposed infants by ethnic status and infection status, 1984–2012¹

Race/ethnicity and infection status	YEAR OF BIRTH												TOTAL									
	1984–1996		1997–2004		2005		2006		2007		2008		2009		2010		2011		2012			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
White	299	37.0	358	28.4	38	19.9	36	18.7	45	21.5	46	19.1	31	15.8	50	20.3	37	15.8	40	17.8	980	25.8
Prospective cohort																						
Confirmed infected	30	16.7	7	2.1	1	2.9	0	0.0	0	0.0	1	2.2	0	0.0	4	8.2	0	0.0	0	0.0	43	5.2
Confirmed not infected	150	83.3	328	97.9	33	97.1	36	100.0	44	100.0	44	97.8	29	100.0	45	91.8	35	100.0	37	100.0	781	94.8
Retrospective cohort																						
Confirmed infected	76	70.4	7	50.0	0	0.0	0	0.0	1	100.0	0	0.0	1	100.0	0	0.0	1	50.0	0	0.0	86	66.7
Confirmed not infected	32	29.6	7	50.0	1	100.0	0	0.0	0	0.0	1	100.0	0	0.0	1	100.0	1	50.0	0	0.0	43	33.3
Infection status not confirmed	11	-	9	-	3	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	3	-
Black²	356	44.1	588	46.6	102	53.4	98	50.8	93	44.5	137	56.8	111	56.6	121	49.2	125	53.4	135	60.0	1,866	49.0
Prospective cohort																						
Confirmed infected	32	21.3	13	2.9	4	4.1	1	1.1	0	0.0	2	1.5	1	0.9	0	0.0	2	1.7	0	0.0	55	3.7
Confirmed not infected	118	78.7	442	97.1	94	95.9	94	98.9	90	100.0	128	98.5	107	99.1	119	100.0	118	98.3	115	100.0	1425	96.3
Retrospective cohort																						
Confirmed infected	168	85.3	98	78.4	4	100.0	2	66.7	2	100.0	1	16.7	1	50.0	2	100.0	2	100.0	0	0.0	280	81.6
Confirmed not infected	29	14.7	27	21.6	0	0.0	1	33.3	0	0.0	5	83.3	1	50.0	0	0.0	0	0.0	0	0.0	63	18.4
Infection status not confirmed	9	-	8	-	0	-	0	-	1	-	1	-	1	-	0	-	3	-	20	-	43	-
Latin American³	11	1.4	13	1.0	0	0.0	1	0.5	2	1.0	6	2.5	5	2.6	0	0.0	5	2.1	3	1.3	46	1.2
Prospective cohort																						
Confirmed infected	5	71.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	13.5
Confirmed not infected	2	28.6	10	100.0	0	0.0	1	100.0	2	100.0	5	100.0	5	100.0	0	0.0	5	100.0	2	100.0	32	86.5
Retrospective cohort																						
Confirmed infected	4	100.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	83.3

Race/ethnicity and infection status	YEAR OF BIRTH																								TOTAL	
	1984-1996		1997-2004		2005		2006		2007		2008		2009		2010		2011		2012		n	%				
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%								
Confirmed not infected	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	16.7		
Infection status not confirmed	0	-	1	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	1	-	3	-		
Aboriginal⁴	75	9.3	224	17.7	38	19.9	40	20.7	51	24.4	35	14.5	39	19.9	50	20.3	49	20.9	35	15.6	636	16.7				
Prospective cohort																										
Confirmed infected	11	22.0	7	3.3	3	9.1	2	5.3	4	8.2	1	2.9	0	0.0	2	4.0	0	0.0	0	0.0	0	0.0	30	5.2		
Confirmed not infected	39	78.0	203	96.7	30	90.9	36	94.7	45	91.8	34	97.1	37	100.0	48	96.0	49	100.0	26	100.0	547	94.8				
Retrospective cohort																										
Confirmed infected	14	63.6	3	50.0	2	50.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	20	54.1		
Confirmed not infected	8	36.4	3	50.0	2	50.0	1	100.0	1	50.0	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	17	45.9		
Infection status not confirmed	3	-	8	-	1	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	9	-	22	-		
Asian⁵	24	3.0	44	3.5	6	3.1	10	5.2	6	2.9	7	2.9	7	3.6	11	4.5	6	2.6	6	2.7	127	3.3				
Prospective cohort																										
Confirmed infected	0	0.0	2	6.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	2.1		
Confirmed not infected	7	100.0	30	93.8	5	100.0	10	100.0	6	100.0	7	100.0	7	100.0	6	100.0	9	100.0	6	100.0	6	100.0	92	97.9		
Retrospective cohort																										
Confirmed infected	15	88.2	8	66.7	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	2	100.0	0	0.0	0	0.0	27	81.8		
Confirmed not infected	2	11.8	4	33.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	18.2		
Infection status not confirmed	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-		
Other⁶	10	1.2	14	1.1	6	3.1	4	2.1	4	1.9	4	1.7	2	1.0	7	2.8	8	3.4	5	2.2	64	1.7				
Prospective cohort																										
Confirmed infected	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.0		
Confirmed not infected	3	75.0	7	100.0	6	100.0	4	100.0	4	100.0	4	100.0	4	100.0	2	100.0	6	100.0	8	100.0	5	100.0	49	98.0		

Race/ethnicity and infection status	YEAR OF BIRTH																		TOTAL			
	1984-1996		1997-2004		2005		2006		2007		2008		2009		2010		2011		2012		n	%
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%				
Retrospective cohort																						
Confirmed infected	3	50.0	3	60.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	7	58.3
Confirmed not infected	3	50.0	2	40.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	41.7
Infection status not confirmed	0	-	2	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	2	-
Unknown	33	4.1	21	1.7	1	0.5	4	2.1	8	3.8	6	2.5	1	0.5	7	2.8	4	1.7	1	0.4	86	2.3
Prospective cohort																						
Confirmed infected	1	100.0	1	11.1	0	0.0	1	25.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	4	10.5
Confirmed not infected	0	0.0	8	88.9	1	100.0	3	75.0	8	100.0	6	100.0	0	0.0	6	100.0	2	100.0	0	0.0	34	89.5
Retrospective cohort																						
Confirmed infected	11	35.5	9	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	20	50.0
Confirmed not infected	20	64.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	20	50.0
Infection status not confirmed	1	-	3	-	0	-	0	-	0	-	0	-	0	-	1	-	2	-	1	-	8	-
Total	808	100.0	1,262	100.0	191	100.0	193	100.0	209	100.0	241	100.0	196	100.0	246	100.0	234	100.0	225	100.0	3,805	100.0
Prospective cohort																						
Confirmed infected	80	20.1	30	2.8	8	4.5	4	2.1	4	2.0	4	1.7	2	1.1	6	2.5	2	0.9	0	0.0	140	4.5
Confirmed not infected	319	79.9	1,028	97.2	169	95.5	184	97.9	199	98.0	228	98.3	186	98.9	233	97.5	223	99.1	191	100.0	2,960	95.5
Retrospective cohort																						
Confirmed infected	291	75.6	129	74.6	7	70.0	2	50.0	4	80.0	1	14.3	3	50.0	5	83.3	3	75.0	0	0.0	445	74.2
Confirmed not infected	94	24.4	44	25.4	3	30.0	2	50.0	1	20.0	6	85.7	3	50.0	1	16.7	1	25.0	0	0.0	155	25.8
Infection status not confirmed	24	-	31	-	4	-	1	-	1	-	2	-	2	-	1	-	5	-	34	-	105	-

¹ The prospective cohort consists of children born in Canada and identified before birth or within 3 months of birth. The retrospective cohort consists of children identified 3 months after birth or children born abroad. The data before 2002 have been grouped into 2 periods: 1984-1996 (before HAART) and 1997-2002 (HAART era).

² For example, Somali, Haitian, Jamaican.

³ For example, Mexican, Central/South American.

⁴ Includes Inuit, Métis, First Nations, and Aboriginal unspecified.

⁵ Includes East Asian, South Asian, for example, Chinese, Japanese, Vietnamese, Cambodian, Indonesian, Laotian, Korean, Filipino.

⁶ "Other" includes cases designated as Arab / West Asian.

SECTION III

AIDS IN CANADA: AIDS SURVEILLANCE TO DECEMBER 31, 2012, AND REPORTED TO PHAC UP TO MARCH 15, 2013¹³

QUEBEC DATA AVAILABLE ONLY TO JUNE 30, 2003

Quebec AIDS data have not been available since June 30, 2003. As a result, the number of reported AIDS cases for Canada in this report does not include the total number of AIDS cases in Quebec since that time.

ONTARIO AIDS DATA

In 2005, the Ontario Ministry of Health and Long-term Care undertook an IT-application change for all reportable diseases. Before this, Ontario used the Reportable Disease Information System (RDIS) for case management and reporting purposes. Beginning in January 2005, all Ontario public health units converted to the Integrated Public Health Information System (iPHIS). This conversion has had implications for Ontario AIDS data, affecting overall AIDS counts and some specific data elements. Exposure category and race/ethnicity data for AIDS cases are not available for cases reported after the second half of 2005.

NEWFOUNDLAND AND LABRADOR DATA AVAILABLE ONLY TO 2009

In Newfoundland and Labrador AIDS is no longer a reportable disease as of 2009. As a result, the number of reported AIDS cases for Canada in this report does not include the total number of AIDS cases in Newfoundland and Labrador since that time.

¹³ See Data Limitations section on race/ethnicity reporting in Appendix 2.

TABLE 13: Number of reported AIDS cases by year of diagnosis (all ages)

YEAR OF DIAGNOSIS OF AIDS	NUMBER OF CASES REPORTED TO PHAC*
1979	2
1980	3
1981	10
1982	26
1983	64
1984	162
1985	403
1986	690
1987	1,014
1988	1,179
1989	1,411
1990	1,473
1991	1,533
1992	1,759
1993	1,833
1994	1,796
1995	1,665
1996	1,201
1997	743
1998	652
1999	568
2000	523
2001	436
2002	436
2003	408
2004	354
2005	400
2006	355
2007	344
2008	349
2009	270
2010	258
2011	210
2012	172
Total	22,702

* Public Health Agency of Canada (PHAC).

TABLE 14: Cumulative number of reported AIDS cases among **adults and children** by sex between 1979 and December 31, 2012

AGE AND SEX	NUMBER OF CASES REPORTED	% ¹
Children (< 15 years)	249	1.0
Males	130	52.2
Females	119	47.8
Sex not reported/transsexual/transgender	0	
Adults (≥ 15 years)	22,449	99.0
Males	20,211	90.1
Females	2,219	9.9
Sex not reported/transsexual/transgender	19	
Age group not reported	4	
Males	4	
Females	0	
Sex not reported/transsexual/transgender	0	
Total	22,702	100.0
Males	20,345	89.7
Females	2,338	10.3
Sex not reported/transsexual/transgender	19	

¹ Percentages by age are based on total number minus those reports for which age group was not reported. Percentages by sex are based on total number minus those reports for which sex was not reported or was reported as transsexual or transgender.

TABLE 15: Number of reported AIDS cases among adults (≥ 15 years) by year of diagnosis and sex

Year of diagnosis	MALES		FEMALES		SEX NOT REPORTED ¹		TOTAL	
	No. of cases	Cumulative total	No. of cases	Cumulative total	No. of cases	Cumulative total	No. of cases	Cumulative total
1979–2002	17,725	17,725	1,621	1,621	6	6	19,352	19,352
2003	324	18,049	81	1,702	0	6	405	19,757
2004	286	18,335	64	1,766	2	8	352	20,109
2005	314	18,649	80	1,846	1	9	395	20,504
2006	280	18,929	71	1,917	0	9	351	20,855
2007	286	19,215	55	1,972	1	10	342	21,197
2008	268	19,483	78	2,050	1	11	347	21,544
2009	216	19,699	53	2,103	0	11	269	21,813
2010	209	19,908	45	2,148	1	12	255	22,068
2011	166	20,074	43	2,191	1	13	210	22,278
2012	137	20,211	28	2,219	6	19	171	22,449
Total	20,211		2,219		19		22,449	

¹ This category includes reports for which sex was not indicated, was unknown, or was reported as transsexual or transgender.

TABLE 16A: Number of reported AIDS cases by age group and year of diagnosis

Age group	YEAR OF DIAGNOSIS												TOTAL	
	1979-2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	n	% ¹	
Children	226	3	2	5	4	2	2	1	3	0	1	249	1.1	
< 1 year	94	2	1	2	1	0	1	1	2	0	0	104	0.5	
1 to 4 years	70	0	0	1	1	2	0	0	0	0	0	74	0.3	
5 to 9 years	32	0	0	2	0	0	0	0	1	0	1	36	0.2	
10 to 14 years	30	1	1	0	2	0	1	0	0	0	0	35	0.2	
Adults	19,352	405	352	395	351	342	347	269	255	210	171	22,449	98.9	
15 to 19 years	68	2	1	3	2	4	1	3	2	3	3	92	0.4	
20 to 24 years	608	3	12	15	11	9	15	12	3	5	7	700	3.1	
25 to 29 years	2,524	28	22	37	30	20	24	21	17	14	6	2,743	12.1	
30 to 34 years	4,342	67	43	54	41	37	45	28	20	32	24	4,733	20.9	
35 to 39 years	4,225	91	74	69	70	65	58	46	37	31	20	4,786	21.1	
40 to 44 years	3,246	81	81	82	73	75	69	55	45	43	28	3,878	17.1	
45 to 49 years	2,061	55	53	57	51	55	53	50	48	40	32	2,555	11.3	
50 to 54 years	1,056	41	27	29	35	39	39	23	32	17	20	1,358	6.0	
55 to 59 years	621	15	23	28	19	16	21	18	25	11	11	808	3.6	
≥ 60 years	601	22	16	21	19	22	22	13	26	14	20	796	3.5	
Age group not reported	4	0	0	0	0	0	0	0	0	0	0	4		
Total	19,582	408	354	400	355	344	349	270	258	210	172	22,702	100.0	

¹ Percentages by age are based on total number minus those reports for which age group was not reported.

TABLE 16B: Number of reported AIDS cases among **males** by age group and year of diagnosis

Age group	YEAR OF DIAGNOSIS												TOTAL	
	1979-2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	n	% ¹	
Male children	119	1	1	4	2	2	0	0	0	0	1	130	0.6	
< 1 year	44	0	0	1	0	0	0	0	0	0	0	45	0.2	
1 to 4 years	32	0	0	1	1	2	0	0	0	0	0	36	0.2	
5 to 9 years	19	0	0	2	0	0	0	0	0	0	1	22	0.1	
10 to 14 years	24	1	1	0	1	0	0	0	0	0	0	27	0.1	
Adult males	17,725	324	286	314	280	286	268	216	209	166	137	20,211	99.4	
15 to 19 years	54	1	0	1	1	2	0	1	0	0	2	62	0.3	
20 to 24 years	484	1	7	11	8	4	10	8	1	2	4	540	2.7	
25 to 29 years	2,217	19	12	29	23	11	18	12	14	10	5	2,370	11.7	
30 to 34 years	3,947	50	37	43	26	24	28	20	14	24	18	4,231	20.8	
35 to 39 years	3,950	79	65	50	54	56	41	39	28	23	16	4,401	21.6	
40 to 44 years	3,043	66	66	67	62	70	56	44	41	36	22	3,573	17.6	
45 to 49 years	1,959	42	41	47	46	50	41	43	41	34	25	2,369	11.6	
50 to 54 years	1,002	35	25	24	29	35	35	22	28	17	16	1,268	6.2	
55 to 59 years	561	12	20	22	16	15	20	15	20	8	10	719	3.5	
≥ 60 years	508	19	13	20	15	19	19	12	22	12	19	678	3.3	
Age group not reported	4	0	0	0	0	0	0	0	0	0	0	4		
Total²	17,848	325	287	318	282	288	268	216	209	166	138	20,345	100.0	

¹ Percentages by age are based on total number minus those reports for which age group was not reported.

² Numbers exclude 19 AIDS cases for which sex was not reported or was reported as transsexual or transgender.

TABLE 16C: Number of reported AIDS cases among females by age group and year of diagnosis

Age group	YEAR OF DIAGNOSIS													TOTAL	
	1979–2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	n	% ¹		
Female children	107	2	1	1	2	0	2	1	3	0	0	119	5.1		
< 1 year	50	2	1	1	1	0	1	1	2	0	0	59	2.5		
1 to 4 years	38	0	0	0	0	0	0	0	0	0	0	38	1.6		
5 to 9 years	13	0	0	0	0	0	0	0	1	0	0	14	0.6		
10 to 14 years	6	0	0	0	1	0	1	0	0	0	0	8	0.3		
Adult females	1,621	81	64	80	71	55	78	53	45	43	28	2,219	94.9		
15 to 19 years	14	1	1	2	1	2	1	2	2	3	1	30	1.3		
20 to 24 years	124	2	5	4	3	5	5	4	2	3	3	160	6.8		
25 to 29 years	307	9	10	8	7	9	6	9	3	3	1	372	15.9		
30 to 34 years	392	17	6	11	15	13	16	8	6	8	6	498	21.3		
35 to 39 years	274	12	9	19	16	9	17	7	9	8	3	383	16.4		
40 to 44 years	202	15	15	14	11	5	13	11	4	7	5	302	12.9		
45 to 49 years	102	13	11	10	5	4	12	7	7	6	4	181	7.7		
50 to 54 years	53	6	2	5	6	4	4	1	4	0	4	89	3.8		
55 to 59 years	60	3	2	6	3	1	1	3	5	3	1	88	3.8		
≥ 60 years	93	3	3	1	4	3	3	1	3	2	0	116	5.0		
Age group not reported	0	0	0	0	0	0	0	0	0	0	0	0			
Total²	1,728	83	65	81	73	55	80	54	48	43	28	2,338	100.0		

¹ Percentages by age are based on total number minus those reports for which age group was not reported.

² Numbers exclude 19 AIDS cases for which sex was not reported or was reported as transsexual or transgender.

TABLE 17A: Number and percentage distribution of reported AIDS cases among adults (≥ 15 years) by exposure category and year of diagnosis

Exposure category	YEAR OF DIAGNOSIS												TOTAL			
	1979-2006		2007		2008		2009		2010		2011		2012		n	% ¹
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
MSM	13,386	68.5	53	29.8	75	39.3	40	28.6	35	22.9	32	27.6	24	24.2	13,645	66.8
MSM/IDU	888	4.5	9	5.1	9	4.7	4	2.9	9	5.9	2	1.7	2	2.0	923	4.5
IDU	1,660	8.5	57	32.0	57	29.8	51	36.4	61	39.9	41	35.3	31	31.3	1,958	9.6
Blood/blood products²																
a) recipient of blood/clotting factor	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
b) recipient of blood	355	1.8	1	0.6	2	1.0	2	1.4	1	0.7	1	0.9	0	0.0	362	1.8
c) recipient of clotting factor	249	1.3	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	250	1.2
Heterosexual contact																
a) origin from an HIV-endemic country	1,252	6.4	12	6.7	14	7.3	10	7.1	6	3.9	12	10.3	9	9.1	1,315	6.4
b) sexual contact with a person at risk	1,035	5.3	19	10.7	10	5.2	12	8.6	18	11.8	13	11.2	12	12.1	1,119	5.5
c) NIR-Het	689	3.5	21	11.8	23	12.0	20	14.3	21	13.7	14	12.1	20	20.2	808	4.0
Perinatal transmission	1	0.0	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.0
Occupational exposure	7	0.0	0	0.0	0	0.0	1	0.7	1	0.7	0	0.0	0	0.0	9	0.0
Other	14	0.1	4	2.2	1	0.5	0	0.0	1	0.7	1	0.9	1	1.0	22	0.1
NIR	715	-	10	-	4	-	4	-	1	-	2	-	2	-	738	-
Not reported ³	604	-	154	-	152	-	125	-	101	-	92	-	70	-	1,298	-
Total	20,855	100.0	342	100.0	347	100.0	269	100.0	255	100.0	210	100.0	171	100.0	22,449	100.0

¹ Percentages based on total number minus reports for which the exposure category was not reported and for which there was no identified risk (NIR).

² It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

³ Because of changes in the reporting of AIDS cases in Ontario, exposure category data are not available for cases reported after the second half of 2005. These cases are categorized as "Not reported".

TABLE 17B: Number and percentage distribution of reported AIDS cases among **adult males** (≥ 15 years) by exposure category and year of diagnosis

Exposure category	YEAR OF DIAGNOSIS												TOTAL			
	1979-2006		2007		2008		2009		2010		2011		2012		n	% ¹
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
MSM	13,386	75.3	53	36.6	75	48.4	40	37.0	35	28.0	32	37.6	24	31.6	13,645	73.8
MSM/IDU	888	5.0	9	6.2	9	5.8	4	3.7	9	7.2	2	2.4	2	2.6	923	5.0
IDU	1,212	6.8	39	26.9	32	20.6	33	30.6	43	34.4	28	32.9	18	23.7	1,405	7.6
Blood/blood products²																
a) recipient of blood/clotting factor	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
b) recipient of blood	222	1.2	0	0.0	2	1.3	2	1.9	1	0.8	1	1.2	0	0.0	228	1.2
c) recipient of clotting factor	239	1.3	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	240	1.3
Heterosexual contact																
a) origin from an HIV-endemic country	760	4.3	9	6.2	11	7.1	10	9.3	4	3.2	6	7.1	6	7.9	806	4.4
b) sexual contact with a person at risk	550	3.1	13	9.0	7	4.5	6	5.6	16	12.8	10	11.8	8	10.5	610	3.3
c) NIR-Het	508	2.9	17	11.7	18	11.6	12	11.1	16	12.8	5	5.9	18	23.7	594	3.2
Perinatal transmission	1	0.0	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.0
Occupational exposure	5	0.0	0	0.0	0	0.0	1	0.9	1	0.8	0	0.0	0	0.0	7	0.0
Other	12	0.1	3	2.1	1	0.6	0	0.0	0	0.0	1	1.2	0	0.0	17	0.1
NIR	649	-	9	-	3	-	4	-	1	-	2	-	2	-	670	-
Not reported ³	497	-	132	-	110	-	104	-	83	-	79	-	59	-	1,064	-
Total	18,929	100.0	286	100.0	268	100.0	216	100.0	209	100.0	166	100.0	137	100.0	20,211	100.0

¹ Percentages based on total number minus reports for which the exposure category was not reported and for which there was no identified risk (NIR).

² It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

³ Because of changes in the reporting of AIDS cases in Ontario, exposure category was not available for cases reported after the second half of 2005. These cases are categorized as "Not reported".

TABLE 17C: Number and percentage distribution of reported AIDS cases among **adult females** (≥ 15 years) by exposure category and year of diagnosis

Exposure category	YEAR OF DIAGNOSIS																		TOTAL		
	1979-2006		2007		2008		2009		2010		2011		2012		n	%	% ¹				
	n	%	n	%	n	%	n	%	n	%	n	%	n	%							
IDU	447	25.5	18	54.5	25	69.4	18	56.3	18	64.3	13	41.9	13	56.5	552	28.5	28.5				
Blood/blood products²																					
a) recipient of blood/clotting factor	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0				
b) recipient of blood	133	7.6	1	3.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	134	6.9	6.9				
c) recipient of clotting factor	10	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	10	0.5	0.5				
Heterosexual contact																					
a) origin from an HIV-endemic country	492	28.1	3	9.1	3	8.3	0	0.0	2	7.1	6	19.4	3	13.0	509	26.3	26.3				
b) sexual contact with a person at risk	485	27.7	6	18.2	3	8.3	6	18.8	2	7.1	3	9.7	4	17.4	509	26.3	26.3				
c) NIR-Het	181	10.3	4	12.1	5	13.9	8	25.0	5	17.9	9	29.0	2	8.7	214	11.1	11.1				
Occupational exposure	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0.1				
Other	2	0.1	1	3.0	0	0.0	0	0.0	1	3.6	0	0.0	1	4.3	5	0.3	0.3				
NIR	65	-	1	-	1	-	0	-	0	-	0	-	0	-	67	-	-				
Not reported ³	100	-	21	-	41	-	21	-	17	-	12	-	5	-	217	-	-				
Total	1,917	100.0	55	100.0	78	100.0	53	100.0	45	100.0	43	100.0	28	100.0	2,219	100.0	100.0				

¹ Percentages based on total number minus reports for which the exposure category was not reported and for which there was no identified risk (NIR).

² It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

³ Because of changes in the reporting of AIDS cases in Ontario, exposure category was not available for cases reported after the second half of 2005. These cases are categorized as "Not reported".

TABLE 17D: Number and percentage distribution of reported AIDS cases among children (< 15 years) by exposure category and year of diagnosis

Exposure category	YEAR OF DIAGNOSIS												TOTAL			
	1979-2006		2007		2008		2009		2010		2011		2012		n	% ¹
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Blood/blood products²																
a) recipient of blood/clotting factor	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
b) recipient of blood	21	9.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	21	9.5
c) recipient of clotting factor	12	5.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	12	5.5
Heterosexual contact																
a) origin from an HIV-endemic country	5	2.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	2.3
b) sexual contact with a person at risk	1	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.5
c) NIR-Het	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Perinatal transmission	176	81.1	1	100.0	1	100.0	0	0.0	1	100.0	0	0.0	0	0.0	179	81.4
Other	2	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.9
NIR	10	-	0	-	0	-	0	-	0	-	0	-	0	-	10	-
Not reported ³	13	-	1	-	1	-	1	-	2	-	0	-	1	-	19	-
Total	240	100.0	2	100.0	2	100.0	1	0.0	3	100.0	0	0.0	1	0.0	249	100.0

¹ Percentages based on total number minus reports for which the exposure category was not reported and for which there was no identified risk (NIR).

² It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

³ Because of changes in the reporting of AIDS cases in Ontario, exposure category was not available for cases reported after the second half of 2005. These cases are categorized as "Not reported".

TABLE 17E: Number of reported AIDS cases among **adults** (≥ 15 years) by exposure category and age group between 1979 and December 31, 2012

Exposure category	AGE GROUP (YEARS)										TOTAL
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	≥ 60	
MSM	12	306	1,629	3,004	3,106	2,479	1,604	767	413	325	13,645
MSM/IDU	4	61	182	239	183	124	72	33	20	5	923
IDU	15	87	245	428	452	340	210	118	45	18	1,958
Blood/blood products¹											
a) recipient of blood/clotting factor	0	0	0	0	0	0	0	0	0	0	0
b) recipient of blood	9	16	28	42	45	37	34	29	40	82	362
c) recipient of clotting factor	25	21	44	38	42	24	19	16	10	11	250
Heterosexual contact											
a) origin from an HIV-endemic country	4	57	209	324	281	210	103	53	24	50	1,315
b) sexual contact with a person at risk	3	47	133	198	170	167	133	88	78	102	1,119
c) NIR-Het	2	29	77	138	108	129	102	83	59	81	808
Perinatal transmission	2	0	0	0	0	0	0	0	0	0	2
Occupational exposure	0	0	0	0	2	2	1	2	1	1	9
Other	1	0	0	1	3	8	4	2	2	1	22
NIR	3	23	85	116	153	119	90	68	37	44	738
Not reported ²	12	53	111	205	241	239	183	99	79	76	1,298
Total	92	700	2,743	4,733	4,786	3,878	2,555	1,358	808	796	22,449

¹ It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

² Because of changes in the reporting of AIDS in Ontario, exposure category was not available for cases reported after the second half of 2005. These cases are categorized as "Not reported".

TABLE 17F: Number of reported AIDS cases among **children** (< 15 years) by exposure category and age group between 1979 and December 31, 2012

Exposure category	AGE GROUP (YEARS)				TOTAL
	< 1	1-4	5-9	10-14	
Blood/blood products¹					
a) recipient of blood/clotting factor	0	0	0	0	0
b) recipient of blood	1	3	5	12	21
c) recipient of clotting factor	0	0	4	8	12
Heterosexual contact					
a) origin from an HIV-endemic country	0	0	1	4	5
b) sexual contact with a person at risk	1	0	0	0	1
c) NIR-Het	0	0	0	0	0
Perinatal transmission	91	63	21	4	179
Other	1	0	0	1	2
NIR	3	3	0	4	10
Not reported ²	7	5	5	2	19
Total	104	74	36	35	249

¹ It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

² Because of changes in the reporting of AIDS cases in Ontario, exposure category was not available for cases reported after the second half of 2005. These cases are categorized as "Not reported".

TABLE 18A: Number of reported AIDS cases and male/female ratio by province/territory and sex between 1979 and December 31, 2012 (all ages)

Province/territory	NUMBER OF CASES		RATIO Males:Females	TOTAL
	Males	Females		
British Columbia	4,458	452	10:1	4,910
Yukon	7	4	2:1	11
Alberta	1,416	161	9:1	1,577
Northwest Territories	14	5	3:1	19
Nunavut ¹	0	0	N/A	0
Saskatchewan	281	84	3:1	365
Manitoba	241	50	5:1	291
Ontario	7,985	785	10:1	8,770
Quebec ²	5,373	725	7:1	6,098
New Brunswick	160	20	8:1	180
Prince Edward Island and Nova Scotia ³	339	32	11:1	371
Newfoundland and Labrador ⁴	71	20	4:1	91
Total	20,345	2,338		22,683

¹ Data prior to 2000 are not available for Nunavut as it became a Canadian territory in April 1999 and began reporting in 2000.

² Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

³ Because of small annual AIDS case numbers, the data for Prince Edward Island and Nova Scotia are combined. Additionally, as of 2012, AIDS is no longer a reportable disease in Prince Edward Island. As a result, the number of AIDS cases for Canada reported here does not reflect the total number of AIDS cases in Prince Edward Island since that time.

⁴ As of 2009, AIDS is no longer a reportable disease in Newfoundland and Labrador. As a result, the number of AIDS cases for Canada reported here does not reflect the total number of AIDS cases in Newfoundland and Labrador since that time.

TABLE 18B: Number of reported AIDS cases by province/territory and year of diagnosis (all ages)

Province/territory	YEAR OF DIAGNOSIS											TOTAL	
	1979–2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	n	%
British Columbia	3,881	140	134	133	118	113	122	97	77	70	42	4,927	21.7
Yukon	7	0	1	0	0	0	0	1	2	0	0	11	0.0
Alberta	1,144	34	38	35	58	60	61	38	49	31	29	1,577	6.9
Northwest Territories	19	0	0	0	0	0	0	0	0	0	0	19	0.1
Nunavut ¹	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Saskatchewan	192	13	15	16	8	9	12	14	27	26	33	365	1.6
Manitoba	213	16	10	9	14	8	6	2	4	2	7	291	1.3
Ontario	7,512	153	142	196	142	145	141	114	93	76	58	8,772	38.6
Quebec ²	6,061	37	0	0	0	0	0	0	0	0	0	6,098	26.9
New Brunswick	154	6	2	6	2	4	1	2	1	1	1	180	0.8
Nova Scotia and Prince Edward Island ³	312	7	10	5	13	5	6	2	5	4	2	371	1.6
Newfoundland and Labrador ⁴	87	2	2	0	0	0	0	0	0	0	0	91	0.4
Total	19,582	408	354	400	355	344	349	270	258	210	172	22,702	100.0

¹ Data prior to 2000 are not available for Nunavut as it became a Canadian territory in April 1999 and began reporting in 2000.

² Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

³ Because of small annual AIDS case numbers, the data for Prince Edward Island and Nova Scotia are combined. Additionally, as of 2012, AIDS is no longer a reportable disease in Prince Edward Island. As a result, the number of AIDS cases for Canada reported here does not reflect the total number of AIDS cases in Prince Edward Island since that time.

⁴ As of 2009, AIDS is no longer a reportable disease in Newfoundland and Labrador. As a result, the number of AIDS cases for Canada reported here does not reflect the total number of AIDS cases in Newfoundland and Labrador since that time.

TABLE 18C: Number of reported AIDS cases among males by province/territory and year of diagnosis (all ages)

Province/territory	YEAR OF DIAGNOSIS													TOTAL	
	1979-2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	n	%		
British Columbia	3,592	120	115	108	100	98	97	79	56	59	34	4,458	21.9		
Yukon	4	0	0	0	0	0	0	1	2	0	0	7	0.0		
Alberta	1,066	24	30	30	46	49	52	31	43	22	23	1,416	7.0		
Northwest Territories	14	0	0	0	0	0	0	0	0	0	0	14	0.1		
Nunavut ¹	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Saskatchewan	160	12	11	11	8	6	6	7	23	16	21	281	1.4		
Manitoba	194	10	6	7	5	4	5	2	2	1	5	241	1.2		
Ontario	6,974	122	112	154	110	125	102	93	77	64	52	7,985	39.2		
Quebec ²	5,347	26	0	0	0	0	0	0	0	0	0	5,373	26.4		
New Brunswick	139	5	2	5	1	3	1	1	1	1	1	160	0.8		
Nova Scotia and Prince Edward Island ³	289	5	10	3	12	3	5	2	5	3	2	339	1.7		
Newfoundland and Labrador ⁴	69	1	1	0	0	0	0	0	0	0	0	71	0.3		
Total	17,848	325	287	318	282	288	268	216	209	166	138	20,345	100.0		

¹ Data prior to 2000 are not available for Nunavut as it became a Canadian territory in April 1999 and began reporting in 2000.

² Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

³ Because of small annual AIDS case numbers, the data for Prince Edward Island and Nova Scotia are combined. Additionally, as of 2012, AIDS is no longer a reportable disease in Prince Edward Island. As a result, the number of AIDS cases for Canada reported here does not reflect the total number of AIDS cases in Prince Edward Island since that time.

⁴ As of 2009, AIDS is no longer a reportable disease in Newfoundland and Labrador. As a result, the number of AIDS cases for Canada reported here does not reflect the total number of AIDS cases in Newfoundland and Labrador since that time.

TABLE 18D: Number of reported AIDS cases among females by province/territory and year of diagnosis (all ages)

Province/territory	YEAR OF DIAGNOSIS												TOTAL	
	1979–2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	n	%	
British Columbia	283	20	18	24	18	14	24	18	20	10	3	452	19.3	
Yukon	3	0	1	0	0	0	0	0	0	0	0	4	0.2	
Alberta	78	10	8	5	12	11	9	7	6	9	6	161	6.9	
Northwest Territories	5	0	0	0	0	0	0	0	0	0	0	5	0.2	
Nunavut ¹	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Saskatchewan	32	1	4	5	0	3	6	7	4	10	12	84	3.6	
Manitoba	19	6	4	2	9	4	1	0	2	1	2	50	2.1	
Ontario	538	31	29	42	32	20	39	21	16	12	5	785	33.6	
Quebec ²	714	11	0	0	0	0	0	0	0	0	0	725	31.0	
New Brunswick	15	1	0	1	1	1	0	1	0	0	0	20	0.9	
Nova Scotia and Prince Edward Island ³	23	2	0	2	1	2	1	0	0	1	0	32	1.4	
Newfoundland and Labrador ⁴	18	1	1	0	0	0	0	0	0	0	0	20	0.9	
Total	1,728	83	65	81	73	55	80	54	48	43	28	2,338	100.0	

¹ Data prior to 2000 are not available for Nunavut as it became a Canadian territory in April 1999 and began reporting in 2000.

² Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

³ Because of small annual AIDS case numbers, the data for Prince Edward Island and Nova Scotia are combined. Additionally, as of 2012, AIDS is no longer a reportable disease in Prince Edward Island. As a result, the number of AIDS cases for Canada reported here does not reflect the total number of AIDS cases in Prince Edward Island since that time.

⁴ As of 2009, AIDS is no longer a reportable disease in Newfoundland and Labrador. As a result, the number of AIDS cases for Canada reported here does not reflect the total number of AIDS cases in Newfoundland and Labrador since that time.

TABLE 19: Number and percentage distribution of reported AIDS cases by province/territory and exposure category to December 31, 2012 (all ages)

Exposure category	PROVINCE/TERRITORY														NL ⁵									
	BC		YT		AB		NT/NU ¹		SK		MB		ON ²		QC ³		NB		PE/NS ⁴		%			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
MSM	2,839	63.7	1	10.0	961	63.6	7	36.8	110	31.4	149	52.5	5,392	72.3	3,798	64.2	96	55.2	253	68.8	42	46.7	13,648	66.1
MSM/IDU	262	5.9	1	10.0	30	2.0	1	5.3	19	5.4	10	3.5	294	3.9	283	4.8	10	5.7	12	3.3	2	2.2	924	4.5
IDU	747	16.8	5	50.0	182	12.0	1	5.3	129	36.9	35	12.3	360	4.8	461	7.8	11	6.3	23	6.3	4	4.4	1,958	9.5
Blood/blood products⁷																								
a) recipient of blood/clotting factor	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
b) recipient of blood	77	1.7	0	0.0	28	1.9	1	5.3	4	1.1	8	2.8	163	2.2	84	1.4	4	2.3	10	2.7	4	4.4	383	1.9
c) recipient of clotting factor	16	0.4	0	0.0	0	0.0	0	0.0	15	4.3	9	3.2	97	1.3	86	1.5	22	12.6	9	2.4	8	8.9	262	1.3
Heterosexual contact																								
a) origin from an HIV-endemic country	68	1.5	0	0.0	77	5.1	0	0.0	11	3.1	14	4.9	442	5.9	690	11.7	5	2.9	12	3.3	1	1.1	1,320	6.4
b) sexual contact with a person at risk	208	4.7	3	30.0	56	3.7	6	31.6	32	9.1	23	8.1	481	6.4	243	4.1	15	8.6	31	8.4	22	24.4	1,120	5.4
c) NIR-HET	200	4.5	0	0.0	171	11.3	2	10.5	26	7.4	34	12.0	166	2.2	179	3.0	10	5.7	17	4.6	3	3.3	808	3.9
Occupational exposure	2	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	5	0.1	1	0.0	0	0.0	0	0.0	0	0.0	9	0.0
Perinatal transmission	18	0.4	0	0.0	7	0.5	1	5.3	2	0.6	2	0.7	56	0.8	90	1.5	0	0.0	1	0.3	4	4.4	181	0.9
Other	19	0.4	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	2	0.0	0	0.0	1	0.6	0	0.0	0	0.0	23	0.1
NIR	185	-	1	-	0	-	0	-	13	-	7	-	349	-	183	-	6	-	3	-	1	-	748	-
Not reported	286	-	0	-	65	-	0	-	2	-	0	-	965	-	0	-	0	-	0	-	0	-	1,318	-
Total	4,927	100.0	11	100.0	1,577	100.0	19	100.0	365	100.0	291	100.0	8,772	100.0	6,098	100.0	180	100.0	371	100.0	91	100.0	22,702	100.0

¹ Data prior to 2000 are not available for Nunavut as it became a Canadian territory in April 1999 and began reporting in 2000.

² Because of recent changes in the reporting of AIDS cases in Ontario, exposure category was not available for cases reported after the second half of 2005. These cases are categorized as "Not reported".

³ Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

⁴ Because of small annual AIDS case numbers, the data for Prince Edward Island and Nova Scotia are combined. Additionally, as of 2012, AIDS is no longer a reportable disease in Prince Edward Island. As a result, the number of AIDS cases for Canada reported here does not reflect the total number of AIDS cases in Prince Edward Island since that time.

⁵ As of 2009, AIDS is no longer a reportable disease in Newfoundland and Labrador. As a result, the number of AIDS cases for Canada reported here does not reflect the total number of AIDS cases in Newfoundland and Labrador since that time.

⁶ Percentages based on total number minus reports for which the exposure category was not reported and for which there was no identified risk (NIR).

⁷ It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

TABLE 20: Number and percentage distribution of reported AIDS cases by year of diagnosis and race/ethnicity (all ages)¹

Race/Ethnicity	YEAR OF TEST												TOTAL			
	1979-2006		2007		2008		2009		2010		2011		2012		n	% ²
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Aboriginal ³	668	4.0	32	18.4	30	16.7	33	24.6	51	35.2	39	33.6	35	34.3	888	5.1
South Asian/ West Asian/Arab ⁴	170	1.0	3	1.7	4	2.2	0	0.0	1	0.7	5	4.3	2	2.0	185	1.1
Asian ⁵	278	1.7	5	2.9	4	2.2	6	4.5	9	6.2	7	6.0	4	3.9	313	1.8
Black ⁶	1,550	9.3	13	7.5	17	9.4	11	8.2	6	4.1	12	10.3	9	8.8	1,618	9.3
Latin American ⁷	278	1.7	5	2.9	5	2.8	3	2.2	2	1.4	2	1.7	1	1.0	296	1.7
White	13,568	81.7	115	66.1	120	66.7	81	60.4	74	51.0	50	43.1	50	49.0	14,058	80.5
Other	103	0.6	1	0.6	0	0.0	0	0.0	2	1.4	1	0.9	1	1.0	108	0.6
Not reported ⁸	4,484	-	170	-	169	-	136	-	113	-	94	-	70	-	5,236	-
Total	21,099	100.0	344	100.0	349	100.0	270	100.0	258	100.0	210	100.0	172	100.0	22,702	100.0

¹ See Appendix 2, Data Limitations, Reported Race/Ethnicity Data.

² Percentages based on total number minus reports for which race/ethnicity was not reported.

³ Includes Inuit, Métis, First Nations and Aboriginal unspecified.

⁴ For example, Pakistani, Sri Lankan, Bangladeshi, Armenian, Egyptian, Iranian, Lebanese, Moroccan.

⁵ For example, Chinese, Japanese, Vietnamese, Cambodian, Indonesian, Laotian, Korean, Filipino.

⁶ For example, Somali, Haitian, Jamaican.

⁷ For example, Mexican, Central/South American.

⁸ Because of changes in the reporting of AIDS cases in Ontario, race/ethnicity was not available for cases reported after the second half of 2005. These cases are categorized as "Not reported".

SECTION IVa

MORTALITY DUE TO HIV/AIDS IN CANADA: SURVEILLANCE TO DECEMBER 31, 2012, AND REPORTED TO PHAC UP TO MARCH 15, 2013

Information on the number of deaths due to HIV/AIDS helps assess the trends in mortality among people living with HIV/AIDS and the impact of treatment.

In Canada, there are two sources of national information on the number of deaths due to HIV/AIDS: PHAC, which publishes data on reported deaths among reported AIDS cases, and the Health Statistics Division of Statistics Canada, which collects data on all deaths, including those attributed to HIV infection. The data from each of these sources contain slightly different types of information, and therefore it is important to note their respective advantages and limitations.

The number of reported deaths among reported AIDS cases is presented in Tables 21–25C. The number of reported deaths due to HIV infection reported by Statistics Canada follows in Section IVb, Tables 26–29. Please see the technical notes on Reported Mortality Due to HIV/AIDS, as outlined in Appendix 2, Data Limitations.

REPORTED DEATHS AMONG REPORTED AIDS CASES: PHAC

The number of reported deaths among reported AIDS cases is an underestimate of the actual number of deaths among people with a diagnosis of AIDS. There are several reasons for this. First of all, AIDS cases themselves are underreported, and therefore deaths in unreported AIDS cases cannot be recorded. Second, since death is not a mandatory reportable variable in the HIV/AIDS surveillance system, there are significant reporting delays and underreporting of deaths in AIDS cases (just as there can be for reporting of AIDS cases in general).

Provinces/territories that submitted death data through 2012 include British Columbia, Alberta, Saskatchewan, Manitoba, Nova Scotia, Prince Edward Island, Newfoundland and Labrador, Yukon, Northwest Territories and Nunavut. Because of changes in the reporting of AIDS cases in Ontario, death data were not available for the province after the second half of 2005. Quebec AIDS data (including death data) have not been available since June 30, 2003. In some situations, even though an attending physician may list AIDS as a cause of death, this may never be reported as an update of vital status to PHAC. Finally, deaths due to causes other than AIDS may be less likely to be reported to PHAC than deaths due to AIDS. For example, if a person living with AIDS is killed in a motor vehicle collision, PHAC may be less likely to receive an update than if the person died directly as a result of AIDS.

For these reasons, the number of reported deaths among AIDS cases reported by PHAC is a minimum estimate of all deaths among AIDS cases. Therefore, caution must be exercised when interpreting the data. It is not appropriate to use the difference between the total reported AIDS cases and total reported deaths to calculate the number of people living with AIDS.

TABLE 21: Reported deaths among reported AIDS cases by year of death (all ages)^{1,2}

YEAR OF DEATH	REPORTED DEATHS OF REPORTED AIDS CASES
1980	2
1981	5
1982	13
1983	28
1984	80
1985	175
1986	341
1987	527
1988	622
1989	821
1990	912
1991	1,104
1992	1,292
1993	1,418
1994	1,477
1995	1,501
1996	1,063
1997	486
1998	295
1999	285
2000	273
2001	211
2002	153
2003	161
2004	90
2005	79
2006	69
2007	63
2008	63
2009	38
2010	52
2011	44
2012	32
Unknown	255
Total	14,030

¹ Because of changes in the reporting of AIDS cases in Ontario, death data were not available for deaths reported after the second half of 2005.

² Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

TABLE 22: Cumulative number of reported deaths among reported AIDS cases among **adults and children** by age at death and sex up to December 31, 2012^{1,2,3}

AGE AND SEX	NUMBER OF REPORTED DEATHS	% ⁴
Children (< 15 years)	119	0.8
Males	60	50.4
Females	59	49.6
Sex not reported/transsexual/transgender		
Adults (≥ 15 years)	13,911	99.2
Males	12,866	92.5
Females	1,044	7.5
Sex not reported/transsexual/transgender	1	
Age group not reported	0	
Males	0	
Females	0	
Sex not reported/transsexual/transgender	0	
Total	14,030	100.0
Males	12,926	92.1
Females	1,103	7.9
Sex not reported/transsexual/transgender	1	

¹ Tables 22–25C reflect age at death and not age at AIDS diagnosis.

² Because of changes in the reporting of AIDS cases in Ontario, death data was not available for deaths reported after the second half of 2005.

³ Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

⁴ Percentages by age are based on total number minus those reports for which age was not reported. Percentages by sex are based on total number minus those reports for which sex was not reported or was reported as transsexual or transgender.

TABLE 23: Reported deaths among reported AIDS cases among **adults** (≥ 15 years) and **children** by year of death^{1,2,3}

Year of death	ADULTS		CHILDREN		TOTAL	
	No. of deaths	Cumulative total	No. of deaths	Cumulative total	No. of deaths	Cumulative total
1980–1996	11,281	11,281	100	100	11,381	11,381
1997	480	11,761	6	106	486	11,867
1998	294	12,055	1	107	295	12,162
1999	282	12,337	3	110	285	12,447
2000	271	12,608	2	112	273	12,720
2001	211	12,819	0	112	211	12,931
2002	153	12,972	0	112	153	13,084
2003	161	13,133	0	112	161	13,245
2004	88	13,221	2	114	90	13,335
2005	79	13,300	0	114	79	13,414
2006	69	13,369	0	114	69	13,483
2007	63	13,432	0	114	63	13,546
2008	63	13,495	0	114	63	13,609
2009	38	13,533	0	114	38	13,647
2010	52	13,585	0	114	52	13,699
2011	44	13,629	0	114	44	13,743
2012	32	13,661	0	114	32	13,775
Death year unknown	250	13,911	5	119	255	14,030
Total	13,911		119		14,030	

¹ Reflects age at death.

² Because of changes in the reporting of AIDS cases in Ontario, death data was not available for deaths reported after the second half of 2005.

³ Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

TABLE 24: Reported deaths among reported AIDS cases among adults (≥ 15 years) by year of death and sex^{1,2,3}

Year of death	MALES		FEMALES		TOTAL	
	No. of deaths	Cumulative total	No. of deaths	Cumulative total	No. of deaths	Cumulative total
1980–1996	10,626	10,626	655	655	11,281	11,281
1997	421	11,047	59	714	480	11,761
1998	257	11,304	37	751	294	12,055
1999	249	11,553	33	784	282	12,337
2000	234	11,787	36	820	270	12,607
2001	181	11,968	30	850	211	12,818
2002	131	12,099	22	872	153	12,971
2003	134	12,233	27	899	161	13,132
2004	71	12,304	17	916	88	13,220
2005	62	12,366	17	933	79	13,299
2006	53	12,419	16	949	69	13,368
2007	54	12,473	9	958	63	13,431
2008	54	12,527	9	967	63	13,494
2009	30	12,557	8	975	38	13,532
2010	43	12,600	9	984	52	13,584
2011	34	12,634	10	994	44	13,628
2012	19	12,653	13	1,007	32	13,660
Death year unknown	213	12,866	37	1,044	250	13,910
Total⁴	12,866		1,044		13,910	

¹ Reflects age at death.

² Because of changes in the reporting of AIDS cases in Ontario, death data was not available for deaths reported after the second half of 2005.

³ Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

⁴ Numbers exclude 1 adult death for which the sex was not reported.

TABLE 25A: Reported deaths among reported AIDS cases and percentage distribution of **adults** (≥ 15 years) by exposure category and year of death^{1,2,3}

Exposure category	YEAR OF DEATH												TOTAL					
	1980-2006		2007		2008		2009		2010		2011		2012		n	% ⁴		
	n	%	n	%	n	%	n	%	n	%	n	%	n	%				
MSM	9,574	74.4	20	35.7	21	38.2	10	30.3	10	20.8	5	11.6	6	20.0	9,646	73.5		
MSM/IDU	539	4.2	7	12.5	4	7.3	4	12.1	4	8.3	4	9.3	0	-	562	4.3		
IDU	738	5.7	18	32.1	21	38.2	7	21.2	24	50.0	22	51.2	16	53.3	846	6.4		
Blood/blood products⁵																		
a) recipient of blood/clotting factor	263	2.0	0	0.0	0	0.0	2	6.1	0	0.0	0	0.0	0	0.0	0	-	265	2.0
b) recipient of blood	217	1.7	0	0.0	0	0.0	0	0.0	0	0.0	1	2.3	0	-	218	1.7		
Heterosexual contact																		
a) origin from an HIV-endemic country	604	4.7	1	1.8	2	3.6	1	3.0	0	0.0	0	0.0	0	0.0	3	10.0	611	4.7
b) sexual contact with a person at risk	621	4.8	5	8.9	5	9.1	2	6.1	5	10.4	3	7.0	1	3.3	642	4.9		
c) NIR-Het	292	2.3	3	5.4	1	1.8	5	15.2	4	8.3	8	18.6	3	10.0	316	2.4		
Perinatal transmission	0	0.0	1	1.8	0	0.0	2	6.1	0	0.0	0	0.0	0	-	3	0.0		
Occupational exposure	5	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	-	5	0.0		
Other	7	0.1	1	1.8	1	1.8	0	0.0	1	2.1	0	0.0	1	3.3	11	0.1		
NIR	408	-	5	-	2	-	3	-	2	-	1	-	0	-	421	-		
Not reported	101	-	2	-	6	-	2	-	2	-	0	-	2	-	115	-		
Total⁶	13,369	100.0	63	100.0	63	100.0	38	100.0	52	100.0	44	100.0	32	100.0	13,661	100.0		

¹ Reflects age at death.

² Because of changes in the reporting of AIDS cases in Ontario, death data was not available for deaths reported after the second half of 2005.

³ Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

⁴ Percentages based on total number minus reports for which the exposure category was not reported and for which there was no identified risk (NIR).

⁵ It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

⁶ Numbers exclude 250 deaths among adults reported to PHAC for which year of death is unknown (213 males and 37 females).

TABLE 25B: Reported deaths among reported AIDS cases and percentage distribution of **adult males** (≥ 15 years) by exposure category and year of death^{1,2,3}

Exposure category	YEAR OF DEATH												TOTAL			
	1980-2006		2007		2008		2009		2010		2011		2012		n	% ⁴
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
MSM	9,574	80.1	20	41.7	21	44.7	10	40.0	10	25.0	5	15.2	6	35.3	9,646	79.3
MSM/IDU	539	4.5	7	14.6	4	8.5	4	16.0	4	10.0	4	12.1	0	0.0	562	4.6
IDU	531	4.4	13	27.1	15	31.9	2	8.0	18	45.0	15	45.5	8	47.1	602	4.9
Blood/blood products⁵																
a) recipient of blood/clotting factor	166	0.0	0	0.0	0	0.0	2	8.0	0	0.0	0	0.0	0	0.0	168	1.4
b) recipient of blood	209	1.7	0	0.0	0	0.0	0	0.0	0	0.0	1	3.0	0	0.0	210	1.7
Heterosexual contact																
a) origin from an HIV-endemic country	373	3.1	1	2.1	2	4.3	1	4.0	0	0.0	0	0.0	1	5.9	378	3.1
b) sexual contact with a person at risk	338	2.8	4	8.3	3	6.4	1	4.0	4	10.0	2	6.1	0	0.0	352	2.9
c) NIR-Het	214	1.8	1	2.1	1	2.1	3	12.0	4	10.0	6	18.2	2	11.8	231	1.9
Perinatal transmission	0	0.0	1	2.1	0	0.0	2	8.0	0	0.0	0	0.0	0	0.0	3	0.0
Occupational exposure	3	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.0
Other	6	0.1	1	2.1	1	2.1	0	0.0	0	0.0	0	0.0	0	0.0	8	0.1
NIR	376	-	4	-	2	-	3	-	2	-	1	-	0	-	388	-
Not reported	90	-	2	-	5	-	2	-	1	-	0	-	2	-	102	-
Total⁶	12,419	100.0	54	100.0	54	100.0	30	100.0	43	100.0	34	100.0	19	100.0	12,653	100.0

¹ Reflects age at death.

² Because of changes in the reporting of AIDS cases in Ontario, death data was not available for deaths reported after the second half of 2005.

³ Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

⁴ Percentages based on total number minus reports for which the exposure category was not reported and for which there was no identified risk (NIR).

⁵ It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

⁶ Numbers exclude 213 adult male deaths reported to PHAC for which year of death is unknown.

TABLE 25C: Reported deaths among reported AIDS cases and percentage distribution of **adult females** (≥ 15 years) by exposure category and year of death^{1,2,3}

Exposure category	YEAR OF DEATH												TOTAL			
	1980-2006		2007		2008		2009		2010		2011		2012		n	% ⁴
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
IDU	207	22.8	5	62.5	6	75.0	5	62.5	6	75.0	7	70.0	8	61.5	244	25.4
Blood/blood products⁵																
a) recipient of blood/clotting factor	97	10.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	97	10.1
b) recipient of blood	8	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8	0.8
Heterosexual contact																
a) origin from an HIV-endemic country	231	25.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	15.4	233	24.2
b) sexual contact with a person at risk	283	31.2	1	12.5	2	25.0	1	12.5	1	12.5	1	10.0	1	7.7	290	30.1
c) NIR-Het	78	8.6	2	25.0	0	0.0	2	25.0	0	0.0	2	20.0	1	7.7	85	8.8
Occupational exposure	2	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2
Other	1	0.1	0	0.0	0	0.0	0	0.0	1	12.5	0	0.0	1	7.7	3	0.3
NIR	32	-	1	-	0	-	0	-	0	-	0	-	0	-	33	-
Not reported	10	-	0	-	1	-	0	-	1	-	0	-	0	-	12	-
Total⁶	949	100.0	9	100.0	9	100.0	8	100.0	9	100.0	10	100.0	13	100.0	1,007	100.0

¹ Reflects age at death.

² Because of changes in the reporting of AIDS cases in Ontario, death data was not available for deaths reported after the second half of 2005.

³ Quebec AIDS data have not been available since June 30, 2003. As a result, AIDS cases reported here may not reflect the total number of AIDS cases in Quebec since that time.

⁴ Percentages based on total number minus reports for which the exposure category was not reported and for which there was no identified risk (NIR).

⁵ It is not always possible to separate "recipient of blood" from "recipient of clotting factor". However, they have been separated where possible for reporting purposes.

⁶ Numbers exclude 37 adult female deaths reported to PHAC for which year of death is unknown.

SECTION IVb

MORTALITY DUE TO HIV/AIDS IN CANADA: VITAL STATISTICS FROM 1987 TO DECEMBER 31, 2009

DEATHS ATTRIBUTED TO HIV INFECTION: HEALTH STATISTICS DIVISION, STATISTICS CANADA

Under a federal/provincial/territorial agreement, all deaths, regardless of cause, must be registered with the provincial and territorial registrars of the offices of vital statistics. The central registry in each province and territory provides data from death registration forms to the Health Statistics Division of Statistics Canada, which maintains the Canadian Mortality Database, a cumulative record of death statistics. Information on cause of death is coded using the International Classification of Diseases (ICD). The 9th revision (ICD-9) is used for deaths that occurred between 1979 and 1999 (codes 042–044 include deaths attributed to HIV infection). The 10th revision (ICD-10) is used for deaths that occurred from 2000 onward (codes B20-B24 include deaths attributed to HIV infection). Data are not comparable between the two coding systems because of changes in coding definitions.

Revisions of previously released numbers from the Canadian Mortality Database are minimal. As a result, underreporting of deaths for which the underlying cause is HIV infection is low. However, although the updated database is released annually, deaths attributed to HIV infection have been coded only since 1987. In addition, the most recent data are normally delayed by several years. For example, in 2011, data for deaths attributed to HIV infection were available only for the years 1987 to 2009.

Deaths attributed to HIV infection will include some HIV-related deaths of patients who did not meet the Canadian AIDS case definition, although their death certificate indicates that they died as a result of HIV infection. This may occur if there has been no AIDS-defining illness, or if there is no record of an AIDS-defining illness even though one may have been present. Data from the Canadian Mortality Database will not include those people with HIV who die from causes unrelated to their HIV infection (such as a motor vehicle collision), as it is this other cause that would be recorded on the death certificate.

For 1987–1999, data on mortality due to HIV infection were obtained using the Data Extraction and Analysis (DEXA) system. DEXA is a web-enabled SAS-based application that facilitates access to centralized data holdings in PHAC, which include vital statistics from Statistics Canada. The 2000–2009 data were obtained from the Canadian Mortality Database, Health Statistics Division, Statistics Canada.

TABLE 26: Number of deaths attributed to HIV infection by year of death (all ages)^{1,2,3}

YEAR OF DEATH	HIV DEATHS RECORDED BY VITAL STATISTICS
1979	-
1980	-
1981	-
1982	-
1983	-
1984	-
1985	-
1986	-
1987 ⁴	524
1988	660
1989	850
1990	982
1991	1,170
1992	1,358
1993	1,562
1994	1,628
1995	1,764
1996	1,306
1997	626
1998	484
1999	431
2000	511
2001	435
2002	405
2003	440
2004	420
2005	468
2006	428
2007	422
2008	407
2009	355
Total	17,636

¹ Tables 26–29 reflect age at death.

² Data source for 1987–1999 data: Data Extraction and Analysis System, Public Health Agency of Canada, based on vital statistics, Statistics Canada; data source for 2000–2008 data: Statistics Canada, Canadian Vital Statistics, Death Database.

³ HIV deaths from 1987–1999 are based on the 9th revision of the International Classification of Diseases (ICD-9), and those from 2000–2009 are based on ICD-10.

⁴ Data on deaths attributed to HIV infection are available only from 1987 onward, and most recent data available are from 2009.

TABLE 27: Number of deaths attributed to HIV infection by age at death and sex from 1987 to December 31, 2009^{1,2}

AGE AND SEX	NUMBER OF DEATHS	%
Children (< 15 years)	96	0.5
Males	49	51.0
Females	47	49.0
Sex not reported/transsexual/transgender	0	
Adults (≥ 15 years)	17,540	99.5
Males	15,817	90.2
Females	1,723	9.8
Sex not reported/transsexual/transgender	0	
Age group not reported	0	
Males	0	
Females	0	
Sex not reported/transsexual/transgender	0	
Total	17,636	100.0
Males	15,866	90.0
Females	1,770	10.0
Sex not reported/transsexual/transgender	0	

¹ Reflects age at death.

² Data source for 1987–1999 data: Data Extraction and Analysis System, Public Health Agency of Canada, based on vital statistics, Statistics Canada; data source for 2000–2009 data: Statistics Canada, Canadian Vital Statistics, Death Database.

TABLE 28: Number of deaths attributed to HIV infection among **adults** (≥ 15 years) and **children** by year of death^{1,2,3}

Year of death	ADULTS		CHILDREN		TOTAL	
	Number	Cumulative	Number	Cumulative	Number	Cumulative
1980–1986	-		-		-	
1987 ⁴	518	518	6	6	524	524
1988	655	1,173	5	11	660	1,184
1989	845	2,018	5	16	850	2,034
1990	978	2,996	4	20	982	3,016
1991	1,163	4,159	7	27	1,170	4,186
1992	1,350	5,509	8	35	1,358	5,544
1993	1,553	7,062	9	44	1,562	7,106
1994	1,610	8,672	18	62	1,628	8,734
1995	1,750	10,422	14	76	1,764	10,498
1996	1,298	11,720	8	84	1,306	11,804
1997	621	12,341	5	89	626	12,430
1998	484	12,825	1	90	485	12,915
1999	430	13,255	0	90	430	13,345
2000	509	13,764	2	92	511	13,856
2001	435	14,199	0	92	435	14,291
2002	404	14,603	1	93	405	14,696
2003	440	15,043	0	93	440	15,136
2004	419	15,462	1	94	420	15,556
2005	466	15,928	2	96	468	16,024
2006	428	16,356	0	96	428	16,452
2007	422	16,778	0	96	422	16,874
2008	407	17,185	0	96	407	17,281
2009	355	17,540	0	96	355	17,636
Total	17,540		96		17,636	

¹ Reflects age at death.

² Data source for 1987–1999 data: Data Extraction and Analysis System, Public Health Agency of Canada, based on vital statistics, Statistics Canada; data source for 2000–2008 data: Statistics Canada, Canadian Vital Statistics, Death Database.

³ HIV deaths from 1987–1999 are based on the 9th revision of the International Classification of Diseases (ICD-9), and those from 2000–2009 are based on ICD-10.

⁴ Data on deaths attributed to HIV infection are available only from 1987 onward, and most recent data available are from 2009.

TABLE 29: Number of deaths attributed to HIV infection among adults (≥ 15 years) by year of death and sex^{1,2,3}

Year of death	ADULT MALES		ADULT FEMALES		TOTAL	
	Number	Cumulative	Number	Cumulative	Number	Cumulative
1980–1986	-	-	-	-	-	-
1987 ⁴	486	486	32	32	518	518
1988	611	1,097	44	76	655	1,173
1989	793	1,890	52	128	845	2,018
1990	934	2,824	44	172	978	2,996
1991	1,102	3,926	61	233	1,163	4,159
1992	1,284	5,210	66	299	1,350	5,509
1993	1,465	6,675	88	387	1,553	7,062
1994	1,485	8,160	125	512	1,610	8,672
1995	1,628	9,788	122	634	1,750	10,422
1996	1,192	10,980	106	740	1,298	11,720
1997	550	11,530	71	811	621	12,341
1998	414	11,944	70	881	484	12,825
1999	364	12,308	66	947	430	13,255
2000	428	12,736	81	1,028	509	13,764
2001	369	13,105	66	1,094	435	14,199
2002	343	13,448	61	1,155	404	14,603
2003	373	13,821	67	1,222	440	15,043
2004	344	14,165	75	1,297	419	15,462
2005	369	14,534	97	1,394	466	15,928
2006	346	14,880	82	1,476	428	16,356
2007	339	15,219	83	1,559	422	16,778
2008	313	15,532	94	1,653	407	17,185
2009	285	15,817	70	1,723	355	17,540
Total	15,817		1,723		17,540	

¹ Reflects age at death.

² Data source for 1987–1999 data: Data Extraction and Analysis System, Public Health Agency of Canada, based on vital statistics, Statistics Canada; data source for 2000–2009 data: Statistics Canada, Canadian Vital Statistics, Death Database.

³ HIV deaths from 1987–1999 are based on the 9th revision of the International Classification of Diseases (ICD-9), and those from 2000–2009 are based on ICD-10.

⁴ Data on deaths attributed to HIV infection are available only from 1987 onward, and most recent data available are from 2009.

SECTION V

INTERNATIONAL STATISTICS ON HIV AND AIDS

Cumulative reported HIV/AIDS cases (from the start of each country's reporting) and the most recent HIV and AIDS case reports and rates from Canada, the United States, Australia, New Zealand and western European countries are given below.

TABLE 30: International statistics on reported HIV cases, 2011

COUNTRY	CUMULATIVE NUMBER TO 2011 ¹	NUMBER REPORTED IN 2011	ALL AGES RATE PER 100,000 POPULATION FOR 2011 ²
North America & Australasia			
Canada	74,213	2,237	6.5
United States	1,178,350	47,500 ³	18.8 ³
New Zealand	3,608	109	2.5
Australia	31,645	1,137	5.2
Western Europe⁴			
Austria	7,243	293	3.5
Andorra	59	2	2.4
Belgium	24,506	1,177	10.7
Denmark	6,138	266	4.8
Finland	2,951	178	3.3
France	48,950	4,075	6.3
Germany	43,033	2,887	3.5
Greece	11,499	837	7.4
Iceland	280	23	7.2
Ireland	6,187	321	7.2
Israel	7,040	460	6.2
Italy	18,752	3,461	5.8
Luxembourg	1,086	44	8.6
Malta	157	21	5.0
Netherlands	19,632	1,019	6.1
Norway	4,895	269	5.5
Portugal	29,805	902	8.5
San Marino	76	8	25.6
Spain	21,085	2,759	8.4
Sweden	9,888	370	3.9
Switzerland	32,755	561	7.1
United Kingdom	122,083	6,271	10.0

¹ Cumulative number is the total number of cases reported by each country since the start of reporting.

² All rates were taken directly from published sources, except for New Zealand, which was calculated for comparison purposes. See data sources for more information.

³ Estimated data from 2010.

⁴ Monaco has been excluded because it does not submit HIV or AIDS data.

TABLE 31: International statistics on reported AIDS cases, 2011

COUNTRY	CUMULATIVE NUMBER TO 2011 ¹	NUMBER REPORTED IN 2011	ALL AGES RATE PER 100,000 POPULATION FOR 2011 ²
North America & Australasia			
Canada	22,530	188	0.6
United States	1,138,211	25,435	10.3
New Zealand	948 ³	20	0.5
Australia	10,796	115	0.5
Western Europe⁴			
Austria	3,766	65	0.8
Andorra	4	1	1.2
Belgium	4,181	54	0.5
Denmark	2,848	59	1.1
Finland	583	25	0.5
France	67,386	524	0.8
Germany	28,453	279	0.3
Greece	3,254	83	0.7
Iceland	65	2	0.6
Ireland	1,128	47	1.0
Israel	1,376	51	0.7
Italy	63,888	774	1.3
Luxembourg	258	10	2.0
Malta	96	5	1.2
Netherlands	3,552	186	1.1
Norway	1,016	19	0.4
Portugal	16,913	303	2.8
San Marino	21	1	3.2
Spain	81,743	844	1.8
Sweden ⁵	2,168	-	-
Switzerland	9,355	118	1.5
United Kingdom	26,861	455	0.7

¹ Cumulative total is the total number of cases reported by each country since the start of reporting.

² All rates were taken directly from published sources, except for Australia and New Zealand, which was calculated for comparison purposes. See data sources for more information.

³ Cumulative number of reported AIDS cases to 2007.

⁴ Monaco has been excluded because it does not submit HIV or AIDS data.

⁵ AIDS reporting has not been mandatory in Sweden since 2000 and has not been reported since 2007.

SOURCES FOR INTERNATIONAL STATISTICS

UNITED STATES

Number of reported HIV cases for 2011, and 2011 rates:

Centers for Disease Control and Prevention. Estimated HIV incidence in the United States, 2007–2010. *HIV Surveillance Supplemental Report* 2012;17(No. 4). www.cdc.gov/hiv/topics/surveillance/resources/reports/#supplemental. Published December 2012. [Accessed Aug 21, 2013].

Number of reported AIDS cases for 2011, 2011 rates and cumulative AIDS cases:

Centers for Disease Control and Prevention. Diagnosis of HIV Infection and AIDS in the United States and dependent areas 2011. *HIV Surveillance Report*, Vol. 23. (Tables 1a, 2a). www.cdc.gov/hiv/surveillance/resources/reports/2011report/index.htm

AUSTRALIA

Number of reported HIV cases for 2011, 2011 HIV rates and cumulative HIV cases:

National Centre in HIV Epidemiology and Clinical Research. *HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2012*. National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Sydney, NSW (Tables 1.1.1, 1.1.4).

www.kirby.unsw.edu.au/surveillance

Number of reported AIDS cases for 2011 and cumulative AIDS cases:

Communicable Diseases Intelligence Volume 36 No 4—December 2012 (Tables 1, 2). www.health.gov.au/internet/main/publishing.nsf/Content/cda-cdi3604g.htm

NEW ZEALAND

Cumulative HIV total, number of reported HIV and AIDS cases 2012, and HIV and AIDS rates:

New Zealand Ministry of Health. *AIDS—New Zealand*, Issue 71—March 2013 (Table 1). www.health.govt.nz/our-work/diseases-and-conditions/hiv-and-aids/aids-new-zealand-newsletter

Cumulative AIDS total:

World Health Organization. *Epidemiological fact sheet on HIV and AIDS, New Zealand*. 2008 Update (Pg.9).

WESTERN EUROPE

European Centre for Disease Prevention and Control/WHO Regional Office for Europe. *HIV/AIDS surveillance in Europe 2011*. Stockholm: European Centre for Disease Prevention and Control; 2011 (Tables 1, 15).

<http://ecdc.europa.eu/en/publications/Publications/20121130-Annual-HIV-Surveillance-Report.pdf>

POPULATION

The population data used as a denominator to calculate rates for Australia are an estimate produced by the United States Bureau of the Census. Central Intelligence Agency, (2013)

World Factbook 2013–14, People in Society—Population

<https://www.cia.gov/library/publications/the-world-factbook>

www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/0

2012 population data for Canada:

Statistics Canada, Demography Division, Demographic Estimates Section. *July population estimates 2012 final intercensal estimate.*

www.statcan.gc.ca/pub/91-215-x/91-215-x2012000-eng.pdf

OTHER INTERNATIONAL DATA RESOURCES

UNAIDS Global Surveillance:

www.unaids.org/en/dataanalysis

www.unaids.org/globalreport/Global_report.htm

WHO HIV/AIDS/STI Surveillance:

www.who.int/hiv/topics/me/en

APPENDIX 1. TECHNICAL NOTES

DATA COLLECTION AND REPORTING

The Surveillance and Epidemiology Division has compiled this report on the basis of non-nominal, confidential information regarding positive HIV test reports and diagnosed AIDS cases reported on a voluntary basis by all P/T of Canada.

EXPOSURE CATEGORY HIERARCHY

HIV and AIDS cases are assigned to a single exposure category according to a hierarchy of risk factors. If more than one risk factor is reported, a case is classified according to the exposure category listed first (or highest) in the hierarchy. For example, people who inject drugs may also be at risk of HIV infection through heterosexual sexual activity; however, injection drug use (IDU) is accepted as the higher risk activity with greater likelihood of transmission of HIV. The only exception to this is men who have sex with men (MSM) and who have also injected drugs, as there is a fairly equivalent level of risk in some circumstances (e.g. in the case of risky sex, lack of condom adherence, condom failure). Such cases are classified in the combined exposure category MSM/IDU.

Classifying cases in a single exposure category according to a hierarchy has inherent limitations. For example, the categories do not distinguish between at-risk populations and risk behaviours, which conflates the individual with the activity. Furthermore, assignment of these categories is subject to the questions asked by a health care provider as well as the information that an individual chooses to disclose. Nonetheless, it is recognized that there is much evidence on HIV risk and exposure, though the current hierarchy of exposure category would benefit from a review. PHAC intends to work with P/T partners and experts on this review.

EXPOSURE CATEGORIES

MSM: Men who have sex with men; this includes men who report either homosexual or bisexual sexual contact.

MSM/IDU: Men who have sex with men and use injection drugs.

IDU: Injection drug use.

Blood/Blood Products

- a. **Recipient of Blood/Clotting Factor:** Before 1998, it was not possible to separate this exposure category. However, where possible, it has been separated into subcategories b and c.
- b. **Recipient of Blood:** Received transfusion of whole blood or blood components, such as packed red cells, plasma, platelets or cryoprecipitate.
- c. **Recipient of Clotting Factor:** Received pooled concentrates of clotting factor VIII or IX for treatment of hemophilia/coagulation disorder.

Heterosexual Contact

- a. **Origin from an HIV-Endemic Country/Sexual Contact with a Person at Risk:** Before 1998, it was not always possible to separate this exposure category. However, where possible, it has been separated into subcategories b and c.
- b. **Origin from an HIV-Endemic Country:** People who were born in a country where HIV is endemic. An HIV-endemic country is defined as having an adult (ages 15–49) prevalence of HIV that is 1.0% or greater and one of the following:
 - 50% or more of HIV cases attributed to heterosexual transmission;
 - a male to female ratio of 2:1 or less; or
 - HIV prevalence greater than or equal to 2% among women receiving prenatal care.
- c. **Sexual Contact with a Person at Risk:** People who report heterosexual contact with someone who is either HIV infected or who is at increased risk of HIV infection (e.g. person who injects drugs, bisexual male, or a person from an HIV-endemic country).
- d. **NIR-Het:** If heterosexual contact is the only risk factor reported and nothing is known about the HIV-related factors associated with the partner, the case would be classified as *No Identified Risk-Heterosexual* (NIR–Het).

Occupational Exposure: Exposure to HIV-contaminated blood or body fluids, or concentrated virus in an occupational setting. This applies only to reported AIDS cases and not occupational positive HIV test reports, which are listed under *Other*. Further information regarding occupational exposure can be found in the *Canada Communicable Disease Report (CCDR)*^{14,15}.

Perinatal Transmission: The transmission of HIV from a woman infected with HIV to her infant either in utero, during childbirth, or through breastfeeding.

Other: Used to classify cases in which the mode of HIV transmission is known but cannot be classified into any of the major exposure categories listed here—for example, a recipient of semen from an HIV-positive donor.

NIR (No Identified Risk): Used when the history of exposure to HIV through any of the other modes listed is unknown, or there is no reported history (e.g. because of death, loss to follow-up).

Not Reported: In certain P/T, it is not possible to report information regarding exposure category; such cases are thus classified as *Not reported*. This applies only to positive HIV test reports and not to reported AIDS cases.

¹⁴ Deschamps L., Archibald C. National surveillance of occupational exposure to the human immunodeficiency virus. *CCDR* 1996;22:52–4.

¹⁵ Public Health Agency of Canada. A case of HIV infection possibly transmitted in an occupational setting—Ontario. *CCDR* 1992;18:102–3.

APPENDIX 2. DATA LIMITATIONS

REPORTING DELAY

There may be a delay between the time when a person tests positive for HIV or is given a diagnosis of AIDS and the time when the report is received by PHAC. This time lag is referred to as reporting delay. AIDS cases adjusted for reporting delay are usually presented in year-end surveillance reports; however, enhanced emphasis on HIV surveillance in a number of jurisdictions has contributed to a growing uncertainty associated with the current methods used to estimate AIDS reporting delay.

UNDERREPORTING

The number of reported AIDS cases and positive HIV test reports at any point in time is not necessarily a true reflection of the total number of people with a diagnosis of AIDS or HIV infection. This is because some individuals with a diagnosis of HIV infection or AIDS may never be reported to PHAC. This leads to underreporting of cases.

POSITIVE HIV TEST REPORTS—ANNUAL TRENDS

Changes to the number of reported HIV positive tests as well as observed trends must be interpreted with caution, since there are a number of factors that may contribute to such changes. These include changes in testing patterns (i.e. who comes forward for testing and when), improved identification of duplicate cases, and reporting delay. The distribution of proportions of positive HIV tests among exposure categories should also be interpreted with caution because of the high number of reports in which race/ethnicity or exposure category is not identified.

DUPLICATE POSITIVE HIV TEST REPORTS

The identification and removal of duplicates (repeat tests for the same individual who is HIV positive) is difficult because of the non-nominal (or non-identifying) nature of HIV reporting in some jurisdictions. Where possible, P/T periodically review and assess the inclusion of duplicate reports in their positive HIV test data in order to provide as accurate a picture as possible of the number of new individuals who test positive for HIV. Duplicate positive HIV test reports result in an overestimate of the number of positive reports. Duplicate test removal varied for the period 1985–1994. Therefore, annual trends in this period are not displayed in the report, as comparisons between years may not be valid.

PROVINCE OF QUEBEC

Quebec reports only those HIV cases that have been confirmed as unique (no duplication). Thus, for Quebec, the number of positive HIV test reports included in this surveillance report reflects the *minimum* number of HIV-positive individuals. This number is likely underestimated, as duplicates could not be ruled out for the majority of the remaining Quebec reports.

HIV REPORTING IN CHILDREN

It is possible that children under 2 years of age who are seropositive at the time of testing have a negative HIV status at their final HIV test. As a result, positive test reports for Quebec and for Newfoundland and Labrador exclude positive serology results for cases under 2 years of age. In most of the remaining provinces/territories, however, it is possible to confirm HIV infection in children under 18 months of age. Positive test reports from these jurisdictions may include those younger than 2 years.

PROVINCE OF ONTARIO

In Ontario, infants born to HIV-infected mothers are included in the tables of HIV diagnoses based on serology results, including antibody testing and polymerase chain reaction (PCR). Only confirmed HIV-infected infants are included.

In the past, data from Ontario included all infants born to HIV-infected mothers, regardless of the infant's serostatus, which may differ from that of the mother. This observation was included as a footnote in previous reports. For Canada as a whole, this issue was controlled by eliminating reports of infants under 2 years of age at diagnosis. However, this also eliminates infants who are truly HIV infected. In July 2006, Ontario reviewed this situation in an attempt to include only those infants truly infected by mother-to-child transmission. In this regard, the timing of antibody testing (i.e. >18 months vs. earlier) and other serologic results, including PCR and p24 antigen, were taken into consideration.

During this review, a large number of previously unrecognized duplicates were also found. To eliminate these duplicates, multiple cases of infants with the same sex and birth date, born in the same public health unit, were considered to be a single case. As a result, only unique cases of infants born to HIV-infected mothers who were truly infected were included in the analysis to December 2005 and in all subsequent analyses. Elimination of both passively infected infants and duplicates was applied retrospectively to all cases reported since 1985. As a consequence of these changes and perhaps other factors, minor discrepancies have been identified in Ontario data relative to previous reports, primarily among cases under 15 years of age diagnosed between 1985 and 2000.

REPORTED RACE/ETHNICITY DATA

There are several limitations associated with reported race/ethnicity, thus caution is recommended in interpreting these data.

Reporting of race/ethnicity is not complete for either HIV or AIDS

When examining HIV data, it is important to consider that information on race/ethnicity is not available for all P/T. Provinces and territories that report racial and/or ethnic status with positive HIV test reports include British Columbia, Yukon Territory, Alberta, Northwest Territories, Nunavut, Saskatchewan, Manitoba, Ontario (since 2009), New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador.

As a result of the variation in reporting, the race/ethnicity reflected in positive HIV test reports should not be viewed as representative of all of Canada, particularly as information on this category is not included in positive HIV test reports from jurisdictions with larger racial/ethnic populations than other parts of Canada. This may result in differential representation of specific communities.

Limited choice for identification of race/ethnicity

When HIV infection is confirmed or AIDS is diagnosed, health care providers are asked to consult with the individual for assistance in determining race/ethnicity. Misclassification may result if patients are not carefully consulted. In addition, there is only a defined list of racial/ethnic groups for reporting. As a result, the choice may be artificially constrained and thus affect the accuracy of race/ethnicity reporting. In addition, underrepresentation of specific groups may result from patients not wishing to identify their racial/ethnic background.

REPORTED MORTALITY DUE TO HIV/AIDS

Discrepancies in reported deaths among PHAC's reported AIDS cases and deaths attributed to HIV infection from Statistics Canada are due to a number of factors:

1. underreporting of AIDS cases and of deaths among AIDS cases to PHAC;
2. delays in reporting of AIDS cases and deaths among AIDS cases to PHAC;
3. differences in the definition of deaths used for inclusion in the two databases; and
4. potential inaccuracies in coding the cause of death in vital statistics. In addition, it is important to take into consideration that the year of death is unknown for several reported AIDS cases and will therefore not be included in tables providing year of death for the data reported to PHAC.

APPENDIX 3. TERMINOLOGY

A Guide to HIV/AIDS Epidemiological and Surveillance Terms contains over 65 terms and over 20 frequently asked questions and is accessible at:

<http://library.catie.ca/PDF/P6/19782.pdf>

GENERAL TERMS

AIDS—Acquired immunodeficiency syndrome.

HIV—Human immunodeficiency virus.

Incidence—The number of new occurrences of a given disease during a specified period of time.

Non-Nominal Reporting—A reporting system in which no identifying information or names are provided to public health officials when HIV/AIDS data are reported.

Prevalence—The number of people with the disease who are alive during a specified period of time.

HIV-RELATED TERMS

Deaths Due to HIV Infection (ICD-9 codes 042 to 044 and ICD-10 codes B20 to B24)—Records of deaths in Canada are maintained by the provincial and territorial registrars of vital statistics and coded by the provinces/territories or Statistics Canada using the ninth and tenth revisions of the International Classification of Disease (ICD-9 and ICD-10). The number of reported HIV deaths in Canada, coded to ICD-9 042-044, is available from 1987 to 1999. HIV deaths from 2000 onward are coded to ICD-10 B20 to B24. See Section IVb for further discussion and limitations.

HIV Incidence—The number of new HIV infections in the population during a specific period of time.

HIV Incidence Versus Positive HIV Test Reports—This report presents data on reported HIV tests only, not on the actual incidence of HIV in Canada (as not all HIV-infected individuals have been tested and/or diagnosed in a given reporting year). It is important to note as well that neither HIV incidence nor HIV test reporting provide information on when a case of HIV infection occurred, only on when it is diagnosed.

HIV Prevalence¹⁶—The number of people living with HIV during a specific period of time.

Positive HIV Test Reports—The laboratory documentation of a person's confirmed HIV infection.

AIDS-RELATED TERMS

Canadian Surveillance Definition of AIDS¹⁷—This definition is used as the standard inclusion/exclusion criterion to decide whether a case report qualifies to be entered into the AIDS surveillance database. It requires a positive HIV test result and the onset of one or more defined clinical diseases that characterize a weakened immune system. Details can be found in the CCDR.

Cumulative AIDS Cases—The total number of AIDS cases that have occurred in Canada since the beginning of the epidemic. The true number of cumulative AIDS cases is not the same as the total number in this report as a result of reporting delay and underreporting.

¹⁶ Estimates for national HIV prevalence to 2011 are available on our website: www.phac-aspc.gc.ca/aids-sida/publication/index-eng.php#er

¹⁷ Public Health Agency of Canada. Revision of the surveillance case definition for AIDS in Canada. *CCDR* 1993;19(23):196–7.

Cumulative Reported AIDS Cases—The total number of AIDS cases that have occurred in Canada since the beginning of the epidemic and that are documented in the AIDS surveillance database from 1979 to the end of the current reporting period. The cumulative number of reported AIDS cases is only a proportion of the cumulative AIDS cases.

Date of AIDS Diagnosis—The date of the earliest onset of at least one of the clinical diseases listed in the Canadian surveillance definition of AIDS according to the physician's report of an HIV-infected patient. If multiple diseases have been diagnosed at different times, the earliest date will be used as the date of AIDS diagnosis in this report.

Date of AIDS Reporting—The date when a diagnosed AIDS case is entered into the AIDS surveillance database.

Reported AIDS Cases by Year of Diagnosis—The breakdown of the cumulative number of reported AIDS cases according to year of diagnosis. The number of AIDS cases diagnosed but not yet reported is higher for more recent years because of reporting delays.

Reported AIDS Cases by Year of Report—The breakdown of the cumulative reported AIDS cases according to year of report. In the absence of reporting delays, this figure would be the same as the reported cases by year of diagnosis. The greater the discrepancy between the two, the greater the problem with reporting delays.

Reported Death among Reported AIDS Cases—An update to the record of an AIDS case previously reported to PHAC that results in a change in vital status. See Section IV for discussion and limitations.

Reporting Delay of AIDS Cases—Refers to the difference in time between AIDS diagnosis and AIDS reporting. Half of the cumulative reported AIDS cases have measured reporting delays of <9 months, but in one case the delay was extended to 13 years.

Reporting Delay-Adjusted AIDS Cases—By applying statistical analysis to reporting delays from previous years, an estimate can be made of the number of AIDS cases diagnosed in each year that will eventually be reported. This gives an idea of the number of unreported cases and is important for trend interpretation, which may indicate changes in diagnosis patterns from diagnosis of HIV infection to AIDS. AIDS cases diagnosed but never reported cannot be recovered by this method.

Unreported AIDS Cases—This is the number of AIDS cases diagnosed but not reported. Some of them are delayed and will eventually be reported, and some may never be reported.

APPENDIX 4. LIST OF HIV-ENDEMIC COUNTRIES¹⁸

CARIBBEAN AND CENTRAL/SOUTH AMERICA

- Anguilla
- Antigua and Barbuda
- Bahamas
- Barbados
- Bermuda
- British Virgin Islands
- Cayman Islands
- Dominica
- Dominican Republic
- French Guiana
- Grenada
- Guadeloupe
- Guyana
- Haiti
- Honduras
- Jamaica
- Martinique
- Montserrat
- Netherlands Antilles
- St. Lucia
- St. Kitts and Nevis
- St. Vincent and the Grenadines
- Suriname
- Trinidad and Tobago
- Turks and Caicos Islands
- U.S. Virgin Islands

ASIA

- Cambodia
- Myanmar (Burma)
- Thailand

AFRICA

- Angola
- Benin
- Botswana
- Burkina Faso
- Burundi
- Cameroon
- Cape Verde
- Central African Republic
- Chad
- Democratic Republic of the Congo (formerly Zaïre)
- Djibouti
- Equatorial Guinea
- Eritrea
- Ethiopia
- Gabon
- Gambia
- Ghana
- Guinea
- Guinea-Bissau
- Ivory Coast
- Kenya
- Lesotho

- Liberia
- Malawi
- Mali
- Mozambique
- Namibia
- Niger
- Nigeria
- Republic of the Congo
- Rwanda
- Senegal
- Sierra Leone
- Somalia
- South Africa
- Sudan
- Swaziland
- Tanzania
- Togo
- Uganda
- Zambia
- Zimbabwe

¹⁸ This list was last updated in March 2007

APPENDIX 5. DATA SOURCES

- B.C. Centre for Disease Control
655 West 12th Avenue
Vancouver, BC
V5Z 4R4
www.bccdc.ca/default.htm
- Alberta Health and Wellness
PO Box 1360, Station Main
Edmonton, AB
T5J 2N3
www.health.alberta.ca
- Northwest Territories Health and Social Services
P.O. Box 1320
8th Floor, Centre Square Tower
5022–49th Street
Yellowknife, NWT
X1A 2L9
www.hlthss.gov.nt.ca
- Saskatchewan Health
3475 Albert Street
Regina, SK
S4S 6X6
www.health.gov.sk.ca
- Communicable Disease Control (CDC) Unit
Public Health Branch
Manitoba Health
4th Floor–300 Carlton Street
Winnipeg, MB
R3B 3M9
<https://www.gov.mb.ca/health/publichealth/cdc/index.html>
- Department of Health and Social Services
Box 2703
Whitehorse, YK
Y1A 2C6
www.hss.gov.yk.ca
- Health and Social Services
Government of Nunavut
P.O. Box 1000, Station 1000
Iqaluit, NU
X0A 0H0
www.hss.gov.nu.ca
- Ministry of Health and Long-Term Care
Public Health Division
21st Floor, 393 University Avenue
Toronto ON
M7A 2S1
www.health.gov.on.ca/en
- HIV Laboratory
Central Public Health Laboratory
Ontario Ministry of Health and Long-Term Care
81 Resources Road
Toronto, ON
M9P 3T1
www.health.gov.on.ca/en
- Institut national de santé publique du Québec
945, avenue Wolfe, 5^e étage
Québec, QC
G1V 5B3
www.inspq.qc.ca
- Laboratoire de santé publique du Québec
20045, chemin Ste-Marie
Sainte-Anne-de-Bellevue, QC
H9X 3R5
<https://www.inspq.qc.ca/lspq>
(available only in French)
- New Brunswick Department of Health and Wellness
520 King Street, HSBC Place
P.O. Box 5100
Fredericton, NB
E3B 6G3
www.gnb.ca/0051/index-e.asp
- Nova Scotia Health Promotion and Protection
Summit Place, 5th Floor
1601 Lower Water Street
PO Box 487
Halifax, NS
B3J 2R7
www.gov.ns.ca/DHW

- Department of Health and Social Services
P.O. Box 2000
16 Garfield Street
Charlottetown, PE
C1A 7N8
www.gov.pe.ca/health
- Disease Control and Epidemiology
Newfoundland and Labrador Department of Health
and Community Services
West Block, Confederation Building
P.O. Box 8700
St. John's, NL
A1B 4J6
www.gov.nl.ca/health

