

# annual supplement report

## HIV and AIDS

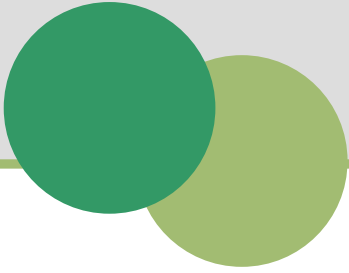
2009



BC Centre for Disease Control  
AN AGENCY OF THE PROVISIONAL HEALTH SERVICES AUTHORITY

STI  HIV

Prevention and Control



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We would like to acknowledge the contributions of our many partners who without their support this report would not have been possible.

- Staff from the Provincial Public Health Microbiology and Reference Laboratory, located at the BCCDC, for collecting and compiling of HIV requisition data.
- Designated public health nurses in the health service delivery areas for data collection as part of follow-up to persons testing positive for HIV.
- Physicians, healthcare providers, and public health staff in BC for taking the time and effort to complete and submit case report forms.
- BC Centre for Excellence in HIV/AIDS for their continued assistance in the reporting of new AIDS cases.

# 1. Introduction

This 2009 HIV and AIDS Supplement Report is intended to provide more detailed information than contained in the 2009 Annual Surveillance Report on HIV and Sexually Transmitted Infection.

For this report, please note the following revisions:

- Commentary regarding the interpretation of observed trends is not included in this report. This information is contained in the 2009 Annual Surveillance Report and can be referred to if required.
- The data tables have been revised. In this report, a separate data table is created for “CASES”, “RATES”, and “TESTS” (for HIV) whereas in previous reports, a single data table was created to contain the number of cases, the corresponding rate, and the number of tests (for HIV) for a given variable (e.g. age group).
- The annual numbers of HIV tests presented in this report are slightly less than in previous reports. The following refinements have been made to the algorithm used for counting tests: instead of counting each test we now count test “episodes” (i.e., a person who has multiple HIV tests done in a 30-day period will now be counted as one test episode); proficiency lab tests are now removed from the count; and HIV tests that are submitted by agencies outside of BC are now excluded from the count.

We hope that these changes will enhance the usefulness of this report. We will continue to look for ways to streamline and improve this supplement report.

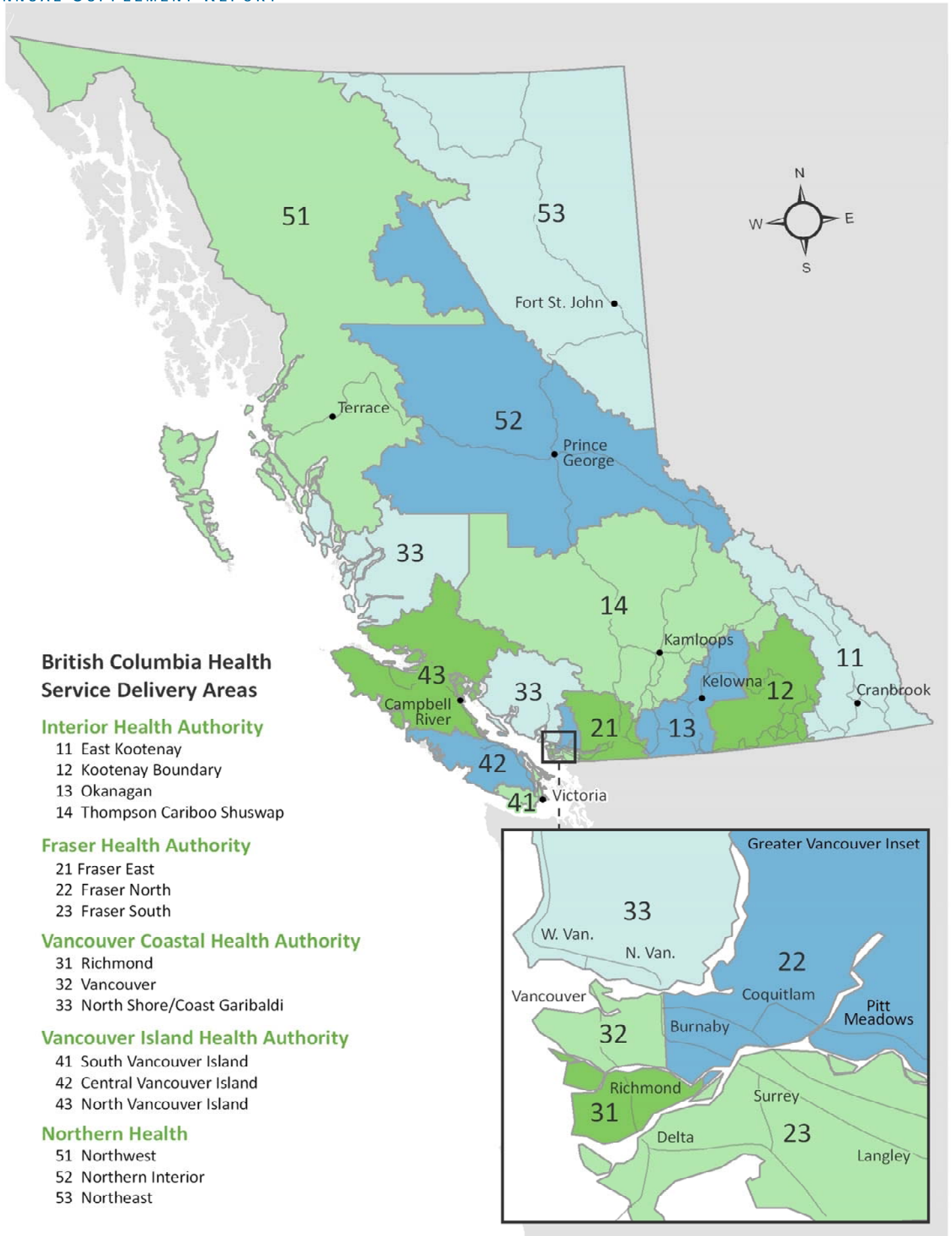
Please do not hesitate to contact us with any questions or comments on this report – feedback is always welcome.

Sincerely,



**Dr. Mark Gilbert**

Physician Epidemiologist, STI/HIV Prevention and Control



## 2. HIV

### Notes Regarding the Interpretation of HIV Data

The number of new positive HIV tests is not a true reflection of the number of new HIV infections per year (i.e., HIV incidence), as an individual may have a new positive HIV test one or more years after they became infected with HIV.

HIV became a reportable disease in BC in 2003, which was accompanied by enhanced follow-up of new positive HIV tests by HIV designated nurses. This change has led to more complete follow-up of individuals having new positive HIV tests, and has had a demonstrable impact on the quality of HIV surveillance data through:

- The improved identification of individuals having a first positive HIV test in BC who have a previous positive HIV test outside of BC. These previously positive individuals are excluded from surveillance reporting. The increased exclusion of individuals with a previous positive HIV tests has contributed to the observed decline in new positive HIV tests observed in BC since 2004.
- The improved identification of exposure category and ethnicity, resulting in a decrease in the proportion of new positive HIV tests each year where exposure or ethnicity is unknown.

These data quality issues need to be considered when comparing trends before and after 2003.

## 2.1 Persons testing newly positive for HIV in BC, 1985 to 2009

Year of Testing	Cases	Rate	Tests
1985	220	7.4	1,362
1986	670	22.3	5,328
1987	929	30.5	35,783
1988	746	24.0	28,866
1989	726	22.7	30,046
1990	645	19.6	37,678
1991	704	20.9	54,117
1992	788	22.7	83,545
1993	706	19.8	91,990
1994	840	22.9	103,382
1995	681	18.0	128,684
1996	702	18.1	135,609
1997	519	13.1	137,211
1998	471	11.8	134,271
1999	416	10.4	132,042
2000	400	9.9	132,120
2001	420	10.3	131,803
2002	418	10.2	141,765
2003	408	9.9	138,835
2004	441	10.6	149,945
2005	400	9.5	157,041
2006	361	8.5	167,653
2007	391	9.1	172,234
2008	346	7.9	178,946
2009	338	7.6	176,317
<b>TOTAL</b>	<b>13,686</b>		<b>2,686,573</b>

1985 annual total is only for the months of October, November and December.

RATE per 100,000 population.

TESTS is the number of HIV tests, both positive and negative, performed by the Provincial Public Health Microbiology and Reference Laboratory located at the BC Centre for Disease Control.



## 2.2 Persons testing newly positive for HIV in BC by age group and sex—CASES, 2003 to 2009

Age Group	Gender	2003	2004	2005	2006	2007	2008	2009	TOTAL 1985-2009
< 1 yr	Female	0	0	0	0	0	1	0	2
	Male	0	0	0	1	0	0	0	5
	Other	0	0	0	0	0	0	0	0
	Total	0	0	0	1	0	1	0	7
1 - 9 yrs	Female	0	2	1	1	0	0	1	13
	Male	0	0	0	0	0	0	0	13
	Other	0	0	0	0	0	0	0	0
	Total	0	2	1	1	0	0	1	26
10 - 14 yrs	Female	0	2	0	0	0	2	0	4
	Male	1	0	0	1	0	0	0	4
	Other	0	0	0	0	0	0	0	0
	Total	1	2	0	1	0	2	0	8
15 - 19 yrs	Female	2	3	3	2	1	0	3	47
	Male	2	2	2	3	1	1	4	39
	Other	0	0	0	0	0	0	0	0
	Total	4	5	5	5	2	1	7	86
20 - 24 yrs	Female	11	12	7	15	15	6	4	191
	Male	12	17	18	18	21	18	18	286
	Other	0	0	0	0	0	0	0	1
	Total	23	29	25	33	36	24	22	478
25 - 29 yrs	Female	15	17	11	10	22	8	8	263
	Male	32	32	23	36	34	42	36	666
	Other	0	0	0	0	1	0	0	5
	Total	47	49	34	46	57	50	44	934
30 - 39 yrs	Female	33	38	19	23	21	13	26	514
	Male	105	99	110	87	103	83	64	1,956
	Other	0	0	1	0	0	0	0	16
	Total	138	137	130	110	124	96	90	2,486
40 - 59 yrs	Female	24	28	34	15	25	25	27	353
	Male	153	166	154	122	130	125	131	2,044
	Other	0	0	0	0	2	0	0	8
	Total	177	194	188	137	157	150	158	2,405
60+ yrs	Female	2	3	2	6	1	4	2	28
	Male	15	20	15	21	14	18	14	231
	Other	0	0	0	0	0	0	0	0
	Total	17	23	17	27	15	22	16	259
unknown	Female	0	0	0	0	0	0	0	568
	Male	0	0	0	0	0	0	0	6,113
	Other	1	0	0	0	0	0	0	316
	Total	1	0	0	0	0	0	0	6,997
<b>TOTAL</b>	<b>Female</b>	<b>87</b>	<b>105</b>	<b>77</b>	<b>72</b>	<b>85</b>	<b>59</b>	<b>71</b>	<b>1,983</b>
	<b>Male</b>	<b>320</b>	<b>336</b>	<b>322</b>	<b>289</b>	<b>303</b>	<b>287</b>	<b>267</b>	<b>11,357</b>
	<b>Other</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>346</b>
	<b>BC</b>	<b>408</b>	<b>441</b>	<b>400</b>	<b>361</b>	<b>391</b>	<b>346</b>	<b>338</b>	<b>13,686</b>

Other = Gender Unknown + Transgender

1985 annual total is only for the months of October, November and December.

## 2.3 Persons testing newly positive for HIV in BC by age group and sex—RATES, 2003 to 2009

Age Group	Gender	2003	2004	2005	2006	2007	2008	2009
< 1 yr	Female	0.0	0.0	0.0	0.0	0.0	4.6	0.0
	Male	0.0	0.0	0.0	4.7	0.0	0.0	0.0
	Other	---	---	---	---	---	---	---
	Total	0.0	0.0	0.0	2.4	0.0	2.3	0.0
1 - 9 yrs	Female	0.0	1.0	0.5	0.5	0.0	0.0	0.5
	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Other	---	---	---	---	---	---	---
	Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 - 14 yrs	Female	0.0	1.6	0.0	0.0	0.0	1.6	0.0
	Male	0.7	0.0	0.0	0.8	0.0	0.0	0.0
	Other	---	---	---	---	---	---	---
	Total	0.4	0.8	0.0	0.4	0.0	0.8	0.0
15 - 19 yrs	Female	1.5	2.3	2.2	1.5	0.7	0.0	2.2
	Male	1.4	1.4	1.4	2.0	0.7	0.7	2.7
	Other	---	---	---	---	---	---	---
	Total	1.4	1.8	1.8	1.8	0.7	0.3	2.5
20 - 24 yrs	Female	8.0	8.5	4.9	10.5	10.4	4.1	2.7
	Male	8.4	11.7	12.2	12.1	13.9	11.5	11.2
	Other	---	---	---	---	---	---	---
	Total	8.2	10.1	8.6	11.3	12.2	7.9	7.1
25 - 29 yrs	Female	11.5	12.9	8.2	7.2	15.4	5.4	5.2
	Male	24.4	24.3	17.2	26.4	24.0	28.4	23.3
	Other	---	---	---	---	---	---	---
	Total	18.0	18.6	12.7	16.7	20.0	16.9	14.2
30 - 39 yrs	Female	10.8	12.7	6.5	7.9	7.2	4.4	8.7
	Male	34.6	33.5	37.8	30.2	35.7	28.5	21.9
	Other	---	---	---	---	---	---	---
	Total	22.6	23.0	22.2	19.0	21.3	16.4	15.3
40 - 59 yrs	Female	3.8	4.4	5.2	2.3	3.7	3.7	4.0
	Male	24.9	26.5	24.1	18.8	19.9	18.9	19.6
	Other	---	---	---	---	---	---	---
	Total	14.3	15.3	14.6	10.5	11.9	11.2	11.7
60+ yrs	Female	0.5	0.7	0.5	1.4	0.2	0.8	0.4
	Male	4.3	5.6	4.1	5.5	3.5	4.3	3.3
	Other	---	---	---	---	---	---	---
	Total	2.3	3.0	2.1	3.3	1.8	2.5	1.7
unknown	Female	---	---	---	---	---	---	---
	Male	---	---	---	---	---	---	---
	Other	---	---	---	---	---	---	---
	Total	---	---	---	---	---	---	---
<b>RATE</b>	<b>Female</b>	<b>4.2</b>	<b>5.0</b>	<b>3.6</b>	<b>3.4</b>	<b>3.9</b>	<b>2.7</b>	<b>3.2</b>
	<b>Male</b>	<b>15.7</b>	<b>16.3</b>	<b>15.5</b>	<b>13.7</b>	<b>14.2</b>	<b>13.2</b>	<b>12.1</b>
	<b>Other</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>
	<b>BC</b>	<b>9.9</b>	<b>10.6</b>	<b>9.5</b>	<b>8.5</b>	<b>9.1</b>	<b>7.9</b>	<b>7.6</b>

Other = Gender Unknown + Transgender

RATE is 100,000 per population.

## 2.4 Persons testing newly positive for HIV in BC by age group and sex—TESTS, 2003 to 2009

Age Group	Gender	2003	2004	2005	2006	2007	2008	2009	TOTAL 1995-2009
< 1 yr	Female	119	149	141	166	144	99	105	2,100
	Male	114	117	128	149	148	159	133	2,049
	Other	5	6	11	50	13	5	3	178
	Total	238	272	280	365	305	263	241	4,327
1 - 9 yrs	Female	187	262	214	254	238	235	224	3,733
	Male	258	254	241	245	281	263	262	4,431
	Other	25	32	27	45	14	7	3	350
	Total	470	548	482	544	533	505	489	8,514
10 - 14 yrs	Female	442	400	359	388	372	400	342	7,114
	Male	179	155	164	214	186	178	175	3,218
	Other	20	31	23	15	16	10	9	320
	Total	641	586	546	617	574	588	526	10,652
15 - 19 yrs	Female	6,601	6,660	6,532	6,930	6,672	6,825	6,299	107,159
	Male	2,618	2,710	2,885	3,124	2,973	3,048	2,932	41,453
	Other	280	301	337	235	289	250	195	3,761
	Total	9,499	9,671	9,754	10,289	9,934	10,123	9,426	152,373
20 - 24 yrs	Female	14,889	15,801	16,938	17,978	17,897	18,075	17,282	236,727
	Male	8,001	8,300	9,191	9,691	9,628	9,996	9,724	124,158
	Other	494	559	648	452	555	359	333	7,685
	Total	23,384	24,660	26,777	28,121	28,080	28,430	27,339	368,570
25 - 29 yrs	Female	17,808	19,189	20,305	22,327	23,211	24,652	24,844	292,362
	Male	7,613	8,219	9,142	9,827	10,219	10,836	11,111	130,920
	Other	491	518	572	436	456	297	254	7,584
	Total	25,912	27,926	30,019	32,590	33,886	35,785	36,209	430,866
30 - 39 yrs	Female	28,988	30,940	32,127	34,640	36,124	37,978	38,197	450,207
	Male	13,938	14,622	15,426	15,765	16,166	17,049	16,823	227,070
	Other	766	809	757	548	578	330	273	11,203
	Total	43,692	46,371	48,310	50,953	52,868	55,357	55,293	688,480
40 - 59 yrs	Female	12,604	13,692	14,512	16,072	16,682	17,239	16,971	198,024
	Male	15,472	17,335	17,975	19,173	19,708	20,663	20,009	237,800
	Other	842	975	940	694	649	272	224	9,281
	Total	28,918	32,002	33,427	35,939	37,039	38,174	37,204	445,105
60+ yrs	Female	1,751	2,025	2,228	2,865	3,144	3,371	3,004	30,799
	Male	2,776	3,404	3,568	4,314	4,767	5,326	4,958	48,245
	Other	306	370	357	185	180	79	59	2,922
	Total	4,833	5,799	6,153	7,364	8,091	8,776	8,021	81,966
unknown	Female	602	1,317	239	124	136	75	65	8,450
	Male	148	117	133	95	90	55	44	4,419
	Other	498	676	921	652	698	815	1,460	10,754
	Total	1,248	2,110	1,293	871	924	945	1,569	23,623
<b>TOTAL</b>	<b>Female</b>	<b>83,991</b>	<b>90,435</b>	<b>93,595</b>	<b>101,744</b>	<b>104,620</b>	<b>108,949</b>	<b>107,333</b>	<b>1,336,675</b>
	<b>Male</b>	<b>51,117</b>	<b>55,233</b>	<b>58,853</b>	<b>62,597</b>	<b>64,166</b>	<b>67,573</b>	<b>66,171</b>	<b>823,763</b>
	<b>Other</b>	<b>3,727</b>	<b>4,277</b>	<b>4,593</b>	<b>3,312</b>	<b>3,448</b>	<b>2,424</b>	<b>2,813</b>	<b>54,038</b>
	<b>BC</b>	<b>138,835</b>	<b>149,945</b>	<b>157,041</b>	<b>167,653</b>	<b>172,234</b>	<b>178,946</b>	<b>176,317</b>	<b>2,214,476</b>

Other = Gender Unknown + Transgender

TESTS is the number of HIV tests, both positive and negative, performed by the Provincial Public Health Microbiology and Reference Laboratory located at the BC Centre for Disease Control.

## 2.5 Persons testing newly positive for HIV in BC by ethnicity and sex—CASES, 2003 to 2009

Ethnicity	Gender	2003	2004	2005	2006	2007	2008	2009	TOTAL 1995-2009
Caucasian	Female	42	53	40	22	36	25	31	659
	Male	214	243	224	205	206	166	150	3,412
	Other	0	0	0	0	1	0	0	13
	Total	256	296	264	227	243	191	181	4,084
First Nations	Female	25	30	25	26	29	18	16	432
	Male	32	30	28	27	28	24	35	543
	Other	0	0	1	0	0	0	0	6
	Total	57	60	54	53	57	42	51	981
Inuit	Female	0	0	0	0	0	0	0	1
	Male	1	0	0	0	0	0	0	4
	Other	0	0	0	0	0	0	0	0
	Total	1	0	0	0	0	0	0	5
Metis	Female	3	4	2	1	4	1	1	24
	Male	5	6	4	1	2	1	4	42
	Other	0	0	0	0	0	0	0	0
	Total	8	10	6	2	6	2	5	66
Asian	Female	2	2	1	2	2	2	2	24
	Male	12	12	18	15	15	29	24	234
	Other	0	0	0	0	0	0	0	0
	Total	14	14	19	17	17	31	26	258
South Asian	Female	2	3	2	7	4	1	1	36
	Male	14	8	12	3	8	7	6	144
	Other	0	0	0	0	0	0	0	1
	Total	16	11	14	10	12	8	7	181

*continued on next page*

Other = Gender Unknown + Transgender

2.5 Persons testing newly positive for HIV in BC by ethnicity and sex—CASES, 2003 to 2009 (cont'd)

Ethnicity	Gender	2003	2004	2005	2006	2007	2008	2009	TOTAL 1995-2009
Black	Female	9	10	5	6	4	8	11	109
	Male	15	9	12	9	6	9	12	156
	Other	0	0	0	0	0	0	0	1
	Total	24	19	17	15	10	17	23	266
Hispanic	Female	2	0	0	1	1	0	0	14
	Male	11	11	16	14	17	24	22	217
	Other	0	0	0	0	1	0	0	2
	Total	13	11	16	15	19	24	22	233
Arab/West Asian	Female	0	0	1	1	0	0	0	4
	Male	0	2	0	1	2	3	0	17
	Other	0	0	0	0	0	0	0	0
	Total	0	2	1	2	2	3	0	21
Other/Mixed Race	Female	0	1	1	1	2	1	1	8
	Male	1	3	0	1	2	5	6	21
	Other	0	0	0	0	0	0	0	1
	Total	1	4	1	2	4	6	7	30
unknown	Female	2	2	0	5	3	3	8	107
	Male	15	12	8	13	17	19	8	467
	Other	1	0	0	0	1	0	0	13
	Total	18	14	8	18	21	22	16	587
<b>TOTAL</b>	<b>Female</b>	<b>87</b>	<b>105</b>	<b>77</b>	<b>72</b>	<b>85</b>	<b>59</b>	<b>71</b>	<b>1,418</b>
	<b>Male</b>	<b>320</b>	<b>336</b>	<b>322</b>	<b>289</b>	<b>303</b>	<b>287</b>	<b>267</b>	<b>5,257</b>
	<b>Other</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>37</b>
	<b>BC</b>	<b>408</b>	<b>441</b>	<b>400</b>	<b>361</b>	<b>391</b>	<b>346</b>	<b>338</b>	<b>6,712</b>

Other = Gender Unknown + Transgender

2.6 Persons testing newly positive for HIV in BC by exposure category and sex—CASES, 2003 to 2009

Exposure Category	Gender	2003	2004	2005	2006	2007	2008	2009	TOTAL 1985-2009
MSM	Female	0	0	0	0	0	0	0	0
	Male	158	187	181	160	173	182	154	6,325
	Other	0	0	0	0	0	0	0	93
	<b>Total</b>	<b>158</b>	<b>187</b>	<b>181</b>	<b>160</b>	<b>173</b>	<b>182</b>	<b>154</b>	<b>6,418</b>
IDU	Female	46	54	47	41	49	22	21	983
	Male	88	84	77	72	67	39	43	2,024
	Other	1	0	1	0	2	0	0	35
	<b>Total</b>	<b>135</b>	<b>138</b>	<b>125</b>	<b>113</b>	<b>118</b>	<b>61</b>	<b>64</b>	<b>3,042</b>
HET	Female	39	46	26	28	35	29	40	613
	Male	67	57	56	47	54	53	50	1,036
	Other	0	0	0	0	1	0	0	18
	<b>Total</b>	<b>106</b>	<b>103</b>	<b>82</b>	<b>75</b>	<b>90</b>	<b>82</b>	<b>90</b>	<b>1,667</b>
Other	Female	1	4	3	3	0	5	7	108
	Male	4	5	5	8	7	2	6	230
	Other	0	0	0	0	0	0	0	9
	<b>Total</b>	<b>5</b>	<b>9</b>	<b>8</b>	<b>11</b>	<b>7</b>	<b>7</b>	<b>13</b>	<b>347</b>
NIR/UNK	Female	1	1	1	0	1	3	3	279
	Male	3	3	3	2	2	11	14	1,742
	Other	0	0	0	0	0	0	0	191
	<b>Total</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>14</b>	<b>17</b>	<b>2,212</b>
<b>TOTAL</b>	<b>Female</b>	<b>87</b>	<b>105</b>	<b>77</b>	<b>72</b>	<b>85</b>	<b>59</b>	<b>71</b>	<b>1,983</b>
	<b>Male</b>	<b>320</b>	<b>336</b>	<b>322</b>	<b>289</b>	<b>303</b>	<b>287</b>	<b>267</b>	<b>11,357</b>
	<b>Other</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>346</b>
	<b>BC</b>	<b>408</b>	<b>441</b>	<b>400</b>	<b>361</b>	<b>391</b>	<b>346</b>	<b>338</b>	<b>13,686</b>

Other = Gender Unknown + Transgender

MSM = Men having Sex with Men

IDU = Injection Drug Use

HET = Heterosexual Contact

NIR/UNK = No Identified Risk / Unknown Risk

## 2.7 Persons testing newly positive for HIV in BC by health service delivery area—CASES, 2003 to 2009

Health Authority	Health Service Delivery Area	2003	2004	2005	2006	2007	2008	2009	TOTAL 1995-2009
Fraser	Fraser East	6	18	14	9	15	7	11	205
	Fraser North	53	55	41	33	34	41	40	693
	Fraser South	36	36	33	31	32	21	37	565
	Total	95	109	88	73	81	69	88	1,463
Interior	East Kootenay	1	1	1	2	0	0	1	20
	Kootenay Boundary	2	0	5	4	3	7	1	45
	Okanagan	13	12	10	4	8	11	8	163
	Thompson Cariboo Shuswap	12	6	4	7	6	8	8	128
	Total	28	19	20	17	17	26	18	356
Northern	Northwest	3	8	6	10	4	13	9	68
	Northern Interior	17	14	21	19	23	10	16	170
	Northeast	1	4	1	0	1	1	2	17
	Total	21	26	28	29	28	24	27	255
Vancouver Coastal	Richmond	6	8	7	1	4	4	6	86
	Vancouver	198	192	195	178	192	175	151	3,540
	North Shore/Coast Garibaldi	12	12	11	8	13	8	7	211
	Total	216	212	213	187	209	187	164	3,837
Vancouver Island	South Vancouver Island	36	46	32	38	36	22	30	510
	Central Vancouver Island	8	19	11	9	10	13	8	183
	North Vancouver Island	4	6	2	4	7	4	1	63
	Total	48	71	45	51	53	39	39	756
non-BC		0	4	6	4	3	0	2	20
unknown		0	0	0	0	0	1	0	25
<b>BC TO-TAL</b>		<b>408</b>	<b>441</b>	<b>400</b>	<b>361</b>	<b>391</b>	<b>346</b>	<b>338</b>	<b>6,712</b>

2.8 Persons testing newly positive for HIV in BC by health service delivery area—RATES, 2003 to 2009

Health Authority	Health Service Delivery Area	2003	2004	2005	2006	2007	2008	2009
Fraser	Fraser East	2.4	6.9	5.3	3.4	5.5	2.5	3.9
	Fraser North	9.6	9.9	7.3	5.8	5.9	7.0	6.7
	Fraser South	5.8	5.7	5.1	4.7	4.8	3.1	5.3
	Total	6.6	7.5	6.0	4.9	5.4	4.5	5.6
Interior	East Kootenay	1.3	1.3	1.3	2.7	0.0	0.0	1.3
	Kootenay Boundary	2.6	0.0	6.6	5.3	3.9	8.9	1.3
	Okanagan	4.2	3.8	3.1	1.2	2.4	3.2	2.3
	Thompson Cariboo Shuswap	5.7	2.8	1.9	3.3	2.8	3.6	3.6
	Total	4.2	2.8	2.9	2.5	2.4	3.6	2.5
Northern	Northwest	3.8	10.2	7.8	13.2	5.4	17.4	12.0
	Northern Interior	11.8	9.7	14.8	13.5	16.3	7.0	11.2
	Northeast	1.6	6.2	1.5	0.0	1.5	1.5	3.0
	Total	7.4	9.0	9.9	10.3	10.0	8.5	9.5
Vancouver Coastal	Richmond	3.4	4.5	3.9	0.5	2.1	2.1	3.1
	Vancouver	33.4	32.1	32.3	29.1	30.8	27.8	23.6
	North Shore/Coast Garibaldi	4.5	4.5	4.1	3.0	4.8	2.9	2.5
	Total	20.8	20.3	20.2	17.6	19.3	17.1	14.8
Vancouver Island	South Vancouver Island	10.4	13.2	9.1	10.7	10.0	6.0	8.2
	Central Vancouver Island	3.3	7.8	4.5	3.6	3.9	5.0	3.0
	North Vancouver Island	3.6	5.3	1.8	3.5	6.0	3.4	0.8
	Total	6.9	10.1	6.3	7.1	7.3	5.3	5.2
non-BC	---	---	---	---	---	---	---	---
unknown	---	---	---	---	---	---	---	---
<b>BC RATE</b>		<b>9.9</b>	<b>10.6</b>	<b>9.5</b>	<b>8.5</b>	<b>9.1</b>	<b>7.9</b>	<b>7.6</b>

RATE per 100,000 population.



2.9 Persons testing newly positive for HIV in BC by health service delivery area — TESTS, 2003 to 2009

Health Authority	Health Service Delivery Area	2003	2004	2005	2006	2007	2008	2009	TOTAL 1995-2009
Fraser	Fraser East	7,061	7,037	7,120	8,634	9,615	9,886	9,844	111,662
	Fraser North	17,265	17,555	17,559	21,370	22,998	23,518	23,887	261,614
	Fraser South	15,273	16,356	17,175	20,054	21,846	22,832	23,281	248,650
	Total	39,599	40,948	41,854	50,058	54,459	56,236	57,012	621,926
Interior	East Kootenay	1,010	1,230	1,140	1,963	2,271	2,339	2,288	20,861
	Kootenay Boundary	1,426	1,735	1,645	2,359	2,577	2,705	2,686	27,476
	Okanagan	6,863	7,153	6,304	9,480	10,858	11,302	11,717	116,459
	Thompson Cariboo Shuswap	5,045	5,023	4,722	6,227	6,752	6,716	6,437	80,051
Total	14,344	15,141	13,811	20,029	22,458	23,062	23,128	244,847	
Northern	Northwest	1,180	1,666	1,641	2,575	2,838	2,966	2,755	27,653
	Northern Interior	3,172	3,377	3,173	5,265	5,741	5,677	5,450	60,646
	Northeast	1,236	1,439	1,368	2,258	2,664	2,726	2,770	25,618
	Total	5,588	6,482	6,182	10,098	11,243	11,369	10,975	113,917
Vancouver Coastal	Richmond	3,580	3,893	3,998	4,703	5,377	5,430	5,331	57,248
	Vancouver	25,858	26,743	27,151	40,111	41,299	44,363	45,801	448,392
	North Shore/Coast Garibaldi	5,992	6,633	6,615	9,111	9,736	10,046	10,125	105,880
	Total	35,430	37,269	37,764	53,925	56,412	59,839	61,257	611,520
Vancouver Island	South Vancouver Island	9,830	10,092	9,870	13,834	14,230	15,309	12,310	165,834
	Central Vancouver Island	6,137	6,265	6,357	7,614	7,966	8,112	6,847	100,381
	North Vancouver Island	2,681	2,718	2,456	3,235	3,569	3,177	2,724	44,012
	Total	18,648	19,075	18,683	24,683	25,765	26,598	21,881	310,227
unknown		25,226	31,030	38,747	8,860	1,897	1,842	2,064	312,039
<b>BC TOTAL</b>		<b>138,835</b>	<b>149,945</b>	<b>157,041</b>	<b>167,653</b>	<b>172,234</b>	<b>178,946</b>	<b>176,317</b>	<b>2,214,476</b>

TESTS is the number of HIV tests, both positive and negative, performed by the Provincial Public Health Microbiology and Reference Laboratory located at the BC Centre for Disease Control.

## 3. AIDS

### Notes Regarding the Collection of AIDS Data

Due to expected delays associated with AIDS case reports, this report only includes cases to 2008. AIDS case reports are allocated according to the year a client is diagnosed with his/her first AIDS defining illness.

Prior to 1997, AIDS case reports were compiled courtesy of the Vancouver Health Department. From 1997 to 2000, STI/HIV Prevention and Control at the BC Centre for Disease Control (BCCDC) compiled AIDS case reports in collaboration with the Division of HIV/AIDS Surveillance, Bureau of HIV/AIDS and STD, Laboratory Centre for Disease Control, Health Protection Branch, Health Canada. Since 2000, AIDS case reports have been compiled by STI/HIV Prevention and Control at BCCDC in collaboration with the BC Centre for Excellence in HIV/AIDS.

Since HIV became a reportable disease in BC in 2003, all new cases of HIV are reported to STI/HIV Prevention and Control at BCCDC and followed up by Regional Health Authority public health staff. If an AIDS diagnosis is made at the time of a client's first positive HIV test, this diagnosis is reported to BCCDC. Healthcare providers, when making a diagnosis of AIDS are to complete an AIDS Case Report form and submit it to HIV Surveillance at BCCDC.

3.1 AIDS case reports in BC, 1983 to 2008

Year of Diagnosis	Cases	Rate	Cumulative Cases
1983	7	0.2	7
1984	29	1.0	36
1985	62	2.1	98
1986	106	3.5	204
1987	134	4.4	338
1988	175	5.6	513
1989	223	7.0	736
1990	227	6.9	963
1991	263	7.8	1,226
1992	325	9.4	1,551
1993	359	10.1	1,910
1994	355	9.7	2,265
1995	339	9.0	2,604
1996	265	6.8	2,869
1997	158	4.0	3,027
1998	172	4.3	3,199
1999	163	4.1	3,362
2000	153	3.8	3,515
2001	92	2.3	3,607
2002	111	2.7	3,718
2003	116	2.8	3,834
2004	103	2.5	3,937
2005	114	2.7	4,051
2006	93	2.2	4,144
2007	84	1.9	4,228
2008	91	2.1	4,319
<b>TOTAL</b>	<b>4,319</b>		

RATE per 100,000 population.

## 3.2 AIDS case reports in BC by age group and sex—CASES, 2002 to 2008

Age Group	Gender	2002	2003	2004	2005	2006	2007	2008	TOTAL 1983-2008
< 1 yr	Female	0	0	0	0	0	0	0	5
	Male	0	0	0	0	0	0	0	3
	Other	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	8
1 - 9 yrs	Female	1	0	0	0	0	0	0	4
	Male	0	0	0	0	0	0	0	8
	Other	0	0	0	0	0	0	0	0
	Total	1	0	0	0	0	0	0	12
10 - 14 yrs	Female	0	0	0	0	0	0	1	2
	Male	0	0	0	0	1	0	0	3
	Other	0	0	0	0	0	0	0	0
	Total	0	0	0	0	1	0	1	5
15 - 19 yrs	Female	0	1	0	0	0	0	0	3
	Male	0	0	0	0	0	0	0	10
	Other	0	0	0	0	0	0	0	0
	Total	0	1	0	0	0	0	0	13
20 - 24 yrs	Female	2	1	1	0	0	1	1	23
	Male	0	1	2	0	1	0	0	70
	Other	0	0	0	0	0	0	0	0
	Total	2	2	3	0	1	1	1	93
25 - 29 yrs	Female	2	1	2	0	2	2	1	51
	Male	5	7	4	5	6	0	1	397
	Other	0	0	0	0	0	0	0	0
	Total	7	8	6	5	8	2	2	448
30 - 39 yrs	Female	3	3	4	7	5	2	7	139
	Male	37	41	27	19	20	23	15	1,688
	Other	0	0	0	0	0	0	0	2
	Total	40	44	31	26	25	25	22	1,829
40 - 59 yrs	Female	6	9	8	14	7	3	9	119
	Male	46	45	52	62	42	45	46	1,633
	Other	0	0	0	0	0	0	0	0
	Total	52	54	60	76	49	48	55	1,752
60+ yrs	Female	0	1	0	1	2	2	1	13
	Male	9	6	3	6	7	6	9	145
	Other	0	0	0	0	0	0	0	0
	Total	9	7	3	7	9	8	10	158
unknown	Female	0	0	0	0	0	0	0	0
	Male	0	0	0	0	0	0	0	1
	Other	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	1
<b>TOTAL</b>	<b>Female</b>	<b>14</b>	<b>16</b>	<b>15</b>	<b>22</b>	<b>16</b>	<b>10</b>	<b>20</b>	<b>359</b>
	<b>Male</b>	<b>97</b>	<b>100</b>	<b>88</b>	<b>92</b>	<b>77</b>	<b>74</b>	<b>71</b>	<b>3,958</b>
	<b>Other</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
	<b>BC</b>	<b>111</b>	<b>116</b>	<b>103</b>	<b>114</b>	<b>93</b>	<b>84</b>	<b>91</b>	<b>4,319</b>

Other = Gender Unknown + Transgender

3.3 AIDS case reports in BC by age group and sex—RATES, 2002 to 2008

Age Group	Gender	2002	2003	2004	2005	2006	2007	2008
< 1 yr	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Other	---	---	---	---	---	---	---
	Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1 - 9 yrs	Female	0.5	0.0	0.0	0.0	0.0	0.0	0.0
	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Other	---	---	---	---	---	---	---
	Total	0.2	0.0	0.0	0.0	0.0	0.0	0.0
10 - 14 yrs	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.8
	Male	0.0	0.0	0.0	0.0	0.8	0.0	0.0
	Other	---	---	---	---	---	---	---
	Total	0.0	0.0	0.0	0.0	0.4	0.0	0.4
15 - 19 yrs	Female	0.0	0.7	0.0	0.0	0.0	0.0	0.0
	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Other	---	---	---	---	---	---	---
	Total	0.0	0.4	0.0	0.0	0.0	0.0	0.0
20 - 24 yrs	Female	1.5	0.7	0.7	0.0	0.0	0.7	0.7
	Male	0.0	0.7	1.4	0.0	0.7	0.0	0.0
	Other	---	---	---	---	---	---	---
	Total	0.7	0.7	1.0	0.0	0.3	0.3	0.3
25 - 29 yrs	Female	1.5	0.8	1.5	0.0	1.4	1.4	0.7
	Male	3.8	5.3	3.0	3.7	4.4	0.0	0.7
	Other	---	---	---	---	---	---	---
	Total	2.6	3.1	2.3	1.9	2.9	0.7	0.7
30 - 39 yrs	Female	1.0	1.0	1.3	2.4	1.7	0.7	2.4
	Male	11.8	13.5	9.1	6.5	7.0	8.0	5.2
	Other	---	---	---	---	---	---	---
	Total	6.4	7.2	5.2	4.4	4.3	4.3	3.8
40 - 59 yrs	Female	1.0	1.4	1.3	2.1	1.1	0.4	1.3
	Male	7.7	7.3	8.3	9.7	6.5	6.9	7.0
	Other	---	---	---	---	---	---	---
	Total	4.3	4.4	4.7	5.9	3.7	3.6	4.1
60+ yrs	Female	0.0	0.2	0.0	0.2	0.5	0.4	0.2
	Male	2.7	1.7	0.8	1.6	1.8	1.5	2.2
	Other	---	---	---	---	---	---	---
	Total	1.2	0.9	0.4	0.9	1.1	0.9	1.1
unknown	Female	---	---	---	---	---	---	---
	Male	---	---	---	---	---	---	---
	Other	---	---	---	---	---	---	---
	Total	---	---	---	---	---	---	---
<b>RATE</b>	<b>Female</b>	<b>0.7</b>	<b>0.8</b>	<b>0.7</b>	<b>1.0</b>	<b>0.7</b>	<b>0.5</b>	<b>0.9</b>
	<b>Male</b>	<b>4.8</b>	<b>4.9</b>	<b>4.3</b>	<b>4.4</b>	<b>3.7</b>	<b>3.5</b>	<b>3.3</b>
	<b>Other</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>
	<b>BC</b>	<b>2.7</b>	<b>2.8</b>	<b>2.5</b>	<b>2.7</b>	<b>2.2</b>	<b>1.9</b>	<b>2.1</b>

RATE per 100,000 population.  
Other = Gender Unknown + Transgender

3.4 AIDS case reports in BC by ethnicity and sex—CASES, 2002 to 2008

Ethnicity	Gender	2002	2003	2004	2005	2006	2007	2008	TOTAL 1983-2008
Caucasian	Female	3	7	6	8	7	4	9	166
	Male	54	54	46	54	45	41	45	2,913
	Other	0	0	0	0	0	0	0	1
	Total	57	61	52	62	52	45	54	3,080
First Nations	Female	2	3	4	5	4	3	4	80
	Male	7	12	9	9	9	11	5	215
	Other	0	0	0	0	0	0	0	1
	Total	9	15	13	14	13	14	9	296
Inuit	Female	0	0	0	0	0	0	0	1
	Male	1	0	0	0	0	0	0	6
	Other	0	0	0	0	0	0	0	0
	Total	1	0	0	0	0	0	0	7
Metis	Female	1	1	0	0	0	0	1	4
	Male	0	1	1	2	0	0	1	11
	Other	0	0	0	0	0	0	0	0
	Total	1	2	1	2	0	0	2	15
Asian	Female	0	0	1	0	0	0	1	6
	Male	3	6	6	4	0	3	3	82
	Other	0	0	0	0	0	0	0	0
	Total	3	6	7	4	0	3	4	88
South Asian	Female	0	0	0	1	0	0	0	4
	Male	2	4	2	1	2	3	2	44
	Other	0	0	0	0	0	0	0	0
	Total	2	4	2	2	2	3	2	48

*continued on next page*

Other = Gender Unknown + Transgender

3.4 AIDS case reports in BC by ethnicity and sex—CASES, 2002 to 2008 (cont'd)

Ethnicity	Gender	2002	2003	2004	2005	2006	2007	2008	TOTAL 1983-2008
Black	Female	3	2	0	2	2	1	2	25
	Male	3	5	5	2	3	1	2	67
	Other	0	0	0	0	0	0	0	0
	Total	6	7	5	4	5	2	4	92
Hispanic	Female	0	1	0	0	0	0	0	5
	Male	7	2	0	4	3	3	2	68
	Other	0	0	0	0	0	0	0	0
	Total	7	3	0	4	3	3	2	73
Arab/West Asian	Female	0	0	0	0	0	0	0	0
	Male	1	0	1	0	1	0	1	14
	Other	0	0	0	0	0	0	0	0
	Total	1	0	1	0	1	0	1	14
Other/Mixed Race	Female	0	0	1	0	0	1	0	3
	Male	0	1	0	0	0	0	0	23
	Other	0	0	0	0	0	0	0	0
	Total	0	1	1	0	0	1	0	26
unknown	Female	5	2	3	6	3	1	3	65
	Male	19	15	18	16	14	12	10	515
	Other	0	0	0	0	0	0	0	0
	Total	24	17	21	22	17	13	13	580
<b>TOTAL</b>	<b>Female</b>	<b>14</b>	<b>16</b>	<b>15</b>	<b>22</b>	<b>16</b>	<b>10</b>	<b>20</b>	<b>359</b>
	<b>Male</b>	<b>97</b>	<b>100</b>	<b>88</b>	<b>92</b>	<b>77</b>	<b>74</b>	<b>71</b>	<b>3,958</b>
	<b>Other</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
	<b>BC</b>	<b>111</b>	<b>116</b>	<b>103</b>	<b>114</b>	<b>93</b>	<b>84</b>	<b>91</b>	<b>4,319</b>

Other = Gender Unknown + Transgender

3.5 AIDS case reports in BC by exposure category and sex—CASES, 2002 to 2008

Exposure Category	Gender	2002	2003	2004	2005	2006	2007	2008	TOTAL 1983-2008
MSM	Female	0	0	0	0	0	0	0	0
	Male	37	32	27	32	24	23	38	2,907
	Other	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>37</b>	<b>32</b>	<b>27</b>	<b>32</b>	<b>24</b>	<b>23</b>	<b>38</b>	<b>2,907</b>
IDU	Female	8	7	8	11	9	7	12	172
	Male	21	24	20	21	18	20	11	431
	Other	0	0	0	0	0	0	0	1
	<b>Total</b>	<b>29</b>	<b>31</b>	<b>28</b>	<b>32</b>	<b>27</b>	<b>27</b>	<b>23</b>	<b>604</b>
HET	Female	3	6	4	7	6	3	5	130
	Male	12	17	20	18	19	19	16	295
	Other	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>15</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>25</b>	<b>22</b>	<b>21</b>	<b>425</b>
Other	Female	2	1	0	2	0	0	1	21
	Male	3	2	2	4	4	3	1	55
	Other	0	0	0	0	0	0	0	1
	<b>Total</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>77</b>
NIR/UNK	Female	1	2	3	2	1	0	2	36
	Male	24	25	19	17	12	9	5	270
	Other	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>25</b>	<b>27</b>	<b>22</b>	<b>19</b>	<b>13</b>	<b>9</b>	<b>7</b>	<b>306</b>
<b>TOTAL</b>	<b>Female</b>	<b>14</b>	<b>16</b>	<b>15</b>	<b>22</b>	<b>16</b>	<b>10</b>	<b>20</b>	<b>359</b>
	<b>Male</b>	<b>97</b>	<b>100</b>	<b>88</b>	<b>92</b>	<b>77</b>	<b>74</b>	<b>71</b>	<b>3,958</b>
	<b>Other</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
	<b>BC</b>	<b>111</b>	<b>116</b>	<b>103</b>	<b>114</b>	<b>93</b>	<b>84</b>	<b>91</b>	<b>4,319</b>

Other = Gender Unknown + Transgender

MSM = Men having Sex with Men

IDU = Injection Drug Use

HET = Heterosexual Contact

NIR/UNK = No Identified Risk / Unknown Risk



3.6 AIDS case reports in BC by health service delivery area—CASES, 2002 to 2008

Health Authority	Health Service Delivery Area	2002	2003	2004	2005	2006	2007	2008	TOTAL 1983-2008
Fraser	Fraser East	5	1	2	5	0	2	1	68
	Fraser North	12	8	10	14	10	7	8	254
	Fraser South	9	6	6	9	6	7	10	196
	Total	26	15	18	28	16	16	19	518
Interior	East Kootenay	0	0	0	2	2	0	0	14
	Kootenay Boundary	2	1	0	0	1	1	1	28
	Okanagan	4	4	1	3	4	4	4	91
	Thompson Cariboo Shuswap	1	3	2	2	1	1	3	46
	Total	7	8	3	7	8	6	8	179
Northern	Northwest	0	0	4	0	0	1	2	22
	Northern Interior	1	3	4	2	3	4	1	48
	Northeast	0	0	1	0	0	0	0	7
	Total	1	3	9	2	3	5	3	77
Vancouver Coastal	Richmond	3	5	1	4	2	1	2	68
	Vancouver	45	52	43	50	32	39	43	2,638
	North Shore/Coast Garibaldi	2	4	3	5	1	5	4	174
	Total	50	61	47	59	35	45	49	2,880
Vancouver Island	South Vancouver Island	8	12	11	8	18	3	7	339
	Central Vancouver Island	1	4	3	0	5	2	5	90
	North Vancouver Island	1	3	1	0	0	2	0	25
	Total	10	19	15	8	23	7	12	454
non-BC		0	0	0	0	0	0	0	3
unknown		17	10	11	10	8	5	0	208
<b>BC TOTAL</b>		<b>111</b>	<b>116</b>	<b>103</b>	<b>114</b>	<b>93</b>	<b>84</b>	<b>91</b>	<b>4,319</b>

3.7 AIDS case reports in BC by health service delivery area—RATES, 2002 to 2008

Health Authority	Health Service Delivery Area	2002	2003	2004	2005	2006	2007	2008
Fraser	Fraser East	2.0	0.4	0.8	1.9	0.0	0.7	0.4
	Fraser North	2.2	1.4	1.8	2.5	1.8	1.2	1.4
	Fraser South	1.5	1.0	0.9	1.4	0.9	1.0	1.5
	Total	1.8	1.0	1.2	1.9	1.1	1.1	1.2
Interior	East Kootenay	0.0	0.0	0.0	2.7	2.7	0.0	0.0
	Kootenay Boundary	2.6	1.3	0.0	0.0	1.3	1.3	1.3
	Okanagan	1.3	1.3	0.3	0.9	1.2	1.2	1.2
	Thompson Cariboo Shuswap	0.5	1.4	0.9	0.9	0.5	0.5	1.4
	Total	1.0	1.2	0.4	1.0	1.2	0.9	1.1
Northern	Northwest	0.0	0.0	5.1	0.0	0.0	1.3	2.7
	Northern Interior	0.7	2.1	2.8	1.4	2.1	2.8	0.7
	Northeast	0.0	0.0	1.6	0.0	0.0	0.0	0.0
	Total	0.3	1.1	3.1	0.7	1.1	1.8	1.1
Vancouver Coastal	Richmond	1.7	2.8	0.6	2.2	1.1	0.5	1.1
	Vancouver	7.7	8.8	7.2	8.3	5.2	6.3	6.8
	North Shore/Coast Garibaldi	0.8	1.5	1.1	1.9	0.4	1.8	1.5
	Total	4.9	5.9	4.5	5.6	3.3	4.2	4.5
Vancouver Island	South Vancouver Island	2.3	3.5	3.2	2.3	5.1	0.8	1.9
	Central Vancouver Island	0.4	1.7	1.2	0.0	2.0	0.8	1.9
	North Vancouver Island	0.9	2.7	0.9	0.0	0.0	1.7	0.0
	Total	1.4	2.7	2.1	1.1	3.2	1.0	1.6
non-BC		---	---	---	---	---	---	---
unknown		---	---	---	---	---	---	---
<b>BC RATE</b>		<b>2.7</b>	<b>2.8</b>	<b>2.5</b>	<b>2.7</b>	<b>2.2</b>	<b>1.9</b>	<b>2.1</b>

RATE per 100,000 population.

3.8 AIDS case reports in BC by first disease indicative of AIDS—CASES, 2002 to 2008

First Disease	2002	2003	2004	2005	2006	2007	2008	TOTAL 1983-2008
Kaposi's sarcoma	11	7	7	14	6	6	8	611
Pneumocystis carinii pneumonia	40	40	49	41	31	32	31	1,678
Other opportunistic infections	39	55	33	39	44	40	35	1,429
Other malignancies	9	4	4	5	5	2	8	192
HIV wasting syndrome	8	7	8	10	6	4	7	270
HIV encephalopathy	4	3	2	5	1	0	2	136
Diseases affecting pediatric cases only	0	0	0	0	0	0	0	3
<b>TOTAL</b>	<b>111</b>	<b>116</b>	<b>103</b>	<b>114</b>	<b>93</b>	<b>84</b>	<b>91</b>	<b>4,319</b>

# 4. Technical Appendix

## DATA LIMITATIONS

There are several key limitations to surveillance data which are important to understand in order to interpret surveillance data appropriately:

- The majority of surveillance data presented in this report is extracted from case report forms completed by either health care providers or public health nurses as part of the follow-up process (which includes ensuring appropriate treatment, patient education, and referral to appropriate services). There is an expected reporting delay to receipt of these forms. For HIV data this affects the classification of cases according to exposure category and ethnicity, resulting in a number of cases for the most recent year where this information is unknown. These numbers are not considered final until the following year's annual report. For AIDS data, there is typically a one year reporting delay and data is presented for the previous year only.
- Surveillance trends can be affected by factors which do not represent a true increase or decrease in infection rates. For example, trends are influenced by patient or provider testing behaviours, which may result in changes to the number of tests performed each year (e.g. an increasing number of HIV tests are performed each year by the Provincial Public Health Microbiology and Reference Laboratory).
- Surveillance data is only reflective of the proportion of the population who test for HIV. Individuals with asymptomatic infection or who have not tested would not be represented in surveillance data.
- Cases are classified by exposure category and ethnicity according to information elicited during follow-up from the case or their health care provider, and under-reporting of this information may lead to misclassification.
- HIV is reported as the number of new positive HIV tests, and does not reflect the number of new HIV infections (i.e., HIV incidence) as individuals may test positive years after the time of HIV infection.
- The system of enhanced follow-up for HIV was established following the addition of HIV to the reportable diseases list in 2003 and has resulted in improved data quality in subsequent years.

## CASE DEFINITIONS FOR HIV and AIDS

Diseases included in this supplement report are listed as reportable diseases in the *Communicable Disease Regulation* (Schedule A) of the *Public Health Act*.

### Human Immunodeficiency Virus (HIV)

#### Adults, adolescents and children ≥ 18 months:

Detection of HIV antibody by screening test (i.e., ELISA or Point of Care HIV test) followed by positive confirmatory test (i.e., Western Blot or Nucleic Acid Amplification Test), or detection of HIV nucleic acid (RNA or DNA) or detection of p24 antigen with confirmation by neutralization assay, or isolation of HIV in culture.

**Children < 18 months:** Detection of HIV DNA by nucleic acid amplification testing on two separate samples collected at different times.

### Stage of Infection at Time of HIV Diagnosis

**Acute HIV Infection:** Meets definition for HIV case, and has laboratory findings suggestive of acute HIV infection in the absence of confirmed detection of HIV antibody (detection of HIV DNA or RNA by NAAT, detection of p24 antigen with confirmation by neutralization assay), and is not diagnosed with AIDS before or up to 12 months after the date of first positive HIV test.

**Advanced HIV Disease:** Meets definition for HIV case, and is diagnosed with AIDS (based on receipt of an AIDS case report form) before or up to 12 months after the date of the first positive HIV test.

**Other/Unknown Stage:** Meets the definition for HIV case and does not meet the definitions for acute HIV infection or advanced HIV disease at the time of HIV diagnosis.

### Acquired Immune Deficiency Syndrome (AIDS)

One or more of the specified indicator diseases, and meets the case definition for HIV infection.

#### Indicator diseases for adult and pediatric cases:

- Bacterial pneumonia (recurrent)\*
- Candidiasis (bronchi, trachea or lungs)
- Candidiasis (esophageal)\*
- Cervical cancer (invasive)
- Coccidioidomycosis (disseminated or extrapulmonary)
- Cryptococcosis (extrapulmonary)
- Cryptosporidiosis chronic intestinal (> 1 month duration)
- Cytomegalovirus diseases (other than in liver, spleen or nodes)
- Cytomegalovirus retinitis (with loss of vision)\*
- Encephalopathy, HIV-related (dementia)
- Herpes simplex: chronic ulcer(s) (> 1 month duration) or bronchitis, pneumonitis or esophagitis
- Histoplasmosis (disseminated or extrapulmonary)
- Isosporiasis, chronic intestinal (> 1 month duration)
- Kaposi's sarcoma\*
- Lymphoma, Burkitt's (or equivalent term)
- Lymphoma, immunoblastic (or equivalent term)
- Lymphoma (primary in brain)
- Mycobacterium avium complex or M. kansasii (disseminated or extrapulmonary)\*
- Mycobacterium of other species or unidentified species\*
- M. tuberculosis (disseminated or extrapulmonary)
- M. tuberculosis (pulmonary)\*
- Pneumocystis jirovecii (formerly Pneumocystis carinii) pneumonia (PCP)\*
- Progressive multifocal leukoencephalopathy
- Salmonella septicemia (recurrent)
- Toxoplasmosis of brain\*
- Wasting syndrome due to HIV

#### Indicator diseases that apply only to pediatric cases (< 15 years old):

- Bacterial infections (multiple or recurrent, excluding recurrent bacterial pneumonia)
- Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia\*

\*These conditions may be diagnosed presumptively; otherwise, definitive diagnosis is required.

## DATA SOURCES

### HIV Data

All confirmatory laboratory testing for HIV antibodies is done at the Provincial Public Health Microbiology and Reference Laboratory located at the BC Centre for Disease Control (BCCDC). BCCDC determines which of these individuals are testing positive for HIV for the first time then informs the appropriate designated public health nurse (PHN) about these individuals. The PHN provides follow-up for these individuals that include completing two forms – Case Report and Risk Assessment. The completed forms are then forwarded to BCCDC where the collected information is entered into the provincial HIV/AIDS database.

### AIDS Data

When an individual is diagnosed with an AIDS defining illness, the care provider completes an AIDS Case Report form then forwards it to BCCDC where the information is entered into the provincial HIV/AIDS database. A twice-yearly review of clinical records maintained by the BC Centre for Excellence in HIV/AIDS is also conducted to identify new diagnoses of AIDS defining illness and the information is entered into the provincial HIV/AIDS database.

### Population Data

Population data and associated rates were based on the P.E.O.P.L.E. 34 Population Estimates and Projections released by BC STATS, BC Ministry of Labour and Citizens' Services (September 2009).

## ADDITIONAL NOTES

### Classification of Health Region

Cases are assigned to health regions (i.e., health authority, health service delivery area (HSDA)) by patient residence. If residence is unknown, the case is assigned to the health region where the individual was tested.

### Classification of Ethnicity

Cases are classified by ethnicity according to information elicited from the case or health care provider during follow-up:

**Aboriginal:** e.g. First Nations, Inuit, Metis

**Arab/West Asian:** e.g. Armenian, Egyptian, Iranian, Moroccan, Lebanese, Afghani, Iranian

**Asian:** e.g. Chinese, Japanese, Vietnamese, Cambodian, Indonesian, Filipino, Korean, Laotian

**Black:** e.g. African, Haitian, Jamaican, Somali

**Caucasian (White):** e.g. Irish, Scottish, English, Portuguese, Italian, Russian

**Hispanic:** e.g. Mexican, Central/South American

**South Asian:** e.g. East Indian, Pakistani, Sri Lankan, Punjabi, Bangladeshi

**Other / Mixed Ethnicity:** ethnicity is known but is not included in one of the above categories or case has dual ethnicity

**Unspecified:** if information about ethnicity is not elicited from case or health care provider

### HIV

**New or Previous Positive HIV Test:** If a report of a new positive HIV test is identified in an individual having a history of a previous positive test (i.e., previous positive test result identified in the Provincial Public Health Microbiology and Reference Laboratory database, or elicited during case follow-up), this is considered a previous positive HIV test and excluded from surveillance reporting. If no such history is elicited, the report is considered to represent a new positive HIV diagnosis and included in surveillance reporting.

**Endemic Country:** Individuals are categorized as being from an endemic country according to the Endemic Countries List maintained by the Public Health Agency of Canada.<sup>1</sup>

**Exposure Group Hierarchy:** Individuals having a new positive HIV test may belong to more than one exposure category (e.g. a person may have a history of using injection drugs and heterosexual sex). These individuals are assigned to the exposure category listed first (or highest) in the following hierarchy.

1. **MSM:** Male who reports having male sex partner(s), with or without female sex partners.
2. **IDU:** Person who reports current or prior history of injection drug use.
3. **Blood / Blood Product Recipient:** Person who reports receipt of whole blood or blood product (e.g. packed red cells, plasma, platelets, cryoprecipitate, pooled concentrates of clotting factor).
4. **Heterosexual Contact:** Male who reports having female sex partner(s) only, and females who report having male sex partner(s) only.
5. **Occupational Exposure:** Exposure to HIV contaminated blood or body fluids, or concentrated virus in an occupational setting.
6. **Perinatal Transmission:** Transmission of HIV from an HIV-infected mother to her child either in utero, during childbirth, or through breastfeeding.
7. **Other Risk Factor:** Likely route of exposure to HIV is known but cannot be classified into any of the major exposure categories listed here. For example, receipt of semen from an HIV positive donor, or females reporting female sex partner(s) only.
8. **No Identified Risk (NIR):** Route of exposure to HIV is not identified at the time of completion of case follow-up (e.g. route of exposure not provided by case).

<sup>1</sup> Public Health Agency of Canada. HIV and AIDS in Canada: Surveillance Report to December 31, 2008. Appendix 4. Surveillance and Risk Assessment Division, Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada, 2008.



9. **Unknown:** Route of exposure to HIV is unknown.

Note that in this report, individuals with a new positive HIV test are categorized into five groups: MSM, IDU, Heterosexual, Other (i.e., blood/blood product recipient, occupational exposure, perinatal transmission, other risk factor) and No Identified Risk (NIR)/Unknown.