
2006 ANNUAL PROGRESS REPORT
Acknowledgements

The 2006 Annual Progress Report would not have been possible without the support of many individuals and organizations. This is especially true of British Columbians who are living with HIV and AIDS. The Ministry of Health would like to thank the numerous consumer organizations in British Columbia for their unflagging commitment to those most affected by the HIV epidemics.

The Ministry of Health would also like to thank the many community-based organizations in British Columbia that work tirelessly to deliver HIV services to marginalized and hard to reach populations in their communities. The deep knowledge and the trusting relationships that community organizations have with their clients – often those who are most vulnerable to infection and least able to access care and treatment – are at the core of a robust and sustainable public response to HIV.

Finally, the Ministry of Health would like to acknowledge the efforts of the six health authorities to provide the leadership, resources and infrastructure needed to ensure the equitable and effective delivery of HIV services across the province. In addition, the Ministry would like to recognize the cutting edge research, surveillance and clinical innovations of the BC Centre for Disease Control, the BC Centre for Excellence in HIV/AIDS and the Oak Tree Clinic.
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In September 2003, the Ministry of Health released *Priorities for Action in Managing the Epidemics: HIV/AIDS in B.C. (2003 – 2007)*, a directional document intended to guide British Columbia's response to the HIV/AIDS epidemic. *Priorities for Action* establishes four goals in the areas of prevention of new HIV infections, enhanced engagement within HIV care and treatment services, expanded capacity and improved collaboration. The prevention and treatment goals address the health status of British Columbians, while the capacity and collaboration goals address the health system. The *Priorities for Action* framework also contains a commitment to annual reporting to document progress related to achieving these goals as well as to identify emerging priorities requiring intensified response.

The prevention goal within *Priorities for Action* is to reduce the annual rate of newly reported HIV infections by 50 per cent by 2007. Given that approximately 27 per cent of people living with HIV remain undiagnosed\(^1\) and unaware that they may present a risk of infection to others, enhanced case finding through expanded access to HIV testing remains a critical first-line priority within the province. In 2006, the number of HIV tests performed in B.C. continued a multi-year trend of annual growth with a 12.5 per cent increase over 2005. Emerging technologies such as rapid point of care testing for HIV should serve to further enhance this trend by providing a new range of more accessible HIV testing options for vulnerable and hard to reach populations affected by this disease.

In 2006, the number of persons testing newly positive for HIV acquired in B.C. was 3632, down 9.5 per cent from 401 in 2005, and 13.8 per cent from the 421 infections of the baseline year 2001. Over the same period, the rate of persons testing newly positive for HIV per 100,000 population declined by 19.6 per cent. Although part of these decreases can be attributed to changes in how HIV surveillance data has been collected and reported since 2003, at the end of 2006 the annual rates and numbers of new HIV infections were moving in a direction consistent with the prevention goal contained within *Priorities for Action*. Renewed efforts to reach disproportionately affected populations such as gay men and Aboriginal people with relevant and accessible prevention programming would help to further improve progress and move annual decreases in HIV infections closer to target.

*Priorities for Action’s* care, treatment and support goal is to increase the proportion of HIV-positive individuals who are linked to such services by 25 per cent by 2007. One way to measure this increase is to look at the proportion of HIV-positive individuals in B.C. on highly active antiretroviral therapy (HAART). Based on HIV prevalence estimates generated by the Public Health Agency of Canada, the BC Centre for Excellence in HIV/AIDS has further estimated that approximately 50 per cent of the prevalent population could benefit from treatment with HAART. In baseline year 2001, approximately 30 per cent of the estimated HIV prevalent population was on HAART. In 2006, an estimated 41 per cent were actively taking HAART\(^3\).

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1 Public Health Agency of Canada. Surveillance and Risk Assessment Division.
2 BC Centre for Disease Control. STI/HIV Prevention and Control Division.
3 BC Centre for Excellence in HIV/AIDS. Drug Treatment Program.
This result well exceeds the target for the year of 36 per cent of the prevalent population on treatment, and represents the fourth consecutive year that treatment targets have been surpassed. Given that engagement in antiretroviral treatment is to some degree an indicator of broader engagement in HIV care, it can be suggested that the reach of HIV care services also improved over this four-year period.

Reaching the remaining portion of people living with HIV that could benefit from treatment remains a challenge, and one beyond the targets set within Priorities for Action. Some of these individuals remain undiagnosed, and enhanced case finding activities as described above could prove a pivotal component to successfully reaching and engaging them in care. On a broad level, women and Aboriginal people are proportionally underrepresented within the provincial HIV drug treatment program, and targeted initiatives to reach these populations that are gender-specific and culturally appropriate are required in order to shift this balance.

Activities to improve HIV-related system capacity and co-ordination achieved greater prominence in 2006. Five of the province’s health authorities completed HIV/blood-borne pathogens service plans to guide regional responses. The sixth, Vancouver Coastal Health Authority, commenced a renewal of its standing service plan previously completed in 2002. Innovative new approaches to HIV surveillance and prevention initiated by the BC Centre for Disease Control in 2006 hold promise for new tools with which to combat HIV. A conceptual framework advanced by the BC Centre for Excellence in HIV/AIDS that proposes the use of HAART to prevent new HIV infections could become part of a comprehensive approach to prevent and manage the disease. This work is intended to complement HIV prevention activities already delivered by community-based organizations and through public health, and may demonstrate tremendous potential for jurisdictions in other parts of the world that carry a much larger burden of HIV/AIDS.
Introduction, Purpose and Scope

Priorities for Action in Managing the Epidemics: HIV/AIDS in B.C. (2003 – 2007) was released by the British Columbia Ministry of Health in 2003 to guide British Columbia’s response to the HIV/AIDS epidemic. This directional document reflects the regionalized delivery of HIV services framed by a vision of B.C. as a leader in managing the HIV epidemic. It outlines a set of comprehensive strategies that include health promotion, prevention, harm reduction, testing, diagnosis, contact tracing, partner notification, care, treatment and support.

The 2006 Annual Progress Report is intended to document progress made in the 2006 calendar year in achieving the prevention, care and treatment, capacity and co-ordination goals contained in Priorities for Action. In the context of establishing priorities for enhanced efforts moving forward, this year’s progress report will also highlight the following populations: men who have sex with men, Aboriginal people, high risk women and recent immigrants.

In 2006, the core indicators for monitoring progress are:

<table>
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<th>Care/Treatment</th>
<th>Capacity</th>
<th>Coordination</th>
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The data presented in the 2006 Annual Progress Report has been obtained from the Ministry of Health, B.C. Vital Statistics, B.C. Statistics, BC Centre for Disease Control (BCCDC), BC Centre for Excellence in HIV/AIDS (BCCfE), the Oak Tree Clinic, and health authorities and their institutional and community partners. Additional indicators and data sources are being considered for future reports.

For this report, the Ministry of Health used standardized templates developed in consultation with health authority representatives to collect consistent output data related to each goal from each of the health regions as well as Provincial Health Services Authority (PHSA). Most health authorities were able to report on activities related to HIV and other blood borne diseases for the calendar year 2006. However, no data was available from Northern Health Authority (NHA) at the time this report was prepared and only some data was available from Vancouver Island Health Authority (VIHA). The Ministry of Health continues to work with health authorities to clearly define province-wide data needs and to achieve some measure of standardization for the purposes of comparative analysis.
HIV Epidemiology

HIV Prevalence

True HIV prevalence is the total number of people infected with HIV at a specified point in time. The most recent year for which Canadian HIV prevalence estimates are available is 2005. As at December 2005, an estimated range of 8,600 - 12,200 people in B.C. were living with HIV and AIDS, for an estimated median prevalence of 10,420 people. This represents approximately 18 per cent of the estimated 58,000 Canadians living with HIV and AIDS in 2005. Given this province is home to approximately 13 per cent of the overall population in Canada, the HIV burden is disproportionately high in B.C.

HIV prevalent infections rose steadily during the 1980’s, corresponding to the initial rise in HIV infection in the B.C. population. This rise reached a plateau in the early to mid 1990’s, likely as a result of both increased mortality and effective prevention interventions. Prevalent infections began to rise again in the late 1990’s due to ongoing new infections within the province and the impact of new treatments that enabled HIV-positive individuals to live longer, effectively reducing HIV-related mortality.

A continuing challenge is the number of individuals living with HIV who are unaware of their infection. Emerging evidence indicates that knowledge of HIV-positive status alone may result in as much as a 53 per cent reduction in risk activity for an individual. The Public Health Agency of Canada estimates that in 2005, approximately 27 per cent of people living with HIV/AIDS in Canada were unaware of their infection. While this estimate is lower than in previous years, efforts to engage this population in testing and appropriate care, treatment and support remain a priority.

Newly Identified HIV Infections

True incidence is the number of newly acquired HIV infections in a specified time period. As with prevalence estimates, incidence estimates are based on surveillance data, or the number of people testing newly positive for HIV. Surveillance data understate the magnitude of the HIV epidemic as the data are based on testing records and do not include individuals that remain untested and undiagnosed. Surveillance data are also subject to reporting delays, under-reporting and changing patterns in testing behaviours. In addition, HIV is a chronic infection with a long clinical course and many people may be diagnosed years after infection. Although counted among the newly identified HIV infections for the period, these are not true incident cases. Consequently, the number of people testing newly positive for HIV in a given year does not reflect the actual number of newly acquired infections for that period.

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4 Public Health Agency of Canada. Surveillance and Risk Assessment Division.
7 BC Centre for Disease Control. STI/HIV Prevention and Control Division.
This year marks the first time B.C. has been able to distinguish between persons testing newly positive for HIV acquired in B.C. and persons testing positive for the first time in B.C. for HIV acquired outside the province. This distinction allows B.C. to monitor the shifting demographics of the different HIV epidemics in the province and to more accurately assess the impact of HIV prevention efforts. The ability to make this distinction in previous reporting periods is limited, therefore, caution must be exercised in interpreting surveillance trends over time (see Appendix #2).

In 2006, 181,961 HIV tests were performed in B.C., an increase of 12.5 per cent over the 161,742 tests performed in 2005, and up 16.1 per cent from the 156,684 tests performed in 2004.

Source: BC Centre for Disease Control, Division of STI/HIV Prevention and Control.
A recent retrospective analysis of HIV testing patterns in B.C. conducted by the Sexually Transmitted Infection/HIV Prevention and Control Division at BCCDC has illustrated trends in HIV tests performed by health authority of residence over time.

Although the numbers of HIV tests performed by health authority of residence have remained relatively stable over this period, there are slight increases in each region between 2004 and 2005. How this trend carries forward beyond 2005 is currently unknown as a breakdown of the 2006 testing data by health authority of residence was not available at the time this report was prepared.

In 2006, the number of persons testing newly positive for HIV acquired in B.C. was 363, down 9.5 per cent from 401 in 2005. A further 51 persons tested positive for the first time in B.C. in 2006 for HIV acquired outside the province. The total number of persons testing positive for HIV in B.C. in 2006, regardless of where the infection occurred, was 414, compared to 451 persons in 2005 and 463 in 2004.

In 2006, the rate of newly reported HIV infections acquired in B.C. was 8.4 cases per 100,000 population, down from 9.4 in 2005 and 10.5 in 2004. In comparison, the rate of newly reported HIV infections in Canada in 2006 was 7.5 cases per 100,000 population. Although the HIV infection rate in B.C. has been decreasing steadily over the past three years, it still remains above the national rate.
Overall, men accounted for the majority of new HIV infections in B.C., with a rate of 13.6 cases per 100,000 population in 2006, or 290 persons. The overall rate of new HIV infections among women was 3.3 cases per 100,000 in 2006, or 71 persons. Generally, women have much lower rates of new HIV infection than men across all ethno-cultural groups, with the significant exception of Aboriginal women.
For Aboriginal people – First Nations, Inuit and Métis – the rate of persons testing newly positive for HIV acquired in B.C. in 2006 was 25.4 cases per 100,000 population. Another one case per 100,000 population was attributed to persons testing positive for HIV acquired outside the province, bringing the total rate of newly reported HIV infections among Aboriginal people to 26.4 cases in 2006.

The number of Aboriginal persons testing newly positive for HIV acquired in B.C. was 49 in 2006, down from 58 in 2005. Aboriginal people accounted for 13 per cent of all persons testing newly positive for HIV in B.C., despite comprising only 4 per cent of the province’s population. Aboriginal women accounted for a highly disproportionate 33.8 per cent of all females testing newly positive for HIV in B.C. In contrast, Aboriginal men accounted for 7.9 per cent of all males testing newly positive in 2006 – still a disproportionate representation, but far less so than among Aboriginal women.

Gay men and other men who have sex with men (MSM) accounted for approximately 41 per cent of new HIV infections acquired in B.C. in 2006, down from 45 per cent the previous year. The number of MSM who tested newly positive for HIV acquired in B.C. was 148 in 2006, compared to 181 in 2005, 186 in 2004 and 159 in 2003.

People who use injection drugs (IDU) accounted for approximately 26 per cent of new HIV infections acquired in B.C. in 2006, down from 29 per cent in 2005. The number of new infections among intravenous drug users in B.C. was 95 in 2006, compared to 116 in 2005 and 138 in 2004, part of a consistent downward trend that began in 2002.
The breakdown of newly reported HIV infections by age in B.C. has remained consistent for men from 2004 to 2006, where most new infections occurred between the ages of 25-59 years and the highest concentration was found among men between 30-39 years. The situation is quite different for women, where most new infections occurred between 20-39 years, with the highest concentration shifting to younger women each year. In 2004, the highest concentration of new HIV infections occurred among women between 30-39 years. In 2006, it had shifted to women in the 20-24 year age group.

Source: BC Centre for Disease Control, Division of STI/HIV Prevention and Control.
(Rate per 100,000 population)

(Rate per 100,000 population)

Source: BC Centre for Disease Control, Division of STI/HIV Prevention and Control.
The rate of persons testing newly positive for HIV at the health service delivery area (HSDA) level in B.C. in 2006 has generally decreased from 2005 in all regions except VIHA. The rate of newly identified HIV infections in VIHA was 7.1 cases per 100,000 population in 2006, up from 6.2 cases in 2005, an increase of 14.5 per cent. Viewed over six years, rates of newly identified HIV infections are relatively stable in most health authorities, with an overall decreasing trend in VCHA, and an overall increasing trend in NHA.

![Persons Testing Newly Positive for HIV in B.C. by Health Authority, 2001-2006](image)

The rate of persons testing newly positive for HIV at the health service delivery area (HSDA) level in B.C. in 2006 has generally decreased from 2005, with 10 out of 16 HSDAs reporting a decrease, five HSDAs reporting an increase and one HSDA reporting no change. The biggest drop in HIV infection rates occurred in Richmond HSDA within Vancouver Coastal Health Authority (VCHA), where the rate declined from 4.0 cases per 100,000 population in 2005 to 0.6 cases in 2006. The biggest increase occurred in the Northwest HSDA within NHA, where the rate of new HIV infections jumped from 5.9 cases in 2005 to 9.5 cases in 2006, an increase of 61 per cent.

Source: BC Centre for Disease Control, Division of STI/HIV Prevention and Control.
Priorities for Action set an ambitious goal of 50 per cent reduction in the number of persons testing newly positive for HIV acquired in B.C. by 2007, using 2001 as the baseline (421 new infections). This target is to be met incrementally over the years 2003 to 2007. The target for 2006 was 253 people testing newly positive for HIV. In 2006, the actual number of new positive tests for HIV acquired in B.C. was 363. Although the total number of new B.C. HIV infections reported in 2006 was down by 9.5 per cent from 2005 (401) and 13.8 per cent from the baseline year of 2001 (421), this does not represent a large enough reduction to meet the 2006 target. Clearly, renewed evidence-based prevention efforts aimed at populations most vulnerable to HIV must remain a high priority for all health regions.

### Change in Rate of Persons Testing Newly Positive for HIV in B.C.
#### by Health Service Delivery Area, 2005-2006

<table>
<thead>
<tr>
<th>Health Service Delivery Area</th>
<th>2005</th>
<th>2006</th>
<th>Change 2005-2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richmond</td>
<td>4</td>
<td>0.6</td>
<td>-3.4</td>
</tr>
<tr>
<td>Vancouver</td>
<td>32.7</td>
<td>30.1</td>
<td>-2.6</td>
</tr>
<tr>
<td>North Shore</td>
<td>4</td>
<td>3.3</td>
<td>-0.7</td>
</tr>
<tr>
<td>South Vancouver Island</td>
<td>9.1</td>
<td>11</td>
<td>+1.9</td>
</tr>
<tr>
<td>Central Vancouver Island</td>
<td>4.3</td>
<td>3.5</td>
<td>-1.8</td>
</tr>
<tr>
<td>North Vancouver Island</td>
<td>1.7</td>
<td>3.3</td>
<td>+2.4</td>
</tr>
<tr>
<td>Fraser East</td>
<td>6.1</td>
<td>3</td>
<td>-3.1</td>
</tr>
<tr>
<td>Fraser North</td>
<td>7.1</td>
<td>5.8</td>
<td>-1.3</td>
</tr>
<tr>
<td>Fraser South</td>
<td>5.3</td>
<td>4.8</td>
<td>-0.5</td>
</tr>
<tr>
<td><strong>Northwest</strong></td>
<td>5.9</td>
<td>9.5</td>
<td>+3.6</td>
</tr>
<tr>
<td>Northern Interior</td>
<td>14.3</td>
<td>12.3</td>
<td>-2</td>
</tr>
<tr>
<td>Northeast</td>
<td>1.4</td>
<td>0</td>
<td>-1.4</td>
</tr>
<tr>
<td>East Kootenay</td>
<td>1.2</td>
<td>2.4</td>
<td>+1.2</td>
</tr>
<tr>
<td>Kootenay Boundary</td>
<td>6.2</td>
<td>5</td>
<td>-1.2</td>
</tr>
<tr>
<td>Okanagan</td>
<td>3</td>
<td>1.2</td>
<td>-1.8</td>
</tr>
<tr>
<td>Thompson Cariboo</td>
<td>1.8</td>
<td>3.1</td>
<td>+1.3</td>
</tr>
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Source: BC Centre for Disease Control, Division of STI/HIV Prevention and Control.
<table>
<thead>
<tr>
<th>Year</th>
<th>% Reduction from Baseline Required</th>
<th>HIV Infections to be Averted</th>
<th>Projected HIV Infections if Targets are Achieved</th>
<th>Actual HIV Infections*</th>
</tr>
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<tbody>
<tr>
<td>2003</td>
<td>10</td>
<td>42</td>
<td>379</td>
<td>409</td>
</tr>
<tr>
<td>2004</td>
<td>20</td>
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<td>337</td>
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</tr>
<tr>
<td>2005</td>
<td>30</td>
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<td>401</td>
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<tr>
<td>2006</td>
<td>40</td>
<td>168</td>
<td>253</td>
<td>363*</td>
</tr>
<tr>
<td>2007</td>
<td>50</td>
<td>211</td>
<td>210</td>
<td>tbd</td>
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</tbody>
</table>

* The total number of HIV reports in 2006 was 414 which included 363 persons testing newly positive in B.C. and 51 persons testing positive for the first time in B.C. who had previously tested positive outside B.C. The 363 new positive tests represent HIV acquired in B.C. and are a more accurate indicator of HIV prevention efforts in the province than the total number of HIV reports. Caution must be exercised in interpreting trends over time as there is a limited ability to disaggregate those HIV cases prior to 2004 where infection occurred outside B.C. See Appendix #2 for further details.

8 B.C. Health Authorities. Program and service data.
Introduction

The Priorities for Action framework acknowledges that effective HIV prevention must encompass activities that are aimed at both the general population and specific population groups that experience increased vulnerability to HIV infection. While broad-based prevention and education efforts can help to address long-standing issues of HIV-related stigma and discrimination, it is the highly focused efforts to engage the most vulnerable population groups that will enable B.C. to meet the ambitious prevention target established within Priorities for Action.

Universal, or broad-based, interventions seek to inform the general public about HIV and hepatitis C, personal practices that place people at risk for acquiring blood-borne diseases, and about safer sex and safer drug use. This information must be age-appropriate, accessible, culturally relevant and available over the life course. Targeted prevention efforts address specific individual, social and environmental risk factors leading to HIV infection in identifiable population groups. For people who are already infected with HIV, targeted prevention seeks to reduce the harms from unsafe sex and unsafe drug use and to maintain individual health and well-being. These interventions are critical to successful engagement of populations with enhanced vulnerability to HIV, such as gay men, other men who have sex with men, injection drug users, Aboriginal people, incarcerated persons, street involved youth and women.

A substantial body of peer reviewed literature exists regarding the effectiveness of different HIV prevention approaches. In particular, the effectiveness of behavioural interventions has been overwhelmingly documented through randomized control trials and meta-analyses. In 2006, BCCDC produced an evidence-based review of best practices in HIV primary prevention as a guide for health authorities and community organizations (see Goal #3, Capacity Development for details).

To achieve the annual HIV prevention targets, a comprehensive and coordinated response to HIV prevention – both within and between health authorities – is required in B.C. This includes the translation of research into sustainable programs, coordinated multi level prevention interventions, adequate funding to meet prevention needs, and a supportive and sustained policy environment. Strategic prevention efforts are most effective when they are evidence-based, tailored to meet local needs, culturally relevant, delivered in partnership with the community, regionally coordinated and aligned with overall provincial prevention priorities.
Prevention Progress in 2006

Broad-based Prevention

Public Education

Each of the province’s health authorities reported on a variety of activities and initiatives in 2006 that were intended to educate the broader public on issues related to HIV and other blood-borne diseases. In many cases, community-based organizations were engaged by the health authorities to deliver these services. In some cases, educational activities were delivered directly by the health authority.

Within Interior Health Authority (IHA), the ANKORS Kootenay AIDS Services Society in Nelson and Cranbrook delivered 8 theatre performances intended to educate people on risks associated with HIV and hepatitis C transmission. The performances were attended by over 600 individuals. In Kelowna, the Living Positive Resource Centre brought HIV and hepatitis C education to the International Wake Board Festival, reaching approximately 4,800 people with educational material and distribution of condoms.

In the Fraser Health Authority (FHA), the Pacific Community Resource Society conducted a series of education and awareness events related to HIV in 2006. Delivered over the course of National AIDS Awareness Week in the middle and high schools of the Fraser Valley, the Society reached approximately 1,200 students with through their efforts.

Healing Our Spirit Aboriginal HIV/AIDS Society, an agency contracted by the PHSA, delivered 80 workshops across the province to approximately 1,848 people. These workshops were designed to assist diverse groups in responding effectively and appropriately to the complex issues related to Aboriginal people and HIV/AIDS. Topics ranged from the basics of HIV to understanding the role social determinants of health play in HIV vulnerability in Aboriginal communities.

In 2006, every health region reported events related to World AIDS Day. These events focused on raising awareness of the impact of HIV/AIDS, as well as on HIV prevention education and disease management.

Stigma Reduction

In July 2006, the B.C. Persons with AIDS Society (BCPWA) launched a large scale media campaign to challenge HIV-related stigma in the province. Funded almost exclusively by the private sector, the campaign resulted from BCPWA winning a Humanity Award from the B.C. Association of Broadcasters. The award entitled BCPWA to extensive broadcast media exposure valued at approximately $3 million. BCPWA also received large contributions of creative time and effort from Cossette Communication Group and local production company, Steam Films. The campaign, designed to run for one year on both radio and television stations across B.C., included two 30 second public service announcements that challenge prejudices and negative feelings that many people still harbour about HIV and AIDS.

9 B.C. Health Authorities. Program and service data.
Other efforts to address stigma that were supported by health authorities in 2006 included municipal media campaigns, public speaking sessions, focused workshops, and outreach to festivals and fairs.

### Broad-based Prevention and Education Initiatives by Health Authority, 2006

<table>
<thead>
<tr>
<th>Health Authority</th>
<th># of Activities</th>
<th>Estimated # of People Reached(^{10})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial Health Services</td>
<td>34</td>
<td>183,881</td>
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<tr>
<td>Vancouver Coastal Health</td>
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<tr>
<td>Interior Health</td>
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<td>233,481</td>
</tr>
</tbody>
</table>

Source: B.C. Health Authorities; Data incomplete in some instances. Data from NHA was not available at the time this report was prepared.

### Targeted Prevention\(^{11}\)

Interventions that focus on risk of disease acquisition can be divided into universal, selective and indicated prevention. Selective interventions target groups at increased risk, whereas indicated interventions target those individuals with early emerging problems. Both selective and indicated interventions are commonly referred to as targeted prevention.

Targeted prevention initiatives for HIV and other blood-borne diseases are delivered through each of the province's health authorities. These activities are designed to benefit specific vulnerable population groups. In 2006, some of the populations targeted for the delivery of prevention programming included: injection drug users, Aboriginal people, youth (both school attached and street involved), inmates of correctional facilities, sex trade workers and their clients, gay men and other men who have sex with men, people with multiple sex partners, homeless people, people with disabilities, HIV-positive men and women, new Canadians, and the South Asian community.

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\(^{10}\) Includes all individuals consuming a service during each service session. Each individual is counted each time they access a service.

\(^{11}\) B.C. Health Authorities. Program and service data.
Harm Reduction Supplies

Access to harm reduction supplies, such as condoms and sterile injection equipment, is a key component in the prevention of HIV and hepatitis C, especially among high risk populations. In 2006, the BCCDC supplied the health authorities with over 2.7 million male condoms, roughly the same as 2005, and almost 29,000 female condoms, down from 31,500 last year. By comparison, in 2003, BCCDC distributed approximately 1.8 million male condoms and 19,000 female condoms province-wide. In 2006, BCCDC provided over 4.4 million clean needles to the health authorities, compared to 3.4 million needles in 2005.

Each health authority delivers some range of services related to the distribution of clean needles, collection of used needles, and the recovery of improperly discarded needles. These harm reduction services are delivered either directly by the health authorities and/or by their community-based funded agencies. At present, there is no consistent reporting of data related to these initiatives across health regions that allows for a comparative analysis.

Targeted Prevention Initiatives by Health Authority, 2006

<table>
<thead>
<tr>
<th>Health Authority</th>
<th># of Activities</th>
<th>Estimated # of People Reached</th>
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</thead>
<tbody>
<tr>
<td>Provincial Health Services</td>
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<tr>
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<td>35,780</td>
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</table>

Source: B.C. Health Authorities; Data incomplete in some instances. Data from NHA was not available at the time this report was prepared.

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12 BC Centre for Disease Control. Harm Reduction Policy and Supplies Committee.
Number of Male Condoms Supplied to Health Authorities, 2003-2006

Number of Syringes/Needles Supplied to Health Authorities, 2003-2006

Source: BC Centre for Disease Control, Harm Reduction Policy and Supplies Committee.
Supervised Injection

In September 2003, VCHA, in partnership with the Portland Hotel Society, opened Insite, North America’s first legal, supervised injection site as a scientific research project.

Insite is a safe, clean place where people can inject pre-obtained drugs in a supervised environment and connect with health care and addictions services. The facility was specifically designed to engage vulnerable populations of injection drug users, including Aboriginal people and men and women who use more than one drug, have a mental illness, have a history of trauma, live on income assistance, live in substandard housing or are homeless, and/or have relapsed after seeking addictions treatment.

Insite has been subject to rigorous, third party evaluation by the BCCfE. Over the course of the initial three-year study period, researchers have examined characteristics of injection drug users at the facility, public injection drug use and publicly discarded syringes, HIV risk behaviour, use of addiction treatment services, and drug-related crime rates. All findings have been subject to scientific peer-review and have been published in high impact journals.

Wood et al (2006)\(^{13}\) has summarized previously published evaluation results that clearly demonstrate Insite has generated an array of positive community and public health benefits, without evidence of adverse impacts. These evaluation results are largely consistent with reports from several European settings and Australia:

- Insite attracts and retains injection drug users who are at increased risk of HIV infection, overdose and public drug use (American Journal of Prevention Medicine, 2006; American Journal of Public Health, 2006).
- Insite is associated with large reductions in public drug use, publicly discarded syringes and syringe sharing among users of the facility (Canadian Medical Association Journal, 2004).
- Insite is associated with increased uptake of detox services (New England Journal of Medicine, 2006).
- Insite is a central referral mechanism to a range of community and medical resources and a key venue for safer injection education (International Journal of Drug Policy, 2005).
- Insite has not led to increases in drug dealing in the vicinity, drug acquisition crime, rates of new injection drug users, or in relapses among former injection drug users (Canadian Medical Association Journal, 2004; Substance Abuse Treatment, Prevention and Policy, 2006; British Medical Journal, 2006; American Journal of Public Health, in press).

Wood et al (2005)\(^{14}\) have shown that Insite successfully attracts marginalized HIV-positive injection drug users and, therefore, provides an excellent opportunity to enhance HIV prevention through education, provision of sterile injecting equipment and a supervised environment in which to self-inject, as well as to improve access to health services and HIV care and treatment.


To operate legally, Health Canada granted VCHA a three-year exemption under Section 56 of the Controlled Drugs and Substances Act. In 2006, VCHA requested an extension of the operating exemption for another three and a half years. The federal government has deferred its decision on the request until June 30th, 2008, during which time additional studies will be conducted into how supervised injection sites affect crime, prevention and treatment. Insite operations will continue during this review.

In the event the exemption is not granted to VCHA despite the weight of evidence of Insite’s effectiveness, the findings to date suggest a high potential for negative impacts on public health and the community. These negative impacts include loss of life due to fatal overdoses, elevated HIV incidence, and the deterioration of public order. Closure of the facility would likely result in additional health care costs associated with the failure to prevent overdose deaths and injection drug-related hospitalizations, as well as the costs associated with the missed opportunity for referrals to detox and addiction treatment, and new cases of blood borne infections such as HIV and hepatitis C.

Methadone Maintenance

Methadone Maintenance Treatment (MMT) is an effective substitution treatment for heroin addiction. It is delivered orally, thereby reducing the risk of HIV transmission through injection. According to data reported by the College of Physicians and Surgeons, the number of British Columbians receiving MMT had increased from approximately 7,868 in 2001 to 8,207 in 2006.

<table>
<thead>
<tr>
<th>Year</th>
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<tbody>
<tr>
<td>2001</td>
<td>7,868</td>
</tr>
<tr>
<td>2002</td>
<td>8,273</td>
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<tr>
<td>2003</td>
<td>8,124</td>
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<tr>
<td>2004</td>
<td>8,270</td>
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<tr>
<td>2005</td>
<td>7,465</td>
</tr>
<tr>
<td>2006</td>
<td>8,207</td>
</tr>
</tbody>
</table>

Since the early 1990’s, B.C. Corrections has recognized the need to continue MMT in prison for people who were receiving treatment before incarceration. Prior to 2005, there was limited ability to initiate MMT while incarcerated in provincial correctional facilities. In 2005, B.C. Corrections amended its policy to expand the initiation of MMT in prison. In 2006, it made a further policy change to enable initiation of MMT for individuals incarcerated for as little as two weeks. In these circumstances, MMT is initiated if a link can be established with a treating physician in the community to which the offender will return upon release, thereby ensuring the individual has every opportunity to continue his or her treatment following incarceration. In addition, all staff delivering MMT services within B.C. Corrections must undergo mandatory retraining every three years to ensure a high level of service quality.

Sexual Health Initiatives

In IHA, to assist young people in the Cranbrook area gain the knowledge, skills and attitudes to make healthy sexual choices, ANKORS offered a peer sexual health education program. Youth sexual health educators work with adult mentors and community resources to develop, deliver, and evaluate the peer-based program. In 2006 the program trained 12 educators for this purpose. Public health street nurses in a number of communities within IHA also delivered sexual health-oriented services, focusing on the prevention of sexually transmitted infections and unintended pregnancy.

With support from VIHA, AIDS Vancouver Island delivered programs in 2006 targeting gay, lesbian, bisexual or transgender youth to prevent HIV and promote sexual health. AIDS Vancouver Island also worked in partnership with public health street nurses to deliver testing for sexually transmitted infections and pregnancy through the Street Outreach Services program.

In VCHA, both the AIDS Vancouver’s Gayway program and the Asian Society for the Intervention against AIDS Bathhouse Outreach program continued to deliver services in the lower mainland to promote sexual health among men who have sex with other men. In 2006, these programs together reached approximately 1,365 men.

Within FHA, the Burnaby public health unit engaged in a number of activities in 2006 to promote sexual health with inmates of correctional centres and high-risk youth. In the Fraser East HSDA, public health staff responded to an outbreak of syphilis among sex industry workers and their clients. Outreach nurses used the opportunity to counsel and educate affected individuals about a wide range of topics related to sexual health, including HIV prevention.

With support from PHSA, the B.C. Coalition of People with Disabilities continued distribution of booklets in plain language and alternate formats for people with disabilities. Topics covered by the publications include condom usage and safer sex practices. In 2006 the Coalition distributed 11,854 of these resources across the province.

The BCCDC’s Outreach Street Nurses have incorporated a variety of sexual health promotion approaches and practices into their work with individual clients. In 2006, the outreach nurses also delivered workshops about sexually transmitted infections and sexuality to vulnerable youth in correctional facilities, as well as to parents of vulnerable Aboriginal and Vietnamese youth.

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16 B.C. Health Authorities. Program and service data.
Prevention Priorities

At Risk Populations

Men who have Sex with Men (MSM)\textsuperscript{17}

At the time of this report, the estimated number of new positive HIV tests among MSM in 2006 was 148, down significantly from 181 in 2005 and 186 in 2004. This suggests that the trend of increasing numbers of new positive HIV tests among MSM, observed since 1999, may have leveled off between 2005 and 2006, but nevertheless remains a concern.

Number of Newly Positive HIV Tests in MSM in B.C., 2003-2006

The greatest number of new positive HIV tests among MSM occurs in the 30 - 39 and 40 - 59 year age groups. This trend has been relatively stable since 2003 when 79 per cent of new positive tests for MSM occurred in the two age groups combined, followed by 73 per cent in 2004, 82 per cent in 2005, and 73 per cent in 2006.

The largest concentration of new positive HIV tests among MSM is found in Caucasian men. This trend has also remained stable since 2003 when 77 per cent of new positive tests for MSM were Caucasian, followed by 82 per cent in 2004, 76 per cent in 2005 and 79 per cent in 2006. The second highest concentration of new positive tests for MSM is found among Asian men. In 2006, Asian men accounted for 6 per cent of new positive tests among MSM, down from a high of 11 per cent in 2005, and in line with per centages for 2004 and 2003. The proportion of new positive tests for MSM attributed to Aboriginal men in 2006 was 7 per cent, up from 4 per cent in 2005 and 3 per cent in 2004.

\textsuperscript{17} BC Centre for Disease Control, Division of STI/HIV Prevention and Control.

Source: BC Centre for Disease Control, Division of STI/HIV Prevention and Control.
The majority of new positive HIV tests among MSM are identified in the B.C. lower mainland, with the VCHA reporting 64 to 75 per cent of cases each year and the FHA reporting 13 per cent to 22 per cent of cases each year. The number of new positive HIV tests in VCHA increased between 2003 and 2005, while in FHA the number of new positive HIV tests was highest in 2004, but decreased in 2005. The numbers of new positive HIV tests among MSM in other health authorities is small, therefore, making it difficult to determine trends.

What is clear is that more than 15 years into the HIV/AIDS epidemic in B.C., gay men and other MSM continue to be one of population groups most vulnerable to and affected by HIV/AIDS. Increases in numbers of new HIV infections reported annually among MSM in B.C. since 1999 correspond to similar patterns in a number of jurisdictions around the world.

Research conducted in B.C. and other provinces indicates there are multiple and complex factors that determine MSM vulnerability to HIV. The “Sex Now” surveys, conducted in B.C. by the Community Based Research Centre, show the incidence of HIV exposure risks among gay men has not changed significantly since 2000. However, the survey results also show that approaches to HIV prevention with gay men have generally not kept pace with cultural shifts in the community which may determine patterns of risk behaviour and rates of new infections over the longer term – factors such as selection of partners by HIV-status or ‘sero-sorting’; perceptions and beliefs about antiretroviral medications; increased use of on-line dating and connection services; etc.\textsuperscript{18}
A renewed approach to HIV prevention with MSM is clearly required, one that goes beyond the provision of condoms and simple safer-sex messaging to address social and environmental factors that contribute to vulnerability over the longer term.

**Aboriginal People**

The total number of new positive HIV tests among Aboriginal persons is small relative to the B.C. total. However, the rate of new positive HIV tests among Aboriginal people is greater than among non-Aboriginal people in B.C. This difference may be slowly narrowing. In 2006, the rate of HIV infection among Aboriginal people was estimated at 2.9 times higher than the rate among non-Aboriginal people. This is down from 3.1 times higher in 2005 and 3.4 times higher in 2003.

![Aboriginal and Non-Aboriginal Persons Testing Newly Positive for HIV in B.C., 2003-2006](chart)

In 2006, the estimated number of new positive HIV tests among Aboriginal people in B.C. was 49, down from 58 in 2005 and from 69 in 2004. This suggests a decreasing trend in new positive HIV infections among Aboriginal people. The same downward trend is observed in the rates of new positive HIV tests among the Aboriginal population.

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19. BC Centre for Disease Control. Division of STI/HIV Prevention and Control.
From a regional perspective, the rate of new positive HIV tests among Aboriginal people has decreased in VCHA and FHA and slowly increased in NHA since 2003. NHA had the second highest rate of new positive HIV tests in B.C. in 2006 at 45.3 cases per 100,000 population. Both the rates and the numbers of new positive HIV tests among Aboriginal people in NHA now exceed the same figures for non-Aboriginal people in the region. For example, the number of HIV cases among Aboriginal people in NHA was 20 in 2006, almost three times the number of cases for non-Aboriginal people.

Source: BC Centre for Disease Control, Division of STI/HIV Prevention and Control.

Source: BC Centre for Disease Control, Division of STI/HIV Prevention and Control.
In general, the number and rates of new positive HIV tests are higher among Aboriginal persons between the ages of 20 to 49 years. The observed variation from year to year is more likely a function of the small number of new positive HIV tests in each age category than any underlying change in risk or testing behaviour between these age groups.

The number and rate of new positive HIV tests is fairly evenly divided between Aboriginal males and females. In 2006, the rate of new HIV infections among Aboriginal women was 24.6 cases and among Aboriginal men it was 26.1 cases per 100,000 population. In 2003, the infection rate among Aboriginal women was 29.8 compared to 41.3 for men. The gender gap within the Aboriginal population has narrowed since 2003, mostly due to a threefold greater decrease in male infection rates. In 2006, 49 per cent of new positive HIV tests in the Aboriginal population occurred among Aboriginal women, up from 46.5 per cent in 2005 and 42 per cent in 2003.

Source: BC Centre for Disease Control, Division of STI/HIV Prevention and Control.
In terms of exposure category, the largest number of new positive HIV tests in Aboriginal people each year occurs among individuals who use injection drugs. In 2006, 47 per cent of new positive tests were attributed to intravenous drug use, down from 59 per cent in 2005 and 62 per cent in 2003. The second largest exposure category is heterosexual transmission. In 2006, 28.5 per cent of new positive HIV tests among Aboriginal people were attributed to heterosexual transmission, up from 26 per cent in 2005 and 23 per cent in 2003.
In general B.C.’s Aboriginal population faces higher levels of poverty, lower levels of educational attainment, higher unemployment and higher rates of chronic disease, mortality and morbidity. Many of these indicators are showing improvement and, where it is occurring, the improvement can be attributed to the resiliency and capacities of Aboriginal people, cultural and political resurgence in Aboriginal communities, and the success of targeted programs and services.20 Vulnerability to HIV, particular among Aboriginal women, remains an exception to the positive trends. Despite small overall decreases in new infections, Aboriginal people in B.C. are still disproportionately affected by HIV.

Each health region has some level of HIV prevention programming targeted to Aboriginal people. In order to extend the reach and improve the accessibility of HIV prevention with Aboriginal people, such efforts must address the deeply rooted determinants of HIV vulnerability in Aboriginal people, such as the legacy of the residential school system and higher than average rates of youth suicide and problematic substance use. In particular, HIV prevention efforts must be accessible and meaningful to Aboriginal women.

**Progress Summary: Prevention**

The number of HIV tests performed within the province continued a pattern of annual growth in 2006, increasing by 12.5 per cent over 2005. Enhanced case finding through expanded HIV testing is the first step in reducing the number of people who are HIV-positive but unaware of their infection and in assisting them in the prevention of further infections.

In 2006, the rate of newly identified HIV infections in B.C. per 100,000 population was down almost 20 per cent from the baseline year of 2001. This is a positive trend and consistent with the directions articulated in Priorities for Action. However, the cumulative decrease to date is not large enough to achieve the 40 per cent reduction from baseline targeted for 2006.

The decrease in new HIV cases can be attributed in part to changes in how HIV surveillance data has been collected and reported since 2003. For example, some of the decreases in the rate of newly identified HIV infections observed in 2005 and 2006 may be attributable to the removal of cases previously diagnosed outside B.C. from overall annual totals. This factor notwithstanding, it is likely that there have been some decreases in the annual numbers of newly identified HIV infections that can be attributed to health system prevention interventions.

The planning and implementation of evidence-based prevention efforts must continue to be a priority if significant progress is to be accomplished reducing the burden of HIV within B.C. In moving this work forward, particular consideration must be extended to prevention efforts with men who have sex with men and Aboriginal people.

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Goal #2: Care, Treatment and Support

Introduction

HIV care, treatment and support services refer to the range of community and hospital-based services that are needed to slow disease progression and improve quality of life for people living with HIV and AIDS. Care and treatment services include primary care, HIV primary and specialist care, HIV drug treatment, mental health and addictions services, supported self care, hospital care, home and community care, and end of life care. Support services include information, case management, advocacy and peer support for people living with HIV and AIDS, as well as services that address the social determinants of health, such as income, housing, social support and employment. Support services are aimed at improving care and treatment outcomes for HIV-positive individuals and reducing vulnerability to HIV for at risk populations.

HIV primary care is the medical management of HIV up to and including the initiation of antiretroviral therapy and the management of limited complications. HIV specialist care includes outpatient antiretroviral therapy management, assessment of outpatient complications of HIV and inpatient specialty care. General practitioners and family doctors in private practice provide the majority of HIV primary care in B.C. For those individuals without access to a physician, HIV primary care is available through community or hospital-based clinics and/or emergency wards at hospitals in each health authority. HIV specialist care is provided on referral by a small number of infectious disease and other types of specialists throughout the province. These physicians are backed up by the HIV specialists at the BCCfE and the Oak Tree Clinic at B.C. Women’s Hospital and Health Centre.

Treatment Progress

HIV Drug Treatment Coverage

The standard treatment for HIV is highly active antiretroviral therapy (HAART), which combines at least three drugs from at least two different classes of antiretrovirals (ARV). The aim of ARV therapy is the long-term suppression of viral replication, which leads to improved CD4 counts and, in turn, prevents HIV-related morbidity, hospital utilization and AIDS-related mortality.

Currently, the most reliable measure of engagement in appropriate HIV-related care and treatment is the proportion of the total HIV population on HAART. In 2006, the proportion of the HIV prevalent population in B.C. on HAART was approximately 41 per cent, up from the baseline of 30 per cent in 2001, and surpassing the 2006 target of 36 per cent coverage.

21 BC Centre for Excellence in HIV/AIDS. Drug Treatment Program.
In 2006, an estimated 10,420 people were living with HIV and AIDS in B.C. (based on 2005 HIV prevalence estimates from the Public Health Agency of Canada, the most recent year for which data is available). Of this number, approximately 5,616 people were enrolled in the provincial HIV Drug Treatment Program (DTP) managed by the BCCfE. Among total enrollees, there were 4,273 active participants, or those who were on HAART, and a further 1,343 inactive participants, or those who were not on any medication due to supervised treatment interruptions, side effects, toxicities, drug resistance or improving viral loads and CD4 counts.

The BCCfE currently estimates that approximately 50 per cent of the HIV prevalent population in B.C. is in medical need of drug treatment. These are individuals with AIDS-defining illnesses or CD4 counts of 200 or below. By this calculation, approximately 5,210 people in B.C. were medically eligible for HAART in 2006. With 4,273 people on HAART, the province achieved approximately 82 per cent coverage of the medically eligible HIV population in 2006, up from 76 per cent in 2005.

It should be noted that HIV prevalence estimates and calculations of HAART coverage based on those estimates are subject to considerable interpretation. While not articulated as a specific target within Priorities for Action, B.C. is striving to have all people living with HIV who fall within current treatment guidelines and who wish to be on treatment on HAART by 2007.

In 2006, the highest concentration of active DTP participants was in VCHA with 58 per cent (2487), down slightly from 60 per cent in 2005. This was followed by FHA with 22 per cent (932) and VIHA with 12 per cent (505) of DTP participants. The number of active participants rose across all health authorities between 2003 and 2006. The largest increase occurred in VCHA, where 380 individuals started taking HAART during that period. NHA experienced the largest proportional increase, with 35 per cent more people on HAART between 2003 and 2006.

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22 BC Centre for Excellence in HIV/AIDS. Drug Treatment Program.
23 Public Health Agency of Canada. Surveillance and Risk Assessment Division.
Number of Drug Treatment Program Participants Currently on ARV Treatment by Health Authority of Residence, 2003-2006

Regional Comparisons of Individuals on ARV Treatment in 2006 with Estimated 2005 HIV Prevalence

Source: BC Centre for Excellence in HIV/AIDS, Drug Treatment Program.
In 2006, approximately 26 per cent (1106) of active DTP participants were injection drug users. The number of injection drug users on HAART increased in all health authorities between 2003 and 2006.

Since the introduction of HAART over a decade ago, the total number of AIDS-attributed deaths in B.C. has decreased from 252 in 1996 to 139 in 2006, a decrease of more than 44 per cent. Lima et al (2007) report continued improvement in survival among DTP participants with newer forms of HAART. Since 1993-95, there has been a significant decrease in mortality and potential years of life lost (PYLL) and an increase in life expectancy among DTP participants. Individuals who started therapy in 2002-04 were almost three times less likely to die from AIDS-related causes than those who started therapy in 1993-95. Individuals who initiated triple therapy, or HAART, were two and a half times less likely to die than those on monotherapy regimens. The survival probability from the age of 20 to 44 years has increased from 1.2 per cent in 1993-95 to 36.4 per cent in 2002-04. The PYLL at age 75 years has decreased almost five times from 6005 person years per 1000 population in 1993-95 to 1234 person years per 1000 population in 2002-04. Life expectancy at the age of 20 years has nearly tripled from 9.1 years in 1993-95 to 23.6 years in 2002-04.

Pre and Post Natal Care

In 2006, there were 30 pregnancies among HIV-positive women, of which half (50 per cent) were among women who were immigrants or refugees from HIV-endemic countries, A further 13 per cent were among Aboriginal women, and 17 per cent were among women with a history of injection drug use (note: this refers to women who ever used injection drugs, not specifically in the current pregnancy). Approximately, 93 per cent of pregnant HIV-positive women accessed prenatal treatment and care and successfully delivered their infants. There was only one reported case of mother to child transmission of HIV in 2006 and this mother had not been engaged in prenatal care.

Lack of engagement in appropriate prenatal care can be defined differently, depending on the woman's situation. For example, it can apply to women who are seen briefly in hospital for a specific pregnancy-related event, such as bleeding, but are not seen again until delivery. It can apply to women who use walk-in clinics on a random basis for pregnancy-related issues, but are not tested for HIV and subsequently test positive at delivery. It can also apply to women who present quite late in their pregnancy, but are followed thereafter with some regularity and deliver their babies safely.

26 B.C. Women’s Hospital and Health Centre. Oak Tree Clinic.
Community Support

Community-based organizations across the province continued efforts in 2006 to engage some of the most vulnerable individuals in HIV care, treatment and support.

Community-based Support Initiatives by Health Authority, 2006

<table>
<thead>
<tr>
<th>Health Authority</th>
<th># of Activities</th>
<th>Estimated # of People Reached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial Health Services</td>
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<td>Vancouver Coastal Health</td>
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<tr>
<td>Interior Health</td>
<td>11</td>
<td>40,948</td>
</tr>
</tbody>
</table>

Source: B.C. Health Authorities; Data incomplete in some instances.

Within PHSA, the B.C. Persons with AIDS Society and the Positive Women's Network provided a range of support services to their respective memberships, including three healing and wellness retreats in 2006, one of which was for Aboriginal women living with HIV.

Supported by VCHA, AIDS Vancouver’s case management program focuses on stabilizing the health of people living with HIV by addressing some of the social determinants of disease progression. In 2006 case managers provided close to 2,000 sessions for clients requiring assistance with needs related to shelter, income, nutrition, health services, and immigration status.

Within FHA, the Surrey HIV/AIDS Resource Centre Society began offering medical support services to people living with HIV through a newly located community health centre. HIV primary care services are offered as part of a continuum of prevention and care services, ranging from needle exchange, to screening and testing for sexually transmitted and blood-borne diseases, to counseling and peer support.

In other regions, partnerships between public health and community-based organizations have demonstrated effectiveness at reaching some of the more street-involved individuals affected by HIV and other blood-borne diseases. In IHA, the AIDS Society of Kamloops worked with public health nurses and local physicians to offer on-site medical services for marginalized clients. In VIHA, street outreach nurses in Victoria partnered with AIDS Vancouver Island, the Victoria AIDS Resource and Community Service Society and the Society of Living Intravenous Drug Users to engage street-involved injection drug users in care and support services.

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27 B.C. Health Authorities. Program and service data.
Care and Treatment Priorities

Underserved Populations

Women

In 2006, only 15 per cent (655) of active DTP participants were women, despite approximately 22 per cent of reported HIV infections over the last decade having been among women. This under-representation suggests that improved and more focused efforts are needed to engage women who are medically eligible for drug treatment in appropriate care, treatment and support.

Under-representation of women in HIV care and treatment services is unfortunately not a new phenomenon. The Listen Up! Project – a community-based research initiative started in 1998 in Vancouver examining women’s vulnerability to HIV – consistently heard from women that there were many barriers to accessing appropriate health services. Some of these barriers were found to be consistent with long standing social inequalities shaped by issues of race, class, culture and language. Other barriers resulted from both social and geographic isolation.

Source: BC Centre for Excellence in HIV/AIDS, Drug Treatment Program.

Under-representation of women in HIV care and treatment services is unfortunately not a new phenomenon. The Listen Up! Project – a community-based research initiative started in 1998 in Vancouver examining women’s vulnerability to HIV – consistently heard from women that there were many barriers to accessing appropriate health services. Some of these barriers were found to be consistent with long standing social inequalities shaped by issues of race, class, culture and language. Other barriers resulted from both social and geographic isolation.

Source: BC Centre for Excellence in HIV/AIDS, Drug Treatment Program.

Van Cleave, V. (2003, October). Listen up! Women are talking about... women’s health research project report on phases 3 and 4. Vancouver: Women’s Health Research Project.

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All health authorities, except IHA, saw more HIV-positive women on treatment in 2006. However, it is clear that many women who might benefit from drug treatment are still not accessing it. Efforts to better engage HIV-positive women in appropriate care and treatment need to focus on accessibility, with respect to geography, culture and language, and on delivery that combines increased support with services. In many cases, this will require crafting approaches to engaging women in treatment that are gender-specific and informed by regional contexts.

Aboriginal People

The most recent year for which estimates of HIV prevalence among the Aboriginal population in B.C. are available is 2001. Using a population based analysis of Aboriginal men and women in B.C. from 1980 to 2001, Hogg et al (2004) estimated the number of Aboriginal British Columbians over the age of 15 years who were living with HIV in 2001 to be 1,691 (range: 1,479 to 1,955). The overall prevalence ranged from 1.26 per cent to 1.66 per cent. The majority of HIV-positive Aboriginal people were men, with male Aboriginal injection drug users and two-spirited men (e.g. gay, bisexual or transgender) contributing the greatest number of infections. In effect, more than one in every 100 Aboriginal persons aged 15 years and over in 2001 was living with HIV.

In 2006, only 7 per cent (301) of active DTP participants were Aboriginal people and between 2003 and 2006 the number of Aboriginal people taking HAART actually decreased across all health authorities, except FHA. This is concerning because although the total number of new HIV infections each year among Aboriginal people is small compared to the B.C. total, the rate of new positive HIV tests among Aboriginal people continues to be greater than among non-Aboriginal people. Aboriginal rates of new HIV infections were 3.4 times higher in 2003 than the overall rate for B.C., and are currently estimated at 2.9 times higher in 2006. There is clearly an opportunity to improve efforts to attract and retain HIV-positive Aboriginal people in treatment.

30 BC Centre for Excellence in HIV/AIDS. Drug Treatment Program.
There are unique circumstances governing the lives of British Columbia’s Aboriginal populations. Aboriginal people may live on a reserve or in non-reserve communities, and in some instances may move between reserve and non-reserve communities. The way in which health care services are delivered depends on where an Aboriginal person lives. If on-reserve, most health care service delivery is accessed through services supported by First Nations and Inuit Health, Health Canada. If off-reserve, Aboriginal people access their health services largely through the province’s health authorities.

In 2005, a pan-Canadian survey of Aboriginal people living with HIV conducted by the Canadian Aboriginal AIDS Network identified a number of challenges with respect to accessing HIV-related care and treatment. The survey results indicate that cultural competence is key to access and uptake of health care services for Aboriginal people, pointing to the need for a link with traditional health practices. Survey respondents also identified attitudes of health care providers informed by racism, HIV-related stigma and homophobia, and significant barriers to service uptake.

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In order to better engage Aboriginal people living with HIV in treatment, services need to be culturally appropriate. In practice, this entails a number of considerations such as:

- more Aboriginal front-line service providers
- formal professional development opportunities for health service providers related to Aboriginal cultures
- delivery of care and treatment services in a manner informed by traditional healing practices
- service delivery that encourages uptake by Aboriginal women and two-spirit people
- partnerships with Aboriginal AIDS organizations

Additionally, consideration must be extended to the distinct nature of communities within each health region, as well as to inter-jurisdictional collaboration in the context of health services delivery.

**People from HIV-endemic Countries**

In 2006, service providers in the lower mainland began to notice an increase in the number of people living with HIV who were recent arrivals from HIV endemic countries. Data from BCCDC, which includes case reports from Citizenship and Immigration Canada, confirms this observation, illustrating an increase of more than 200 per cent between 2005 and 2006.

Many of these individuals come from countries in sub-Saharan Africa and have health conditions and vulnerabilities beyond HIV that make medical management of their disease challenging and highly complex. In addition, barriers to service delivery and limited translation resources have made effective engagement of this population with the health system and with appropriate HIV care and treatment a considerable challenge.

Although it is too early to identify this as a trend, it is worth noting the 2006 increase in HIV cases among this population and adjusting planning efforts to include the potential for an ongoing pattern. The opportunity for the health system is to address the full range of health and social needs of this population by focusing on multiple vulnerabilities, rather than one disease in isolation. Many of these new Canadians have settled in FHA, which has responded with plans for new service delivery points that focus on a wide range of immigrant and refugee health matters.

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33 BC Centre for Disease Control. Division of STI/HIV Prevention and Control.
34 A list of countries where HIV is considered endemic is available from the Public Health Agency of Canada at: [www.phac-aspc.gc.ca/publicat/epiu-aepi/epi-1205/app_a_e.html](http://www.phac-aspc.gc.ca/publicat/epiu-aepi/epi-1205/app_a_e.html).
Progress Summary: Care, Treatment and Support

In 2006, the proportion of the HIV prevalent population in B.C. on HAART was approximately 41 per cent, up from the baseline of 30 per cent in 2001, and surpassing the 2006 target of 36 per cent coverage. This coverage rate is a proxy for measuring broader engagement in HIV care and treatment.

While overall progress has been made in engaging people in appropriate HIV care, treatment and support, there are population groups that continue to be underserved and, therefore, at risk of increased HIV-related illness, premature death and disease transmission. New approaches are needed to better engage women and Aboriginal British Columbians in HIV-related care and treatment. These approaches will need to explicitly address barriers related to gender, ethnicity, socioeconomic status and sexuality, and be delivered with a thorough understanding of cultural context.

The 2006 data available from health authorities indicates that community organizations across the province continued to deliver support services to an increasing number of people living with HIV. Such services are a critical component of a comprehensive and integrated HIV service continuum. Efforts to improve the link between community support programs and clinical services are needed to increase uptake of care and treatment by underserved populations.
Goal #3: Capacity Development

Introduction

The third goal of Priorities for Action is to increase capacity to curb the spread of the HIV epidemic in B.C. and provide quality and sustainable care, treatment and support services for infected individuals. In 2006, progress towards this goal was achieved through efforts to improve HIV surveillance, test the impact of expanded access to HIV drug treatment on HIV incidence at the population level, and to complete the development of regional HIV service plans and begin their implementation across the province.

Capacity Improvements

Monitoring HIV Incidence

Monitoring new HIV infections over time is the most rigorous approach for assessing trends in HIV transmission, evaluating prevention and treatment efforts, and effectively allocating resources. In B.C., the direct measurement of HIV incidence occurs largely through the use of cohort studies in high risk populations. Beyond these studies, the BCCDC provides data on rates of new HIV diagnoses in the province, although this is considered only a crude indicator of HIV incidence. This surveillance data is subject to delays in reporting, under-reporting and changing patterns in HIV testing behaviours (e.g. availability, frequency and uptake of testing). In addition, the surveillance data only captures the diagnosed portion of the HIV epidemic – those people who have been tested and given a diagnosis of HIV or AIDS.

In 2006, BCCDC and BCCfE began to explore options to improve the monitoring of HIV incidence at the population level. These efforts continue into the 2007 reporting period. Some of the options under consideration are to:

- establish a B.C.-specific approach to modeling for and reporting HIV incidence
- establish population estimates for high risk populations in B.C.
- improve assessment of testing patterns in HIV surveillance (e.g. better characterize frequency of voluntary HIV testing patterns in high risk populations)
- implement provincial laboratory testing to detect acute and recent HIV infections (e.g. adopt pooled NAAT and avidity HIV testing as part of routine HIV testing to allow for real time measurement of acute and recent HIV infections)
- conduct specific studies in high risk populations (MSM, IDU and Aboriginal populations)
Prevention Benefit of HIV Drug Treatment

In 2006, the BCCfE developed a theoretical model to significantly reduce HIV incidence at the population level by expanding access to HAART for medically eligible persons. This model was first published in The Lancet\(^{35}\) and presented to critical acclaim at the 2006 International AIDS Conference.

Over the past year, BCCfE has engaged in work with the Ministry, health authorities and BCCDC to begin development of a comprehensive plan to operationalize the model and test its effectiveness in curbing HIV transmission. It is anticipated that expanded access to HAART in B.C., with its requirement for scaled-up case finding, prevention education and linkages to appropriate care – including primary care, mental health and addictions, and HIV primary/specialist care – will substantially enhance the ability of health authorities to achieve the HIV prevention and treatment goals contained in Priorities for Action.

There is a large body of evidence that demonstrates that HAART consistently reduces HIV plasma viral load in treated individuals, which has been found to be the chief predictor of HIV infectivity and transmission\(^{36}\). These findings suggest that expanded uptake of HAART among those living with HIV can play a critical role in preventing new transmissions by reducing individual and community HIV viral load.

Recent population-based research has shown that widespread access to HAART can prevent new transmissions of HIV and thereby reduce HIV incidence and prevalence\(^{37}\). The population health benefits of expanded access to HAART are strengthened when combined with prevention education and increased opportunities for voluntary HIV testing. These benefits also increase over time in proportion to the number of people treated with HAART.

Expanded uptake of HAART also yields long-term cost-savings to the health care system by averting HIV infections and the direct and indirect costs associated with HIV-related illnesses. Recent studies estimate that each new HIV infection costs the health care system approximately $250,000\(^{38}\) in direct costs per person per lifetime, and as much as a further $1 million in indirect costs\(^{39}\).

\(^{35}\) Montaner, J.S.G., et al. (2006). The case for expanding access to highly active antiretroviral therapy to curb the growth of the HIV epidemic. The Lancet. August 5;368:531-36


Regional HIV Service Planning

In 2004, the health authorities began developing HIV service plans to support the implementation of Priorities for Action. Regional health authorities were given until March 31, 2006 to submit Board-approved HIV or blood-borne pathogen service plans to the Ministry of Health. The following table lists the regional HIV service plans in place or launched in 2006:

<table>
<thead>
<tr>
<th>Health Authority</th>
<th>Service Plan(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial Health Services</td>
<td>• Collaborating for Action: Provincial Health Services Authority HIV/AIDS Strategic Framework (October 2006).</td>
</tr>
</tbody>
</table>
| Vancouver Coastal Health    | • Meeting the Challenge: A Framework for Integrated HIV Services in Vancouver and Richmond (May 2002).  
                                | • HIV/AIDS Strategic Plan 2007-2012 (pending completion).          |
| Fraser Health               | • HIV/AIDS in Fraser Health Authority: Prevention, Care, Treatment, Support – Needs Assessment and Business Plan (March 2006).  |
| Vancouver Island Health     | • Closing the Gap: Integrated HIV/AIDS and Hepatitis C Strategic Directions for Vancouver Island Health Authority:  
| Interior Health             | • Interior Health’s Action Plan for Blood-Borne Pathogens,  

VCHA developed its first strategic plan for HIV/AIDS in 2002, prior to the release of Priorities for Action. The pending strategic plan is an update and realignment of the original plan to better achieve the provincial HIV prevention and treatment goals. This renewal process was initiated in 2005 and is expected to be completed by December 2007.

In 2006, FHA and VIHA began implementing their HIV service plans. FHA allocated new resources to support the implementation of new and existing HIV services in three hub communities: Surrey, New Westminster and Abbotsford. VIHA re-allocated existing funds to community service providers through a request for proposal process that aimed to redistribute core HIV services more equitably across the Island’s health service delivery areas.
In March 2006, the Division of STI/HIV Prevention and Control at BCCDC and the PHSA HIV/AIDS Program assisted health authorities with the implementation of their HIV/blood-borne disease service plans by providing an evidence-based review of best practices in HIV primary prevention. This review was followed by sessions to explore ways that BCCDC might better support the work of each health authority. Sessions were also held with B.C. Corrections and Correctional Services Canada, Pacific Region, with plans to offer this initiative to Health Canada, First Nations and Inuit Health, B.C. and Yukon Region.

For this initiative, BCCDC conducted a pre-consultation visit with a key figure in each authority to obtain background documents and essential information on regional issues and priorities related to blood borne disease. BCCDC then assembled teams for comprehensive consultation on the identified priorities, discussed the priority areas in detail with each respective authority, and explored opportunities for focused BCCDC assistance with the development of related programs and projects.

By the end of 2006, consultation meetings were completed with the NHA and B.C. Corrections and a pre-consultation visit had been held with FHA. Emerging issues that require BCCDC support include specific education and training requests, improved access to surveillance data, evidence to support specific prevention interventions, facilitation to develop integrated blood-borne pathogen care and support interventions, assistance with lobbying for expanded harm reduction and adolescent programs, and facilitation to develop improved inter-jurisdictional collaboration.

**Knowledge Exchange**

Knowledge exchange is a key issue for individuals working in HIV/AIDS. Policy makers and service providers need timely access to evidence to support and improve their practice. For people living with HIV and AIDS, knowledge exchange is critical to effective self care and advocacy.

In August 2006, the XVI International AIDS Conference was held in Toronto, Ontario. The conference theme, Time to Deliver, underscored that scientific knowledge and tools to prevent HIV infections and prolong life for those living with HIV/AIDS already exist, even in the poorest settings. The conference sought to mobilize the resources and political will to translate this knowledge and experience into broadly available HIV treatment and prevention programs. The 2006 AIDS conference also brought together three political and economic powerhouses: former US President Bill Clinton, Microsoft founder Bill Gates and former UN Special Envoy for HIV/AIDS in Africa, Stephen Lewis.
An estimated 30,000 scientists, policy makers, service providers, advocates and people living with HIV/AIDS from around the world gathered to review their collective experience with the epidemic and set an agenda for future action. One of the highlights of the conference was the release and discussion of a theoretical model to reduce HIV incidence by expanding access to antiretroviral therapy, developed by the BC Centre for Excellence in HIV/AIDS. Other highlights included the financial commitment of private foundations and donor governments to reduce the price of antiretroviral drugs and scale up access to them in developing countries, and to fast track research into microbicides for women. The conference served to inspire efforts here in B.C. to improve local responses to HIV/AIDS.

In 2006, the B.C. Healing Our Spirit Aboriginal AIDS Society held the 11th B.C. Aboriginal HIV/AIDS Conference in Victoria. These annual gatherings provide an opportunity for Aboriginal people living with and affected by HIV/AIDS and affiliated service providers to discuss shared experiences and exchange ideas and information. Supported in large part by Health Canada’s First Nations and Inuit Health with additional support provided by PHSA, the conference is a unique local opportunity to focus on issues that confront Aboriginal individuals and communities and inform vulnerability to HIV and other blood-borne diseases.

Each year the Pacific AIDS Network offers a skills building session for individuals affected by HIV and those who are responding to HIV in B.C. These sessions provide an opportunity for focused workshops on issues relevant to the health and well-being of people living with HIV and to the operational capacity for community-based organizations engaged in HIV/AIDS work. The sessions are sponsored in part by both the Public Health Agency of Canada and PHSA.
Goal #4: Co-ordination and Co-operation

Introduction

The fourth goal of Priorities for Action is increased co-ordination and co-operation among HIV/AIDS stakeholders across the health system. It refers to activities that encourage consensus and collaboration among stakeholders at the community, regional, provincial and federal levels. Successful collaboration between health system partners supports the achievement of HIV-related population health outcomes through information sharing, service integration, dissemination of best practices specific to local contexts and engagement of vulnerable populations. Collaboration requires that all partners become more strategic in their approach to policy development and service delivery, particularly in a time of scarce resources.

Collaborative Action

In March 2005, PHSA, along with Chee Mamuk, Healing Our Spirit, and the Red Road Aboriginal HIV/AIDS Network hosted a forum for Aboriginal communities and service providers. The forum was held to review the response to HIV/AIDS among Aboriginal people in BC. Recommendations emerging from the forum were published in Renewing Our Response: Provincial Aboriginal HIV/AIDS Forum.

In 2006, representatives from B.C. Aboriginal AIDS Service Organizations – with support from PHSA – formed the Renewing Our Response Leaders Team to advance these recommendations. The team is striving to foster an operational environment that responds to the HIV-related vulnerabilities and needs of Aboriginal people in a coordinated, collaborative and comprehensive manner. To accomplish this, the team has distilled the twenty-four recommendations from the forum into seven overarching goals. It is expected that the team’s efforts will continue into 2007 and beyond.

1. Increase co-ordination between funding agencies and work to address jurisdictional barriers that hinder HIV/AIDS services;
2. Increase funding and supports for Aboriginal program development and service delivery;
3. Create culturally appropriate HIV/AIDS strategies and policies for Aboriginal people and evaluate past strategies;
4. Build capacity and collaboration between stakeholders;
5. Support innovative resource development;
6. Empower Aboriginal people living with HIV/AIDS to develop peer support, education, and training, and self advocacy skills; and
7. Work to build capacity in community and build support with research agencies to conduct culturally appropriate research on prevention, surveillance, treatment, and care in Aboriginal communities.

In December 2006, the second annual B.C. Gay Men’s Health Summit was held in Vancouver. The event, sponsored in part by the B.C. Ministry of Health, was a collaborative effort led by the Community Based Research Centre to raise awareness and promote practical discussion on the most pressing issues facing gay
men in the province. Individuals and organizations came together to discuss the state of gay men’s health, HIV/STI prevention, and sexual health promotion, as well as to identify promising practices and programmatic responses. The two-day summit provided a unique opportunity for individuals and organizations dedicated to gay men’s health to share information and disseminate the results of new research. Planning is underway for a follow-up event scheduled for fall 2007 that will focus on approaches to reinvigorating HIV prevention for gay men.

The Positive Gathering 2006 spanned three days in October during which over 200 HIV-positive people in B.C., and their allies, came together in a comfortable and safe environment to exchange information and personal experiences. The goal of the event was to create a supportive environment in which to share experiences, learn from peers, devise strategies for prevention, care, treatment and support, and to build the HIV/AIDS community.

The 2005 Progress Report incorrectly attributed planning of the Positive Gathering to the Pacific AIDS Network (PAN). In fact, PAN was one of 10 groups that participated in the planning of the Positive Gathering. The other planning partners were ANKORS, AIDS Vancouver, B.C. Persons with AIDS Society, Friends for Life, Positive Living North, Positive Women’s Network, Vancouver Island PLWHA Society, Wings Housing, and YouthCO AIDS Society.

The Saltspring Organization for Life Improvement and Development Society hosted its second Biennial Community to Community Conference on Salt Spring Island in October 2006. Dedicated to linking the people and community of Salt Spring Island with those affected by HIV/AIDS in Africa, this conference examined the impact of and response to HIV/AIDS in Africa. Guest speakers included individuals from South Africa, Lesotho, Swaziland, and Kenya, as well as prominent figures from Canada engaged in AIDS work in Africa. The wide-ranging topics included examining the rights of girls, community mobilization, media and communications, gender equality, male sexuality, political lobbying, care-giving and services for the disabled. A distinct focus of the event was opportunities for partnerships between Canadian and African organizations engaged in HIV-related work.

The Northern Aboriginal HIV/AIDS Task Force continued its multi-stakeholder and multi-jurisdictional work planning responses to the rising rates of HIV among Aboriginal people in the North. In 2006, the Task Force led efforts to implement a mobile wellness and needle-exchange service in Prince George, as well as a series of regional summits with Aboriginal communities to set HIV priorities. This work is supported in part by a number of Task Force partners, including NHA and the B.C. Ministry of Health.

In 2006, the fixed needle exchange service in Prince George was relocated because of a fire at the original location. The move opened the door to a unique planning opportunity that engaged the City of Prince George, NHA and downtown businesses. The partnership that emerged helped address community concerns about the service and mitigate some of the negative outcomes of drug use in the downtown core.
Conclusion

The 2006 Annual Progress Report is a retrospective examination of the HIV epidemic in B.C. and the effectiveness of the provincial response to managing the epidemic. Based on available data, the size of the newly diagnosed portion of the HIV epidemic in B.C. continued its decline in 2006, with reported HIV infections acquired in B.C. at 8.4 cases per 100,000 population – the lowest level since the collection of HIV testing data began in 1989.

The number of British Columbians living with HIV and AIDS in 2006 is conservatively estimated at 10,420, using 2005 data from the Public Health Agency of Canada – the most recent year for which HIV prevalence estimates are available. The estimated proportion of people in B.C. who were living with HIV but unaware of their infection in 2006 was 27 per cent of the total HIV population, or approximately 2813 persons.

Prevention: New infections down, more HIV testing, but focused efforts required

The number of HIV tests performed within the province continues a pattern of annual increases. In 2006, 181,961 HIV tests were performed in B.C. representing an increase of 12.5 per cent and 16.1 per cent over the tests performed in 2005 and 2004 respectively. Enhanced case finding through expanded access to HIV testing is the first step in reducing the number of people who are HIV-positive but unaware of their infection. Emerging technologies such as rapid point of care testing for HIV should serve to further enhance this trend.

The annual rate of newly diagnosed HIV infections in B.C. continued its decline in 2006, with a cumulative 19.6 per cent decrease from the baseline year. This rate reduction supports directions articulated within Priorities for Action, but remains slightly less than half of the targeted reduction of 40 per cent expected for 2006.

Despite evidence of both broad-based and targeted HIV programming in all health authorities, B.C.'s rate of new infections remains above the national average. Achieving sustained and significant reductions in annual infection rates will require reinvigorated or new initiatives targeted at populations that are disproportionately burdened with new HIV infections. In the current context, prevention work with gay men and other men who have sex with men – particularly in the lower mainland of the province – must be expanded, and placed into a framework that addresses some of the broader health needs of this population. In addition, Aboriginal British Columbians require ramped-up prevention programming that is culturally relevant and accessible to women, and is designed and delivered whenever possible by Aboriginal people. Available surveillance data indicates the greatest need for such intensified efforts with Aboriginal communities in the northern half of the province.

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40 Public Health Agency of Canada. Surveillance and Risk Assessment Division.
Treatment: Treatment target surpassed again, but some populations may require special attention

Using HIV prevalence estimates for 2005, the proportion of people living with HIV in B.C. that were actively engaged in HIV treatment in 2006 was approximately 41 per cent. This exceeded the target for the year of 36 per cent coverage, a trend sustained now for four consecutive years. Given that engagement in antiretroviral treatment is an indicator of engagement in some degree of HIV care, it can be inferred that the reach of HIV care services also improved in 2006.

Notwithstanding these accomplishments, women and Aboriginal people living with HIV continue to be under-represented in antiretroviral treatment and related care. As a result, special efforts are required to reduce or eliminate barriers to access and uptake of these services. In addition, attention must be paid to the emerging, highly complex needs of immigrants and refugees from HIV-endemic countries, as well as to the related infrastructure challenges for the health system.

Health System: New approaches add extra tools

Innovative approaches to HIV surveillance and prevention are generating new tools with which to combat HIV. The use of antiretroviral therapy to prevent new HIV infections, which is currently being explored by the BCCFE, is part of a comprehensive approach to prevent and manage the disease. This work is complementary to the intensification of more traditional approaches to HIV prevention, and may demonstrate profound potential for application in other jurisdictions globally. Efforts at BCCDC to more accurately estimate annual HIV incidence and prevalence are also helping to achieve the prevention and treatment goals in Priorities for Action and to directly inform future planning and service delivery.

Future Directions

In 2007, the province will begin the process of renewing the goals in Priorities for Action and identifying opportunities to more effectively monitor both the HIV epidemics in B.C. and the HIV-related performance of health system partners. The Ministry is committed to strengthening its accountability to British Columbians for the achievement of renewed HIV prevention and treatment goals. To this end, in fiscal 2007/08, HIV-specific measures have been incorporated into the Health Authority Performance Agreements between the Ministry and the province’s health authorities that require regional reductions in HIV incidence. In addition, the Ministry continues to work with health authorities to clearly define province-wide data needs and to achieve some measure of standardization for the purposes of comparative analysis. New initiatives in development such as expanded uptake of HAART should provide additional evaluation platforms to help measure progress related to reduced transmission of HIV and improved engagement of people living with HIV within care and treatment services.
## Appendix #1: Priorities for Action, Goals and Objectives

### PREVENTION: To reduce the incidence of HIV infection by 50 per cent over the next 5 years.

<table>
<thead>
<tr>
<th>Objectives</th>
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<tbody>
<tr>
<td>To reduce incidence of HIV infection among the most vulnerable groups by 50 per cent over the next five years.</td>
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<tr>
<td>To reduce proportion of seropositive individuals who are unaware of their HIV infection by 50 per cent over the next 5 years.</td>
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<tr>
<td>To sustain effective systems of care for women living with HIV and ensure no infants are born with HIV over the next 5 years.</td>
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</table>

### CARE, TREATMENT AND SUPPORT: To increase proportion of HIV+ individuals linked to appropriate care, treatment and support services by 25 per cent over the next 5 years.

<table>
<thead>
<tr>
<th>Objectives</th>
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<tbody>
<tr>
<td>To ensure HIV+ individuals are aware of care, treatment and support services available in their communities.</td>
<td></td>
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<tr>
<td>To ensure care, treatment and support services are available for and accessible to vulnerable groups of HIV+ individuals.</td>
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<tr>
<td>To ensure HIV+ women from the most vulnerable groups access antiretroviral therapy at the same rate as women in the general population.</td>
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</table>

### CAPACITY: To enhance the province's capacity to monitor the HIV epidemic over the next 5 years.

<table>
<thead>
<tr>
<th>Objectives</th>
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</thead>
<tbody>
<tr>
<td>To strengthen the province's ability to reach and inform persons who may be unaware of their HIV infection.</td>
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<tr>
<td>To strengthen the province's ability to anticipate epidemiological trends and service needs in HIV/AIDS.</td>
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<tr>
<td>To improve epidemiological and other knowledge about HIV/AIDS among health authorities and community-based organizations.</td>
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</table>

### CO-ORDINATION AND CO-OPERATION: To create and sustain broad-based support for the approach outlined in Priorities for Action.

<table>
<thead>
<tr>
<th>Objectives</th>
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</tr>
</thead>
<tbody>
<tr>
<td>To strengthen the policy, program and service co-ordination among provincial ministries, health authorities and AIDS service organizations.</td>
<td></td>
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<tr>
<td>To integrate prevention, surveillance and treatment activities associated with HIV/AIDS and Hepatitis C.</td>
<td></td>
</tr>
<tr>
<td>To contribute more fully to international efforts to combat HIV/AIDS in developing countries.</td>
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</tbody>
</table>
Appendix #2: Notes on New Positive Tests in 2006

Data Issues:

• The classification of HIV infections as MSM or Aboriginal is based on information collected as part of public health follow-up of HIV reports, and is based on self-report among males of male sexual partners, or self-identification as First Nations, Inuit or Métis.

• The number of HIV infections in 2006 among MSM and Aboriginal persons should not be considered final, as there are still a number of new positive HIV tests in 2006 for which exposure category (n=37) and ethnicity (n=49) is unknown. The 2006 number of HIV infections among MSM and Aboriginal persons will likely increase with completeness of follow-up.

• Rates of HIV infection among MSM could not be calculated as the population size of MSM in B.C. is unknown.

• Rates of HIV infection among the Aboriginal population are calculated using projected population estimates from Statistics Canada for 2006, based on the 2001 Census. The Census uses self-identification to determine Aboriginal status, including (1) having an Aboriginal identity and/or (2) being a Registered or Treaty Indian and/or (3) being a member of an Indian Band. This is a different method of self-identification than what is used to assign ethnicity to HIV infections and may affect the validity of the Aboriginal HIV infection rates.

• For 2003-2005, the size of the Aboriginal population in B.C. is based on an extrapolation between 2001 Census and 2006 projection data. For rates of HIV infection among Aboriginal people by Health Authority, the only estimates available are from the 2001 Census. These 2001 population estimates are used to calculate rates for 2003-2006.

• The number of total first positive HIV tests and the number of newly positive HIV tests are presented as distinct categories. The difference between these two figures represents the number of first positive HIV tests in B.C. who were previously positive outside of B.C. This distinction was first made in 2005. Prior to 2005, it was not possible to identify all individuals who tested positive outside of B.C.

• Trends prior to 2005 using new positive HIV tests cannot be interpreted with confidence. Trends using total number of first positive HIV tests are felt to be valid and can be interpreted with confidence.

• The number of first positive HIV tests that were previously positive outside of B.C. is small: in 2006, 9/157 (5.7 per cent) first positive HIV tests among MSM, 2/51 (3.9%) first positive HIV tests among Aboriginal persons. Trends in new positive HIV tests are similar to those of total first positive HIV tests, suggesting the use of new positive HIV tests is a valid indicator in these populations.

• While trends prior to 2005 cannot be interpreted with confidence, the number of newly positive HIV tests is also the best proxy for HIV infections acquired within B.C.

• Surveillance data for HIV infections is based on new diagnoses of HIV infection and should not be interpreted as an accurate depiction of HIV incidence, as individuals can be diagnosed with HIV at any time after primary infection.

• The identification of new positive HIV tests is also highly dependent on testing behaviours, and changes in testing patterns over time may contribute to the surveillance data in these analysis. The magnitude of this effect is unknown.
Appendix #3: HIV Prevention Continuum

**Primordial Prevention** – decreasing societal and individual vulnerability to HIV infection through contextual interventions:
- education, equity, employment, shelter, social justice
- poverty reduction, decreasing stigma and discrimination
- stable eco-system, sustainable resources, peace

**Primary Prevention** – preventing HIV acquisition and secondary transmission from HIV-infected individuals to others through the adoption and maintenance of HIV risk reduction behaviors:
- use of male and female condoms; condom negotiating skills
- reduced number of partners/frequency of intercourse; abstinence
- partner selection (e.g. refusing high risk partners such as IDUs)
- delayed initiation of first sexual intercourse
- not exchanging sex for money/drugs
- use of new sterile needles/syringes/paraphernalia; not sharing
- cleaning/bleaching drug paraphernalia
- delayed initiation of drug injection
- non-injecting drug use
- sex with substance abuse
- being tested for HIV and learning testing results
- treating STDs; treat HSV2 to reduce HIV viral load and infectiousness
- treating HIV to reduce viral load and infectiousness
- treating substance abuse
- interrupting perinatal transmission with screening and prophylaxis

**Secondary Prevention** – preventing or delaying the progression of HIV to disease and disability, including AIDS and opportunistic infections, through prevention, prophylaxis, treatment and support services:
- antiretroviral (ARV) treatment
- prophylaxis and treatment of opportunistic infections such as TB
- prevention and treatment of STDs
- vaccination
- social and family support services
- mental health services
- addictions treatment services

**Tertiary Prevention** – ameliorating disease severity, preventing disability, enhancing quality of life and preventing mortality from HIV or AIDS:
- ARV and opportunistic infections treatment; substance dependency treatment
- mental health, disability and disease management; support services