FROM Hope TO Health

Towards an AIDS-free Generation

December 2012

BRITISH COLUMBIA | Ministry of Health

Contents

Introduction

More than 25 years have passed since Canadians first began dying of AIDS; many have lost friends, family and loved ones. As we continue to honour and remember those who have died, few could imagine the immense progress made in the last two decades in our ability to prevent and treat the disease. We have reached an exciting tipping point in the response to HIV.

Years of dedication by countless individuals have led to significant strides in HIV prevention, testing, care and treatment. These advances have created an environment where no more British Columbians have to contract HIV or die of AIDS; an AIDS-free generation is now possible. In B.C., an AIDS-free generation would mean no children are born with the virus; as these children become teenagers and adults, they will be at far lower risk of becoming infected than they are today, thanks to a wide range of prevention tools. And if they do acquire HIV, they are diagnosed early through regular testing offers, and are promptly offered treatment to prevent them from passing the virus to others and/or developing AIDS.

British Columbia has long been at the forefront in the fight against HIV/AIDS. Over the last 20 years, B.C. has spearheaded community responses and medical advances, and currently has a world-leading system of prevention and care. However, British Columbians continue to die unnecessarily of AIDS each year, while others remain unaware they are living with the virus.

Since 2009, a lot has been learned from HIV Treatment as Prevention and B.C.'s Seek and Treat for Optimal Prevention of HIV/AIDS (STOP HIV/AIDS) pilot in Vancouver and Prince George. During the pilot, more people have been offered and accepted an HIV test, more people previously unaware of their infection have a diagnosis, and more of those medically eligible have decided to start treatment. As the STOP HIV/AIDS pilot concludes, there is an opportunity to implement innovative approaches and lessons learned across all of B.C. The science of prevention and treating new infections is clear; now social and health system change is needed to support all those living with the virus and to ensure no one dies of AIDS. It is time for all of us to work together to achieve this historic milestone: an AIDS-free generation.

Purpose

This framework provides strategic guidance to health authorities for the incorporation of Treatment as Prevention into best practices for HIV prevention already underway in the province. The framework describes many of the successes from B.C.'s STOP HIV/AIDS pilot and identifies critical evidence for continued, sustained primary prevention activities. It also introduces a monitoring and evaluation framework, which will form the basis of reporting on provincial progress over the next three years.

Vision

The next generation of British Columbians will grow up AIDS free.

Mission

In an environment of compassion, and informed consent and through continued prevention activities (such as building resilience, education and harm reduction, enhanced reach of HIV testing and care, and Highly Active Antiretroviral Therapy (HAART)), fewer British Columbians will contract HIV and few of those living with HIV will see their infection progress.

Goals

1. **Reduce the number of new HIV infections in British Columbia.**
   Evidence-informed health promotion, HIV prevention, testing and care will be implemented or enhanced, reducing transmission in the province, ensuring an AIDS free generation.
2. **Improve the quality, effectiveness, and reach of HIV prevention services.**
   British Columbians vulnerable to infection will be better engaged to avoid HIV exposure and transmission.
3. **Diagnose those living with HIV as early as possible in the course of their infection.**
   British Columbians who acquire HIV will be diagnosed early in the course of their infection, and be provided the best care, treatment and support to prevent progression of the disease.
4. **Improve quality and reach of HIV support services for those living with and vulnerable to HIV.**
   British Columbians living with or vulnerable to HIV will be reached by timely and effective interventions and support. Existing systems will be augmented and will work collaboratively to ensure that the necessary treatment and support reaches those who need it.
5. **Reduce the burden of advanced HIV infection on the health system.**
   A focus on evidence-informed practice using a collaborative approach among government and non-governmental organizations will ensure resources provide the best outcomes for British Columbians and avert costs associated with missed opportunities for prevention and diagnosis.

Milestones for achievement[1]

1. **By 2016, rates of HIV testing in each health service delivery area (HSDA) will be at or above 3,500 per 100,000 people, and each HSDA will have increased HIV testing by at least 50 percent.**
   Increasing the reach of HIV testing through a variety of approaches (such as targeted testing and routine offers of HIV testing in various settings) will diagnose people living with HIV who are currently unaware of their infection, giving those individuals the opportunity to engage in care before their infection progresses.
2. **By 2016, the proportion of people diagnosed early in the course of their infection[2] will meet or exceed 50 percent in each health authority.**
   Early diagnosis means more immediate engagement in treatment and reduced chance of progression to AIDS.
3. **By 2016, of those diagnosed early in the course of their infection,[3] there will be zero case reports of progression to AIDS.**
   Those living with HIV infection will live healthier, longer lives with far fewer ever developing AIDS.
4. **By 2016, at least 90 percent of those medically eligible to access HIV treatment in each health authority will be on treatment.**
   The benefits of HIV treatment at an individual and population level can be achieved only if the health system effectively partners with communities to ensure those who are willing and medically eligible are engaged and retained in HIV care.

Information on baseline measures can be found in Appendix A.

1 As of the end of 2009, parts of Northern (NHA) and Vancouver Coastal Health Authorities (VCHA) had an opportunity to pilot activities to reach and engage people into HIV testing and treatment. These challenging goals and milestones for achievement recognize the increase in services that exist in pilot areas, but also the ongoing remaining burden these areas continue to face in relation to the rest of the province. For Milestones 1 and 3, the baselines years for evaluation will be 2009 for VCHA and NHA, 2011 for Interior Health Authority (IHA), Vancouver Island Health Authority (VIHA) and Fraser Health Authority (FHA).

2 As measured by a CD4 count of greater than 500 cells/mm3, or a diagnosis in the acute stages of HIV infection. The number of CD4, or T-cells, in one mm3 of blood is an indication of how long someone has been living with HIV infection.

3 Ibid.

Translating success of the STOP HIV/AIDS pilot provincially

More effective treatment regimens are enhancing the quality of life and the health of those living with HIV. Furthermore, evidence shows that along with standard health promotion and disease prevention efforts such as building resilience, education and harm reduction, treatment can prevent transmission.[4] With this knowledge, B.C.'s response to HIV/AIDS must expand to include Treatment as Prevention in the broader approach to HIV.

Treatment as Prevention

The concept of Treatment as Prevention, or TasP, was developed by the B.C. Centre for Excellence in HIV/AIDS (BC CfE), and is a UNAIDS and World Health Organization-endorsed concept that has the potential to significantly alter the epidemic world-wide. The concept stems from evidence that drug treatment lowers the amount of virus in the body – improving the health of those on treatment, lowering the amount of virus in the community and preventing new HIV infections over the long term.

The STOP HIV/AIDS pilot was launched in 2009 as a "proof of concept", real-world implementation of the Treatment as Prevention approach in Vancouver and Prince George. The pilot encouraged implementers to be innovative in developing ways to reach and engage those living with or vulnerable to HIV in testing, linkage and retention in care, and to evaluate success of those activities.

Preliminary results have been reviewed and presented at numerous international venues since May 2011. TasP has been adopted by other jurisdictions such as the Unites States and China, and endorsed at an international level by UNAIDS. Next steps will ensure B.C. keeps pace by implementing TasP across the province.

Guiding principles

Fighting stigma and discrimination

Everyone is entitled to be treated with respect and dignity while receiving health care. Every individual who tests, is linked to and engaged in care or is supported to decrease their risk must be empowered to access services and make informed decisions.

Stigma surrounding HIV has been present since the start of the epidemic, and while it has lessened in many communities, it remains a barrier to testing and treatment in others. Although health authorities have existing programs and activities in place to challenge HIV-related stigma, a provincial framework must acknowledge the role that stigma and related discrimination play in preventing people from getting tested, and if they test positive, entering or staying on HIV treatment.

A shift in the health system towards reaching and engaging those living with or vulnerable to HIV aims to decrease discrimination by ensuring everyone can be engaged in testing and care should they wish to be. For example, the STOP HIV/AIDS pilot implemented a routine offer of an HIV test in primary/acute and community care settings to complement continued targeted testing. Social media campaigns for HIV testing and

4 Montaner, S.G. et al (2010) Association of coverage of highly active antiretroviral therapy, population viral laod, and yearly new HIV diagnoses in British Columbia, Canada: a population-based cohort study. Lancet 376 (9740): 532-9.

education can further bring HIV into the realm of public discourse, providing opportunities to openly discuss and confront HIV-related discrimination and stigma.

Reach and engagement

Since the beginning of the HIV epidemic, the focus for testing and treatment has been put on those who are at higher risk for acquiring the virus; however, this approach has not always supported the engagement of these individuals, who often are some of the province's most marginalized. Lessons learned from the STOP HIV/AIDS pilot have shown that by reaching out to all British Columbians, women and men, young and old, health service providers can identify and support people who may otherwise be disengaged from the healthcare system, or be unaware they were ever at risk for becoming infected.

Community involvement

Both in Canada and internationally, the best results in addressing HIV are consistently achieved when governments support the development of capacity within civil society, which in turns enables people and groups to be active participants in service programming. The STOP HIV/AIDS pilot has shown that collaboration among community organizations and people living with HIV can result in innovative and successful initiatives that drive change in the system. For example, use of peer navigators – people living with HIV who assist those newly diagnosed – results in a swifter linkage to and better retention in care.

In addition, we know that the majority of new infections in B.C. continue to be among men who have sex with men (MSM). Collaboration on designing and implementing services that work to engage this population is critical – through the STOP HIV/AIDS pilot, Health Initiative for Men was a key partner in reaching and engaging men into testing and care in Vancouver in ways that meet the needs of MSM. Community level collaboration in service development, delivery and evaluation can also identify gaps in services and support overall engagement with the healthcare system in appropriate ways.

Aboriginal engagement

It is expected that health authorities will meaningfully engage with the First Nations Health Authority (FNHA) and other Aboriginal organizations to implement successes from the STOP HIV/AIDS pilot. The province provides funding to the FNHA to implement priority commitments on First Nations issues. *In the Transformative Change Accord: First Nations Health Plan*, a health promotion/injury and disease prevention action is for "First Nations and the province [to] work with the federal government to have prevention and primary health services on-reserve improved so that they meet or exceed those services provided off-reserve."[5] This includes developing and implementing a First Nations and Aboriginal HIV/AIDS Strategy.

Since 2005, the Northern B.C. First Nations HIV/AIDS Coalition, bringing together provincial and federal partners with B.C. First Nations, has supported meaningful and culturally-appropriate engagement to help communities address HIV/AIDS. In 2012, five Regional Partnership Accords were signed to further support meaningful engagement in all health authorities. This will help the FNHA work with the provincial health system in new ways and align health care priorities and community health plans to better coordinate and integrate programs and services.

Consent for testing and engagement into care

It is crucial that any HIV health promotion, prevention, testing or treatment initiative occurs in an environment of informed consent. During the STOP HIV/AIDS pilot, considerable emphasis was placed on the importance of modernizing and streamlining pre-test counselling approaches to ensure that validated and ethically sound best

5 The Transformative Change Accord: First Nations Health Plan. Available from: *http://www.nccah-ccnsa.ca/docs/social%20determinates/FirstNationsHealthImplementationPlan_Combo_LowRes.pdf*

practices for informed consent are implemented in such a way that they do not themselves become a barrier to testing and early treatment. Engagement in care and treatment at any level must be with the full consent of the individual.

Focused action

Cascade of prevention and care

The HIV cascade of prevention and care illustrates the steps in care and support for those at risk for and/or living with HIV, and the opportunities to reengage those who have fallen off at any point in the continuum. For example, only a portion of people in B.C. are at risk for HIV infection, only a portion of those have been tested and diagnosed, only a portion of those have been linked to care, etc.

The cascade provides a road map for the integration of TasP into B.C.'s current response to HIV. The framework recognizes that TasP complements other prevention activities that build resilience and promote health to address multiple social determinants of health. Taken together, these approaches continue to decrease the number of people who become at risk for HIV infection and entering the cascade of prevention and care.

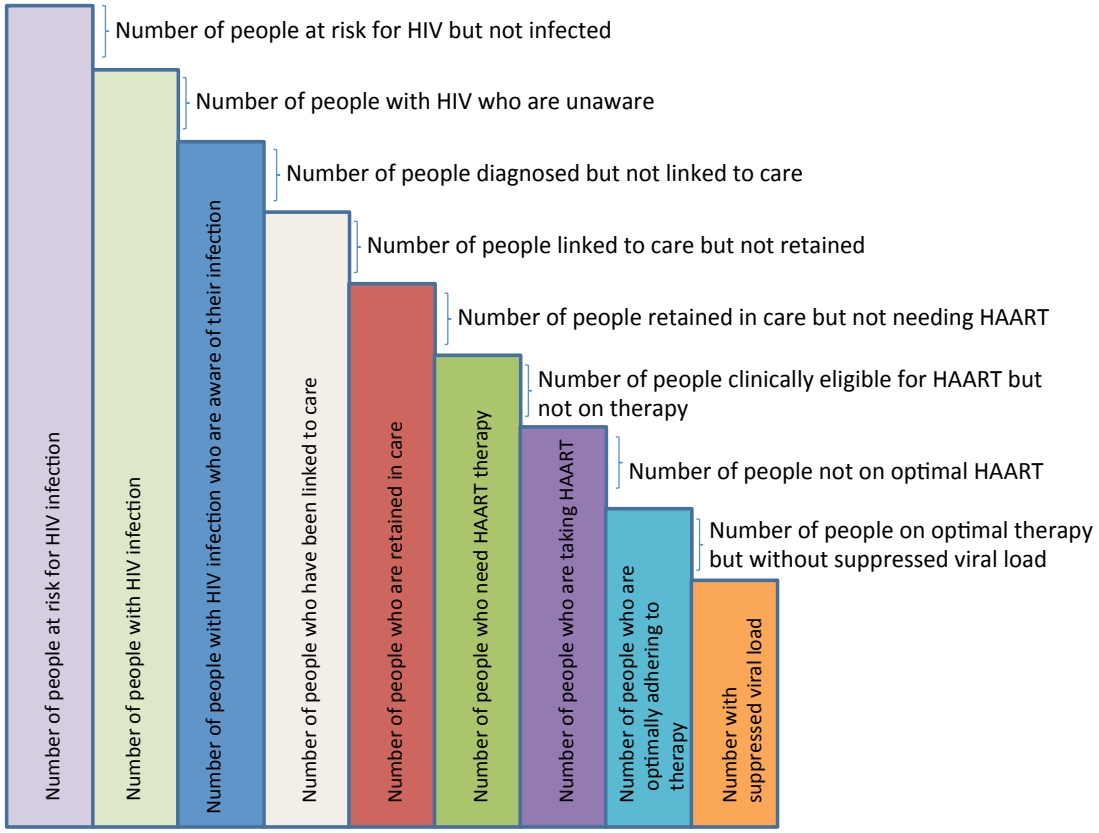

Figure 1 – Example of an HIV cascade of prevention and care for B.C.[6]

The horizontal text in each column in Figure 1 describes sub-groups of people at risk for or living with HIV, and illustrates multiple opportunities to better engage and support these individuals. This visual representation of the cascade of prevention and care also clearly identifies that targeted action is needed at all stages in the cascade to

6 B.C. model based on: Gardner, Edward M.et al (2011) The spectrum of engagement in HIV care and its relevance to test-and-treat strategies for prevention of HIV infection. *Clinical Infectious Disease* 52(6):793-800. Montaner, Julio (2012) Presentation to the STOP HIV/AIDS Steering Committee, September 2012 Nieves-Rivera, Israel (2012).
San Francisco Perspective. *Presentation at the 2012 Treatment as Prevention Workshop*, Vancouver, B.C.
Review of Scientific Evidence and Policy Implications – April 23, 2012.

drive change in the overall prevention of treatment of HIV infection. The cascade also provides a clear framework for monitoring success in B.C.

STOP HIV/AIDS pilot activities succeeded in improving population health outcomes and making positive health system changes in the pilot health authorities. Based on these results, the Ministry of Health expects a focused provincial investment allocated proportionately to each regional health authority will result in further substantive changes in addressing the HIV epidemic. The following sections build on successes and lessons learned from the pilot. Specific actions relation to HIV prevention, harm reduction activities, testing, engagement and retention in care are outlined as activities that health authorities and their community partners can implement as part of provincial expansion.

HIV prevention

The TasP approach is a critical initiative for altering the course of the HIV epidemic, and must be implemented in association with continued foundational health promotion and disease prevention activities such as education, harm reduction and support to drive change in B.C. and care for those who are at risk for HIV infection – the first step of the cascade of prevention and care.

The first highly targeted TasP initiative implemented in B.C. was to prevent of mother to child transmission by linking mothers at risk to testing and treatment. Oak Tree Clinic at BC Women's Hospital and Health Centre has provided HIV prevention and care for pregnant women and their infants since the 1990s, and today provides complex peri-natal case management to approximately 35 pregnant women annually, contributing to zero vertical transmissions of HIV in B.C.[7]

HARM REDUCTION

Harm reduction is a pragmatic response that focuses on keeping people safe and minimizing death, disease and injury associated with higher risk behaviours, such as unsafe sex practices or syringe sharing.[8]

Pilot activities and evidence generated:

The evidence of the benefits of harm reduction services in reducing HIV transmission is clear. Distribution of safer sex supplies, including both male and female condoms, and education about safer sex practices are both critical elements of HIV prevention.[9] Given that sexual activity, particularly among MSM, is the most common route of HIV transmission in B.C. today,[10] prevention efforts must continue to focus on sexual transmission. Harm reduction programs and other public health initiatives can play an important role in distributing safer sex supplies, educating individuals and communities, and connecting people to other complementary health, social and support services.

In 2011, the Provincial Health Officer identified a decreasing rate of HIV among those who inject drugs for non-medical purposes in B.C. since 2007. Interventions that contributed to this trend include participation in available harm reduction programs, such as condom distribution, needle distribution and recovery programs for those who inject, and opioid substitution, such as methadone or buprenorphine/naloxone (Suboxone ®) maintenance for people with opioid dependence.[11]

Opioid substitution therapy can ensure additional reduced risk for the transmission of HIV, increased adherence to treatment, and improved engagement of people into low-barrier health care services. B.C.'s *Healthy Minds,*

7 PHSA STOP HIV/AIDS reporting, updated December 2012.

8 B.C. Ministry of Health (2005) *Harm Reduction: A British Columbia Community Guide*

9 World Health Organization (2004) Making condoms work for HIV prevention – UNAIDS best practice selection. Available from: *http://www.unaids.org/en/media/unaids/contentassets/dataimport/publications/irc-pub06/jc941-cuttingedge_en.pdf*

10 BC Centre for Disease Control (2010) HIV and Sexually Transmitted Infections 2010. Available from: *http://www.bccdc.ca/NR/rdonlyres/2035512C-DBEC-495B-A332-C410EE9520C7/0/CPS_Report_STI_HIV_2010_annual_report_FINAL_20111122.pdf*

11 Office of the Provincial Health Officer (2011) *Decreasing HIV infections among people who use drugs by injection in British Columbia.*

Healthy People: A Ten Year Plan to Address Mental Health and Substance Use in British Columbia, aims to retain 60 percent of people started on methadone maintenance treatment for a full 12 months after they start.[12]

Evidence developed from the evaluation of Insite, B.C.'s flagship medically supervised injection facility in Vancouver, has shown that these services and other harm reduction supply activities reduce needle sharing, prevent HIV infections, and provide a point of contact for individuals living with HIV who may not be participating in HIV care and treatment.[13, 14, 15]

Health authority actions could include:

- Considering referral or consultation with Oak Tree Clinic for pregnant women living with HIV.
- Assess condom distribution programs and ensure low-barrier and culturally safe access to condoms in health care facilities and in the community, including in places where those at high risk can access when needed.
- Partner with municipal governments, law enforcement, corrections services, First Nations, Aboriginal and community groups to implement or enhance needle distribution and recovery to ensure every injection is done with a sterile needle.
- Enhance support of public education, health promotion and prevention programs that aim to reduce stigma against people who may engage in behaviors that place them at risk for HIV infection, and increase the use of safer sex and safer drug use supplies.
- Incorporate low-barrier and culturally safe harm reduction programs into HIV screening and care pathways.

In each health authority, this will mean:

- By 2016, there will be equitable reach of harm reduction supplies proportionate to population density in each Local Health Area (LHA) in the province.[16]

HIV testing and treatment

HIV TESTING

The second step in the cascade of prevention and care is a critical access point for engagement into the health system: finding people who are living with HIV but are unaware. In 2011, the Public Health Agency of Canada estimated that this is approximately 25 percent of people who are infected with HIV.[17] Testing identifies those who could initiate HIV drug treatment and links those who are not well connected to the health system with services. Evidence shows that individuals who are aware of their HIV infection are more likely to alter behavior to decrease the risk of transmitting the virus.[18]

12 Ministry of Health Services/Ministry of Children and Family Development (2010) *Healthy Minds, Healthy People: A Ten Year Plan to Address Mental Health and Substance Use in British Columbia.*

13 Andresen, M.A. and Boyd, N. (2010) A cost-benefit and cost-effectiveness analysis of Vancouver's supervised injection facility. *International Journal of Drug Policy*, 21(1):70-76.

14 Pinkerton, S.D. (2011) How many HIV infections are prevented by Vancouver Canada's supervised injection facility? *International Journal of Drug Policy*, 22(3), 179-183.

15 Kerr, Thomas, et al. (2010) Syringe sharing and HIV incidence among injection drug users and increased access to sterile syringes. *American Journal of Public Health* 100(8): 1449-1453.

16 Baseline is the number of sterile needles and condoms distributed per 100,000 people in each health authority in 2012. By 2016, every LHA will meet or exceed this baseline, proportionate to local population density.

17 Public Health Agency of Canada (2011) Estimates of HIV Prevalence and Incidence in Canada, 2011. Available at *http://www.phac-aspc.gc.ca/aids-sida/publication/survreport/estimat2011-eng.php*

18 Marks G, Crepaz N, Senterfitt JW, Janssen RS. Meta-analysis of high-risk sexual behavior in persons aware and unaware they are infected with HIV in the United States: implications for HIV prevention programs. *Journal of Acquired Immune Deficiency Syndrome* 2005;39:446-453.

Pilot activities and evidence generated:

- More people were tested for HIV in Vancouver and Prince George as a result of the STOP HIV/AIDS pilot (this excludes screening of pregnant women, who are routinely offered HIV testing throughout B.C.).
- Fewer care providers missed opportunities to offer a test during health care encounters.

Testing was targeted at two population groups:

- Testing among those considered vulnerable to HIV infection (those who use injection drugs for non-medical purposes, MSM, Aboriginal people and sex workers) by lowering or removing barriers and reaching out to test those who many not be well engaged with the health system; and
- Testing among the general adult population – by routinely offering an HIV test in acute, primary care and community settings.

Peer reviewed literature has identified broad-based HIV testing to be cost-effective in areas with an estimate prevalence of greater than 0.1 percent in the United States and Britain.[19, 20] Increased testing as a result of the STOP HIV/AIDS pilot found people who were unaware of their HIV infection and were never aware they were at risk; rates of positive tests per total tests in Vancouver consistently met or exceeded this threshold. People in non-pilot areas are being diagnosed at a lower rate, which could be attributed to lower rates of HIV testing.

Pilot funding supported the BC Centre for Disease Control and Provincial Health Services Authority/Lower Mainland Laboratories testing to better identify those in the acute phase of infection, a time when people are considered to be at higher risk for transmitting the virus. As of September 2012, 54 individuals in the acute infection phase were identified, which may have prevented between 54 and 162 new cases of HIV.[21, 22, 23]

Health authority actions could include:

- Reach and engage those people vulnerable to HIV infection or who would be better supported by targeted testing:
  - *Partner with Aboriginal and other community organizations and peers (i.e. people living with HIV) to offer lower barrier and culturally safe HIV testing;*
  - *Implement point of care testing in settings where people are less likely to return for test results;*
  - *Implement outreach teams to find those not well connected to the health care system; and*
  - *Engage with adults in correctional facilities to assist in identifying people living with HIV but are unaware.*
  - *Reach and engage the general population into testing by implementing a routine offer of HIV testing into acute and primary settings; and*
- Support and collaborate with community organizations to participate in HIV testing.
- Expand the Provincial point-of-care HIV testing program to ensure that HIV testing can occur in Labour and Delivery rooms throughout the province to test pregnant women who many not have been tested or are at high risk for infection.

19 Britain – Health Protection Agency, available from: *www.hpa.org.uk/web/HPAweb&Page&HPAwebAutoListName/Page/1272032270566*

20 Walensky, Rochelle P. (2005) Routine human immunodeficiency virus testing: An economic evaluation of current guidelines. *The American Journal of Medicine* 118:292-300

21 As of September, 2012.

22 Karris M.Y. et al. (2012). Cost Savings Associated with Testing of Antibodies, Antigens, and Nucleic Acids for Diagnosis of Acute HIV Infection. *Journal of Clinical Microbiology*, 50(6):1874-8.

23 Han X et al. (2011) Screening acute HIV infections among Chinese men who have sex with men from voluntary counseling & testing centers. *PLoS ONE*, 6(12):e28792.

In each health authority, this will mean:

- By 2015, HIV testing will be occurring in a variety of settings, with complementary use of targeted testing and routine offers of testing.
- By 2016, the proportion of people diagnosed late in their course of their infection (CD4 count less than 200 cells/mm3) will decrease to 10 percent of all new diagnoses.
- By 2015, all individuals testing for hepatitis C and/or sexually transmitted infections will also have had an HIV test at the same time.[24]
- By 2015, the proportion of newly HIV diagnosed clients who engage in partner notification will be at least 75 percent of all new cases.

ENGAGING AND RETAINING PEOPLE IN CARE

A significant element of the HIV cascade of prevention and care is engaging and retaining people in HIV care and treatment. Some points of the cascade remain tied to clinical best practice, such as determining who is eligible for HAART. A cornerstone of the TasP approach is not only to treat medically eligible individuals with HAART, but also to implement comprehensive supports to retain them in care. While HAART has been shown to prevent HIV transmission, evidence clearly supports early initiation of HAART as it leads to a decrease in morbidity and mortality at the individual level as well.[25]

Pilot activities and evidence generated:

The number of people newly starting HAART has steadily risen in the Vancouver and Northern Interior HSDAs, including Prince George, since 2009. Pilot activities successfully supported those most vulnerable and medically eligible to initiate and remain on drug treatment.[26]

- Between November 2010 and September 2012, 404 clients received case management/treatment adherence support from the Vancouver STOP HIV/AIDS Outreach Team. A review of 392 case managed clients showed an average length of stay in acute care decreased by 33 percent. A sub analysis of clients who were frequent users of emergency departments showed a 47 percent decrease in the number of emergency room visits.
- The caseload at the John Reudy Immunodeficiency Clinic at St. Paul's Hospital in Vancouver increased by 291 in just under two years during the pilot; 93 percent of all clients in the program have a suppressed viral load (879 of 942 clients).[27]
- As of December 2012, 86 percent of the over 500 women engaged in with Oak Tree Clinic have a suppressed viral load.[28]
- Vancouver's Maximally Assisted Therapy(MAT/Directly Observed Therapy (DOT) program, which supports clients to take their medication consistently, has seen a 61 percent increase in the proportion of clients who have a suppressed viral load.
- The mean viral load of all people in Vancouver known to be living with HIV has decreased significantly compared to July 2010, as well as compared to the two year average before the STOP HIV/AIDS pilot commenced.
- To fill an identified gap in service, the STOP HIV/AIDS pilot also identified a clear pathway to care for those in Vancouver who already well connected to the health system.

24 Unless they are known to have HIV infection or have had a recent test.

25 Thompson, Melanie et al. (2012) Antiretroviral Treatment of Adult HIV Infection 2012–Recommendations of the International Antiviral Society–USA Panel. *Journal of the American Medical Association* 308(4): 387-402.

26 Data from VCHA STOP HIV/AIDS evaluation team, September 2012.

27 As of September, 2012

28 PHSA STOP HIV/AIDS reporting, updated to December 2012.

Health authority actions could include:

- Reach and engage those living with HIV infection, including those who are not well connected to the health care system, to support them in HIV care and treatment :
  - *Implement one or more low-threshold outreach teams to support those with concurrent physical health, mental health and/or substance use issues that may prevent them from accessing and staying on HIV treatment;*
  - *Implement or enhance MAT/DOT-like programs for marginalized clients with complex mental health and/or substance use issues;*
  - *Enhance or implement urban Aboriginal health services and outreach support to engage Aboriginal people into culturally safe care and services (e.g. working with Friendship Centres, etc.);*
  - *Implement outreach services for inmates of correctional facilities to ensure no interruption in HIV care while moving in and out of the corrections system; and*
  - *Implement mechanisms for improved connection between public health and primary care to ensure effective HIV treatment and care closer to home.*
- Implement or enhance peer services to assist those newly diagnosed with HIV infection to seamlessly connect them to care and treatment services.
- Establish or enhance telehealth services to reach people living in rural or remote areas of the province.
- Establish a system of pharmacy outreach for consistent medication provision and education outreach for locations outside the Lower Mainland to decrease delay/gaps in HIV treatment.
- Review system of HIV care and care pathways to ensure all healthcare providers have clearly articulated and well-supported access to referral for thosel ving with HIV, wherever or however they may be identified.

In each health authority, this will mean:

- By 2015, the proportion of clients on HIV therapy receiving standard of care laboratory monitoring will increase by 50 percent.
- By 2016, the proportion of all clients on HIV therapy who are currently virally suppressed (i.e. viral load is less than 200 copies/mL) will increase by 50 percent.
- By 2016, all health authorities will have initiated and evaluated client engagement and client satisfaction activities.

Monitoring and evaluation

This document provides strategic direction to regional health authorities to build on the lessons learned from the STOP HIV/AIDS pilot and provincially expand the key successes. Each year for the next three years, the Ministry of Health will report on progress, specifically focusing on milestones for achievement and health authority and community partner activities and outcomes.[29] Reporting will have a dedicated section on health authority and community collaboration as health authorities tailor the approach for maximum impact in each region to ensure overall provincial progress towards an AIDS-free generation.

29 Datasets developed and maintained at PHSA, BCCDC and BC CfE will provide ongoing support with monitoring and evaluation of the provincial implementation and analysis will inform the regular reporting by the Ministry of Health.

Appendix A

Milestone Baseline Measurements

1. *By 2016, rates of HIV testing in each health service delivery area will be at or above 3,500 per 100,000 people, and each HSDA will have increased HIV testing by at least 50 percent.*

HSDA	Baseline Year	Number of non-prenatal HIV tests[1]	Population[2]	Calculated Testing Rate per 100,000
VCHA	**2009**			
Richmond		3,110	158,151	1,966
North Shore-Garibaldi		7,107	225,624	3,150
Vancouver		48,765	545,663	8,937
NHA	**2009**			
Northwest		1,698	57,024	2,978
Northern Interior		3,653	110,968	3,292
Northeast		1,610	50,540	3,186
VIHA	**2011**			
South Vancouver Island		8,945	315,512	2,835
Central Vancouver Island		4,446	220,985	2,012
North Vancouver Island		1,209	98,862	1,223
FHA	**2011**			
Fraser East		4,931	223,766	2,204
Fraser North		17,653	500,683	3,526
Fraser South		12,406	572,270	2,168
IHA	**2011**			
East Kootenay		1,284	65,598	1,957
Kootenay Boundary		1,804	66,059	2,731
Okanagan		8,505	292,380	2,909
Thompson-Caribou-Shuswap		4,262	183,243	2,326

Notes:

1 Public Health Microbiology & Reference Laboratory, October 2012

2 BC Statistics, October 2012 – population 18 years or older.

2. *By 2016, the proportion of people diagnosed earlier in the course of their infection – as measured by a CD4 count of greater than 500 cells/mm^3, or diagnosed in the acute stages of infection – will meet or exceed 50 percent in each health authority.*

Through pilot monitoring, VCHA has seen an increasing trend in the proportion of diagnosed with HIV earlier in their infection. In 2011 in Vancouver, there was an average was 36 percent of people with a new diagnosis of HIV with a CD4 count of greater than 500cells/mm3 at diagnosis.[30]

30 MacDonald et al., (2012) Public Health Surveillance Unit–STOP HIV/AIDS Quarterly Monitoring Report Quarter 1, 2012: January 1, 2012 – March 31, 2012.

Baseline data for all regions of the province will be available through continued data linkages among provincial partners.

3. *By 2016, of those diagnosed with a CD4 count greater than 500 cells/mm^3, or diagnosed in the acute stages of infection, there will be zero case reports of progression to AIDS.*

Health Authority	Reporting Year	Number of AIDS case reports[3]
VCHA	2009[4]	38
NHA	2009	6
VIHA	2010[5]	13
FHA	2010	21
IHA	2010	0

Notes:
3 Total number of case reports with any initial CD4 count.
4 B.C Annual Summary of Reportable Diseases 2010, BCCDC.
5 B.C Annual Summary of Reportable Diseases 2011, BCCDC. 2011 numbers for baseline will be available in 2013.

4. *By 2016, at least 90 percent of those medically eligible to access HIV treatment in each health authority will be on treatment.*

The BCCfE has estimated at approximately 45 percent of those living with HIV were accessing HAART in B.C. in 2008[31], which increased to 56 percent in 2011.[32] The number of diagnosed with HIV infection and prescribed anti-retroviral drugs has increased significantly in Vancouver over their baseline of 2008-2010 (pre-STOP HIV/AIDS) with an average of 59 percent in 2011.[33]

Baseline data for all regions of the province will be available through continued data linkages among provincial partners.

31 BC Centre for Excellence in HIV/AIDS (2012) *Seek and Treat for Optimal Prevention of HIV/AIDS Interim Report, September, 2012.*

32 BC Centre for Excellence in HIV/AIDS, November 2, 2012

33 MacDonald et al., (2012) Public Health Surveillance Unit–STOP HIV/AIDS Quarterly Monitoring Report Quarter 1, 2012: January 1, 2012 – March 31, 2012.