



# **SASKATCHEWAN'S HIV Strategy**

**2010 – 2014**



**Saskatchewan  
Ministry of  
Health**



## **Acknowledgements**

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# HIV STRATEGY FOR SASKATCHEWAN 2010 - 2014

***A COMPREHENSIVE PROVINCIAL  
STRATEGY IS REQUIRED TO PREVENT  
THE TRANSMISSION OF HIV IN  
SASKATCHEWAN AND TO IMPROVE  
THE QUALITY OF LIFE FOR HIV-  
POSITIVE PEOPLE***

## I Executive Summary

Saskatchewan has seen a substantial increase in new cases of HIV since 2003 and as of 2010 has the highest rates in Canada at twice the national average at 20.8 vs. 9.3/100,000 (Public Health Agency of Canada [PHAC], *HIV and AIDS in Canada; Surveillance Report, December 31, 2008*). The epidemiology of HIV in Saskatchewan is different from the rest of Canada, with 75% of new HIV cases in 2009 predominantly associated with injection drug use. Aboriginal women under age 30 account for a disproportionate number of all new HIV-positive cases in the province (Ministry of Health, PHB, 2010).

HIV/AIDS has the greatest impact on Canadian populations already vulnerable to a range of health, social, and economic inequities. The social determinants of health that impact risks of acquiring HIV, especially injection drug use, include factors such as poverty, inadequate housing, lack of education or job training, child abuse and family violence. Addressing the social determinants of health, injection drug use, and HIV requires a concerted effort, and a coordinated and multisectoral commitment.

## *Cost*

The impact of HIV/AIDS on provincial health services and social systems is significant. A conservative estimate of direct costs to the Saskatchewan health care system is approximately \$40 million per year (calculated amount based upon Drug Plan and hospitalization data). Indirect costs attributable to HIV/AIDS have been estimated to be 2.4 times direct costs.(1)

## *Goals*

The goals of the Saskatchewan HIV Strategy are to:

- Reduce the number of new HIV infections;
- Improve quality of life for HIV infected individuals; and
- Reduce risk factors for acquisition of HIV infection.

In order to achieve these goals throughout Saskatchewan, a comprehensive and integrated, approach to HIV (with consideration of hepatitis C, tuberculosis and sexually transmitted infections) is required. Several of the recommendations made in this strategy are broad in scope and will take a concerted effort over a period of time to make the changes necessary to achieve its objectives.

This strategy forms the framework for current and planned efforts to address HIV/AIDS issues in Saskatchewan.

The Saskatchewan HIV Strategy builds upon current knowledge and provides an outline for steps to address the challenge of rising HIV rates in the province over the next four years. Continued research and the discovery of new evidence may reveal new opportunities or practices which will refine the strategy to the needs of individuals with HIV and those who are at risk. The complex nature of addictions, which usually includes a host of other

challenges such as poverty, housing and mental health issues, needs to be considered within a comprehensive strategy. This strategy will benefit from current actions underway in the area of prevention and treatment of addictions. A multi-disciplinary team approach is well suited to the focus of preventing, assessing, treating and controlling HIV/AIDS and other specific communicable diseases in Saskatchewan.

Improvements to address the transmission of HIV/AIDS are already underway, with, for example, strengthened case management and increased access to rapid Point of Care Testing (POCT). Currently, five health regions have implemented POCT, and have achieved 100% proficiency in meeting quality assurance standards.

It is anticipated that implementation of the strategy will see increased HIV rates due to enhanced surveillance and increased testing. It is expected that the HIV rates will decline in year four as the intervention/prevention initiatives start showing results. However, the strategy will require continued involvement of many sectors in order to ensure success.

In addition to work underway to ensure early diagnosis of HIV, steps are being taken by regional addictions services to improve client access to alcohol and drug services and improve client flow between services to keep clients actively participating in programming.

Several initiatives to achieve this improvement are under development, with implementation scheduled to begin early in 2011. These initiatives include:

- Standardized recovery support planning to improve client flow from one service to the next;
- Standardized screening and prioritization of services to eliminate duplication of data

collection and efficiently stream clients to appropriate services;

- Standardized assessments to eliminate duplication of assessments and reduce the number of clients waiting to be assessed;
- Standardized admission criteria for detox and inpatient services to reduce inappropriate referrals and improve client flow to appropriate services;
- Identification of housing supports and establishment of protocols to link clients to appropriate housing options to reduce the number of clients occupying treatment beds who are in need of supportive housing;
- Identification of average discharge rates to pull clients through the system and estimate current system capacity when operating efficiently; and
- Review and revision of models of care to identify and validate best practices for specific client groups.

Health regions are at various stages of planning for establishing linkages with needle exchange programs and addiction services. Prince Albert Parkland Health Region has recently located addiction counselors at needle exchange and outreach services. The Prince Albert Parkland model includes co-located services for needle exchange, the hepatitis C/HIV clinic, and sexual health clinic. Addiction services are available at the same location. The co-location of services provides knowledge exchange opportunities for staff and allows addiction counsellors to establish rapport with clients in a number of different settings. In this best practice model, addiction counselors apply harm reduction principles and programs as part of the recovery process, recognizing that abstinence may be the end result but not the starting point and it is important to meet clients “where they are at.”



The Addiction Advisory Committee's term is nearing completion and a final report with recommendations will be submitted to the Minister in the next few months. A number of areas have been identified to help strengthen the continuum of care for alcohol and drug services.

## The Four Strategic Pillars

The HIV strategy is aligned under four main pillars in order to ensure a comprehensive approach to addressing HIV in Saskatchewan. These four strategic pillars are

- › *Community Engagement and Education*
- › *Prevention and Harm Reduction*
- › *Clinical Management*
- › *Surveillance and Research*

Clear communications among stakeholders, regions, partners and the Ministry will be key to ensuring that knowledge, capacity, and ownership increase among those involved in addressing HIV/AIDS.

The following describes the detailed components of each pillar of the HIV strategy.

### 1. *Community Engagement and Education*

The focus of community engagement and education is to:

- Engage elders of First Nations and Métis communities to promote ownership of and involvement in addressing HIV;
- Establish HIV-positive peer to peer networks (HIV-positive teens, IDUs, and HIV-positive mothers) to provide knowledgeable and acceptable supports to those HIV positive or at risk;
- Provide public awareness and education campaigns aimed at prevention of HIV to reduce risk of acquiring HIV and to reduce stigma in the broader population;
- Ensure targeted prevention, treatment, and healthy living programming for HIV-positive individuals; and
- Strengthen prevention measures that protect children and youth, such as Kids-First programming, which focuses on areas such as home-visiting, parent engagement, and promoting linkages with mental health and addictions services

### 2. *Prevention and Harm Reduction*

The focus of prevention and harm reduction is to:

- Establish prevention and wellbeing centers with expanded access to harm reduction measures and to promote and encourage safe behaviours;
- Enhance medical/nursing curricula to ensure adequate education and knowledge of substance abuse and chemical dependency;
- Increase access to HIV testing for at risk populations;
- Continue to enhance addictions prevention initiatives; and increase capacity and accessibility to treatment services through improved service delivery;
- Reduce homelessness for those at-risk of or those living with HIV, by developing a supportive housing model through Regional Intersectoral Committees and other inter-Ministerial forums such as the Human Services Integration Forum. The Prince Albert Horizontal Project Pilot, a holistic model that integrates supportive services with housing, and is aimed at improving a variety of life aspects, including decreased involvement with acute health services

and the criminal justice system, could be considered as a promising practice; and

- Incorporate mental health and addictions programming with prevention and wellbeing centres, using a holistic client/patient-centered approach.

### 3. *Clinical Management*

The focus of clinical management is to:

- Provide a non-discriminatory, patient-first approach to care;
- Adopt cross-disciplinary teams to provide a continuum of support to HIV-positive individuals;
- Ensure focused learning opportunities for all health care providers; and
- Incorporate best practice plans and standardized protocols for enhanced case and clinical management of HIV.

### 4. *Surveillance and Research*

The focus of surveillance and research is to:

- Understand disease characteristics in order to inform prevention and treatment plans;
- Increase understanding of risk factors for HIV; and
- Improve knowledge translation and communication at all levels.

## II HIV in Canada

As of 2008, the number of Canadians diagnosed with HIV was estimated at 67,442 (a 7.0% increase from the previous year). Additionally, it was estimated that as of 2008, over 13,000 Canadians had died from HIV/AIDS.(2)<sup>1</sup>

In 2008, more than 80% of all positive tests were reported from the three provinces with the largest populations: 42.7% from Ontario, 24.7% from Quebec and 13.6% from British Columbia. However, in this same year, rates of new infections per 100,000 were the highest in Saskatchewan (20.8), more than twice those of Ontario (10.3), British Columbia (9.5) and Quebec (9.8), while the lowest rates were reported in Newfoundland and Labrador (0.7), Northwest Territories (0.0) and Nunavut (0.0). See Figure 1 on the following page for a comparison of 1998 and 2008 data from Statistics Canada and PHAC regarding the diagnosis rates of HIV infection.

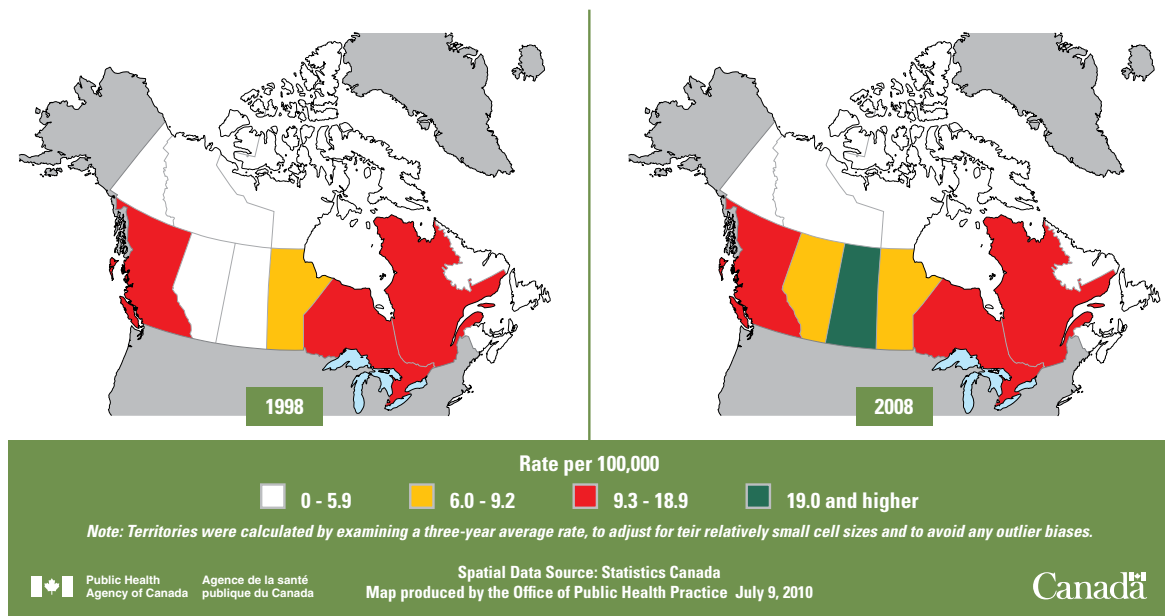
In 2008, approximately 25% of newly diagnosed cases in Canada were among women. The exposure category of men who have sex with men (MSM) accounted for the largest proportion of positive HIV tests (45.1%), followed by heterosexual exposure at 30.8% and injection drug use (IDU) at 19.1%. From 1999 to 2008, IDU accounted for approximately 49.3% of women diagnosed with HIV and only 17.6% of cases among HIV-positive men.

It is important to note that not all jurisdictions report ethnicity, in particular, Ontario and Quebec. Noting this data limitation, in 2008, the majority of positive tests (44.6%) were non-Aboriginal, and 29.4% were of Aboriginal descent.

While MSM remain the highest proportion of HIV test reports in adults (2008), HIV/AIDS is increasingly affecting other populations at risk, in particular,

<sup>1</sup> Unless otherwise indicated all data in section "II: HIV in Canada" has been adapted from the Public Health Agency of Canada's 2009 report: *HIV and AIDS in Canada Surveillance Report to December 31, 2008*.

**Rate (per 100,000 population) of Diagnoses of HIV Infection in Canada,  
1998 and 2008 (both sexes, ages >= 15)**



**Figure 1: Diagnosis of HIV Infection in Canada, 1998 and 2008.**  
Source: © Statistics Canada & PHAC/Office of Public Health Practice, July 2010

Aboriginal people. Over the past decade there has been a steady decrease in the proportion of positive tests attributed to non-Aboriginal Canadians and an increase in the proportion of Aboriginal and Black Canadians, 23.4% to 29.4% and 7.3% to 14.5%, respectively. Of note, women, IDUs, youth, and people from countries where HIV/AIDS is endemic are also experiencing increasing rates of infection.

In 1998, an escalation of HIV occurred in British Columbia which was primarily associated with IDU. Other social risk factors such as unstable housing, poverty and unemployment also played significant roles in the positive HIV and data results. The majority of these British Columbia cases were of Aboriginal descent.<sup>(3)</sup> Recent studies in Edmonton, Alberta identified similar characteristics among a group of predominately male HIV-positive IDUs.<sup>(4)</sup>

In Canada, of the 238 babies born to HIV-positive mothers in 2008, four babies (1.7%) were confirmed to have been infected with HIV. This proportion is the lowest since the peak in 2001, when 17 babies of a possible 168 (10%) were born infected with HIV. The trend has decreased every year since 2001, with the exception of 2005, when 13 babies of a potential 189 (7.0%) were born HIV-positive. The cumulative proportion since 2001 is 93 positive babies of a potential 1543 babies (6.0%) born to HIV infected mothers. The proportion of HIV-positive mothers receiving antiretroviral therapy has increased steadily in the last 9 years, to 87.8% in 2008.

In Canada, Acquired Immune Deficiency Syndrome (AIDS) has steadily declined over the last ten years (from 1998 to 2008) with 255 cases reported in 2008.

### III HIV in Saskatchewan

#### *Historical Perspective*

Since 1996, there has been an increase in new HIV-positive cases in Saskatchewan; various clusters and outbreaks of new HIV cases have been documented.

In 2002, a Saskatchewan report, *At Risk: Recommendations for a Strategy on HIV, Blood-borne Pathogens and Injection Drug Use*, identified 75 recommendations to address the increasing rates of HIV in the province. Of the 75 recommendations, many have been accomplished; however, some continue to be emphasized in this HIV strategy with a more formalized structure.

The epidemiology of HIV in the Saskatchewan population is different from that seen elsewhere in Canada, with its new HIV cases predominantly associated with IDU. This trend of increasing new HIV cases that are IDU related increased from 50% in 1997 to 75% in 2009. Since 2005, Aboriginal

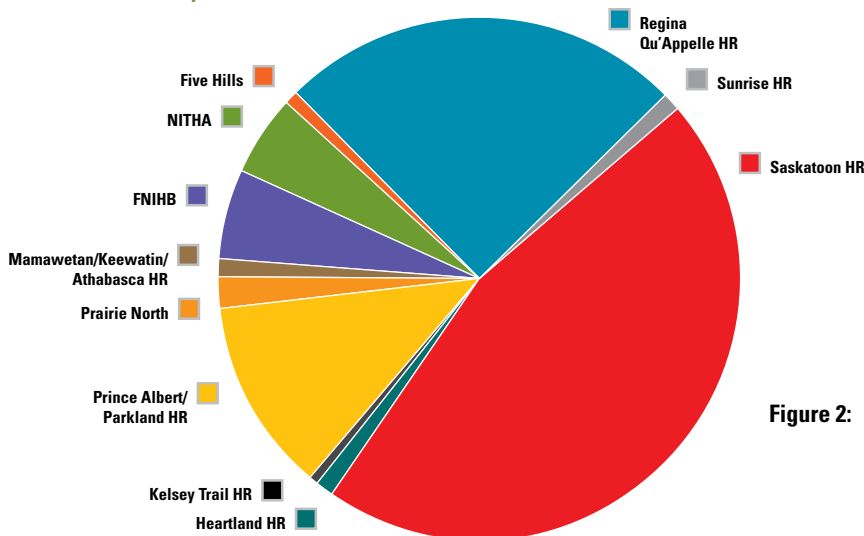
females under the age of thirty have accounted for a disproportionate number of female HIV cases under the age of thirty. Saskatchewan's 2009 data indicates that Aboriginal women under the age of 30 account for a disproportionate number (93%) of the reported female cases of HIV under the age of thirty (Ministry of Health database, retrieved in 2010). In 2009, the majority of new HIV cases were in Regina, Saskatoon, and Prince Albert; see Figure 2.

#### *Incidence*

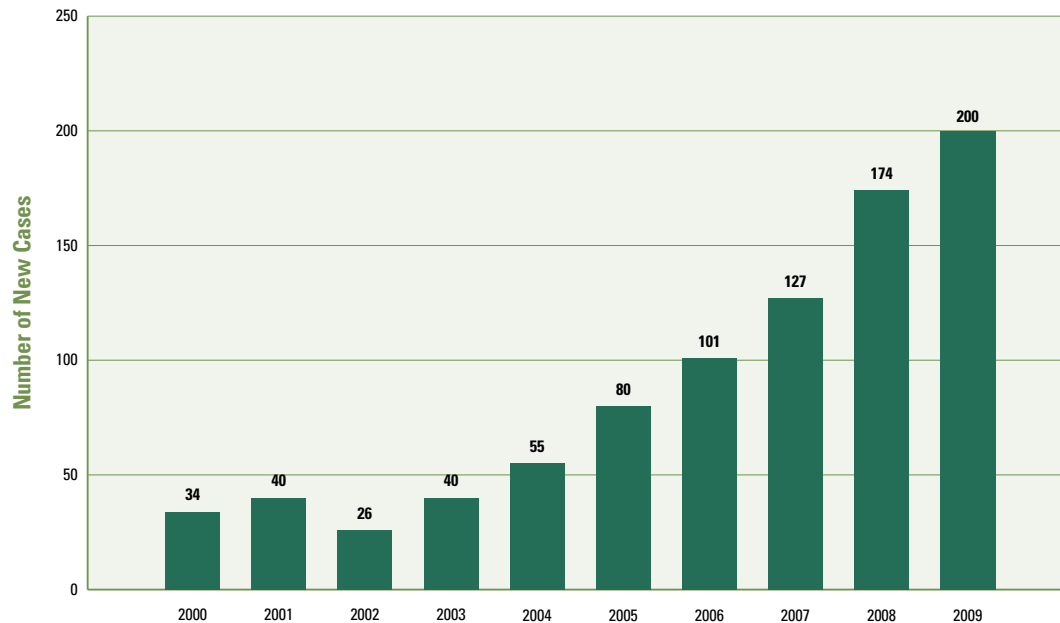
The number of new HIV cases in Saskatchewan has steadily increased from 26 new cases in 2002 to 200 new cases in 2009 (Ministry of Health database, retrieved in 2010). The incidence of new HIV cases, 2000-2009 is described in Figure 3.

In 2008, there were 174 new cases of HIV reported in Saskatchewan; 94 males and 80 females. Throughout 2009, the number of new male cases (111) continued to increase compared to the number of new female

**Proportion of HIV Cases Reported by Health Jurisdictions.  
Saskatchewan, 2009**



**Figure 2:** New HIV Cases by Regional Health Authority  
Reference: Ministry of Health-PHB, 2010



**Figure 3:** New HIV Cases reported in Saskatchewan, 2000 to 2009.  
Reference: Ministry of Health-PHB, 2010. Data for 2009 is preliminary.

cases (88). There was also one perinatal case for a total of 200 new cases reported in 2009. (Saskatchewan Ministry of Health database, retrieved, 2010).

In 2009, the average age for cases reported in women was younger than that reported for men, with approximately 50% of the females being under the age of 30 compared to 23% of the males in the same age

group. For additional detail on age group and gender for HIV cases see Table 1.

Ethnicity of all cases indicates an over-representation of those of Aboriginal ethnicity (79% in 2009). See Figure 4 for additional information. In 2009, the new cases were predominantly found to be IDU (77%); and of this group, 84% were of Aboriginal ethnicity.

**Table 1:** Number of HIV cases reported by Age Group and Gender in Saskatchewan, 2004 to 2009.

Age Group	2004		2005		2006		2007		2008		2009	
	male	female	male	female	male	female	male	female	male	female	male	female
0 to 4			1	2			2	2				1
5 to 14						2		1				
15 to 29	2	17	16	24	11	25	16	37	18	39	25	45
30 to 39	18	7	9	8	19	15	19	12	37	25	40	30
40 to 49	6	1	6	7	14	10	17	7	27	15	28	9
over 50	4		5	2	4	1	11	3	12	1	18	4
<b>Total</b>	<b>55</b>		<b>80</b>		<b>101</b>		<b>127</b>		<b>174</b>		<b>200</b>	

Reference: Ministry of Health-PHB, 2010

Canadian iTrack studies, a series of surveys that collects information regarding IDU, show that 38% of IDUs (both HIV-positive and HIV-negative) in Regina inject with their families compared to an average of 12.7% across seven other Canadian cities. Approximately 50% of Regina IDUs inject with sex partners compared to less than 30% in other Canadian cities.(5)

See Figure 5, on the following page for additional information regarding IDU among those with HIV by age group in Saskatchewan.

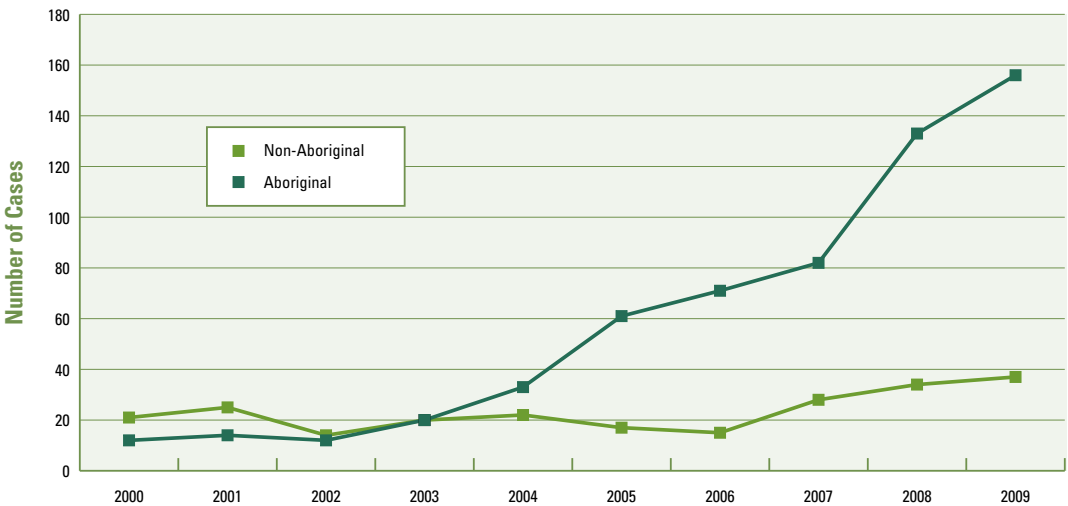
The disproportionate number of HIV-positive cases among Aboriginal women under 30 years of age compared to the number of reported cases among non-Aboriginal women under 30 years of age indicates the influence of many complex factors of vulnerability, such as unstable housing, addiction, and elevated risk of sexual and drug-related harms.(7-8) It is important that the Saskatchewan HIV strategy consider all of these vulnerability factors.

*Prevalence*

The exact prevalence (number of individuals living with HIV) in Saskatchewan is unknown. Approximately 1,200 cases have been diagnosed since the year 1984 and the 2008 PHAC surveillance report predicts that a further 27% could remain undiagnosed. PHAC estimates that in Saskatchewan the prevalence would be approximately 1,420. (PHAC correspondence, January 2010).

*Drug Use and Risk Factors in Saskatchewan*

According to data from the Alcohol and Drug Services Client Information System, in 2008-09, 1,222 admissions occurred in which IDU was identified as the presenting problem. This compares to 1,158 admissions in 2007/08, 645 in 2006/07, and 619 in 2005/06. Cocaine has been identified as the most frequently injected drug by those accessing addictions services, followed by morphine/Demerol®, and Talwin®/Ritalin®. Cocaine has been consistently



**Figure 4:** HIV Cases by Selected Self-reported Ethnicity in Saskatchewan, 2000 to 2009.  
*Reference: Ministry of Health-PHB, 2010.*

reported as the drug of choice in recent years.(5) However, morphine/Demerol® showed a significant increase in frequency of use in 2007/08 over the previous year: 34% of admissions compared to 18%.

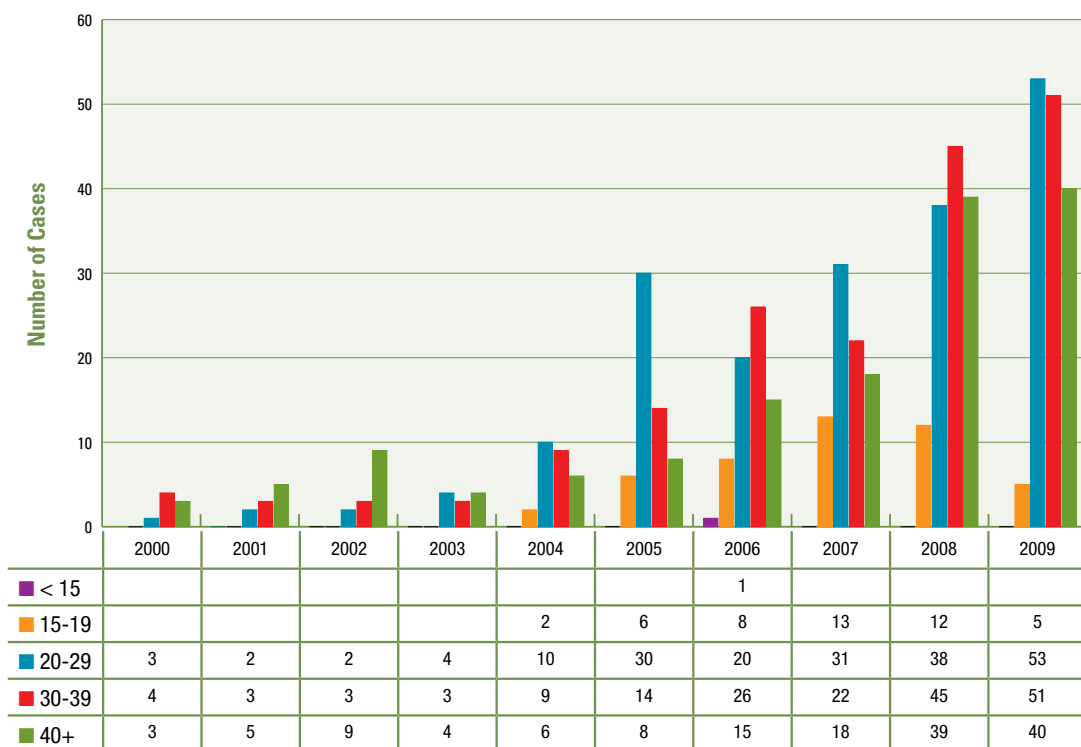
IDUs in Saskatchewan utilize a high and increasing number of needles from Saskatchewan's Needle Exchange Program (NEP). The number of needles distributed through the NEP has increased from 3.0 million in 2004-05 to 3.9 million in 2008-09.

Risky sexual behaviours were shown to be associated with IDU in the 2006 iTrack study. Most (86%) of the male participants in Regina, reported having a regular sex partner in the previous six months; only 14% of these males always used a condom, and 68% reported having never used a condom with their regular sex partner. Additionally, almost 30% of male participants indicated that they had casual female sex partners in the previous six months and about 25% of

these never used a condom during vaginal sex in the previous six months. For females, 88% of participants reported having a regular sex partner; 70% reported never using a condom with their regular partner in the previous six months. Again, about 24% of female participants indicated having casual sex partners, and about one third of them reported never using a condom with their casual partners during vaginal sex.

### *Social Determinants of Health*

The social determinants of health also greatly influence the development of health inequities that disproportionately place vulnerable and marginalized populations at risk of poor health outcomes. Factors such as housing, income, education, employment and social support substantially impact the health of individuals and communities. Saskatoon, a city with the highest rates of new reported cases of HIV



**Figure 5:** Injection Drug Use among HIV cases reported by Age Group, 2000 to 2009, Saskatchewan.  
Reference: Ministry of Health-PHB, 2010.



infection, has identified substantial health disparities in low income neighborhoods compared to higher income neighborhoods of Saskatoon. These areas have shown to have higher rates of unemployment, lower education levels, a higher proportion of residents living below the Low Income Cut-Off (47% in 2006), higher rates of inadequate housing and limited access to nutritious and affordable food.(9) Subsequently, these areas have also shown higher rates of health disparities.(10-11)

An effective provincial HIV strategy will require a comprehensive understanding of the broader determinants of health and their impact on vulnerable populations in order to identify and address barriers that produce poor health outcomes and increased risk of HIV among Saskatchewan residents. One such determinant of health noted among many stakeholders as a priority is housing. Reducing homelessness for those at-risk of or infected with HIV is a goal that can be addressed with committed inter-sectoral partners. It is recommended that a supportive housing strategy be developed using the “Horizontal Project” model currently used in Prince Albert. This holistic model integrates intensive supportive services with housing, and is aimed at improving a variety of life aspects, including decreased involvement with acute health services and the criminal justice system. The agencies involved in funding or supporting the project include the Homelessness Partnering Strategy under Human Resources and Skills Development Canada; Indian and Northern Affairs Canada; Justice Canada, Public Health Agency of Canada, Ministries of Social Services, Education, Corrections Public Safety and Policing; Prince Albert Grand Council; housing authorities; community-based organizations; regional HIV and Sexual Health clinics; as well as a number of organizations and individuals who have committed housing to the project.

### *Clinical Course*

Clinicians in Saskatchewan have reported that patients are either presenting late in the disease process, or that they are presenting for diagnosis soon after exposure/infection but are showing rapid progression of HIV. An investigation to determine if this is a function of progression of disease, or of late presentation, is required. This could include an investigation into patient response to the virus and will assist in determining if some patients experience an insufficient antibody response to detect HIV with the current standard of antibody testing.

A study of 39 HIV-related hospital admissions in Saskatoon (30 cases) demonstrated a mean age of 40 years, a mean CD4 count of 136 (indicating advanced disease) and an average duration of hospital stay of 30 days. Seven of the cases were diagnosed with HIV on admission. Five of the 30 cases died while in hospital. This is a significant finding as patients are reporting to the hospital in an advanced stage of disease progression which requires complex care for treatment.

In 2008, 277 HIV-positive patients were recorded as receiving at least one antiretroviral drug treatment (Saskatchewan Ministry of Health, Drug Plan Branch data, 2008). In 2009, this number increased to 675 HIV-positive patients of which 238 (35%) were First Nations. This is estimated to be about one half of the total number of those who could be on antiretroviral (ARV) therapy.

From the year 1998 to the year 2008, out of 729 newly HIV diagnosed cases, a total of 556 HIV specimens (76%) from the province of Saskatchewan were analyzed for genotypic and phenotypic drug resistance (2a). Preliminary analysis showed a significant increase in the prevalence of transmitted drug resistance in samples from 2007 and 2008; the increase occurred primarily in a specific drug class, the Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTI). The proportion with any NNRTI resistance mutations



was higher in recent years (14.0% in 2007 and 16.7% in 2008) compared to the range of 0% to 4.1% in the early years (1998-2004). The proportion of any drug resistance rose to 18.0% of samples in 2007 and 24.2% of samples in 2008 (2a). Available data from another Canadian province indicate that this trend in Saskatchewan is different from that province. The Saskatchewan data are preliminary and it is recommended that more analysis be completed with 2009/10 data, when available, to determine if the increased trend of drug resistance is continuing.

### *Co-infection*

Co-infection of HIV and hepatitis C is common among those who inject drugs. Newly diagnosed cases of hepatitis C continue to be high in Saskatchewan with 600-700 new cases identified annually (in 2008, 706 new cases were reported). Saskatchewan has the second highest incidence of hepatitis C cases (70/100,000) in Canada after the Yukon Territory. The national average for hepatitis C incidence is 35/100,000. Co-infection of hepatitis C individuals with HIV is very common: 70% of those diagnosed with HIV in Saskatchewan are co-infected with hepatitis C (Saskatchewan Ministry of Health data, 2010).

Co-infection of HIV and tuberculosis (TB) is also common, particularly in countries or populations who have high rates of tuberculosis. The Aboriginal population in Saskatchewan has one of the highest rates of tuberculosis in Canada (44.3/ 100, 000 vs. 28.2/ 100,000 in Canada, 2008) (12). HIV testing is not yet routinely offered in Saskatchewan to people diagnosed with tuberculosis; however, steps are being taken to encourage routine HIV testing among TB patients.

## **IV Cost to the System**

The impact of HIV/AIDS on the provincial social and health care services is substantial – and growing. In Saskatchewan, the monthly drug costs for Hepatitis C and HIV co-infection range from \$1,747 per month to \$3,484 per month. (Saskatchewan Ministry of Health, Drug Plan Branch data, 2009). Based on these numbers, the current conservative estimate of the direct cost to the health care system in Saskatchewan ranges between \$21 million and \$42 million per year (based on 1,000 individuals receiving ARV medications for one year).<sup>2</sup> Indirect costs, attributable to HIV/AIDS have been estimated to be 2.4 times direct costs.(1)

Studies in Alberta in 2004 demonstrate monthly drug costs of \$1,528 per AIDS patient compared to \$932 for non-AIDS patients. Costs increase as CD4 counts decrease; with a CD4<75, costs are at \$2,687 per person month. The mean base expenditure for combined HIV/AIDS, chronic mental illness and substance abuse is \$3,880.00 per person per month.(13)

## **V Case Management Across the Continuum**

In order to reduce new cases of HIV, improve the quality of life for those living with HIV and to prevent new cases of HIV, the entire continuum of care must be considered. Upstream interventions that consider causative factors such as life experiences, unemployment, unstable housing and addictions should be employed. Prevention of HIV transmission through the use of clean needles, condoms, and antiretroviral therapy, including prenatally, needs to be considered in addressing the Saskatchewan HIV rates.

Clinical management requires prescribing the correct medication, diagnosing and treating co-infections, and providing other treatments for general wellbeing, such as dental care, nutrition and management of

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<sup>2</sup> Cost estimates do not include direct hospitalization costs related to HIV

acute and/or chronic conditions. Patient management also includes social and family wellbeing, and effective integration of mental health, addictions and other adjunct services.

Social case management to reduce the barriers to accessing care for those who are HIV-positive will increase treatment adherence, and assist in reducing the risks of transmission (better treatment adherence will mean decreased viral load). Reported social barriers include: transportation, housing, legal issues, childcare, and coping with stigma and discrimination.

Factors, such as stigma and discrimination among care providers negatively impact clients accessing services, and a way to reduce discrimination needs to be clearly defined and implemented. In some cases this will require cultural sensitivity training.

Consideration of an amendment to regulations or policies within various government Ministries may be required. For example, many HIV-positive pregnant women, and those at risk of HIV, are not seeking prenatal care for fear of their infants being apprehended by Social Services; how the child protection legislation is being enacted and the perception of young mothers who fear apprehension needs to be investigated. This will increase uptake in prenatal care, and potentially avert HIV transmission to infants during delivery

## VI Strategy Development and Consultation Process

Beginning in the winter of 2008/09, the Ministry of Health met with several regional health authorities to broadly map the issues and potential solutions to the issue of increased incidence of HIV cases in the province.

Stakeholder consultation commenced in May of 2009 overseen by the HIV Strategy Task Group and its four working groups. On March 10 – 12th, 2010, an intensive HIV Strategy workshop with health

and community leaders was held. The purpose of the workshop was to review the draft HIV strategy and refine the goals and objectives, and identify key partners who would ensure the successful implementation of the strategy.

At the March session, one of the underlying themes that emerged was the need for enhanced community engagement. To that end, the Ministry met with various First Nations and Métis organizations and community-based organizations to further discuss and refine strategies and initiatives as well as identifying next steps to clarify the strategy.

## THE STRATEGY IN DETAIL

### VII Strategy Overview and Overarching Goals

***THE OVERARCHING GOALS OF THE SASKATCHEWAN HIV STRATEGY ARE TO REDUCE THE OCCURRENCE OF NEW CASES OF HIV, TO IMPROVE THE QUALITY OF LIFE FOR HIV-POSITIVE PEOPLE, AND TO REDUCE THE RISK FACTORS FOR ACQUISITION OF HIV INFECTION.***

Fundamental to the strategy is:

- A patient first approach that focuses on the needs of the HIV-positive person
- A holistic, team approach among health care workers, community and service organizations that supports prevention efforts, and the treatment and support of HIV-positive persons
- An engaged and supportive community at all levels – senior leadership/ governance, operational, and grassroots

- A peer to peer model of mentorship and support throughout all aspects of the care continuum, including among those who are at risk of acquiring or who are HIV-positive and their communities
- A strong communications component that will occur within, across, and from all four pillars, as data, awareness, knowledge, capacity, and ownership increase among all those involved in addressing HIV/AIDS.

The strategy targets four main areas:

- › *Community Engagement and Education*
- › *Prevention and Harm Reduction*
- › *Clinical Management*
- › *Surveillance and Research*

## VIII Community Engagement and Education

### *Community Engagement*

The development of an integrated, transformative approach for sustained community and leadership engagement is key to addressing many issues associated with HIV infection including reduction of stigma and discrimination.

Anecdotal reports indicate that many HIV-positive people live in unsupportive environments and therefore choose not to disclose their HIV status due to the discrimination they might otherwise encounter. One goal of the Community Engagement and Education pillar is to increase ownership of HIV programming within communities to encourage locally relevant approaches to addressing HIV-related discrimination. Community activities would predominantly be best managed by community-based organizations (CBOs), tribal councils, or the communities themselves.

A cornerstone to this pillar is the development of peer to peer networks to provide support to various groups

of high risk population such as HIV-positive youth, pregnant women, and injection drug users to reduce stigma and build trusting relationships with the health care system. Peer networks provide mentorship and ultimately work with health care providers to enhance adherence with medications, appointment attendance and support, as well as improving knowledge of the risks of transmission.

Essential to community engagement and education:

- Engage elders of First Nations and Métis communities to promote ownership of and involvement in addressing HIV;
- Establish HIV-positive peer to peer networks (positive teens, IDUs, and HIV-positive mothers) to provide knowledgeable and acceptable supports to those HIV-positive or at risk;
- Ensure targeted prevention, treatment, and healthy living programming for HIV-positive individuals to reduce risk of acquiring HIV and to reduce stigma against those with HIV in the broader population; and
- Strengthen prevention measures that protect children and youth; e.g., KidsFirst programming focuses on areas such as home-visiting, parent engagement, and mental health and addictions services.

See Table 2 for the objectives for community engagement.

**Table 2:** Community Engagement Objectives

Objectives
increase knowledge of HIV among the residents of Saskatchewan
increase supportive home environments for HIV-positive people
increase community engagement to address community-related risk factors, e.g.: inadequate housing
increase leadership participation to address community-related risk factors, e.g.: inadequate housing

Activities related to community engagement will be achieved by:

- Engaging elders of First Nations and Métis communities through Elder and community discussion forums;
- Establishing HIV-positive peer to peer networks (positive teens, IDUs, and HIV-positive mothers);
- Developing broad campaigns focused on public awareness, education, and HIV prevention;
- Partnering with community-based organizations, tribal councils and communities to deliver targeted programs in their area of expertise; and
- Partnering with community-based organizations to develop and deliver targeted programs and services.

*Education*

A number of HIV education opportunities for health care professionals have been identified throughout the HIV strategy development consultation process. Health care and service providers across disciplines would benefit from HIV education – to reduce stigma and discrimination, and to improve frontline capacity. This can occur pre-service (i.e., at Colleges of Nursing, Pharmacy, and Medicine, School of Social Work, and at the Chemical Dependency Treatment program), or during service through a variety of accredited continuing medical education programs for health professionals and service providers. Participation in inter-disciplinary mentorship groups would be an expectation of continuing education credits.

Education and curricula development for pre and post service professionals can be developed utilizing existing materials. Education topics identified include: optimal treatment protocols, pharmaceutical support

programs, The Health Information Protection Act and its application with respect to the circle of care, and pre- and post-test counseling, as well as enhanced information about HIV prevention, treatment, support, and epidemiology. Sensitivity training (including both cultural and lifestyle) should be a strong component of all education opportunities.

Essential to education:

- Increase educational opportunities for health care professionals; and
- Establish peer mentorship networks among health care professionals to attract, support and maintain practitioners in HIV care.

See Table 3 for the objectives for education.

**Table 3:** Education Objectives

Objectives
increase capacity across disciplines to more effectively provide HIV prevention, education, treatment and support services
provide care that is client-centered non-judgmental and engaging to all those affected or infected with HIV.
harmonize/standardize practices related to HIV prevention, treatment and support services

Activities related to education will be achieved by:

- Consulting with existing service providers to identify education and curriculum development initiatives;
- Reviewing, adopting and disseminating existing materials (Public Health Agency of Canada -PHAC, Canadian HIV/AIDS Strategy, Canadian AIDS Treatment Information Exchange (CATIE), Centres for Disease Control and Prevention- CDC) that have already been developed; and
- Establishing peer mentorship programs for physicians, nurses and pharmacists.

## IX Prevention and Harm Reduction

Prevention activities are usually aimed at avoiding the development of a disease (primary prevention), early detection of a disease (secondary prevention) or reducing the impact of an already established disease (tertiary prevention). Prevention of HIV can therefore include a range of activities from addressing the broader determinants of health, such as adequate income, housing, and education; or targeted education strategies to increase awareness and avoidance of risk behaviours; or more specifically-targeted prevention interventions. These activities can be population based or individualized to clients' specific needs.

Harm reduction, or harm minimization, refers to a range of public health policies designed to reduce the harmful consequences associated with drug use and other high-risk activities. Public health harm reduction measures are designed to reduce the harm that drugs can cause both to individuals and to the community. Examples of harm reduction initiatives include safe sex practices and general health education.

Essential to prevention and harm reduction:

- Review of medical/nursing curricula to ensure adequate coverage of substance abuse and chemical dependency in these programs;
- Establish prevention and wellbeing centers with expanded access to needle exchange programs and other harm reduction measures to promote and encourage safe and healthy behaviours;
- Strengthen addictions prevention initiatives; and increase capacity and accessibility to treatment services through improved service delivery;
- Incorporate mental health and addictions programming into a holistic center approach;
- Public awareness, education, and prevention of HIV campaigns; and

- Targeted prevention, treatment, and healthy living programming for HIV-positive individuals.

See Table 4 for the objectives for prevention and harm reduction.

**Table 4:** Prevention and Harm Reduction Objectives

Objectives
provide prevention (primary, secondary and tertiary) resources including best practices to the regions.
provide earlier school prevention education opportunities.
establish centers delivering holistic prevention/well being/harm reduction services.
provide comprehensive integrated services including health and social supports via mobile services.

Activities relating to prevention and harm reduction will be achieved by:

- Creating a dissemination strategy for prevention and education and best practice resources;
- Developing policies, program guidelines, and procedure manuals based on best practices and evidence from local, provincial, and national sources;
- Acquiring mobile units, where required, that provide outreach to HIV-positive individuals;
- Implementing a “one stop shop” concept for health services, that would include the needle exchange program, addictions and mental health outreach/outpatient services, as well as primary health care and public/sexual health programming, social services, or other required adjunct services, including access to food and nutrition education;
- Working with inter-Ministerial and inter-sectoral partners, implement a supportive housing model like the “Horizontal Project” in the three urban centres, and other appropriate areas;

- Reviewing the remaining recommendations of the Needle Exchange Program Review Report with a view to increasing opportunity for face to face contact with clients; and
- Providing safer sex education and supplies in appropriate and indicated settings.

## X Clinical Management

Evidence from British Columbia demonstrates marked success in the use of Highly Active Anti-retroviral Therapy (HAART) for improving both the longevity and quality of life for HIV-positive patients, and also for reducing viral transmission in the community. (14-15) HAART has shown to reduce opportunistic infections and the incidence of other co-morbidities, such as vascular and neoplastic diseases.

Some of the concepts of the British Columbia program 'Seek and Treat' will be adapted to the Saskatchewan environment. The main concepts are the identification and testing of those at risk either through contact tracing, social networking or through an aware primary care frontline and early initiation of treatment.

The costs of antiretroviral medications are almost 100% covered through the Saskatchewan Drug Plan's special support programs, and the federal Non Insured Health Benefits program. Preliminary analysis indicates medications are not being adequately accessed, particularly by First Nations individuals. Further investigation is required with the desired outcome of ensuring all patients are accessing the most recent medications available (ie: HAART) and are adhering to their treatment regimes. Adherence to HIV medication is of particular importance as preliminary data in Saskatchewan suggest that the development of drug resistance is increasing among newly diagnosed HIV cases (Ministry of Health, preliminary data, 2010).

Early detection and management of other illnesses are important for optimal clinical management, as is appropriate addictions and mental health management and access to good nutrition and stable living environments.

The research component of clinical management will include investigation of factors that improve clinical outcomes.

Essential to clinical management:

- Adopt a non-discriminatory, patient first approach with cross-disciplinary teams;
- Ensure focused learning opportunities for all health care providers; and
- Adopt best practice plans and protocols for enhanced case and clinical management.

See Table 5 for the objectives for clinical management.

**Table 5:** Clinical Management Objectives

Objectives
improve HIV client access to medical care
provide one stop diagnosis whenever appropriate
provide rapid initiation of treatment to HIV-positive clients whenever appropriate
increase frontline support including capacity, education and standards
promote the use of HAART regimes to optimally treat the patient and reduce transmissibility of the virus

Activities related to Clinical Management will be achieved by:

- Increasing the capacity and skills of primary care physicians to provide care to HIV-positive people;
- Amending remuneration of family physicians to reflect the complexity of the clinical management for HIV patients and those who have co-infections and other co-morbidities.



New payment schedule for insured services provided by a physician (e.g. complex care fees) and increased opportunity for alternative practice payments such as paid session work (e.g. sessional fees) will be explored;

- Monitoring the use of the various drug plan support programs;
- Improving client uptake of medications by providing education to pharmacists;
- Exploring the possibility of providing direct observed therapy and ensuring the presence of client outreach services;
- Streamlining administrative processes to increase access to HIV medications;
- Working with the Saskatchewan Registered Nurses Association and the Saskatchewan Medical Association to ensure nurses and nurse practitioners are functioning at the full scope of practice in clinic and mobile care;
- Increasing the number of frontline staff, including public health nurses, case managers, outreach workers and First Nations and Métis support workers to increase access to testing, follow-up, case management and care, including ensuring treatment adherence (e.g. providing transportation and community support);
- Providing preventive education and culturally appropriate support in health care settings and community;
- Encouraging and facilitating case management and a team approach through development of best practice models and structured forums. Case Management, clinical and social, refers to each client being assigned a case manager who ensures that all aspects of treatment from clinical management, addictions mental health and social service needs are best facilitated. The case manager may be a nurse who also provides a depth in clinical management and ensures

access to other services, but may be a social worker who provides depth in the social aspects but ensures access to clinical care; and

- Applying a team approach that includes all those involved in the care of a particular client, such as the physician, nurse outreach worker, addictions counselor, and pharmacist. Team members coordinate through the case manager and may meet regularly depending on number of shared cases and case complexity.

## **XI Surveillance and Research**

Surveillance in the context of public health is the “ongoing and systematic collection, analysis, and interpretation of outcome-specific data for use in planning, implementation, and evaluation of public health practice”.<sup>(16)</sup> Surveillance of HIV requires both routine and enhanced data collection, including linking datasets, and analysis of information collected to date and prospectively, to provide evidence for HIV strategic development and the implementation of various initiatives. Enhanced surveillance can include quantitative data, as well as qualitative data gathered through focus groups, surveys, or interviews.

Better descriptive surveillance to improve knowledge of risk factors such as housing, mobility, clustering relationships and potential transmission relationships will inform prevention and intervention strategies. Better clinical surveillance will improve understanding of the true extent of co-morbidities and progression to advanced HIV disease or AIDS and will inform case and clinical management.

Essential to surveillance and research:

- Increase access to testing;
- Increase understanding of the at-risk groups; and
- Improve sharing of surveillance information and communication at all levels.

See Table 6 for the objectives for surveillance and research.

**Table 6:** Surveillance and Research Objectives

Objectives
improve the provincial HIV surveillance system
increase knowledge of HIV epidemiology in appropriate audiences
increase sharing of HIV epidemiology information to appropriate audiences

Activities related to surveillance and research will be achieved by:

- Updating the provincial HIV surveillance system;
- Increasing epidemiology and provider support will be required in the health regions and in the First Nations authorities for interview processes and case reviews;
- Implementing an enhanced HIV surveillance system;
- Encouraging research including qualitative work (focus groups in core neighborhoods and communities) to determine the best interventions for each risk group;
- Evaluating the point of care testing and components of the clinical case reviews; and
- Expanding point of care testing to other non-laboratory supported settings, such as NEPs, sexual health clinics, and community clinics.

## XII Conclusion

HIV rates in Saskatchewan are significantly increasing. Saskatchewan requires a comprehensive effort to address HIV trends: the highest rates of newly diagnosed cases, potential emerging resistance to some treatments, and the presentation of advanced/complex cases in hospitals.

HIV is a serious illness with a high cost to the individual, to society, and to the health care system. It is estimated there are over 1,400 people living with HIV in Saskatchewan. Many are not treated. Others have yet to be diagnosed. The major risk factor reported is intravenous drug use, but the risk of HIV being transmitted via unsafe sex within the IDU population, and all other populations, is high. Anecdotal evidence suggests that HIV-positive people, unsupported by their families and communities tend to gravitate towards core areas of urban centres. These areas tend to reflect the hopelessness of poverty, addictions and marginalization. These factors combined with the symptoms that make HIV a chronic disease make it difficult for individuals to remain committed to ongoing treatment.

A person who has HIV and who is treated consistently with HAART and who establishes other health and social stability can live a normal life with negligible risk of transmission. As a result, the cost to the individual, to society and to the health care system is minimized.

Over the past year, extensive consultation has resulted in a partnership between the province, health regions and First Nations and Métis authorities across disciplines of health, social services, education, and justice. This proposal reflects the recommendations from these consultations. Some recommendations are already in progress and there is an immense will among partners to commit to ensuring the initiatives are successful.

## XIII Governance and Implementation

A combined clinical, population health, social, and community development approach is essential to address the HIV epidemic in Saskatchewan. A coordinated, province-wide implementation and response plan involving all health and community sectors is being developed at the time of this writing.



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## **XV APPENDIX A**

### **Strategy Development**

The HIV Strategy development has been guided by an HIV Strategy Task Group whose mandate was to oversee and direct four working groups:

- I. Surveillance;
- II. Clinical;
- III. Communications and community engagement; and
- IV. Harm reduction.

Each of these working groups was responsible for advising on details of specific components of the strategy. Components of the strategy were determined through a consultative process with a variety of stakeholders, including community-based organizations, First Nations and Métis organizations, municipal services such as police and fire, and regional health authorities.

On March 10 – 12, 2010, an HIV strategy and implementation working session was facilitated by the Syntegrity Group. A focus group of 32 participants was asked to review the draft HIV strategy with the goal of revising or adjusting as required and also looking at ways to ensure its implementation would be successful.

One of the main themes arising from the March meeting was a need for ownership and community engagement to ensure the success of the strategy. To that end, the Ministry has met with First Nations and Métis organizations as well as community-based organizations to discuss and refine communication and engagement strategies.

## **XVI APPENDIX B**

### **Working Groups**

#### ***I. Surveillance***

Recommended actions include:

1. Update routine surveillance processes and reporting;
2. Update enhanced and targeted surveillance processes and reporting; and
3. Improve data sharing with stakeholders, including annual reporting.

#### **DETAILS**

- Update provincial surveillance data collection process and case report form. This will improve case detection and follow-up to allow programs to respond effectively to current and evolving conditions.
- Update provincial enhanced and targeted surveillance data collection processes and case reporting form. This will improve case detection and follow up to allow programs to respond effectively to current and evolving conditions.
- Update surveillance data sharing process to more effectively meet the needs of the Ministry, regional health authorities, First Nations health authorities, health care providers, and community-based partners.
- Ensure that comprehensive, timely and accurate HIV epidemiological information is available to appropriate individuals.
- Share epidemiological information to support targeted research and program initiatives to further reduce the incidence of HIV/AIDS.

#### ***II. Clinical***

Recommended actions include:

1. Implement point of care testing for HIV;
2. Improve access to therapy (HIV antiretroviral medications) and client centered care;
3. Increase capacity and access to case management;
4. Increase linkages with and access to addictions and mental health services;
5. Improve clinical management of HIV-positive patients; and
6. Increase testing and case detection.

#### **DETAILS**

##### **1. POINT OF CARE TESTING**

- Implement Point of Care Testing to enhance the capacity of health care providers to improve access to testing, treatment and prevention services for those most at risk for HIV. Pilot for 6 – 12 months in high risk populations accessing community clinics, in pregnant women accessing obstetrics units, and in individuals with risk factors in emergency departments.

##### **2a. ACCESS TO THERAPY**

Ensure that all HIV-positive individuals have access to antiretroviral medications (ARV), including Highly Active Antiretroviral Therapy (HAART) – a combination of 3 – 4 medications with a synergistic effect, are essential for maintaining the physical well-being of an HIV-positive individual. They also reduce viral load significantly to potentially reduce infectivity. However, only 50% of all people diagnosed with HIV have ever accessed these medications. Saskatchewan currently has a number of health benefit options for patients to receive assistance for ARVs. One factor affecting access could be the

onerous amount of paperwork required to receive financial assistance. Cost is also a factor. A further consequence of sporadic access is an increase in drug resistance.

- Review options to streamline ARV accessibility, and options to provide all ARVs, including HAART, as 100% covered medications in Saskatchewan.
- Stay current with the most up-to-date North American Guidelines for the Saskatchewan Drug Plan to optimize ARV regimens based on most current evidence.
- Ensure that all citizens have access to HIV Post-exposure Prophylaxis (PEP) medications as indicated in the provincial PEP guidelines for occupational and non-occupational exposures.

## 2b. CLIENT-CENTERED CARE

Ensuring that all HIV-positive individuals have close-to-home access to infectious disease (ID) specialists for treatment and aftercare will increase health outcomes. This will require the involvement of a network of family physicians to provide care in rural and remote areas, and for ID specialists to offer satellite clinics. Mentorship through doctor to doctor peer coaching is required.

- Establish a provincial HIV group to lead best practice development.
- Establish a network of physicians, pharmacists, addictions medicine specialists to deliver HIV care in rural, remote, or resource-limited settings throughout province.
- Enhance training for health care providers to increase knowledge and comfort levels.

- Review current physician payment scheme to determine if a sessional fee would be appealing, and appropriate to recruit and retain Physicians in HIV care.
- Increase the number of satellite clinics available, and ensure capacity for service delivery.

## 3. CASE MANAGEMENT

Ensuring that HIV-positive patients can access medication and care is only one part of the process. Once an individual is diagnosed with HIV (usually at a public health site, or at a physician's office), much can be done to ensure patients initiate and maintain treatment at infectious disease clinics. For many patients, the barriers to accessing and maintaining themselves in treatment are social in nature, such as lack of transportation, lack of childcare, lack of familial or social supports, and lack of hope. Case management attempts to address these social barriers through a range of services from providing transportation, to coordinating childcare or housing.

- Deliver client-responsive case management that meets both the medical and social needs of HIV-positive clients.
- Utilize the Saskatchewan Union of Nurses – Provincial Government partnership to hire case managers in each of the three urban health regions, and the north. Review current staffing levels and ratios of case managers to patients. Determine best practices for case management services and case loads to determine optimal ratio.
- Review program eligibility and the definitions for indicators currently reported on for the case management pilot to determine if

still relevant. Clearly define the differences between case management, case detection, and clinical management.

- Enhance training for health care providers to increase knowledge and comfort level in testing/treating those infected with HIV.
- Expand case management services to community-based organizations.
- Develop a train-the-trainer manual for case management services.
- Utilize HIV-positive patient's perspectives in developing services.
- Utilize a peer to peer network of case managers to enhance knowledge exchange and skills building.
- Ensure all providers who deal with at risk groups have access to standard harm reduction training/education.
- Ensure all newly diagnosed HIV-positive individuals are assessed and assigned to a case manager.

#### 4. ACCESS TO ADDICTIONS AND MENTAL HEALTH

Access to mental health services and counselling at the time of presentation (treatment readiness or willingness) of the person who uses injection drugs has been identified as a key step in enabling the process to recovery. Those who inject drugs, in particular, have a very short therapeutic window during which to take advantage of the desire to detoxify and stabilize. Issues regarding confidentiality and transfer of information between services have also been identified as barriers in providing timely treatment.

- Identify and share the numbers and types of beds/placement opportunities (real time tracking method) for clients who require access to short and long term inpatient facilities.
- Ensure Needle Exchange Programs have up to date information on types of services available, and active referrals are made from the program.
- Track wait times from referral to intake.
- Engage and train ex-injection drug users to be part of a network of peers.
- Improve access to methadone and suboxone maintenance programs.
- Decrease wait times to see counsellors or be admitted to detoxification, treatment or rehabilitation programs for those HIV-positive or at risk of HIV.
- Bring addictions and mental health counselors up-to-date on application of *The Health Information Protection Act* (HIPA) in relation to information sharing within the circle of care.

#### 5. CLINICAL MANAGEMENT

All HIV-positive people (adult, children, and pediatric) should have access to client centered treatment close to home and free of stigma and discrimination.

- Develop regional referral process from testing and diagnosing centre to treatment locations that is standardized and time sensitive.
- Ensure transportation and support mechanisms are available to clients, and guidelines for treatment staff to work with case management staff.

- Collect data to monitor outcomes, quality assurance and surveillance.
- Engage pharmacist to lead investigation into effective medication and treatment options for ID specialists, family physicians, and pharmacists to utilize.
- Increase capacity for priority referrals and effective protocol to address co-infections and concomitant issues (e.g., TB, hepatitis C, STIs, dermatological issues, etc.).
- Develop forum for specialist to communicate with each other on co-infections and co-morbidity issues.
- Hold annual conferences for health care providers to increase knowledge exchange opportunities.
- Partner with existing education programs to ensure this is part of standard curriculum. Apply Continuing Medical Education (CME) credits or other accreditation or incentives for this training.

### *III. Communications and Community Engagement*

Recommended actions include:

1. Increase community and leadership engagement through engaging champions and mentors;
2. Implement a social marketing campaign for both the general public and targeted, key populations; and
3. Increase prevention, education, and training for service providers and clients.

#### **DETAILS**

An integrated, transformative approach for sustained community and leadership engagement is key to reducing stigma and discrimination surrounding HIV, and will lead to better case detection, treatment and intervention activities.

#### **1. COMMUNITY LEADERSHIP AND ENGAGEMENT**

- Implement an engagement model that includes the commitment of provincial ministries to work together.
- Establish a standing provincial HIV Council or Coalition that is inclusive of RHAs, First Nations and Métis organizations, and community-based organizations. Models to consider are the Northern Health Strategy, the Saskatoon IDU Continuum of Care, or the Regina and Area Drug Strategy.

## **6. TESTING AND CASE DETECTION**

Increasing regional capacity to perform testing and case detection, and increasing capability to meet pre and post test counseling requirements for at risk patients is key to controlling the HIV epidemic in Saskatchewan.

- Increase the number of health providers who perform counseling and testing.
- Develop and implement standard guidelines on when to use pre and post test counseling as part of a voluntary HIV testing protocol.
- Develop policy for health care providers that covers voluntary counseling and testing for new patients, repeat patients, prenatals, recently exposed, etc.
- Implement a program to support health care providers who offer testing to increase their comfort in discussing risk behaviours, sex, injection drug use, etc, and decrease or eliminate the barrier of health care provider stigma or discrimination. Work towards normalizing HIV testing.

- Establish HIV-positive peer to peer networks that include the following key populations: young Aboriginal females (link to infections in pregnancy), injection drug users (link to addictions and co-infections), elders (sharing inherent knowledge, story telling, link with co-infections), and Two-spirited/MSM.
- Develop standards for prevention, education, and training requirements for service providers, recognizing that different levels of training will be needed.
- Engage peer to peer networks and mentorship or volunteer groups, and include support to families in disclosure, etc.

## 2. SOCIAL MARKETING CAMPAIGN

Social marketing messages about HIV prevention should link with STI and co-infection messaging and should focus on 'seek testing and access treatment.' A social marketing campaign should have the following goals: raise awareness among target audiences, reduce the stigma of HIV and impact behaviour.

- Develop a social marketing plan that engages the four key audiences: clients, service providers, leadership, and the general population.
- Market appropriate messages to impact:
  - prevention and awareness of HIV;
  - at risk populations; and
  - treatment; and
  - healthy living for HIV-positive individuals.
- Partner with academia for social marketing evaluations.

## 3. PREVENTION, EDUCATION, AND TRAINING FOR SERVICE PROVIDERS

Assurance of knowledge transfer amongst community leaders, administrators, and service providers (including health care providers, outreach workers, fire and police) working with vulnerable populations will increase standard 'language' and will reduce stigma and discrimination.

- Perform environmental scan of best practices, and ensure evidence-based curriculum.

## IV. Harm reduction

Recommended actions include:

1. enhance the needle exchange program, re-brand with an emphasis on 'recovery' so that it is a needle exchange and recovery program;
2. increase access to HIV prevention and education materials for both clients and services providers; and
3. develop a plan to address inequities in the social determinants of health.

### DETAILS

Fold the needle exchange into a comprehensive harm reduction strategy.

- Enhance the Harm Reduction Services in Saskatchewan to include more rural areas.
- Consider the remaining recommendations of the Needle Exchange Program (NEPs) Review Report.
- Promote value-neutral messaging regarding harm reduction: not positive, not negative.
- Evaluate the benefit of other best practice harm reduction strategies currently employed in other jurisdictions.
- Educate community and regional partners on needle safety and needle recovery.



- Perform an environmental scan to establish accurate information on NEP in Saskatchewan, and neighboring provinces, to identify where expansion or enhancement is needed.
- Standardize harm reduction services.
- Establish a peer network of injection drug users.

## 1. ACCESS TO PREVENTION AND EDUCATION MATERIALS

Clients and providers have increased access to HIV prevention, education, and training materials. Reduce stigma associated with HIV through HIV-specific prevention, education, and training.

- Promote an annual conference or forum and include communities as partners in prevention. Supplement annual conference with online training and news bulletins.
- Explore local and provincial team approach to enhanced communication protocols to reach entire care provider and consumer community.
- Establish outreach team, or support existing models, that incorporates cultural relevance, and is inclusive of the client, family, and community.

- Develop train the trainer packages for peer networks.
- Review the curricula of the Colleges of Nursing, Medicine, Pharmacy and the Chemical Dependency program to ensure adequate coverage of HIV and addictions and mental health in order to increase comfort levels with students, grads.

## 2. SOCIAL DETERMINANTS OF HEALTH

Include the social determinants of health in all areas of the HIV strategy, as these are tantamount to a successful strategy. Awareness of the impact of the social determinants of health and how these are defined at the grassroots level is foundational.

- Promote, support, and encourage collaboration, integration, coordination, and accountability across all Ministries.
- Support HIV/AIDS research that has potential for provincial impact on improving the lives of people with HIV/AIDS.

## **XVII APPENDIX C**

### **Needle Exchange Program (NEP) Overview**

#### **Saskatchewan Needle Exchange Program and Blood Borne Virus Rates**

Saskatchewan has the highest rate of new infections of HIV, twice the national average. Saskatchewan also has the second highest rate of new cases of hepatitis C.

The high rates of HIV in Saskatchewan may be due to very high frequency of needle use, an underestimate of the number of intravenous drug users (IDU) in Saskatchewan, frequent sharing of needles by key positive individuals or high transmission of HIV sexually in the IDU group (using safe needles but not engaging in safe sex). Rate increases in HIV cases can also be attributed to more recent increased efforts at case finding in the province.

The profile of HIV increase in Saskatchewan is unique in Canada. A sudden increase in HIV in British Columbia in the late 1990s had similar characteristics to the current trend in Saskatchewan. The epidemic in Saskatchewan is associated with poverty, risk factors making populations of Aboriginal descent more vulnerable to HIV, and a large number of cocaine intravenous users who inject frequently each day.

The provision of clean needles through Saskatchewan's Needle Exchange Programs (NEPs) reduces the likelihood of transmission and hence, the number of new cases. Annually approximately 3.9 million clean needles are distributed in Saskatchewan with approximately 94% of the needles returned. More information is required on the pattern of needle use in Saskatchewan. This should precede any significant decrease in number of needles exchanged. NEPs provide a variety of services and referrals to clients who use injection drugs and are one component of a comprehensive approach to HIV prevention.

#### **Needle Distribution and Return**

Saskatchewan provides 3.9 million clean needles per year through 10 needle exchange sites in Saskatchewan. NEPs reports an average of approximately 93% needle exchange, varying from 100% in Moose Jaw to approximately 65% in Saskatoon. Ontario is the only other province or territory (P/T) which monitors needle return. Ontario distributes 5.5 to 6.5 million needles per year with an estimated return rate of 71%.<sup>1</sup>

Most provinces and territories provide clean needle distribution and it is a mandatory public health service in BC and Ontario. Similar to other P/T, NEPs use a mixture of government and community organization operated distribution systems. Needles are also sold by pharmacies (for diabetes, etc) and this is a common source in the larger urban centers, particularly in higher income areas. Needles sold by pharmacies are not counted in the distribution system.

Figures available on numbers of needles distributed per year through government funded services are: British Columbia approximately 5 million and Quebec 1.5 million, Calgary 360,000 and Edmonton, 1 million.<sup>2</sup> Saskatchewan distributes only injecting equipment, while Manitoba, Alberta and British Columbia distribute additional supplies such as 'safer crack kits' for smoking.<sup>2</sup>

#### **Drug Use**

Consultation with police and injection drug users indicates the current drug of choice in Saskatchewan is cocaine as it is cheap and readily available. Use of stimulants and narcotics are more common in the south of the province. The iTrack study supports this observation for the city of Regina.<sup>3</sup>

Cocaine injectors have a higher usage of needles than other substances due to shorter duration of drug impact. Cocaine users can use between one to fifteen

needles per day. The number of needles used, on average, per year for a regular injection drug user is thought to be 2- 3 needles per day or approximately 730 – 1,095 needles per year.<sup>4</sup> However, over 27% of Winnipeg injectors use 10 needles per day.<sup>4</sup> A survey of 151 injection drug users in Saskatoon Health Region reported an average of 18.5 needles per day or approximately 129 needles per week per user.<sup>5</sup>

It is estimated there are 5000 injection drug users in Saskatchewan.<sup>6</sup> Extrapolating from the above studies, and a small study in Regina which indicated a third of Saskatchewan users, are regular users, needle consumption is estimated to be in the range of 4 – 13 million per year.<sup>3</sup>

British Columbia in 1996 reported an ‘explosive rise’ in HIV. This was found to be due to high frequency of cocaine injection drug use. Unstable housing and marginalization were also key associations.<sup>7</sup>

### **Secondary Needle Distribution**

In Saskatchewan there are approximately 2000 injection drug users registered with NEPs. Concern over the large numbers of needles distributed relates to possible secondary distribution. While secondary distribution may be beneficial when the injection drug user is known and trusted as a source to provide and return needles from a community which may not have a needle exchange, there is concern that needles may be being provided to drug dealers. Police confirm finding NEP needles in drug dealer apprehensions but note these are isolated incidents.<sup>8</sup>

A study in Chicago of 40,000 NEP visits demonstrated that secondary needle exchange was beneficial in reducing the risk of transmission of HIV but also reduced contact with services resulting in fewer injection drug users presenting for drug treatment.<sup>9</sup>

An additional concern is that the needle supply may be encouraging needle use because they are free and readily available. This is difficult to determine but US studies from the 90s and more recently in Alaska and British Columbia indicate this is not a factor.<sup>10, 11</sup>

### **Blood Borne Virus Transmission**

Saskatchewan has the highest rate nationally of new cases of HIV, twice the national average. Rates of new cases of HIV began to rise in 2003. Saskatchewan has the second highest rate of new cases of hepatitis C in Canada.

The pattern of HIV in Saskatchewan is different from any other province or territory in that the new cases are predominantly injection drug users (60%) and /or Aboriginal, (72%). Forty-four percent of new cases are young women. There is repeated and strong anecdotal evidence of encouraged sharing of needles for ‘loyalty’ reasons and shared family habits. ITrack study findings show that 38% of injection drug users in Regina inject with families compared to an average of 12.7% across seven Canadian cities. Approximately 50% inject with sex partners compared to less than 30% for other Canadian cities.

High frequency use of needles in an impoverished and vulnerable group with spillover of transmission through unsafe sex were key factors behind the 90s outbreak of HIV in an Aboriginal population in British Columbia.<sup>7</sup>

### **Conclusions**

- I) HIV Rate Increase: This is due to high frequency cocaine injection drug use, and needle and injection equipment sharing within social contexts. This is different from elsewhere in the country. Additionally, some of the HIV rate increase is attributable to enhanced case finding efforts.

- II) Number of Needles Distributed: An analysis suggests that the numbers of needles distributed in Saskatchewan are what would be expected given the number of regular drug users, type of drug and frequency of injection. It is noteworthy that other jurisdictions do not count all the needles returned whereas Saskatchewan does. Community-based organizations distribute needles in Saskatchewan and these needles are included in the provincial count.
- III) Secondary Distribution: To meet our goal of reducing transmission of HIV and increasing client contact with the system, one strategy would be to reduce reliance on secondary distribution; where a small number of people pick-up needles for a large number of people. A means to accomplish this could be to limit the number of needles being distributed to individuals and establishing more sites where the user is located, i.e. rural locations.

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