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Introduction and Background

Preventing and managing sexually transmitted and blood-borne infections (STBBIs) continues to be a key public health priority in Manitoba. As noted in an epidemiological report prepared for Manitoba Health in 2010 by Dr. James Blanchard (University of Manitoba), “The epidemiology of sexually transmitted infections (STIs) in Manitoba remains dynamic, with an increasing burden of reported cases. Strategies to address these epidemics will need to consider the substantial geographic heterogeneity, by focusing resources and gaining a better understanding of the transmission dynamics and social and economic factors that influence them.”

Changes in STBBI trends in Manitoba over time contribute to an increasing burden to health and the health care system. The need for a comprehensive provincial strategy to co-ordinate programs and maximize the impact of various efforts is clear, with the ultimate goal being to prevent and properly manage STBBIs in the province.

A number of socio-demographic determinants contribute to the spread of STBBIs including, but not limited to: marginalization, substance use, trauma and mental health. Data have clearly shown that these determinants impact populations differently. Therefore, in addressing these issues, a particular emphasis is often placed on priority populations who are considered to be vulnerable.

In Manitoba, the seven STBBIs of most concern are: chlamydia, gonorrhea, syphilis, human papillomavirus (HPV), human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis C virus (HCV). All of these infections, with the exception of HPV, are reportable. Chlamydia, gonorrhea and HPV are spread almost exclusively through sexual contact, HCV spreads mostly through blood (ex: through injection drug use, piercing and tattooing) and HIV, syphilis and HBV can be spread either sexually or through blood.

These infections share some common features which include: multiple ways in which the infection can be spread; some sexual behaviours and even personal or socio-demographic characteristics which can substantially increase the risk of contracting an STBBI; and, the possibility of asymptomatic (without symptoms) infections, resulting in the infection being untreated and allowing for further spread of the infection (which may cause secondary illnesses and/or late complications). Furthermore, co-infections, the term used to describe an individual infected by two or more of these infections, can create challenges in managing one infection due to the presence of another.

In 2010, Manitoba Health (MH) and Manitoba Healthy Living, Youth and Seniors (MHLYS)\(^1\), along with other key partners and stakeholders, began the collective process of developing the Manitoba Sexually Transmitted and Blood-Borne Infections Strategy for 2015-2019. The development of a new strategy builds on the foundation provided by the first Manitoba HIV/AIDS Strategy (developed in 1996), followed by a Sexually Transmitted Infection Strategy in 2001 and First Nations, Métis and Inuit HIV/AIDS Strategy in 2004.

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\(^1\) Manitoba Health (MH) and Healthy Living, Youth and Seniors (HLYS) were the departments’ names in 2010. In 2014, Manitoba Health amalgamated with Healthy Living and Seniors to form Manitoba Health, Healthy Living and Seniors (MHHL). This is the current name of the department. MHHL will be used in the remainder of this document.
The Manitoba Experience

Understanding the epidemiology of STBBIs in Manitoba provides evidence needed to inform decision-making for effective program planning and policy development. This provides answers to key questions, such as: Who is affected? Where are infection rates highest? What trends over time can be used to identify targets for public health action? Information about the epidemiologic trends can also be used to assess the progress made over time in both program and service delivery (ex: be used as performance measures).

In Manitoba, the following STBBIs are reportable under The Public Health Act: chlamydia, gonorrhea, syphilis, human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis C (HCV). In other words, these infections are under ongoing surveillance at Manitoba Health, Healthy Living and Seniors (MHHLS).

STBBIs can be found in all health regions across the province, with some variation in rates. However, the Northern and Winnipeg health regions experience higher rates and numbers of STBBIs. These two regions have also experienced increases in rates that were more substantial compared to other areas of the province over the past decade. It is important to try to understand the connection between different high incidence geographies, particularly northern and remote areas of the province and specific areas of Winnipeg, such as its core area.

There has been an increase in reported bacterial STIs (chlamydia, gonorrhea, and syphilis) over the past decade, both provincially and nationally. This affects mostly youth (15 to 24 years of age) with higher rates among females compared to males. Research is needed to fully understand the reasons for these increases, as this information is not collected through routine public health surveillance. For example, reasons for the increase in these infections may relate to changes in testing and reporting processes, increased case-finding and contact testing, other social and behaviour patterns that have not yet been fully described, or a combination of these factors. The next section provides a brief snapshot of each STBBI under surveillance in Manitoba, as well as HPV.
Chlamydia

Chlamydia is the most frequently reported STBBI in Manitoba. In 2013, there were 6,432 reported cases of chlamydia. It affects mostly youth (15 to 24 years of age), with higher rates among females compared to males in Manitoba, which is similar to national patterns. Aside from a sharp increase in rates in 2007/08 (in most part due to changes in the testing platform), the rates of chlamydia have been fairly stable in recent years (2011 to 2013).

Although Manitoba does have higher reported rates of chlamydia compared to other provinces and territories, it is of note that recently Statistics Canada reported chlamydia prevalence in Canada at 0.7 per cent or 700 cases per 100,000 population.iii This reported rate is higher than the Manitoba rate of infection of 499 per 100,000 population, in 2013 (Figure 1).

Figure 1: Chlamydia, Crude Rates and Counts of Chlamydia Infection,
Manitoba, 2004-2013
Rate per 100,000 Population
Gonorrhea

Gonorrhea is the second-most frequently reported STBBI in Manitoba. In 2013, the number of cases reported was 1,220 cases. The highest rates are found among youth (15 to 24 years of age) with higher rates among females compared to males. Trends in gonorrhea infection rates show some variation, with an increase between 2005 and 2006, followed by a decrease until 2010. Although the rate of infection increased slightly in 2012, it stabilized in 2013 (at 94.6 per 100,000 population) (Figure 2).

Manitoba does tend to have higher rates of reported gonorrheal infection compared to other provinces and territories, at more than twice the national rate. In addition, the overall provincial ratio of male to female cases is nearly equal; this is in contrast to national patterns where the overall rate of infection among males is higher than that of females.

Nationally, the rate of gonorrhea infection has increased by 54 per cent since 2001. In addition, there are concerns nationally and internationally regarding increased antimicrobial resistant gonorrhea strains, which may have an effect on available treatment options for this infection. Improvements to surveillance systems will assist in determining the scope and impact of this issue.

![Figure 2: Gonorrhea, Crude Rates and Counts of Gonorrhea Infection, Manitoba, 2004-2013](image-url)
Infectious syphilis (another bacterial STI) rates have historically been low in Manitoba, while many other provinces and territories have seen substantial increases in the infection over the past five or six years. However, recent increases have been observed in the province (since 2012). In 2013, the provincial rate doubled to 4.0 cases per 100,000 population (Figure 3). These cases were predominantly male, with an age range of 17 to 69 years.

Comparatively, in 2011 (the most recent national statistics available), 1,757 cases of infectious syphilis were reported across Canada for a national rate of 5.1 cases per 100,000 population. Manitoba's reported infection rate for that year was significantly below this level (at 1.3 per 100,000 population). These recent outbreaks emphasize the need for continuous vigilance in order to limit transmission of syphilis. Urban outbreaks (in the Winnipeg health region) that occurred in 2003 and 2005 were quickly contained, due to the extensive and integrated public health efforts of the region.

Figure 3: Infectious Syphilis, Crude Rates and Counts of Syphilis Infection*, Manitoba, 2004-2013
Rate per 100,000 Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Case Count</th>
<th>Crude Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>36</td>
<td>3.1</td>
</tr>
<tr>
<td>2005</td>
<td>51</td>
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<td>26</td>
<td>2.0</td>
</tr>
<tr>
<td>2013</td>
<td>52</td>
<td>4.0</td>
</tr>
</tbody>
</table>

*Note: Includes confirmed infectious syphilis cases only.
Human Immunodeficiency Virus

The overall rates of Human Immunodeficiency Virus (HIV) in Manitoba have been variable throughout the past decade (Figure 4). In 2013, there were 118 cases of HIV reported as new to the MHHLS Public Health Surveillance System. However, as in other years, a portion of these (37 per cent) were also previously diagnosed elsewhere. In 2013, 60 per cent of all cases were male and 40 per cent female; the average age at diagnosis of cases was 37.3 years. In contrast to most bacterial STIs, newly reported HIV cases in Manitoba are often older at age of diagnosis.

There were three main ethnicity categories reported in 2013: First Nations, Métis and Inuit accounted for 40 per cent; Caucasian, 30 per cent; and African-Canadian, 20 per cent. The numbers of HIV positive women of First Nations, Métis and Inuit ethnicity have increased in recent years. Overall, the predominant risk exposure category reported among both male and female cases was heterosexual contact (reported by 35 per cent of new HIV cases). vi

Figure 4: HIV, Crude Rate and Counts of HIV Infection, Manitoba, 2004-2013
Rate per 100,000 Population
In 2013, HIV cases from Manitoba accounted for 5.1 per cent of newly positive cases reported to the Public Health Agency of Canada (PHAC). Manitoba’s 2013 rate of newly reported HIV cases (9.2 per 100,000 population) is the second highest among reporting provinces and territories and is higher than the national rate (5.9 per 100,000 population).\(^{vi}\)

Many people are unaware of their HIV status, and therefore, go undetected and unreported. The number of newly reported HIV cases may not be a reflection of the true number of new HIV infections per year (ex: incidence). PHAC estimates that in 2011, approximately 71,300 persons were living with HIV in Canada and approximately 25 per cent were unaware of their HIV status.\(^{vii}\) PHAC estimated that by the end of 2011, approximately 2,100 persons\(^2\) in Manitoba were living with HIV.

**Hepatitis B and Hepatitis C**

Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV) are also included in the STBBI category. Of the reportable blood-borne infections, HCV is the most common, with an average of 351 newly reported cases per year in Manitoba.\(^6\) HCV rates (for newly reported chronic and acute cases) peaked in 2001 (data not shown) and have gradually declined and stabilized in recent years to 23.9 cases per 100,000 population in 2013 (Figure 5).

Manitoba has had rates of HCV that are similar to the national rate (29.2 cases per 100,000 population) and, in 2011, ranked among the lower rates when compared to other provinces and territories.\(^{x}\) For both HCV and HBV, more male cases are reported than female, predominantly 30 to 39 years of age at time of diagnosis.

Over the past ten years in Manitoba, the overall number of reported HBV cases increased (including reports of those who tested positive for Hepatitis B surface antigen); however, it is important to note that the number of confirmed acute cases of HBV remains relatively low (between two and 10 cases annually). In 2013, of the 229 newly reported HBV cases, only five cases were considered acute (Figure 6). It should be noted that approximately half of reported HBV cases reported their birthplace as a country outside of Canada.\(^{xi}\) HBV infections can be prevented with a vaccine, which has been available in Manitoba since 1998 through a school-based immunization program.

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2 Note that this number differs from the number of individuals enrolled in care reported by the Manitoba HIV program, as this prevalence estimate takes into account the estimated proportion of those who are likely undiagnosed in the population. Please see reference ix for more information.
Figure 5: Hepatitis C, Crude Rates and Counts of HCV Infection, Manitoba, 2004-2013
Rate per 100,000 Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Case Count</th>
<th>Crude Rate</th>
</tr>
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<tbody>
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<td>2005</td>
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<td>2006</td>
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</tr>
<tr>
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<tr>
<td>2011</td>
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<tr>
<td>2012</td>
<td>350</td>
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<td>2013</td>
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</tbody>
</table>
**Figure 6: Hepatitis B (Acute Cases), Crude Rates and Counts of HBV Infection,**
Manitoba, 2004-2013
Rate per 100,000 Population

<table>
<thead>
<tr>
<th>Year</th>
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<th>Crude Rate</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
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<td>4</td>
<td>0.33</td>
</tr>
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<td>2010</td>
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<td>0.16</td>
</tr>
<tr>
<td>2011</td>
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<td>0.56</td>
</tr>
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<td>2</td>
<td>0.16</td>
</tr>
<tr>
<td>2013</td>
<td>5</td>
<td>0.40</td>
</tr>
</tbody>
</table>
Human Papillomavirus

Human Papillomavirus (HPV) infection is not reportable to public health in Manitoba (or in Canada). However, infection rates are of concern in Manitoba since infection can result in cervical cancer in females and genital warts in both males and females. The national incidence rate of invasive cervical cancer for women 20 to 69 years of age was 11.53 per 100,000 women (2005 to 2008). In addition, HPV is a major cause of cancers of the penis, anus, vagina, vulva and oropharynx. A recent research study of Manitoba women who presented for Papanicalou (Pap) smear tests in Manitoba found that 19 per cent of smears were positive for HPV (115 out of 592 participants); approximately one-third (33 per cent) of those who were positive were under 25 years of age. Of women who had a ‘normal’ Pap test (by cytological assessment), approximately 17 per cent were positive for HPV. Note that these specimens were collected via opportunistic sampling (women presenting to clinic for Pap test) and was not a population-based study, therefore an element of self-selection exists in this study. Studies conducted in other areas of Canada have found similar prevalence of HPV. Some types of HPV infection can now be prevented by a vaccine which has been available in Manitoba through a school-based program since 2008.

Strategy Development Process

To address the growing concern regarding STBBIs in Manitoba, an inter-sectoral advisory committee was created to lead and inform the development of this strategy.

The committee was made up of provincial, regional and federal stakeholders working in the fields of policy development, health promotion and disease prevention, as well as management and surveillance. Some examples include primary health care and public health leaders, public health professionals, representatives from the First Nations and Inuit Health Branch (FNIHB) of Health Canada, regional health authority (RHA) directors, epidemiologists and disease specialists, as well as many others.

MHHLS led the process of conducting several participatory planning sessions with the advisory committee in 2010 and 2011. It was through these discussions that three major Pillars (prevention, treatment and surveillance) were identified as the foundation of the strategic framework of the STBBI strategy.

Subsequently, three working groups were established around these pillars, made up of individuals with expertise in each area, including grassroots, community-based organizations. The purpose of the working groups was to determine major goals and objectives, to assess the current situation, identify gaps and challenges and provide recommended solutions that could be incorporated into an overall STBBI strategy to achieve its anticipated major outcomes.

Using this approach to create the strategy was essential as it allowed for: community involvement; a better understanding of the current work being done; a clearer understanding of what is working and what is not; and, an opportunity to build consensus and ownership while actively engaging partners in the process.

The new strategy builds on the solid foundation of MHHLS and key provincial partners’ cumulative experiences, lessons learned, resources and networks, as well as policies and programs in this field. Many of Manitoba’s current STBBI and sexual health-related investments provide an excellent starting point from which to build integration and participation in this field.

Manitoba Strategic Approach

1. Purpose of the Strategy

The purpose of this strategy is to provide strategic leadership and direction for an integrated and collaborative approach to addressing STBBIs. As a primary stakeholder the province has committed to:

1. creating an appropriate platform for provincial, regional and federal partners to contribute in improving STBBI indicators
2. helping build and sustain community partnerships which advocate for and create local environments that initiate and sustain healthier behaviours
3. facilitating private and public sector organizations’ collaborative work to support healthier lifestyles and promote harm reduction activities
4. co-ordinating health-related programs so they are mutually reinforcing
5. advocating for policies that remove barriers to, and motivate co-ordinated efforts toward, healthier lifestyles and promoting harm reduction activities

2. Vision

Preventing and Minimizing the Impact of Sexually Transmitted and Blood-Borne Infections on Manitobans

3. Guiding Principles

a. **Diversity:** Create a culture that recognizes values and integrates diversity into programs and services. Diversity can include gender, language, ethnicity, cultural background, age, sexual orientation, religious belief and family responsibilities. Diversity also refers to other ways in which people are different, such as educational level, life experience, work experience and socio-economics.

b. **Cultural Safety:** Be respectful of, and responsive to, diverse cultures including the consideration of cultural awareness and appropriateness in planning and operationalizing strategies, programs and services.

c. **Health Equity:** Recognize the impact of health equity and integrate health equity approaches so all people, regardless of gender, race, income, class or sexuality will have an equal opportunity to be healthy and have access to quality STBBI related information and services.

d. **Population Health Approach:** Reduce STBBIs within an entire population, as well as groups within populations, by considering the determinants of health within the physical, social and interpersonal environments that influence health.

e. **Incorporating a Harm Reduction Approach:** Recognize and focus on reducing the harms associated with practices through which STBBIs may be transmitted such as drug use and/or unprotected sex. Accept that these practices are a part of human behaviour and acknowledge the need for harm reduction programs to reduce adverse health consequences.

f. **Evidence-informed and use of best practices:** Use current research, literature and best practices in the strategy development process and its proposed approaches and activities. Use evidence, available baseline studies and data to guide, monitor and assess the impact of the strategy operationalization.
4. Strategic Approach - The Manitoba STBBI Pathways:

The Manitoba STBBI Pathways attempt to describe the process of translating the strategic vision into the three major programmatic and operational objectives for the prevention, treatment and surveillance of STBBIs. The strategy’s goals and objectives will work together in synchronized and dynamic ways to achieve the strategy’s vision (diagram 1).

While the model has an implicit left-to-right orientation (five vertical columns), suggesting causal order and progression toward (pathways to) the reduction of the acquisition and transmission of STBBIs in Manitoba, it should not be interpreted as endorsement of a strictly linear/sequential change process.

The identified three overarching goals and their respective objectives of the strategy will be operationalized through different key strategies that will drive provincial STBBI programming. While not mutually exclusive, each of these strategies will play a fundamental role in integrating program activities across program beneficiaries, health and non-health sectors and the major domains of communities, providers and policy-makers. The key strategies are:

a. **Strategic co-ordination and partnership:** To build consensus, ownership and engage partners in adopting the strategy vision and goals, and prioritizing and operationalizing its key activities.

b. **Audience-oriented communication and interventions:** To provide equitable, non-judgemental and confidential health services, and information responding to the needs and circumstances of populations at increased risk.

c. **Accessible and equitable quality services:** To strengthen links between service facilities/providers and communities; and promote quality service delivery.

d. **Organizational and professional capacity building:** To enhance the service providers’ core competencies and organizational capabilities in providing quality services, planning and evaluating successful regional STBBI programs; and create organizational structures, systems and resources to support long-term sustainability of health outcomes.

e. **Supportive policies, programs and legislations:** To increase and channel political will and resources through advocacy and coalition building at federal, provincial and regional levels; develop shared vision, goals, policies and regional strategies; and co-ordinate among different sectors.

In addition, the strategy illustrates a set of expected major outcomes to assess and demonstrate the progress of the three overarching goals. These outcomes can inform the development of several proxy indicators as contributors to the strategic vision and its proposed impact “Reduction in the acquisition and transmission of STBBIs in Manitoba”. These proxy indicators will be instrumental in monitoring and assessing the progress of the strategy implementation within a short period of time.
<table>
<thead>
<tr>
<th>Overarching Goals</th>
<th>Objectives</th>
<th>Key Strategies</th>
<th>Major Outcomes</th>
<th>Impact</th>
</tr>
</thead>
</table>
| Promote healthy sexuality and harm reduction practices | • Develop programs and policies with key stakeholders that promote healthy sexuality and safer sexual practices.  
• Encourage and support the implementation of harm reduction policies and practices.  
• Increase education and awareness regarding safer substance use practices.  
• Increase accessibility to STBBI information, education, testing, and counselling for all Manitobans. | • Strategic co-ordination and partnership  
• Audience-oriented communication and education  
• Accessible quality services  
• Organizational and professional capacity building  
• Supportive policies, programs and legislations | • Increased adoption of healthier behaviours and safer sexual practices  
• Increased accessibility to and utilization of quality services  
• Enhanced supportive environments regarding healthy sexuality  
• Increased co-ordination, and information sharing among different relevant sectors | Reduction in the acquisition and transmission of STBBIs in Manitoba |
| Enhance treatment, management, and support services for those infected and affected by STBBIs | • Improve early detection and diagnosis of STBBIs among those who are at increased risk.  
• Enhance the capacity and co-ordination of case & contact identification, management and support services.  
• Reduce disease transmission by persons known to be infected.  
• Enhance the STI Drug Program and linkages with the Drug Program Information Network (DPIN). | | | |
| Strengthen and support the surveillance, reporting and research of STBBIs in Manitoba | • Identify and define the information needs that support the understanding of the burden of STBBI using a collaborative process.  
• Strengthen infrastructure for data collection, collation and management with a co-ordinated approach to provincial surveillance activities.  
• Improve capacity for the timely analysis, interpretation, and dissemination of surveillance information to meet program-planning and service delivery needs.  
• Sponsor new research that supports public health and community-level programs and services. | | | |
5. Overarching Goals and Objectives:

GOAL I: Promote healthy sexuality and harm reduction practices

Prevention activities, including health promotion and harm reduction, along with screening, early detection and diagnosis, are key inter-related public health approaches. Emphasis on activities in each of these areas will be necessary in reducing the number of newly acquired STBBI cases per year in Manitoba as well as minimizing the overall burden of disease on Manitobans.

Prevention efforts include various measures designed to reduce the likelihood of an infectious disease spreading and improve and sustain the health status of the population.

Multi-sectoral partnerships and multi-disciplinary approaches are essential to ensuring success in the prevention of STBBIs. Activities must vary in focus and approach to adequately address all aspects of disease acquisition. Focus areas can include increasing education and awareness; changing attitudes and behaviours on individual and systemic levels; addressing misperceptions and hindering norms; understanding and addressing the determinants of health on communities and at social system levels; minimizing regulatory/legislative barriers on institutional and service delivery levels; ensuring equity; and increasing the accessibility to reliable and convenient early detection and diagnostic services.

Early detection, diagnosis and confidential counselling are central elements of a successful response in addressing different STBBIs, including HIV. For example, increasing the number of people who know their HIV status is an essential means of preventing HIV transmission and increasing access to treatment and care services. Treatment as Prevention (TasP) is a key consideration that will be further explored in Goal 2.

Expanding the eligibility criteria as well as the accessibility of immunization programs, such as those for HPV and HBV, is one of the most effective public health measures to reduce the incidence of new cases.

Understanding and addressing issues relating to substance use, including needle use and the associated health risks, plays a crucial role in blood-borne diseases’ transmission and prevention.

Prevention and early detection efforts will support the comprehensive continuum of services available for persons who use licit and illicit substances through a harm reduction approach as well as relevant health promotion programs.

Long-term strategic and evidence-informed health promotion activities and materials will support Manitobans in increasing their health competency by making healthier decisions about their own sexual health and substance use.

Objectives:

1. Develop programs and policies with key stakeholders that promote healthy sexuality and safer sexual practices.
2. Encourage and support the implementation of harm reduction policies and practices.
3. Increase education and awareness regarding safer substance use practices.
4. Increase accessibility to STBBI information, education, testing, and counselling for all Manitobans.
Illustrative Activities:

I. Strategic Co-ordination and Partnership:

1. Establish a multi-disciplinary STBBI Committee and/or working groups to act as a provincial platform to stimulate and strengthen partnerships and collaboration between different relevant sectors and partners to increase access to services and information and address relevant social determinants of health that affect STBBI rates.

2. Promote the 2013 *Best Practice Recommendations for Canadian Harm Reduction Programs* document to help support the integration of harm reduction practices into relevant health and non-health related policies and programs.

3. Promote and support the provision of consistent and accurate sexual health education in all Manitoba schools. This can be supported through the use of companion documents and supplementary education resources such as Manitoba’s puberty resource *Growing Up Ok!*

II. Audience Oriented Communication and Education:

1. Use strategic evidence-informed and audience-centred education, behaviour change and social marketing interventions to promote sexual health and prevention practices, including immunization to all Manitobans, recognizing the need for both universal and targeted approaches.

2. Promote and support the provision of quality, tailored and culturally relevant sexual health and substance use information, testing and counselling to all Manitobans with special emphasis on those who are at increased risk.

3. Enhance the community capabilities and resources to plan and conduct community-based initiatives (peer education/network initiatives) to increase education and awareness regarding safer sexual practices, addictions and safer substance use practices.

III. Accessible and Quality Services:

1. Explore the potential of expanding and standardizing serological testing, point-of-care testing (POCT) and urine-based STI screening tests among the general population to increase early detection and diagnosis of all STBBIs.

2. Increase culture testing for those at increased risk to identify sensitivity and resistance trends in STBBIs.

3. Increase access to harm reduction supplies, including condoms/dams and personal lubricant, needles and needle drop boxes.

4. Expand the eligibility criteria, accessibility and promotion efforts for the HPV and HBV immunization programs.

5. Promote, maintain and reinforce screening of all pregnant women including those who don’t seek prenatal care and are at high risk of contracting STBBIs and have disproportionately low access to regular health care options.

6. Provide a comprehensive and integrated continuum of services for persons who use licit or illicit substances through harm reduction, health promotion, illness prevention, early identification and management.

7. Integrate conventional testing for HIV and other blood-borne pathogens when testing for sexually transmitted infections.

8. Integrate conventional HIV testing in the diagnostic package provided to people with tuberculosis, HBV and HCV.

9. Explore the programmatic and public health feasibility to expand HPV immunization program to include males.

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4 The activities listed in this section are examples and are not intended to be exhaustive.
IV. Organizational and Professional Capacity Building:

1. Standardize screening, timely referral and management of different STBBIs among service providers and public health professionals.
2. Develop protocols, clinical practice guidelines and educational opportunities to increase the professional competencies of service providers and public health professionals in harm reduction practices and STBBI prevention and management.

V. Supportive Policies and Legislations:

1. Advocate for legislative and regulatory changes that support and facilitate the effective implementation and expansion of the major activities of this strategy.

GOAL II: Enhance treatment, management, and support services for those infected and affected by STBBIs

The overall approach to the treatment and management of STBBIs varies according to the type of disease. STIs such as chlamydia and gonorrhea are typically acute and, with early and effective treatment, are curable. Blood-borne pathogens such as HIV, HCV and HBV, are complex and can lead to chronic diseases that require special management to minimize their effects over a person’s life.

Seeking medical advice or treatment varies widely based on a number of factors including: the onset, severity and perception of symptoms; social challenges; addictions issues; barriers to accessing care; and, current sexual relationship(s). Ideally, individuals should receive treatment as soon as possible after infection; however, some individuals may be infected for some time before seeking treatment, which gives room for the further spread of infection. Therefore, the approach to treatment should accommodate the variation in the onset and the stage at which individuals seek treatment.

Early diagnosis and management of one or more STBBIs, along with effective counselling, can cure and/or manage many of these infections; minimize their negative consequences; and, reduce spread. TasP has also proven to be a very effective prevention strategy in reducing the transmission of HIV. TasP was introduced as a concept by Dr. Montaner and the British Columbia Centre for Excellence on HIV/AIDS in 2006 and, since then, has gained considerable support nationally and internationally. TasP is an HIV prevention strategy that involves administering anti-HIV drugs, known as Highly Active AntiRetroviral Therapy (HAART), to medically-eligible individuals. This medication makes it harder for the HIV virus to replicate, which means there is a lower level of virus in the body.

Individuals who are infected with bacterial STIs are at least two to five times more likely than uninfected individuals to acquire HIV infection if they are exposed to the virus through sexual contact. In addition, if an HIV-infected individual is also infected with another STBBI, that person is more likely to transmit HIV through sexual contact than another HIV-infected person.

STBBIs often carry stigma and are commonly associated with marginalization, discrimination, prejudice and negative societal perceptions. Such factors present significant barriers for those wanting to access care in the available or traditional service settings. Enhancing and increasing the accessibility of quality services, including treatment for addictions, for all Manitobans is essential to reducing these barriers. For example, using innovative community-based services and improving social support systems and programs, along with increasing awareness and reducing stigma can provide an enabling and convenient environment for individuals seeking early-care. Incorporating a trauma informed lens will also be essential to ensuring the most effective treatment and management of STBBIs.
A co-ordinated continuum of care is needed to integrate the services that support clients over time and among service providers. Partnerships are essential across healthcare and social service organizations and between on- and off-reserve communities. Sharing experiences, strengthening partnerships and improving and standardizing referral processes will help to build an appropriate and effective circle of care in Manitoba. This is essential for an efficient, integrated and accessible model of care that customizes support and addresses the needs of different sectors of affected persons within the continuum of services.

**Objectives:**

1. Improve early detection and diagnosis of STBBIs among those at increased risk.
2. Enhance the capacity and co-ordination of case and contact identification, management and support services.
3. Reduce disease transmission by persons known to be infected.
4. Enhance the STI Drug Program and linkages with the Drug Program Information Network (DPIN).

**Illustrative Activities:**

**I. Strategic Co-ordination and Partnership:**

1. Develop a provincial platform and policies to support consistent, integrated and standardized approaches for STBBI management.
2. Strengthen community partnerships, communication and collaboration between emergency care, primary care and public health practitioners to increase testing, diagnosis, treatment and follow-up of hard to reach populations.
3. Establish and strengthen a provincial collaborative platform between service providers in urban, rural and northern communities. This includes incorporating the use of technologies such as Telehealth to facilitate access to treatment, improving referral processes and supporting care services for all Manitobans with emphasis on hard-to-reach populations and those at greatest risk.
4. Create room for infected and affected individuals to participate in the planning and implementation of health and support service programs.

**II. Audience-Oriented Communication and Education:**

1. Facilitate and strengthen the identification of and follow-up with those who may be infected. This includes identifying linkages with appropriate community resources through effective counselling, education and training of health care and service providers.
2. Encourage and support the integration of services and partnerships aimed at supporting individuals at increased risk of infection.
3. Promote and support the provision of quality information about sexual health, substance use, and harm reduction practices.
4. Support efforts to promote and increase awareness of testing and confidential counselling to all Manitobans, with special emphasis on high-risk and hard-to-reach populations.

**III. Accessible and Quality Services:**

1. Enhance and promote culturally-appropriate and equitable quality of care services for all Manitobans through improved peer-based outreach programs, community social support services, and addictions treatment.
2. Enhance STI and HIV drug programs and linkages with Drug Program Information Network (DPIN).

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5 The activities listed in this section are examples and are not intended to be exhaustive.
3. Support delivery of prevention and treatment services for HIV, HBV and HCV in rural settings with the assistance and guidance of the central HIV and hepatitis programs.

4. Increase capacity for self-care of chronic conditions by including outreach programs, rehabilitation and social supports while also exploring new innovative treatment and complementary therapies.

5. Further investigate the British Columbia Centre for Excellence TasP approach to HIV prevention.

6. Support and expand POCT for HIV as an appropriate and feasible model for increasing HIV testing, thereby facilitating earlier diagnosis, linkage to care and reducing the possibility of transmission.

7. Explore strengthening the laboratory infrastructure in regards to the cervical screening technologies being used.

8. Work with the Manitoba HIV Program as it moves from a Winnipeg-centric model to a provincially accessible program.

IV. Organizational and Professional Capacity Building:

1. Introduce and promote the use of the Public Health Agency of Canada’s 2013 HIV Screening and Testing Guide and other national and international best practice research to revise and/or update HIV related protocols and clinical guidelines.

2. Increase professional core competencies of service providers (specifically front-line providers) and public health professionals in improving health outcomes for those at risk of STBBIs.

V. Supportive Policies and Legislations:

1. Develop provincial policies to address barriers to STBBI treatment and support consistent integrated approaches to testing, reporting and treatment (ex: region of testing versus region of residence).

2. Update provincial drug formulary program policies to reflect new drug options.

3. Increase access to treatment by expanding the scope of practice for nurses to include the ability to prescribe certain STBBI medications.

4. Advocate for legislation and regulation changes to ensure culturally-appropriate services are provided to address health determinants which affect equitable access to health services.

5. Strengthen the organizational capabilities to carry out program activities, including outreach and provision of care for case and contact identification and management.

GOAL III: Strengthen and support the surveillance, reporting and research of STBBI in Manitoba

Strengthening the public health surveillance system (including reporting) and supporting research capacity for STBBIs will contribute to the strategy by enhancing the understanding of incidence and prevalence of STBBIs and the associated behavioural and socio-demographic risk factors in Manitoba.

Surveillance is defined as “...ongoing and systematic collection, analysis and interpretation of health data in the process of describing and monitoring a health event.” It is used to guide public health action (ex: evidence-informed, outcome-driven). Current surveillance of STBBIs in Manitoba encompasses six infections reportable under The Public Health Act: chlamydia, gonorrhea, syphilis, HIV/AIDS, HBV and HCV. For blood-borne pathogens such as HIV and hepatitis, additional information is collected about behavioural risk factors that further describe the transmission and acquisition of these potentially serious infections.
Providing timely and accurate public health information enables the use of evidence-informed decisions in forming public policies, designing strategies and planning programs. The addition of both enhanced surveillance and research will provide more information to fill the knowledge gaps where routine public health surveillance ends. Research innovations and partnerships that influence innovation and change are required for addressing STBBIs in Manitoba.

Building on current information gathering and reporting systems, there is an identified need to use collaborative and participatory processes with stakeholders to improve:(a) the identification and definition of information needs; (b) data collection and reporting requirements; (c) the analysis and interpretation of information; (d) audience-oriented dissemination tools and materials; (e) evaluation (of the surveillance system); and, (f) research and co-ordination.

The provincial STBBI strategy provides a framework for current and future improvements in programmatic planning and operational research efforts to address STBBI issues in Manitoba. This includes increasing surveillance and research capacity that will support the strategy by providing reliable, timely information on which to base these decisions. It further supports collaboration with partners such as university-based researchers to bolster research that guides innovative policy development. Also, the development of provincial-level health outcome and impact indicators will be used in assessment of objectives of this strategy.

**Objectives:**

1. Identify and define the information needs that support the understanding of the burden of STBBIs, using a collaborative process.
2. Strengthen infrastructure for data collection, collation and management with a co-ordinated approach to provincial surveillance activities.
3. Improve capacity for the timely analysis, interpretation, and dissemination of surveillance information to meet program-planning and service delivery needs.
4. Sponsor new research that supports public health and community-level programs and services.

**Illustrative Activities:**

**I. Strategic Co-ordination and Partnerships:**

1. Build a structure that allows collaborative processes with stakeholders to determine information needs for STBBI surveillance activities within Manitoba.
2. Support integration of surveillance activities and responsibilities with stakeholders.
3. Support partnerships, collaboration, and co-ordination for research that address STBBI policy/program questions and hypotheses.
4. Review federal-level enhanced and sentinel surveillance activities and opportunities in the province to collect new information.

**II. Audience Oriented Communication and Education:**

1. Engage stakeholders in dissemination as an ongoing process, supported with time and resources, for not only communication but also to influence innovation and change.
2. Recognize the four critical elements of knowledge translation and exchange - the source, the content, the method and the audience - in developing messages for STBBI reporting.
3. Improve responsiveness to data and information-sharing with stakeholders.

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6 The activities listed in this section are examples and are not intended to be exhaustive.
III. Accessible and Quality Surveillance System:
   1. Address specific information gaps in understanding the burden of STBBIs, as well as transmission/acquisition and associated behavioural risk factors.
   2. Operationalize improvements to the STBBI surveillance system.
   3. Strengthen the quality (completeness, accuracy and validity) of the data collected. Determine minimum and core data elements that are required.
   4. Evaluate the STBBI surveillance system at regular intervals including dissemination products.

IV. Organizational and Professional Capacity Building:
   1. Support capacity building for the use of surveillance information in program and policy planning.
   2. Develop indicator frameworks to meet the information needs of programs, in a timely way.
   3. Develop human and technical resources for timely detection and response to STBBI outbreaks.

V. Supportive Policies and Legislations:
   1. Ensure legislation and policies support effective and efficient STBBI surveillance and research initiatives.
   2. Develop a provincial public health surveillance system and research plan that meets the needs of stakeholders and STBBI programs.

Strategy Implementation Phases

Strategy implementation is the translation of the strategic approaches and guiding principles into operational action to achieve the strategic goals and objectives. During the program’s implementation phase, the implementing organization(s) should develop, use and amalgamate organizational structures, resources, monitoring systems and cultures that lead to co-ordinated quality actions and better performance.

The Manitoba government envisions and recommends three overlapping phases for strategy implementation through different regional health authorities and other relevant involved sectors. The three overlapping phases are:

Phase 1: Participation and Planning (Year 1)

Phase 1 will focus on strategy finalization and consensus building; strategy launch and dissemination; coalition building; and, establishing a provincial platform. The platform will help guide and monitor the operationalization process of the strategy and in the development of monitoring and evaluation tools for strategy implementation.

Phase 2: Program Implementation (Years 2 to 4)

Phase 2 will focus on the engagement activities for partners from the five regions to (re)introduce the final strategy and its framework; discuss and identify regional priorities and the implementation mode; identify and discuss challenges in dealing with STBBIs; present and share success stories and lessons learned; and, collaborate with the various stakeholders regarding the implementation of different interventions within the regions.

Types of regional operational activities, their momentum and delivery modes depend on the implementing partners’ nature of work, human and financial resources and cumulative experience in this field.
Phase 3: Impact Assessment and Setting Supportive Organizational Systems (Years 4 to 5)

Although monitoring and evaluation will be considered and integrated in different phases of the strategy implementation, Phase 3 will focus on assessing the impact of the strategy on the provincial outcomes and impact indicators. In addition, during this phase, efforts will focus on strengthening partnerships, building trust among non-traditional partners and creating new systems for greater program sustainability beyond the life of this strategy.

Partners and Stakeholders

There are many partners and stakeholders in the province working in a variety of ways to reduce the effects of STBBIs in our communities. Strategic co-ordination and collaboration among different stakeholders (current and potential) is required to build cohesion and capacity in the management of STBBIs and to orchestrate the implementation of different activities to achieve the vision of this strategy.

Stakeholders include those working in health promotion and disease prevention; policy formulation; social service and education; and, management and surveillance. Some examples include community-based organizations, primary health care providers, public health nurses, epidemiologists, disease specialists and university-based academic researchers as well as many others.

MHHLS will establish a multi-disciplinary STBBI committee and/or working groups to engage key stakeholders as needed, follow up on the progress of the strategy implementation, identify and discuss challenges, present and share success stories and lessons learned and co-ordinate the implementation of different interventions.

Key partners and stakeholders include:

• Province of Manitoba
• regional health authorities
• community health and community agencies
• First Nations, Métis and Inuit provincial and national organizations
• federal government departments and agencies
• media
• private sector
• universities
Monitoring and Evaluation (M&E)

Ongoing evaluation of the strategy’s specific goals is necessary to determine progress and identify limitations. Surveillance data collected at MHHLS will assist in determining the incidence and prevalence of STBBIs; however, other monitoring methods should be considered to assess program and process outcomes. This will allow for a feedback loop that provides continuous evidence for ongoing monitoring and evaluation.

MHHLS will provide leadership and work closely with a multi-disciplinary STBBI committee and/or working groups as well as other existing and relevant provincial and regional networks to plan and manage the monitoring and evaluation processes of different programmatic activities. This includes providing guidance and proposing different qualitative and quantitative methodologies, tools, protocols and indicators for monitoring and evaluation.

Program results will be assessed against the key strategic objectives and expected outcomes. Measurement can occur at the individual, community, health services and environment levels. At the individual level, changes in health knowledge, beliefs and attitudes, perceived risk, perceived social norms, self-efficacy and self-reported health seeking behaviours and healthy practices may be measured. At the community level, changes in demographics, public involvement in health improvement activities, access to information, strength of health networks as well as social and organizational support for preventive health may be measured. At the service level, changes in availability, trends in service utilization, client-provider interaction quality and appropriateness of information may be measured. At the environmental level changes in the number of partnerships, diversity of partnerships and co-ordination among partnerships, policy support and public opinion may be measured.

Partner organizations working at the community level will be encouraged to produce case studies of local success stories. These case studies will include descriptions of processes and activities, as well as reactions of participants, stakeholders, and opinion leaders to program activities. Case studies will provide guidance for program adjustments and refinements as well as raw material for the development of advocacy and role modeling materials.

In addition to the current epidemiological methodologies that can be used to assess the impact of the strategy, others research techniques such as secondary resource analysis, knowledge, attitudes and practice studies, omnibus surveys, focus group discussions, intercept interviews, exit interviews and semi-structured interviews can be developed and utilized to monitor and assess the changes on different types of process and proxy (outcome) indicators.

Major findings from research activities will be provided to partner organizations at the local and national level to assist with development of new program activities.
Illustrative Indicators:

<table>
<thead>
<tr>
<th>Types of Indicator:</th>
<th>Operational Indicators</th>
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</table>
| **1. Strategic co-ordination and partnership** | • # of participatory planning and co-ordination meetings  
• # of committees and working groups established  
• # of operational plans developed  
• # of partners actively involved in program implementation  
• budgets allocated for programmatic activities of the strategy  
• reporting and networking systems and channels established |
| **2. Audience-oriented communication and education** | • # of communication strategies and operational plans  
• # of multi-channel campaigns developed and fielded  
• # of communication materials and tools  
• # of partners involved in communication campaigns and activities  
• # of community-based communication and activities designed and fielded for different vulnerable and high risk audiences  
• per cent of targeted audience who recognize, recall and understand different STBBI-related communication interventions |
| **3. Accessible quality services** | • # of health facilities providing STBBI prevention and treatment services  
• # of point-of-care treatment sites  
• # of counsellors trained on STBBI prevention and treatment |
| **4. Organizational and professional capacity building** | • # of updated and accessible protocols and guidelines  
• # of professional development and continuing education programs offered  
• # of health professionals trained on effective STBBI prevention and management  
• # of trained community/health outreach workers on STBBI prevention |
| **5. Supportive policies, programs and legislations** | • political commitment to different STBBI prevention and management programs  
• # of policies supportive of different STBBI prevention and management programmatic activities  
• development of a provincial harm reduction position statement  
• development of a provincial harm reduction policy statement |

7 The indicators listed in this section are examples and are not intended to be exhaustive.
<table>
<thead>
<tr>
<th>Types of Indicator:</th>
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<tr>
<td><strong>Major Outcomes (Proxy Indicators)</strong></td>
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<tr>
<td>• per cent of change in public awareness regarding STBBI prevention and management</td>
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<td>• per cent of safe sex practices (condom use)</td>
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<td>• per cent of harm reduction practices</td>
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<td>• per cent of HPV vaccine uptake</td>
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<td>• per cent of HBV vaccine uptake</td>
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<td>• per cent of cervical cancer screening among eligible women</td>
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<td>• per cent of partners notification</td>
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<tr>
<td>• per cent of early detection of different STBBIs</td>
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<tr>
<td>• per cent of teenage pregnancy</td>
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<tr>
<td>• per cent of pregnancies screened for STBBIs</td>
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<tr>
<td>• # of provincial STBBI prevention and management initiatives developed and conducted by non-health sectors</td>
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<tr>
<td>• rate of testing for STBBIs</td>
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<tr>
<td><strong>Impact Indicators</strong></td>
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<tr>
<td>• STBBI incidence in Manitoba</td>
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<tr>
<td>• STBBI prevalence in Manitoba</td>
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<tr>
<td>• Change in epidemiological pattern of disease in Manitoba</td>
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Conclusions

The prevention and management of sexually transmitted and blood-borne infections remains a key public health priority in Manitoba. Changes in STBBI trends in Manitoba demonstrate an increasing health burden over the past decade, creating the need for a comprehensive provincial strategy to co-ordinate and maximize the effects of different efforts to prevent and properly manage STBBIs.

The purpose of this strategy is to provide provincial leadership and direction for an integrated and collaborative approach to addressing STBBIs and an appropriate platform for different sectors to work together in a synchronized way to achieve the strategy vision and indicators.

The Manitoba government envisions and recommends a multi-stage approach to implement this strategy through the regional health authorities and other relevant sectors and monitor its progress and impact. The immediate infrastructure actions that will be taken to launch the strategy operationalization process will be:

1. Establishing a multidisciplinary provincial STBBI committee and/or working groups with adequate and fair representation from different regions and related departments and sectors to act as a provincial network assisting in, and following up on, the operationalization process of the strategy.
2. Conducting a ranking and prioritization exercise to identify the provincial priorities considering different regions as well as northern and remote communities.
3. Identifying provincial impact indicators to be achieved within the lifespan of the strategy.
4. Identifying and addressing expected operational challenges.
5. Creating the required guidelines, protocols, forms and tools to support implementing organizations.
6. Recommending policy changes that can contribute to building an enabling environment for strategy operationalization.
EndNotes


ix HIV Prevalence estimates for Manitoba provided by the Public Health Agency of Canada. Centre for Communicable Disease and Infection Control, November, 2012.


xii Data source: Manitoba Health Public Health Surveillance System, April, 2013.


xv *The role of STD prevention and treatment in HIV prevention* – Communicable Disease Control and Prevention - Fact Sheet, April 2010.

Acknowledgments

The successful development of this strategy would not have been possible without the efforts of a significant number of dedicated individuals, grassroots and community organizations as well as regional, provincial and federal partners. The expert Advisory Committee gave graciously of their time, experience, and energy in setting the vision, goals and pillars of this strategy. The members of the 3 different task force groups expertly guided by their facilitators, contributed their time, enthusiasm and intensive effort during the development of activities of each pillar of the strategy.