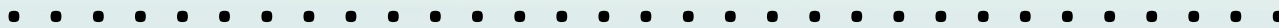


Addressing the STBBI Epidemic in Manitoba



Office of the Chief Provincial Public Health Officer

January 18, 2022

Presented on the original lands of Anishinaabe, Cree, Oji-Cree, Dakota, and Dene peoples,
and the homeland of the Métis Nation.



Conflict of Interest

There are no conflicts of interest to declare.

Objectives

- Increase understanding of the epidemiology of STBBI's in Manitoba
- Increase testing, treatment and follow up
- Highlight a few treatment principles
- Review the requirements for health care provider reporting to public health

Overview

- Impact of STBBI
- Transmission Dynamics
- Epidemiology
- Approaches to Testing
- Treatment
- STBBI Immunizations
- Health Care Provider Report Form

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The Impact of STBBI's

Female Reproductive Morbidity

- Pelvic inflammatory disease, ectopic pregnancy, infertility

Perinatal Outcomes

- Congenital syphilis, HIV vertical transmission

Chronic Disease Management

- HIV, hepatitis B and C
- Neoplasia (HPV, HBV, HCV related)

Economic Impact

Is HIV testing part of your routine?

How often you should test depends on your situation. Talk to a healthcare provider or community worker to find out how often to test.



Overview

- Impact of STBBI
- **Transmission Dynamics**
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Transmission Dynamics

$$R_0 = tCD$$

t= Transmissibility (probability of infection)

- Organism specific
- Barriers
- Suppressive treatment
- STI cofactors

C= Average rate of exposure between infected and susceptible

- Core groups

D= Duration of infectivity

- Early diagnosis and treatment

Overview

- Impact of STBBI
- Transmission Dynamics
- **Epidemiology**
 - *STBBI Surveillance Report, Government of Manitoba. Data up to: Jun 30, 2022, Date extracted: Nov 2, 2022*
- Approaches to Testing
- Treatment
- STBBI Immunizations
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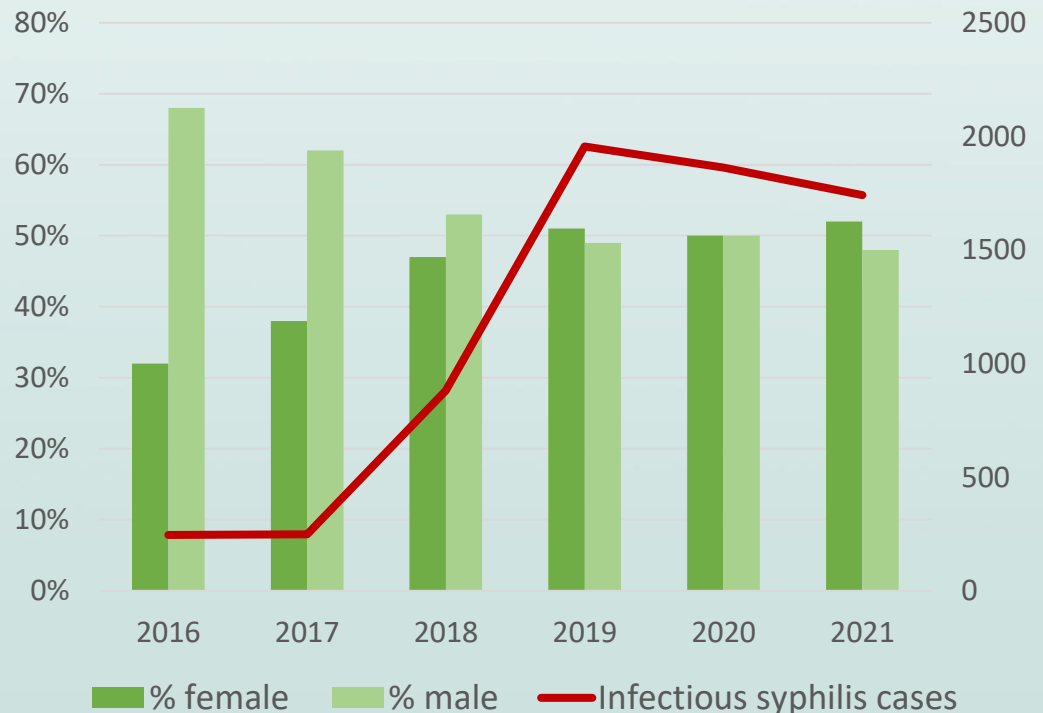
Epidemiology - Syphilis

Manitoba had the **highest rate** of infectious syphilis diagnoses of all Canadian provinces, in 2019 (136.7 per 100,000).

Infectious syphilis cases have been decreasing since 2019 while non-infectious syphilis cases have increased.

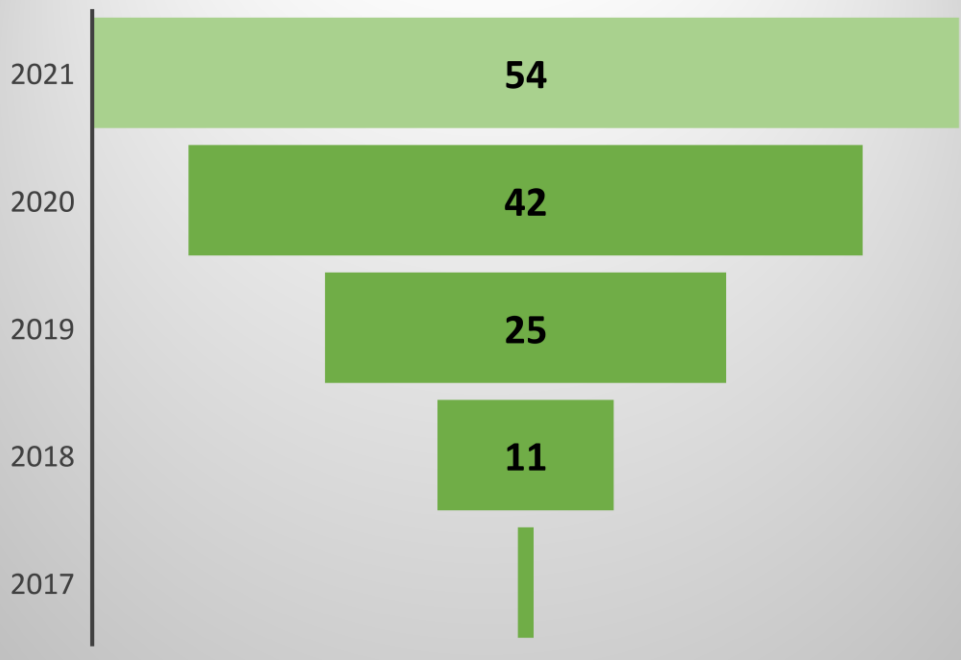
Jan to Jun 2022: total syphilis cases 1,417 which is 182 more total cases than the same period in 2021.

Infectious syphilis cases/by sex
2016-2021



Epidemiology – Congenital Syphilis

Congenital syphilis cases 2017-2021



2015: first case of congenital syphilis in 30+ years.

2017: Second case and start of significant rise.

2018-2019: case #'s double

2020: 86% of national cases occurred in AB, SK and MB*

2019-2021: case #'s double again

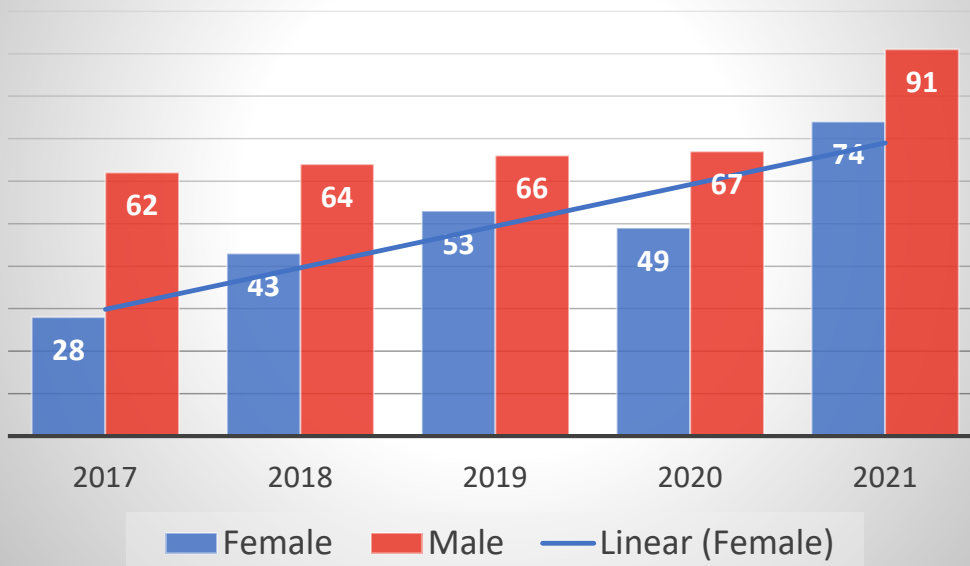
While infectious syphilis cases appear to be decreasing, high case counts continue to result in **perinatal transmission** and pose a serious **public health risk**.

*Aho J, Lybeck C, Tetteh A, Issa C, Kouyoumdjian F, Wong J, Anderson A, Popovic N. Rising syphilis rates in Canada, 2011–2020. Can Comm Dis Rep 2022;48(2/3):52–60. <https://doi.org/10.14745/ccdr.v48i23a01>

Epidemiology – HIV

HIV diagnoses in Manitoba in 2020 were **3 times higher** than Canadian average.

New HIV Diagnosis in MB 2017-2021



2017-2021:

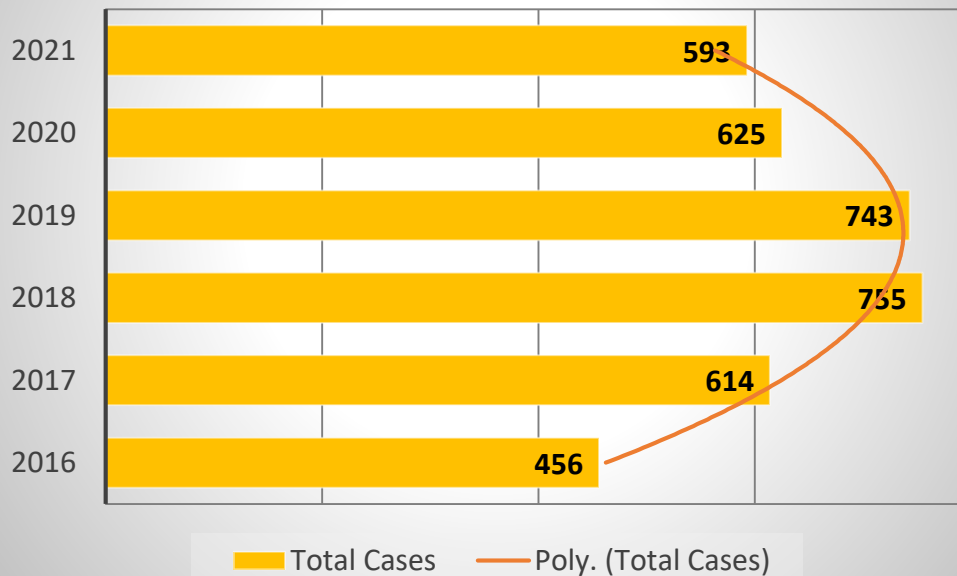
- 54% increase in people living with HIV in MB.
- 164% increase in **females** diagnosed with HIV.
- Male to female ratio nearly doubled from 2017 to 2021.

Jan-June 2022: 108 new HIV cases. This is 37 (or 52%) **more cases** than the same time period in 2021.

Epidemiology – Hepatitis C

Manitoba had the **highest rate** of new (acute and chronic) Hepatitis C diagnoses in Canada in 2019 (55.6 per 100,000) .

Hepatitis C Cases by Sex 2016-2021



Hepatitis C infections decreasing since 2018 while screening has increased.

- Indicates a true decrease in cases.

Females have accounted for approximately 45% of cases since 2017.

Jan-June 2022: 299 new Hepatitis C cases. 34 more cases (13%) than the same time period in 2021.

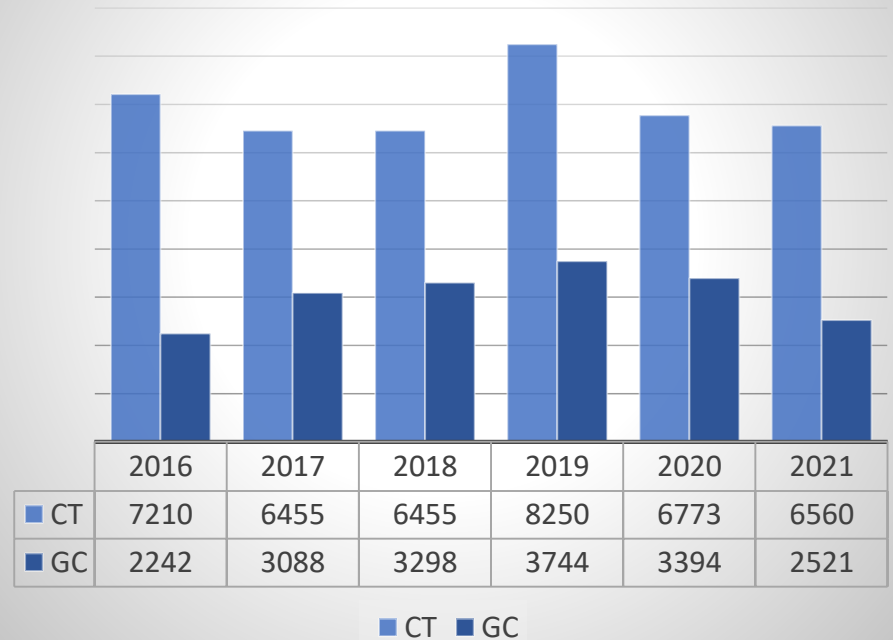
Epidemiology – Chlamydia and gonorrhoea

Manitoba had the **highest crude rates** of chlamydia and gonorrhoea in the Canadian provinces in 2019

- CT & GC are the two most commonly reported STI's in MB.
- CT/GC screening has decreased since 2019.

Jan-June 2022: 4,737 new cases in the first half of the year. 424 more cases than the same period in 2021.

Chlamydia and Gonorrhoea cases 2016-2021



STBBI Dashboard

- Launched on October 24, 2022
- Updated quarterly

www.gov.mb.ca/health/publichealth/surveillance/stbbi/index.html

January 1-June 30, 2022: Infectious Syphilis

801

Total Cases

449

Female Cases

351

Male Cases

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- **Approaches to Testing**
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Approaches to Testing: Prenatal syphilis screening

Year of birth	% not tested for syphilis	<u>% with 3 or more syphilis tests</u>	% only tested at delivery or within 30 days (postpartum)
2018	3%	8%	3%
2019	1%	25%	2%
2020	3%	17%	5%
2021	1%	45%	9%
2022 (up to June 30)	1%	62%	2%

Screening recommendations: First trimester, 28 to 32 weeks and at delivery

Approaches to Testing: Concurrent with CT/GC

Year	# CT/GC tests/unique patient	% of unique patients tested for CT/GC with concurrent serology*	% of unique CT/GC <u>positive</u> patients with concurrent serology *
2018	90,131	37%	57%
2019	95,131	46%	64%
2020	84,200	49%	62%
2021	85,441	51%	63%
2022 (up to June 30)	49,786	54%	65%

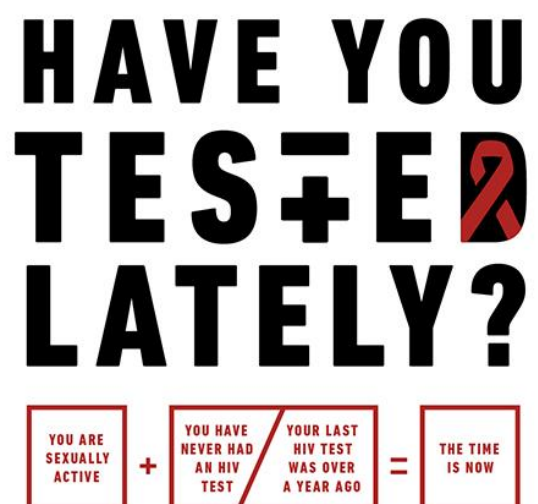
*(same time or within one month)

Approaches to Testing: STBBI Management

- ✓ Take sexual histories
- ✓ Offer testing to everyone (regardless of risk factors)
- ✓ Test for **one**, test for **all** STBBIs
- ✓ STBBI testing during pregnancy
- ✓ Test and treat:
 - symptomatic
 - high risk/unlikely to return
 - contacts of cases
- ✓ Notify Public Health

Do you know the STBBI status of the patient? If not, offer testing.

HAVE YOU TESTED LATELY?



YOU ARE SEXUALLY ACTIVE + YOU HAVE NEVER HAD AN HIV TEST / YOUR LAST HIV TEST WAS OVER A YEAR AGO = THE TIME IS NOW

Approaches to Testing:

Cadham Provincial Laboratory General Requisition

Cadham Provincial Laboratory
General Requisition

Manitoba
Health 

ONLY ONE SPECIMEN TYPE PER REQUISITION

All areas of the requisition must be completed (please **print** clearly)
See back for requisition/specimen instructions

Cadham Provincial Laboratory
P.O. Box 8450
Winnipeg, MB R3C 3Y1

Tel: (204) 945-6123
Fax: (204) 786-4770
E-mail: cadham@gov.mb.ca
Website: www.gov.mb.ca/health/publichealth/cpl

STBBI Panel includes:
HBsAg, HCV Ab,
Syphilis and HIV 1/2
Ag/Ab Combo

SEROLOGY	
Serology Test Panels (see #1 over)	
<input checked="" type="checkbox"/> STBBI Panel	<input checked="" type="checkbox"/> Prenatal Panel
<input type="checkbox"/> Post Exposure: Source Panel (1,3)	<input type="checkbox"/> Prenatal HIV OPT OUT (2)
<input type="checkbox"/> Post Exposure: Exposed Panel (1)	
HIV (4) <input type="checkbox"/> HIV 1/2 Ag/Ab Combo	<input type="checkbox"/> Syphilis Screen
Hepatitis	
<input type="checkbox"/> HAV IgG (Immunity)	<input type="checkbox"/> HBcAb (Total)
<input type="checkbox"/> HAV IgM (acute HAV infection)	<input type="checkbox"/> HBsAb (Immunity)
	<input type="checkbox"/> HBsAg
	<input type="checkbox"/> HCV Ab

Prenatal Panel

includes:

HBsAg, Rubella IgG,
Syphilis and HIV 1/2
Ag/Ab Combo

Chlamydia & Gonorrhea Screen (NAAT)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Urine (APTIMA Urine Tube/Yellow) | <input type="checkbox"/> Urethra (APTIMA Unisex Swab) |
| <input type="checkbox"/> Cervix (APTIMA Unisex Swab) | <input type="checkbox"/> Other: _____ |

https://www.gov.mb.ca/health/publichealth/cpl/docs/gen_req_mg696_fillable.pdf

Overview

- Impact of STBBI
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Treatment Principles

Test and **empirically treat** all:


- symptomatic persons
- contacts of confirmed cases
- high risk/unlikely to return individuals

Test of Cure for:

- persistent signs/symptoms
- pregnant
- under age 18 years
- use of alternative treatment regimen
- linked to drug resistant case (for GC)
- pharyngeal and rectal infections (CT/GC)

Treatment Principles: Access to free medications

- STI medications are provided free of charge by Manitoba Health.
- Can only be obtained by faxing a completed Manitoba Health STI Medication Order Form

Manitoba Health STI Medication Order Form (PLEASE PRINT)			
Fax order to: Taché Pharmacy – Fax: (204) 231-1739 • Phone: (204) 233-3469 • For Inquiries only e-mail tache@mts.net			
Date (yyyy/mm/dd)	____/____/____	Contact Person:	
Facility Name:		Physician:	
Address:			
Telephone #:		Ext:	
Refer to Sexually Transmitted and Blood-Borne Infections webpage https://www.gov.mb.ca/health/publichealth/cdc/sti/index.html			
All treatments provided to patients must be recorded and reported to Manitoba Health using the Provider Report Form for Sexually Transmitted and Blood-Borne Infections (STBBI) and STI Treatment (https://www.gov.mb.ca/health/publichealth/surveillance/docs/mhsu_6781.pdf)			

Call Materials Distribution Agency at 204-945-0570 or download form:
www.gov.mb.ca/health/publichealth/cdc/protocol/form11.pdf

Treatment Principles: HIV Pre-exposure Prophylaxis (PrEP)

PrEP was added to the provincial drug program formularies in fall 2021.

- Part of a comprehensive HIV prevention strategy
- Risk reduction strategy to minimize the risk of HIV acquisition
- Goal of reducing or eliminating new HIV infections in HIV negative persons.

Register to be a PrEP prescriber!

https://www.gov.mb.ca/health/publichealth/cdc/docs/prep_prescriber_regform.pdf



[Eligibility Criteria and Clinical Guidance for Manitoba HIV Pre-Exposure Prophylaxis](#)

Treatment Principles: HIV Pre-exposure Prophylaxis (PrEP)

Daily HIV PrEP for preventing HIV infection in individuals who test negative for HIV and are at ongoing high risk of acquiring the infection:

MSM, transgender women and gender diverse people who report condomless anal sex and have any of the following:

- Infectious syphilis or bacterial STI (GC/CT) in the past 12 months
- nPEP (non-occupational HIV post-exposure prophylaxis) >1X
- Ongoing sexual relationship with HIV-positive partner(s)
- A high score on a HIV risk assessment tool

Heterosexual people

- Ongoing exposure to HIV positive partner(s) involving condomless vaginal or anal sex
- HIV status unknown but from a high-prevalence population

People who inject drugs and share injection drug use equipment.

Treatment Principles: Congenital Syphilis Prevention

Congenital syphilis is almost entirely preventable with adequate treatment at least 30 days prior to delivery.

- Test monthly during pregnancy if newly diagnosed or new re-infection, or receiving treatment during pregnancy
- Test all newborns to a birthing parent with syphilis (treated or untreated)

Refer to pediatric ID if birthing parent was diagnosed or received treatment during the pregnancy.

- No need to refer if diagnosed & treated prior to pregnancy AND no concerns of reinfection during the pregnancy

Treatment Principles: Congenital Syphilis Prevention

Treatment in pregnancy:

- Benzathine penicillin G 2.4 M units weekly X2
 - except late latent = weekly X3
 - neurosyphilis usually IV antibiotics
- 2.4 M units = 2 injections of 1.2 M units each hip



Penicillin allergy and treatment in pregnancy:

- do not use ceftriaxone and doxycycline.
- allergy desensitization is the only treatment option.

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STBBI Immunizations: Recommendations

Offer vaccination for HAV, HBV and HPV to people at risk of these infections as per the Canadian Immunization Guide.

Canada's National Advisory Committee on Immunization (NACI) provides ongoing and timely medical, scientific and public health advice and guidance on the use of vaccines currently or newly approved for use in Canada.

NACI publishes its recommendations in ad hoc statements, in the Canadian Immunization Guide.

<https://www.canada.ca/en/public-health/services/canadian-immunization-guide.html>

STBBI Immunizations: Risk factors

- Multiple partners (concurrently or over time)
- Anonymous or casual sex partners
- Sex without the use of barrier protection
- Sex with person(s) with an STBBI
- Previous STBBI
- Substance use (drug, alcohol or both)
- Use of medications for erectile dysfunction
- History of intimate partner or sexual violence
- Social environments (e.g. bath houses)



Eligibility Criteria for Publicly-Funded Vaccines:

www.gov.mb.ca/health/publichealth/cdc/vaccineeligibility.html

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Provider Report Form for STBBI's and STI Treatment: Reporting to Public Health

- ✓ STBBI's reportable to Manitoba Health per section B of the Public Health Act.
- ✓ Simplified process for reporting treatment and contacts to Public Health with new *Provider Report Form for STBBI's and STI Treatment*

MHSU 6781 - PROVIDER REPORT FORM FOR SEXUALLY TRANSMITTED AND BLOOD-BORNE INFECTIONS (STBBI) AND STI TREATMENT



NEW REPORT (YYYY-MM-DD) UPDATED REPORT (YYYY-MM-DD)

I. CLIENT IDENTIFICATION

subject > client details > personal information

LAST NAME		FIRST NAME		DATE OF BIRTH (YYYY-MM-DD)
<input type="text"/>		<input type="text"/>		<input type="text"/>
SEX	GENDER IDENTITY (VOLUNTARY, SELF-REPORTED)			AGE (YR\$)
<input type="radio"/> FEMALE	<input type="radio"/> INTERSEX	<input type="radio"/> CISGENDER (SAME AS SEX AT BIRTH)	<input type="radio"/> TRANSGENDER PERSON	<input type="radio"/> DECLINED
<input type="radio"/> MALE	<input type="radio"/> UNKNOWN	<input type="radio"/> TRANSGENDER MAN	<input type="radio"/> TRANSGENDER WOMAN	<input type="radio"/> OTHER (SPECIFY)
				<input type="text"/> (IF DOB NOT COMPLETED)

https://www.gov.mb.ca/health/publichealth/surveillance/docs/mhsu_6781.pdf

Provider Report Form for STBBI's and STI Treatment: Reporting to Public Health

Key information to report for public health collaboration and follow-up:

- Staging (syphilis)
- Treatment administered
- Key risks (pregnancy, IDU, shared needles)
- Sexual contacts
 - Name, age, contact information

CONTACT PERSONAL INFORMATION	PREGNANT?	WHO WILL NOTIFY?	EXPOSURE START AND END DATES YYYY-MM-DD
NAME:			START DATE
PHIN (IF KNOWN):			
DOB/AGE:		<input type="checkbox"/> PUBLIC HEALTH	
ADDRESS:	<input type="checkbox"/>	<input type="checkbox"/> CASE	END DATE
PHONE:		<input type="checkbox"/> HEALTH CARE PROVIDER	
ALTERNATE CONTACT INFO (E.G PHONE, SOCIAL MEDIA, EMAIL):			

Provider Report Form for STBBI's and STI Treatment: Reporting to Public Health

All treatments provided to patients **MUST** be recorded and reported to Manitoba Health using this form (MHSU 6781)

III. INFECTION INFORMATION

Investigation > Investigation details > disease summary > update > disease event history

REASON FOR REPORTING:		<input type="checkbox"/> LAB CONFIRMED INFECTION(S) (SPECIFY BELOW)			<input type="checkbox"/> STBBI TREATMENT PROVIDED (CONTACTS OR CLINICAL CASES) (TEST RESULTS PENDING OR NOT DONE) PROCEED TO TREATMENT INFORMATION		
LAB CONFIRMED INFECTIONS (CHECK ALL THAT APPLY)	<input type="checkbox"/> CHLAMYDIA <input type="checkbox"/> GONORRHEA	<input type="checkbox"/> CHANCROID	<input type="checkbox"/> LGV	<input type="checkbox"/> HEPATITIS B	<input type="checkbox"/> HEPATITIS C	<input type="checkbox"/> HIV	<input type="checkbox"/> SYPHILIS
SPECIMEN COLLECTION DATE (YYYY-MM-DD)							

IV. TREATMENT INFORMATION

Investigation > prescriptions > prescription summary

PRESCRIBER NAME	PRESCRIBER/TREATMENT FACILITY			
SYPHILIS	<input type="checkbox"/> BENZATHINE PENICILLIN G 2.4 million units, IM, 1 dose START DATE (YYYY-MM-DD):	<input type="checkbox"/> BENZATHINE PENICILLIN G 2.4 million units, IM weekly, 2 doses START DATE (YYYY-MM-DD):	<input type="checkbox"/> BENZATHINE PENICILLIN G 2.4 million units, IM weekly, 3 doses START DATE (YYYY-MM-DD):	<input type="checkbox"/> CEFTRIAXONE 1 g daily x 10 days, IV / IM (circle one) START DATE (YYYY-MM-DD):
	<input type="checkbox"/> CEFTRIAXONE 2 g daily x 10 days, IV / IM (circle one) START DATE (YYYY-MM-DD):	<input type="checkbox"/> DOXYCYCLINE 100 mg PO BID x 14 days START DATE (YYYY-MM-DD):	<input type="checkbox"/> DOXYCYCLINE 100 mg PO BID x 28 days START DATE (YYYY-MM-DD):	<input type="checkbox"/> PENICILLIN G 3 - 4 M IV Q4H x 10-14 days START DATE (YYYY-MM-DD):
CHLAMYDIA, GONORRHEA	<input type="checkbox"/> AZITHROMYCIN 1g PO, single dose START DATE (YYYY-MM-DD):	<input type="checkbox"/> CEFIXIME 800 mg PO, single dose START DATE (YYYY-MM-DD):	<input type="checkbox"/> DOXYCYCLINE 100 mg PO BID x 7 DAYS START DATE (YYYY-MM-DD):	<input type="checkbox"/> METRONIDAZOLE 500 mg PO BID x 14 DAYS START DATE (YYYY-MM-DD):
	<input type="checkbox"/> AMOXICILLIN 500 mg PO TID x 7 DAYS START DATE (YYYY-MM-DD):	<input type="checkbox"/> CEFTRIAXONE 250 mg IM, single dose START DATE (YYYY-MM-DD):	<input type="checkbox"/> ERYTHROMYCIN 500 mg PO QID x 7 DAYS START DATE (YYYY-MM-DD):	

Provider Report Form for STBBI's and STI Treatment: Tariffs

Manitoba Health has approved two new temporary tariffs for completing the Provider Report Form for STBBI's and STI Treatment.

Tariff	Description	Rate
78010	Completion of Pages 1 and 2: Treatment, risk factors, staging	\$20
78011	Completion of page 3: Contacts to the case	\$30

Treatment Details in eChart Manitoba



STI treatment information soon to be available in **eChart Manitoba**

Data source: PHIMS (Public Health Information Management System) via Provider Report Form and Medication Summary

Summary

- Rates of STBBI's are too high in Manitoba. Syphilis and HIV are of particular concern.
- The epidemiology is changing and women are representing an increased proportion of cases.
- STBBI testing should be part of routine health screening.
- Test for **one**, test for **all** STBBIs
- **Test and treat** symptomatics, contacts of cases, high risk/unlikely to return

Questions?

Health care provider questions/inquiries can be directed to: STBBI@gov.mb.ca

- For vaccine specific questions/inquiries: vaccines@gov.mb.ca

Public questions/inquiries can be directed to: mgi@gov.mb.ca
or by going to www.gov.mb.ca/contact/ for more information.