

HIV and syphilis in Manitoba

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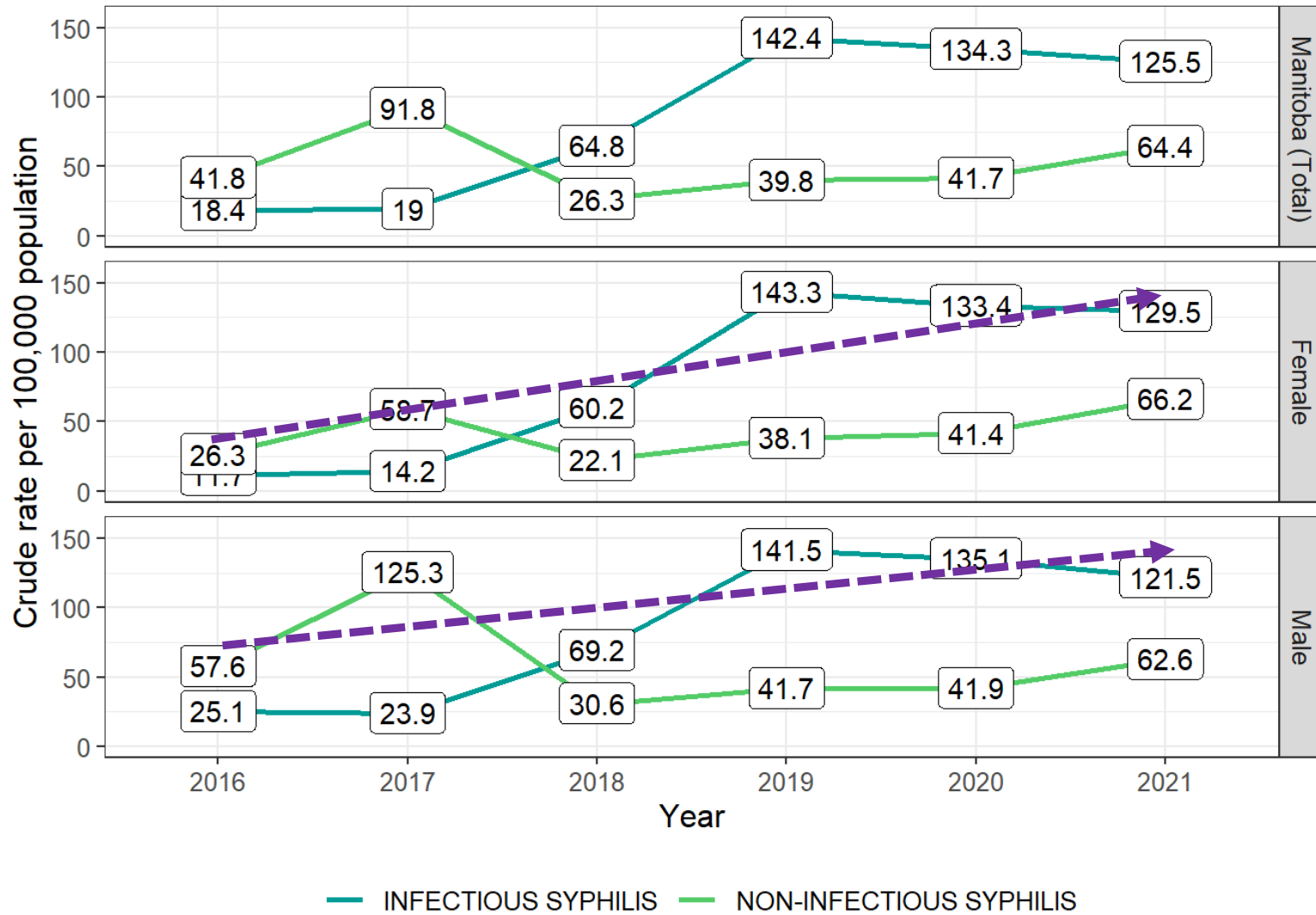


Fact 1:

- Manitoba (MB), Saskatchewan (SK), and Alberta (AB) in **2022** contributed to:
 - **53.4% of all infectious syphilis diagnoses in Canada** = 7455 infectious syphilis / 13,953 in Canada
 - **67.5% of all confirmed congenital syphilis in Canada** = 79 in AB, SK & MB / 117 in Canada

Raw numbers taken from Public Health Agency of Canada, CCDR, 2023;49(10):439

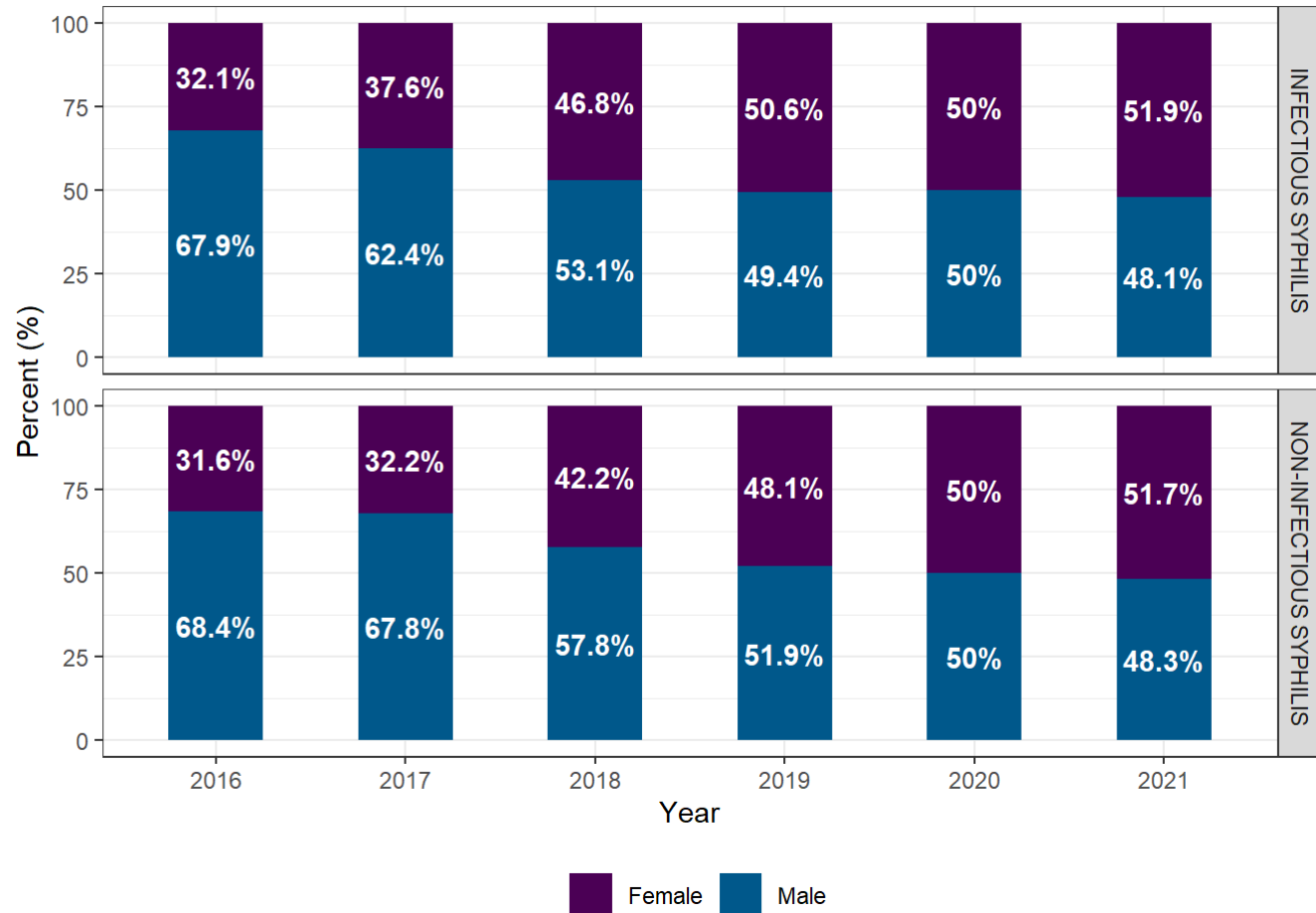
Crude Rate



Infectious syphilis has increased by **4.9 times** in **females** & 2.1 times in males since 2016

Most diagnoses are reported among people between 20-29 years old

Proportion by Sex



Females represented over 50% of all diagnoses in Manitoba in 2021 and 2022 compared to Canada (35%)

Image taken from the Manitoba STBBI Public Dashboard: [Sexually Transmitted and Blood-Borne Infections \(STBBI\) Surveillance Report | Health | Province of Manitoba \(gov.mb.ca\)](#)

Fact 2: Manitoba has one of the highest congenital syphilis rates in the world

2015: First diagnosis of congenital syphilis in 30+ years in MB

2022: Confirmed congenital syphilis: Canada: 31.7 /100,000 live births
Manitoba: 122.7/100,000 live births

Data taken from Public Health Agency of Canada, CDR, 2023;49(10):439

335 probable congenital diagnoses/100,000 live births

Data taken from the Manitoba STBBI Public Dashboard: [Sexually Transmitted and Blood-Borne Infections \(STBBI\) Surveillance Report | Health | Province of Manitoba \(gov.mb.ca\)](#)

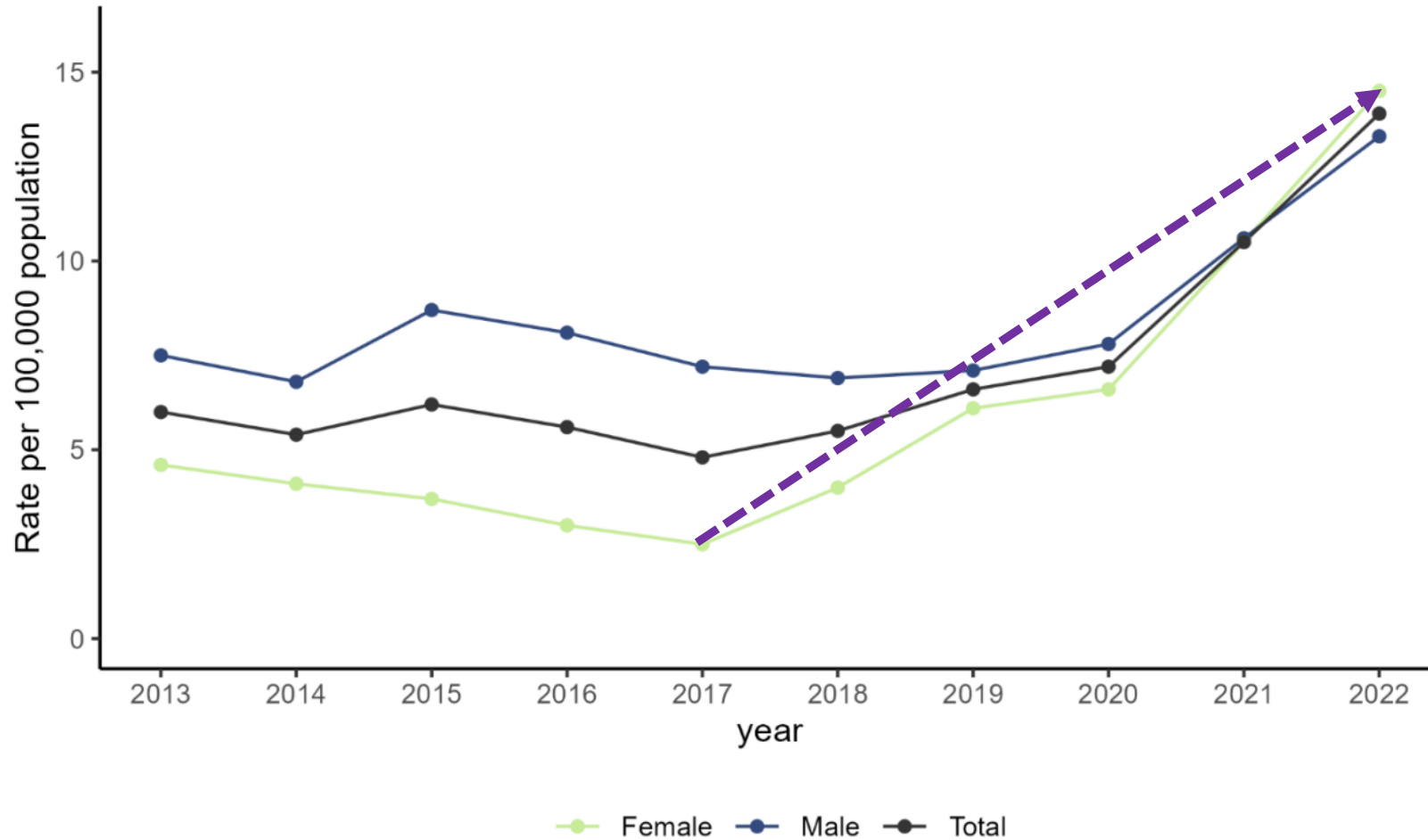
Fact 3:

- Manitoba (MB), Saskatchewan (SK), and Alberta (AB) in **2022** contributed to:
 - **~40% of all HIV diagnoses in Canada**

Raw numbers taken from Public Health Agency of Canada, Manitoba Statistical Update on HIV/AIDS 2022 and Alberta Sexually Transmitted Infections and HIV 2022



Fact 4: In Manitoba, the HIV rates have increased over time, and in 2022, **females** and **males** have the **highest rates ever**



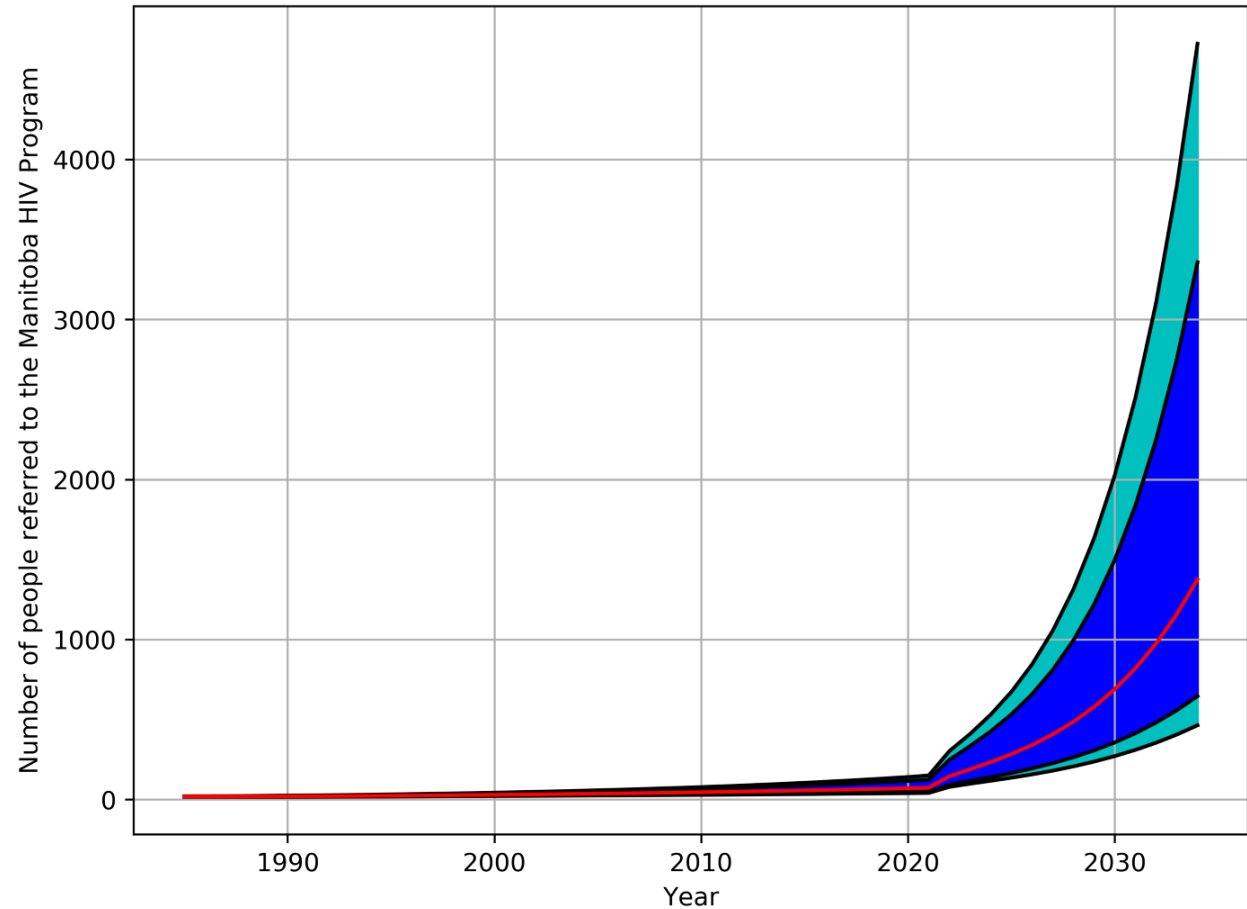
Indigenous Peoples accounted for 51.4% of all people referred to the Manitoba HIV Program in 2018. This increased to 73.4% in 2021

[Manitoba HIV Program Report 2018 - 2021](#)

Figure taken from: [HIV in Manitoba 2022: Annual Surveillance Update](#).

Figure 4. Age-standardized rate of newly diagnosed HIV cases by year and sex, Manitoba, 2013-2022.

With the current status quo, the **projections** of the number of people newly diagnosed with HIV will increase between **235 to >1000/year** in the next 10 years



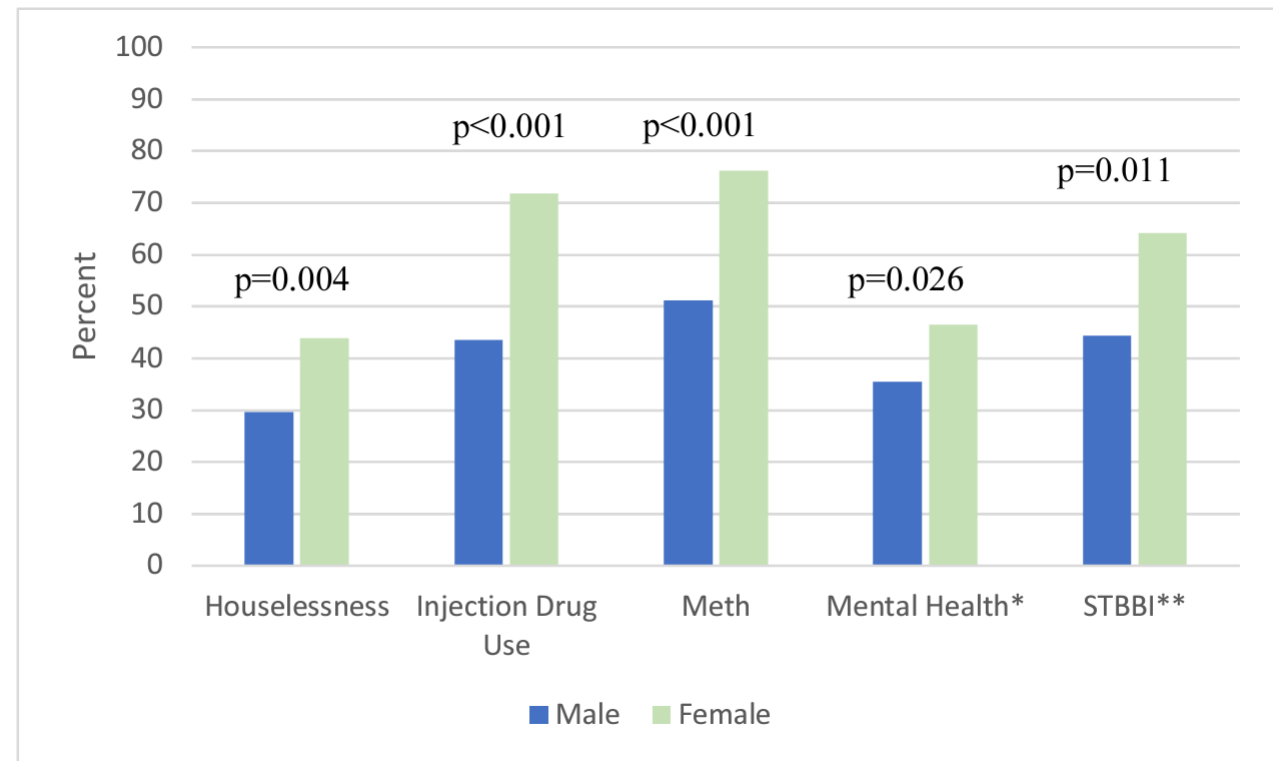
Rueda Z, et al. Projections of the HIV diagnoses in the next 10 years and impact of interventions. A modeling study. Manuscript in preparation



Health disparities in Manitoba are shaped by structural and social determinants of health

- Most common modes of HIV acquisition: injection drug use and heterosexual sex (>60%)
- 18% were gbMSM

81% of females and 61.9% of males newly diagnosed with HIV have at least one or more intersections with houselessness, injection drug use STBBI, and mental health



Sharp A, et al. Manuscript submitted, revisions requested

Conclusions 1

- Manitoba has seen unprecedented HIV, syphilis, and other STBBI diagnoses
- The epidemiology in Manitoba and the Prairies is different from the rest of Canada = Prairie and Manitoba-led research and response
- HIV affects males and females differently
- Indigenous Peoples in Manitoba are disproportionately affected by this syndemic due to the ongoing influences of colonization, structural racism, and intergenerational trauma

Conclusions 2

- Urgent provincial and federal responses are needed to address the access to harm reduction, prevention, and care for STBBI
- Addressing housing, mental health, and substance use are critical components for each successful intervention
- Indigenous and community led-strategies adequately funded are needed

Team & Collaborators

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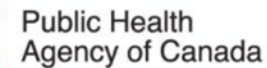
7th Street Health Access Centre, Brandon, MB
Cadham Provincial Laboratory

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Agence de la santé
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University
of Manitoba

National Collaborating Centre
for Infectious Diseases

Centre de collaboration nationale
des maladies infectieuses





HIV and Syphilis in Saskatchewan:

A syndemic wave
coming our way

Dr. Cara Spence (Ph.D.)
University of Saskatchewan
January 29, 2024



Saskatchewan is treaty territory.

This territory includes and is bound by the medicine chest clause.

These treaty agreements are a moral, legal, nation to nation, and relational obligation to care for one another.

Acknowledgements:

Amanda Galambos (USask STEPS)

Janice Seebach (SHA)

Physicians (Drs. Wudel, Takaya, Janvier, Kiesman, Skinner)

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People with lived experiences (Dessie Jo, Danita, Stacy, others)

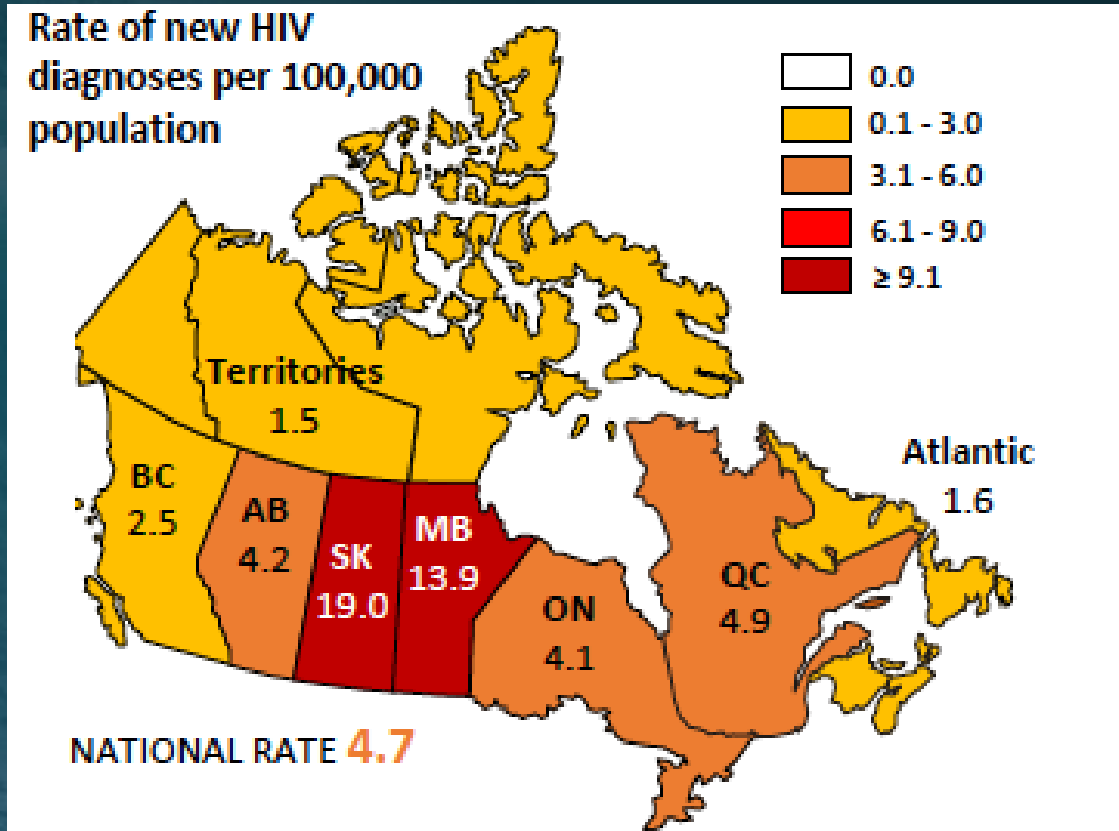
The ancestors of this land, and future generations

Those who care for the bodies, minds, and spirits of people

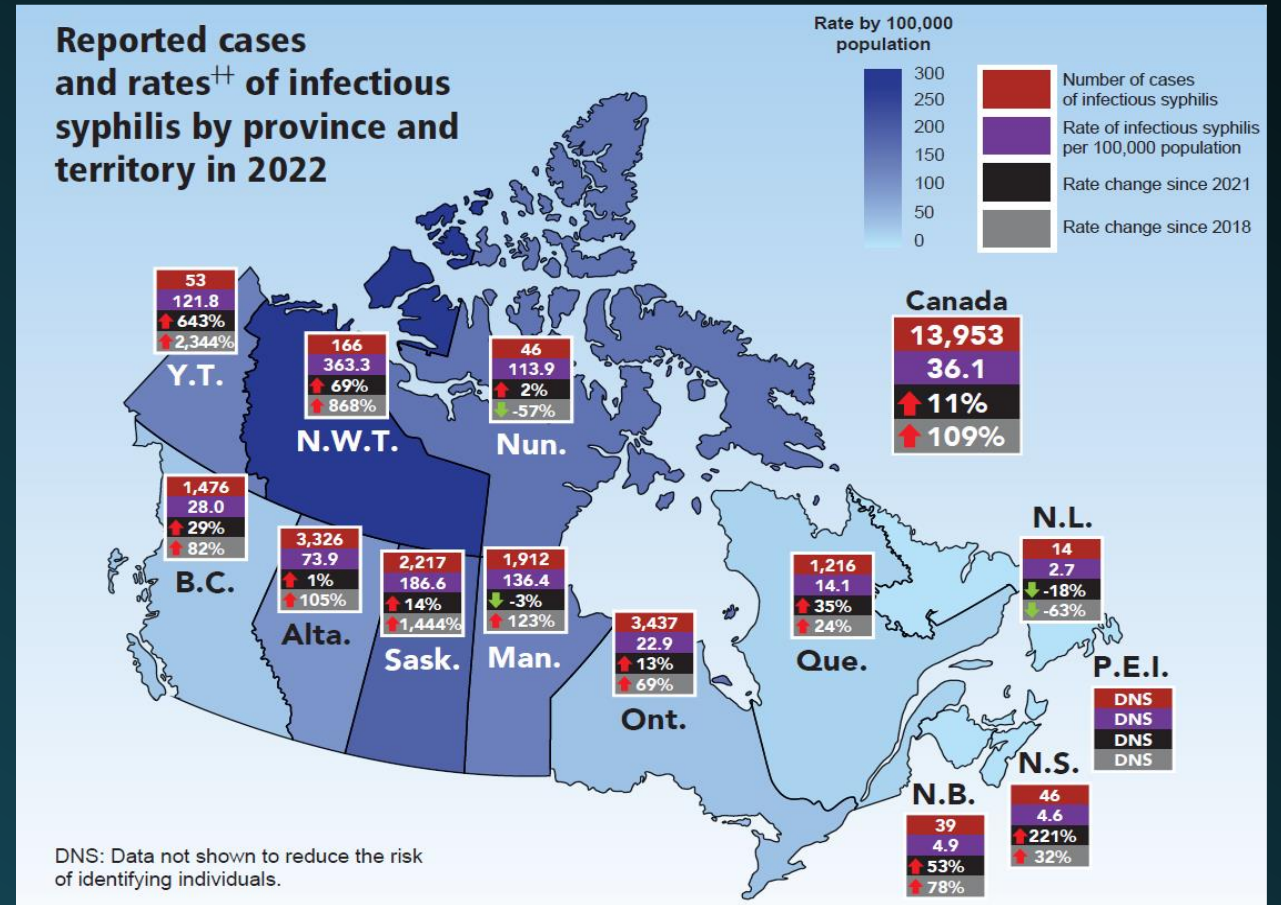
HIV and Syphilis in Saskatchewan: Overview

- HIV rates in Saskatchewan are 19/100,000
- Syphilis rates in Saskatchewan have gone from 7.8/100,000 in 2017 to 186.6/100,000 in 2022
- Congenital syphilis rates have increased 1700% in the province since 2018
- Tipping point -> heterosexual transmission, disproportionately impacting women of child-bearing years
- Spread -> limited access to responsive health care, widespread racism, poverty, awareness/education, stigma

HIV and Syphilis rates across Canada

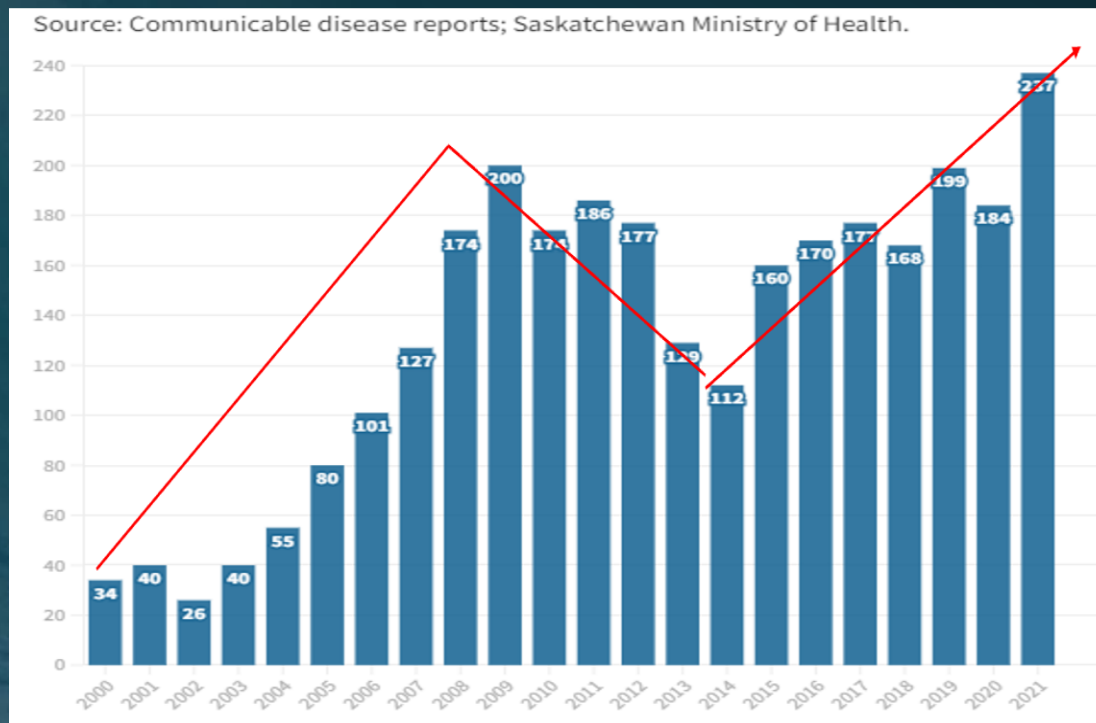


PHAC, Surveillance data, 2022

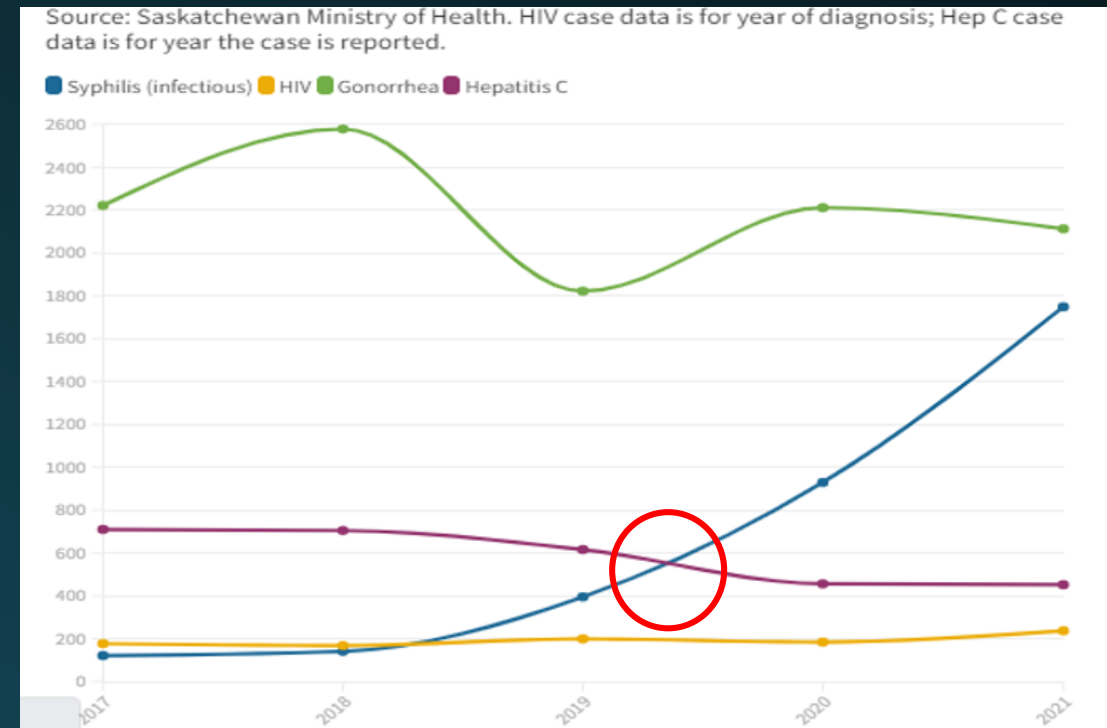


PHAC, 2022

Provincial HIV and STBI trend rates

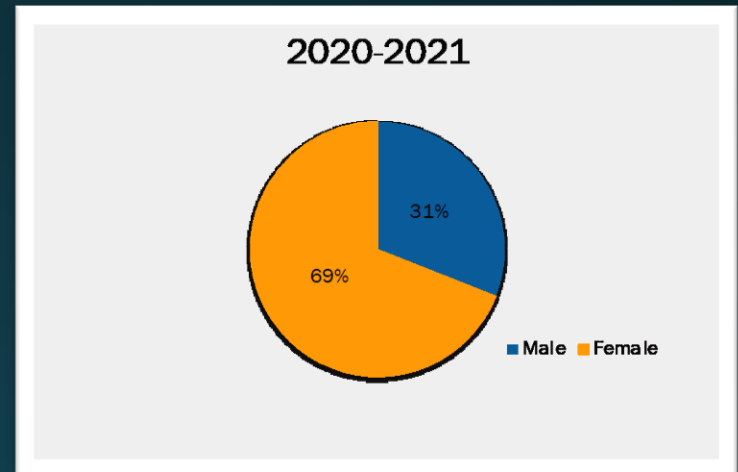
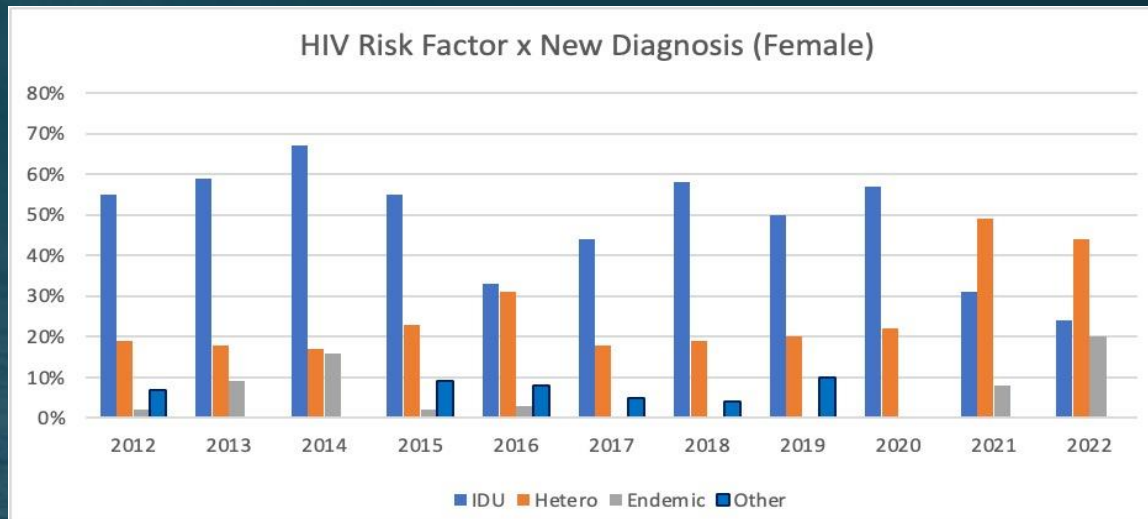
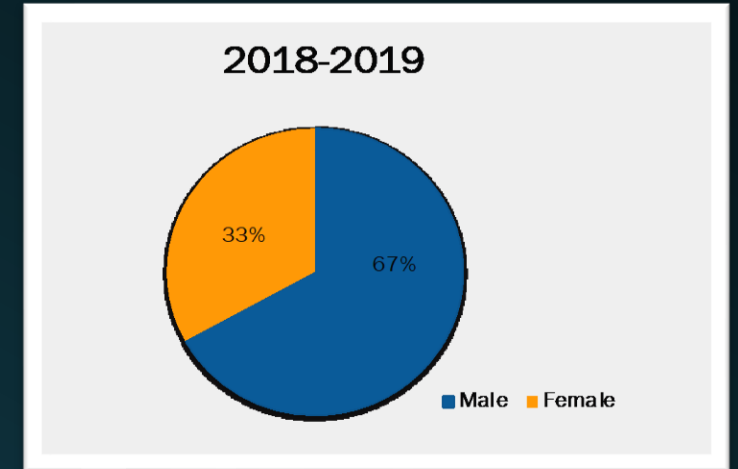
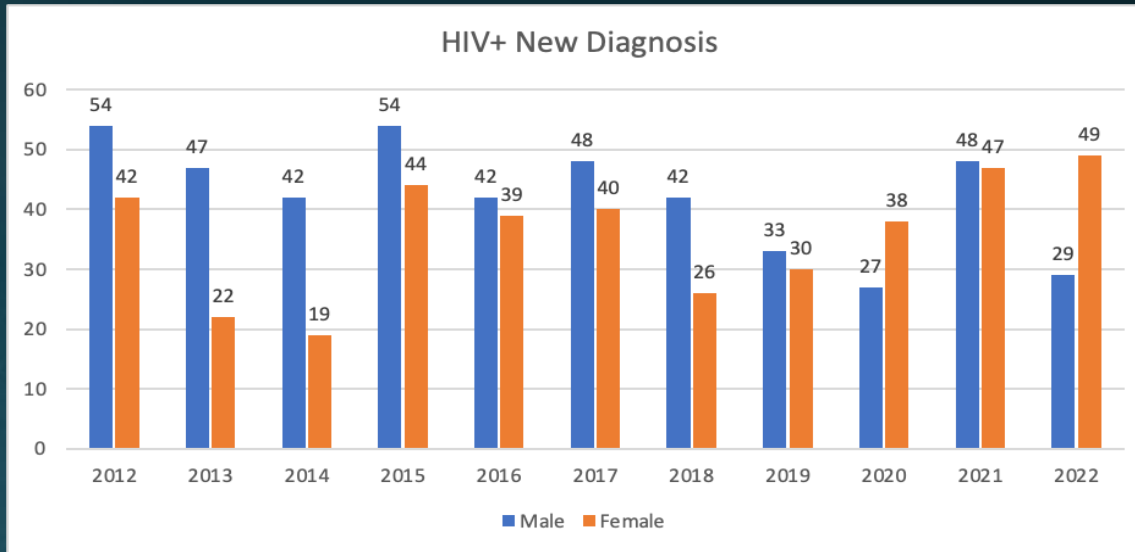


Saskatchewan Ministry of Health, 2022

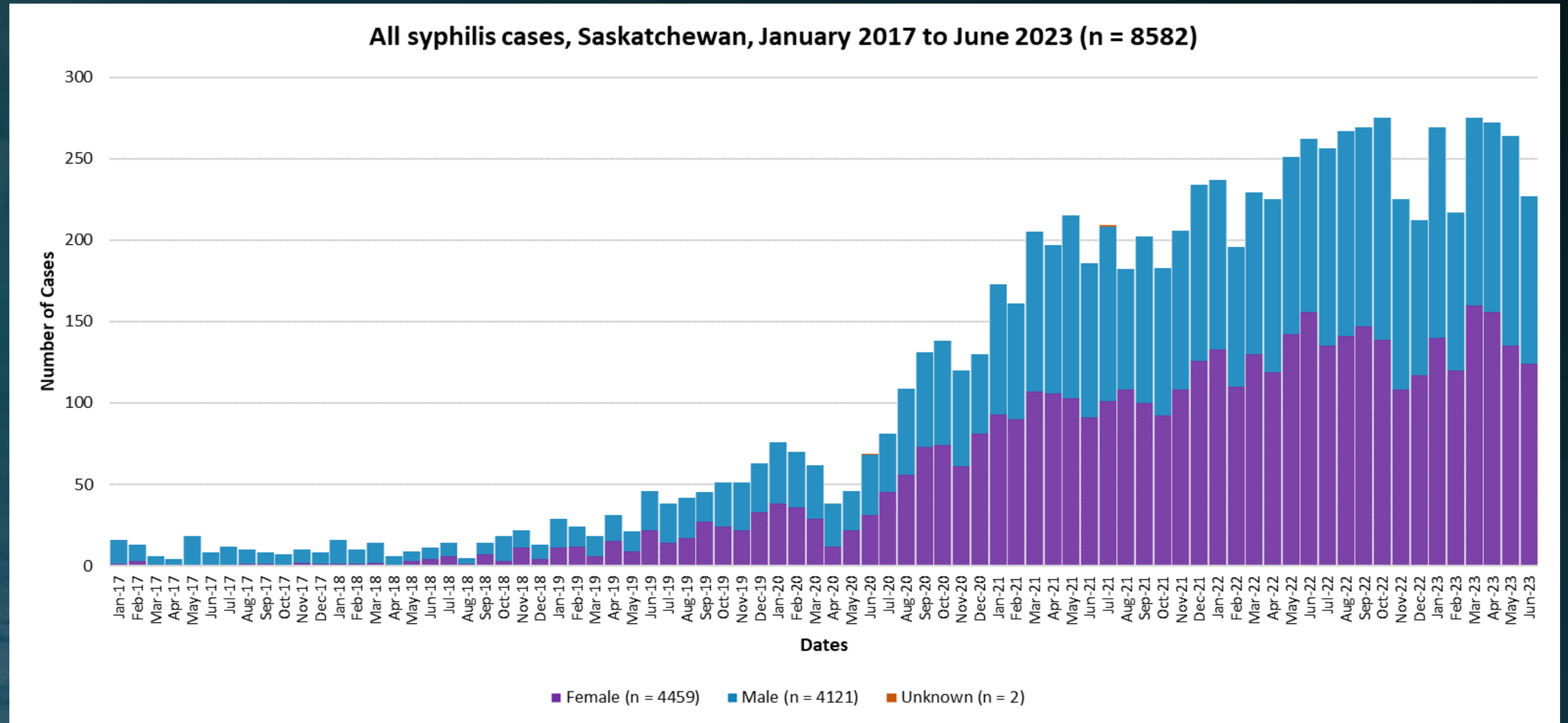


Saskatchewan Ministry of Health, 2022

HIV New Diagnosis and Risk Factors



Syphilis in Saskatchewan



Clinical Data by gender

All syphilis distribution by sex, 2017-2023 Q2

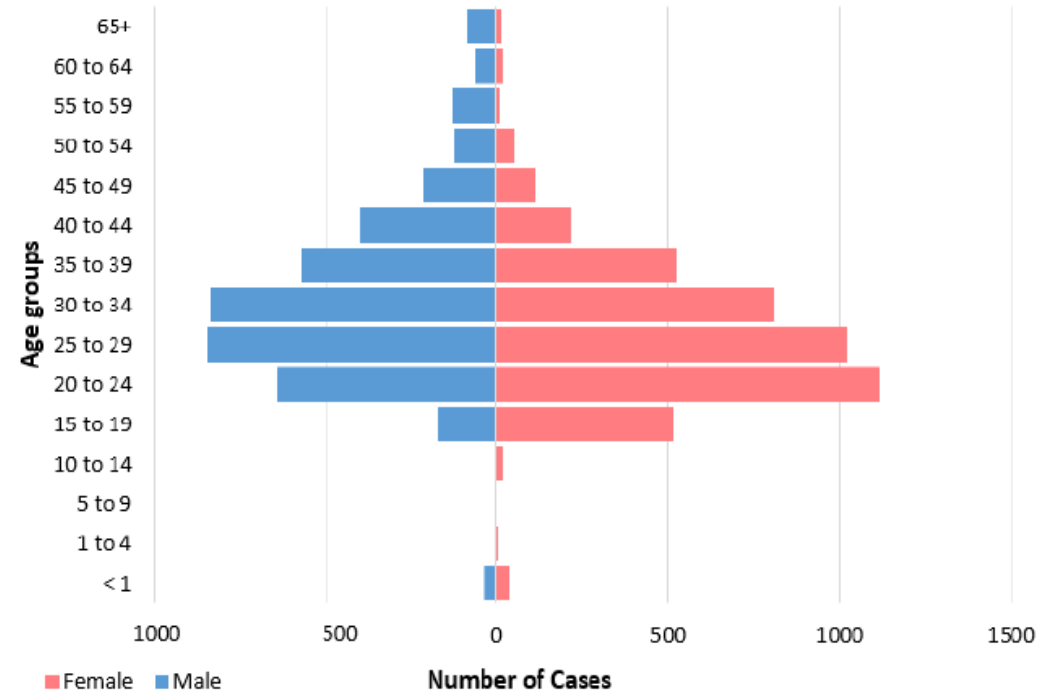
Year	Females (%)	Males (%)
2017	7.5	92.5
2018	28.3	71.7
2019	46.2	53.8
2020	52.0	48.0
2021	52.1	47.9
2022	54.3	45.7
2023 Q1-Q2	54.8	45.2
2017 – 2023 Q2	52.0	48.0

- Sex trend reversal from 2017 to 2023 Q2
- Median age, in 2023 Q1-Q2:
 - Males = 32 years
 - Females = 27 years

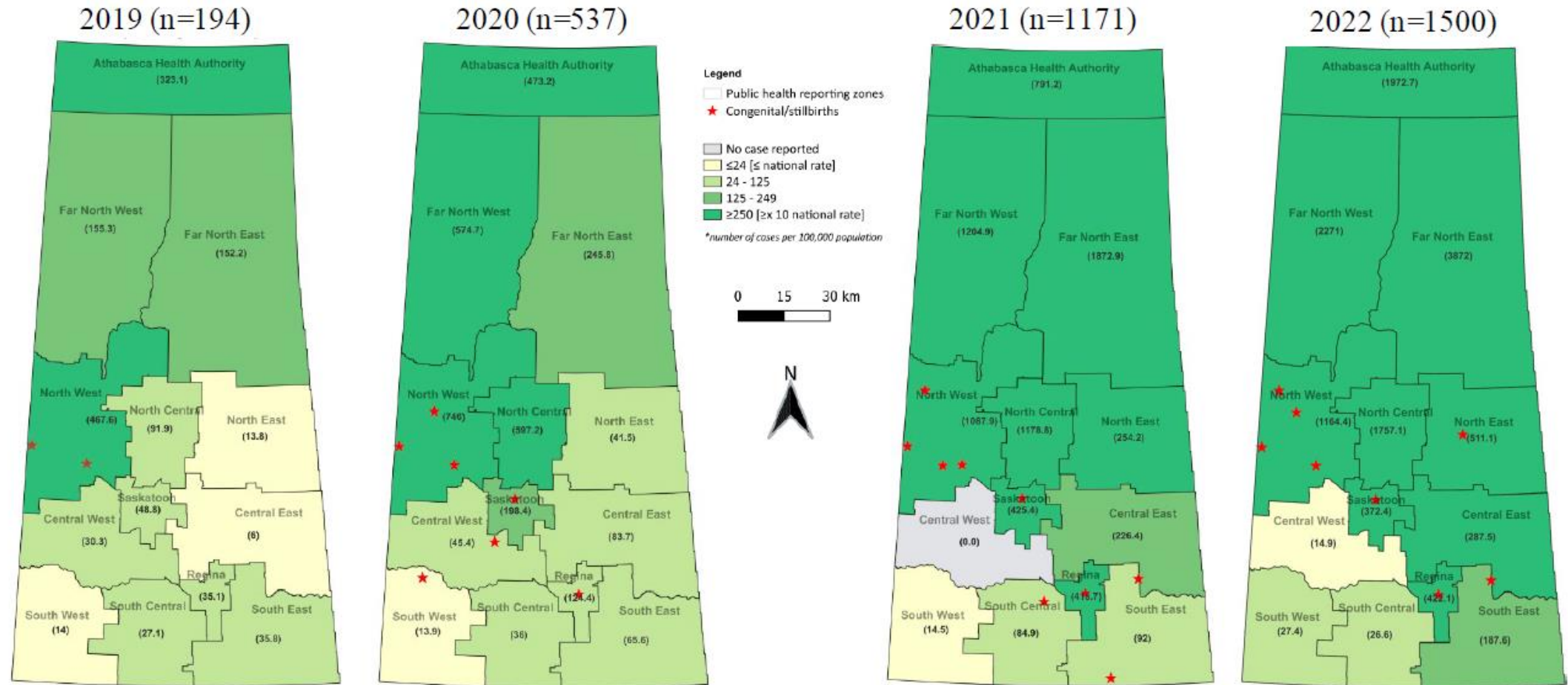
*PHAC Date (year) used, confirmed cases only

**2023 data is considered preliminary and subject to change; data as of June 30, 2023, based on data extracted on August 1, 2023

All syphilis cases by sex and age group, 2017-2023 Q2

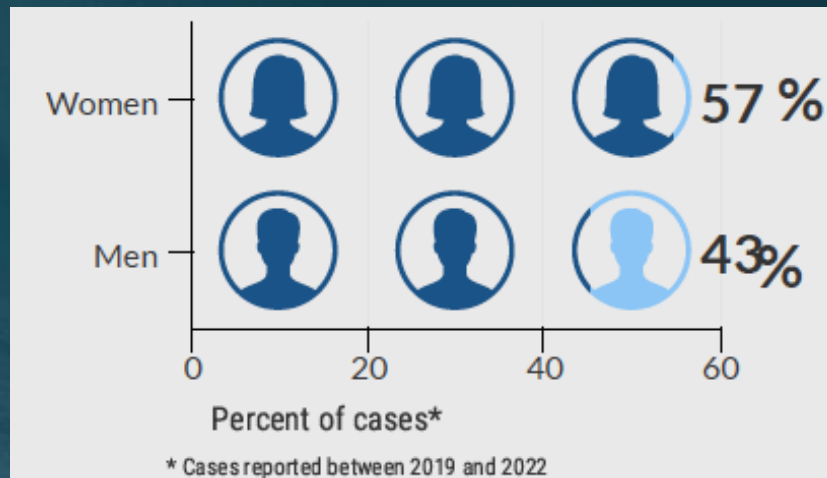
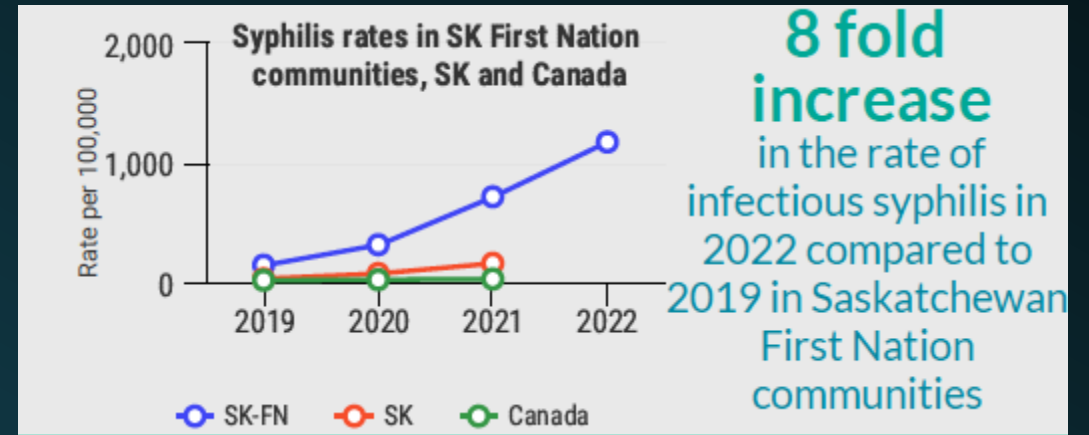


All syphilis in females of child-bearing age (15-45 years): Incidence in SK, by zone, 2019-2022



+Red stars represents congenital/stillbirths
**All syphilis includes staged and unstaged cases

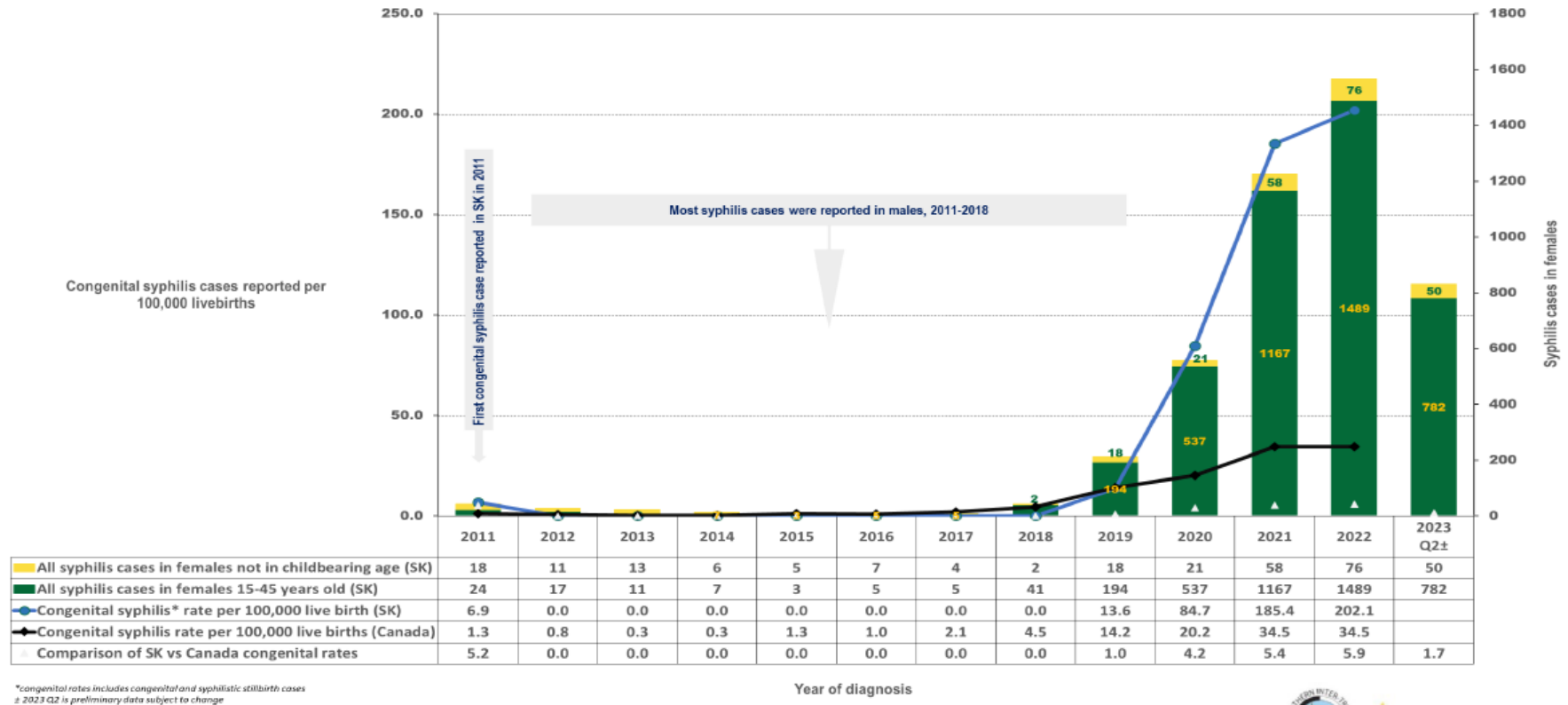
Indigenous on-reserve communities



87% of those
affected are
youth and
young adults
aged 15 to 39*

Congenital syphilis – national comparison

Comparing congenital syphilis rate between Saskatchewan and Canada, 2011 – 2023 Q2[‡]



*congenital rates includes congenital and syphilitic stillbirth cases
 ‡ 2023 Q2 is preliminary data subject to change

[‡]2023 data is considered preliminary and subject to change; data as of June 30, 2023, based on data extracted on August 1, 2023



Congenital Syphilis

- **68 cases** – 2019-2022 (**76 cases** @ June 2023)
- Only four moms (6%) received regular prenatal care;
25% received sporadic prenatal care;
68% had **no prenatal care**;
- Almost half (46%) became infected or were re-infected **during pregnancy**
- Only 25% received any treatment during pregnancy
28% treated **at delivery** and 45% treated weeks to months **post delivery**
- All mothers (n = 68; 100%) had at least one of the following risk factors:
Substance misuse, unstable housing, transiency, anonymous or multiple sex partners, unprotected sexual intercourse, previous/concurrent STIs
- 8 babies were stillborn; 2 babies died within weeks after birth.

" So, what does that say about our society? When we have women who are pregnant and on the streets? What does it say about our healthcare system when women have not accessed care and are eight months pregnant? it's just not okay."


Gender Summary - Women

HIV

- In new diagnosis- **94% Indigenous ancestry**
- **82% 20 – 39 years of age**
- 2007 - 2017 -> 84 HIV prenatal woman
- **2017 – 2022 -> 139 (67%) HIV prenatal woman (8 diagnosed in pregnancy)**
- 3 babies born with HIV in 2022
- Reported risk factor has also shifted from 60% IVDU (2019) to **68% heterosexual transmission** (2021).
- **46% new HIV diagnosis** were woman (2021-2022), Increased from 32% (2019-2020) and 23% (2018-2019)

Syphilis

- **95% 20-39 years of age**
- 54.8% (57%- on-reserve) new diagnosis in 2022 – up from 7.5% in 2017
- **Rapidly increasing** -> 2019 n=194 to 2022 n=1500
- Risk factors -> **social determinant of health** (race, class, gender, housing, location, co-infections, age, environmental)
- 46% women **(re)infected** during pregnancy
- **Only 25%** of pregnant women received treatment
- **68%** pregnant women **did not have any** prenatal care
- 62% are **co-infected** with HIV



What is being done in Saskatchewan to address this syndemic?

- Wellness Wheel POCT project
- SHA strategy planning
- Pathway and info sheet development
- HIV program evaluation
- Alignment of data/ data sharing efforts
- Utilization of peer and cultural supports
- Test one, test all



What can be done?

- Respond to the needs of the most marginalized
- Pregnant women who are not accessing care require attention and support
- Increase testing and education/awareness
- Racism must be named and addressed
- Honoring the medicine chest can provide a pathway to wholistic health
- Continued mutual support and resource advocacy



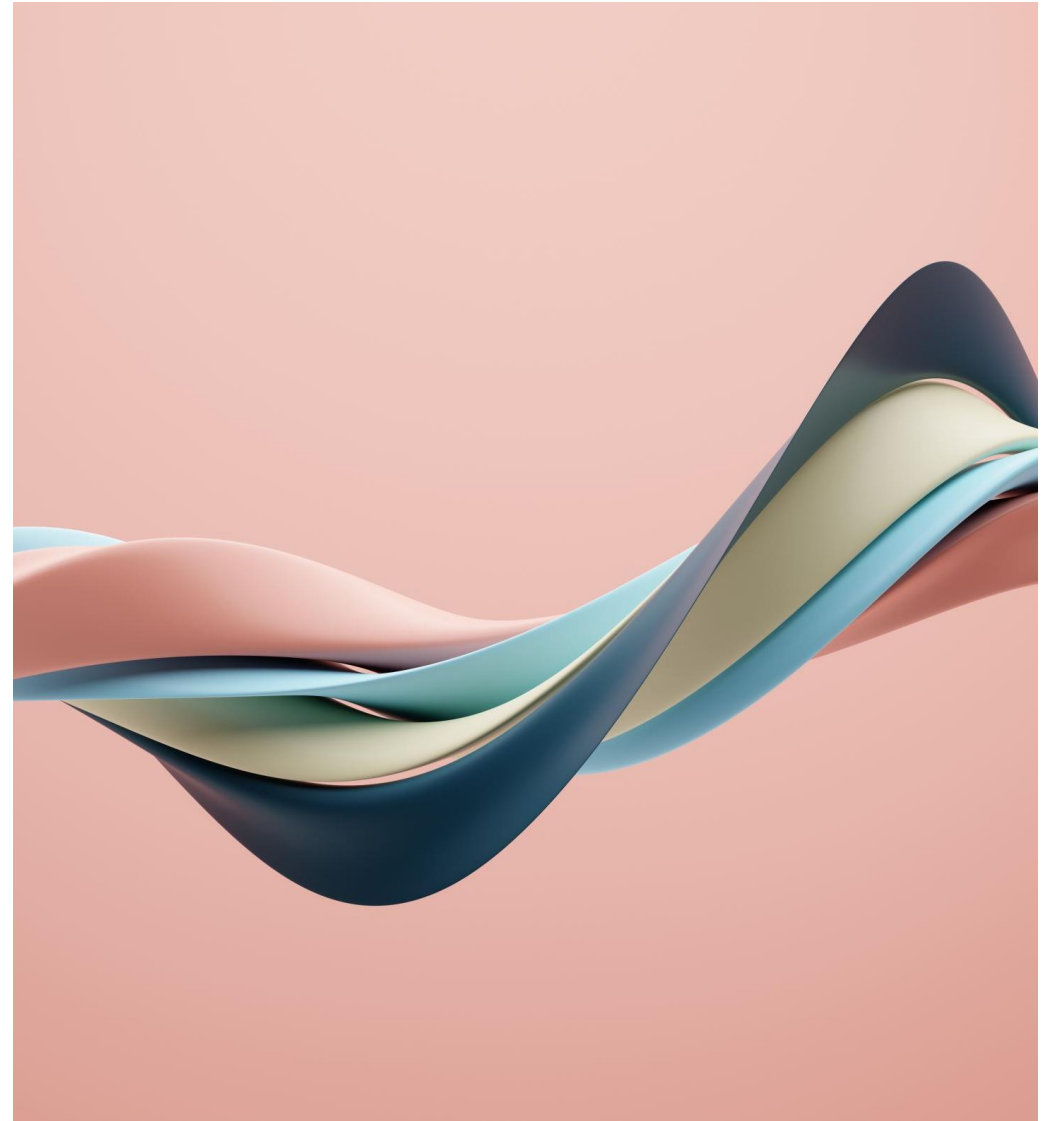
Epidemiology of syphilis and HIV in Alberta

Ameeta Singh, BMBS (UK), MSc, FRCPC

ameeta@ualberta.ca

NCCID-CATIE-CAAN Webinar

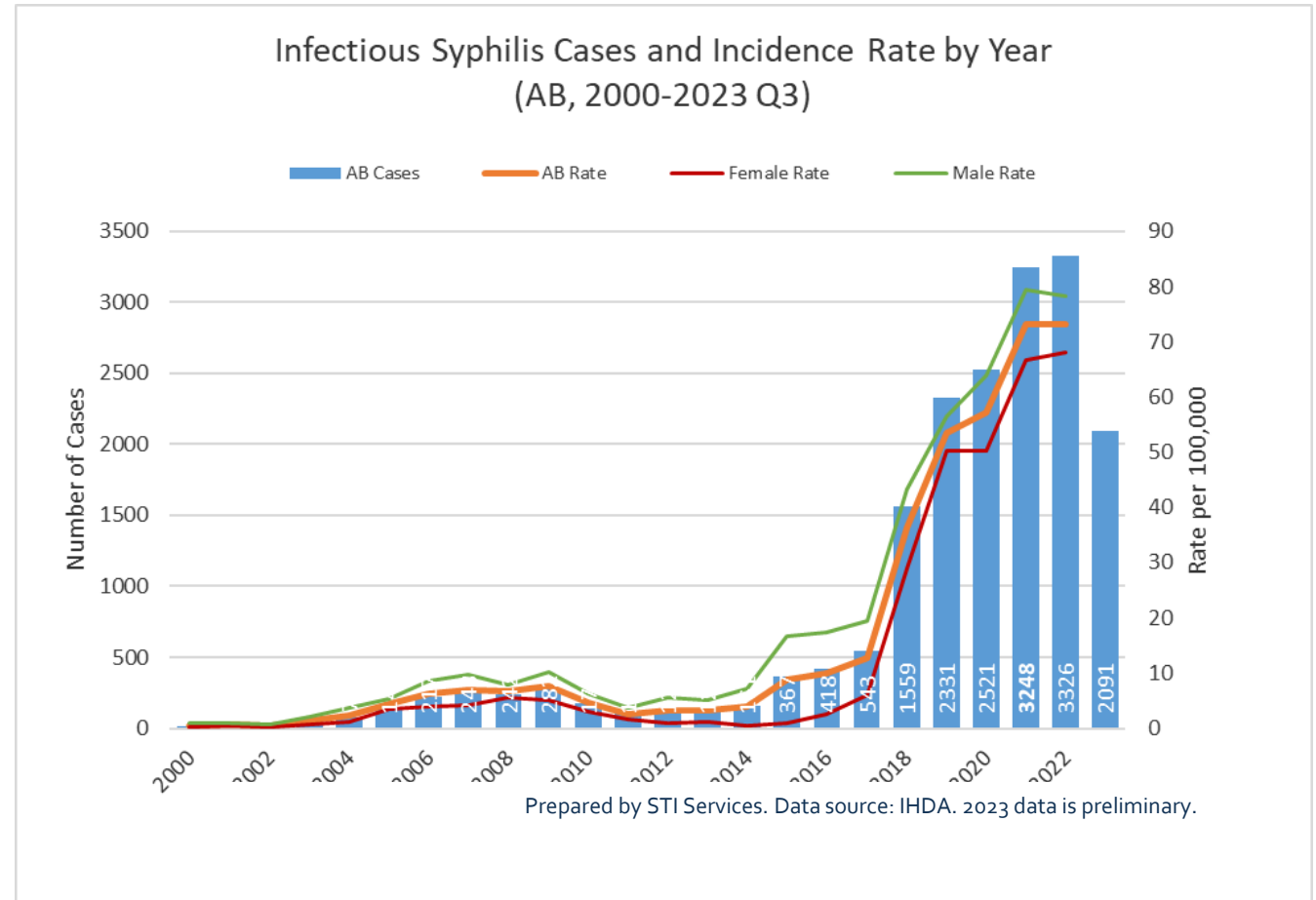
January 29, 2024



Infectious Syphilis, ALBERTA

2022: 3,300 cases (74/100,000)
18 times higher than in 2014 (pre-outbreak)
rates not seen since the 1940's.

- Q3 2023: ~ 2100 cases
- >13% of female cases occurred among pregnant women compared to 0 cases pre-outbreak.
- >16% of cases reported injection drug use.



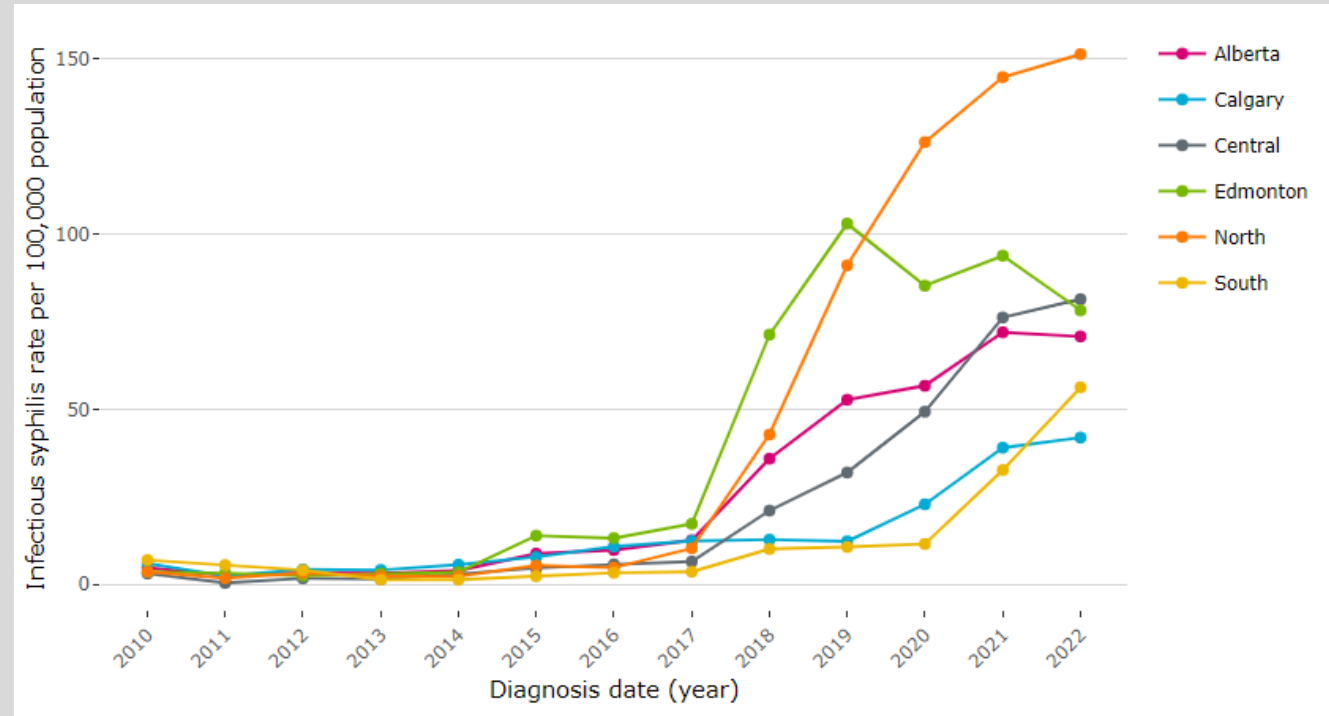
Infectious Syphilis by Zone, ALBERTA

All zones have been impacted by the outbreak.

Rates from 2020-2022 should be interpreted with caution due to a drop in syphilis screening during the pandemic.

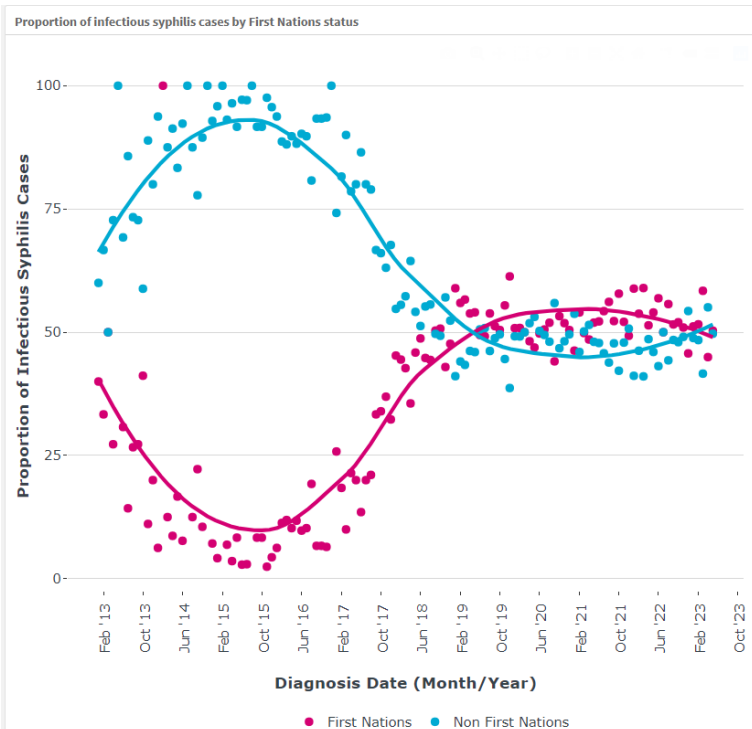
Zone	2021 rate per 100,000	2022 rate per 100,000 ¹	YOY rate change
South	30	57	90%
Calgary	40	44	9%
Central	78	79	2%
Edmonton	96	86	-10%
North	144	144	0%
Alberta	73	73	0%

Infectious Syphilis Rate by Zone (AB, 2010-2022)

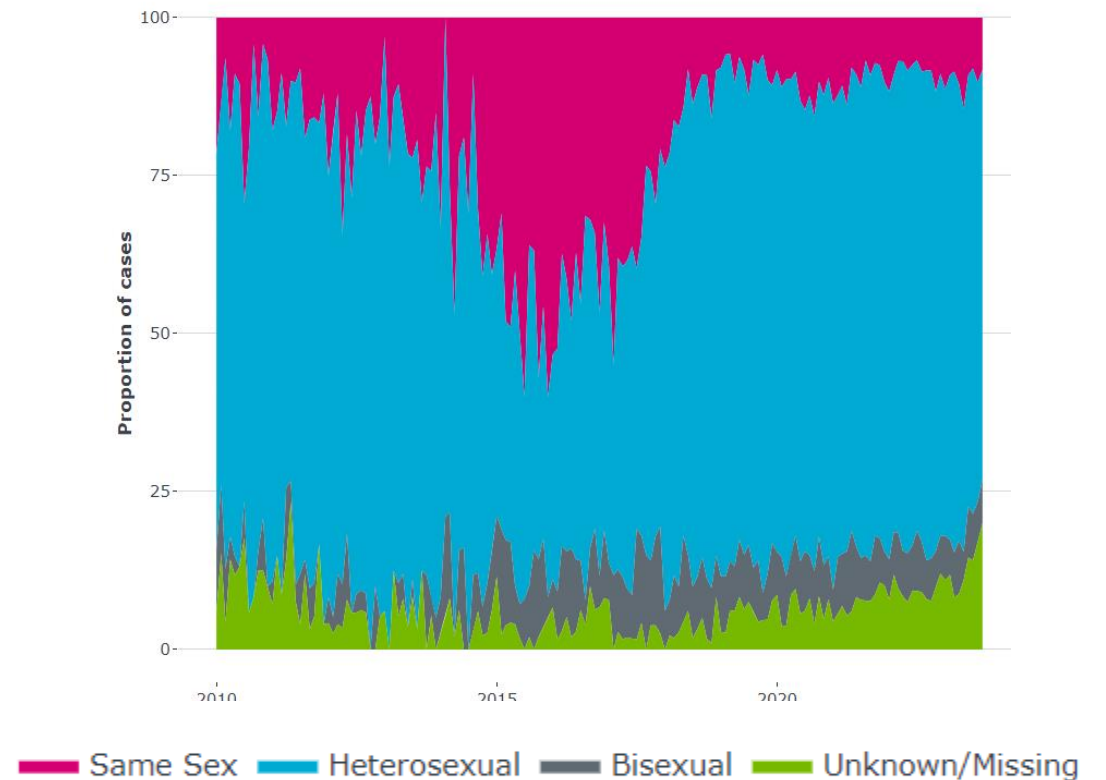


Infectious Syphilis by First Nations status and Partner Type

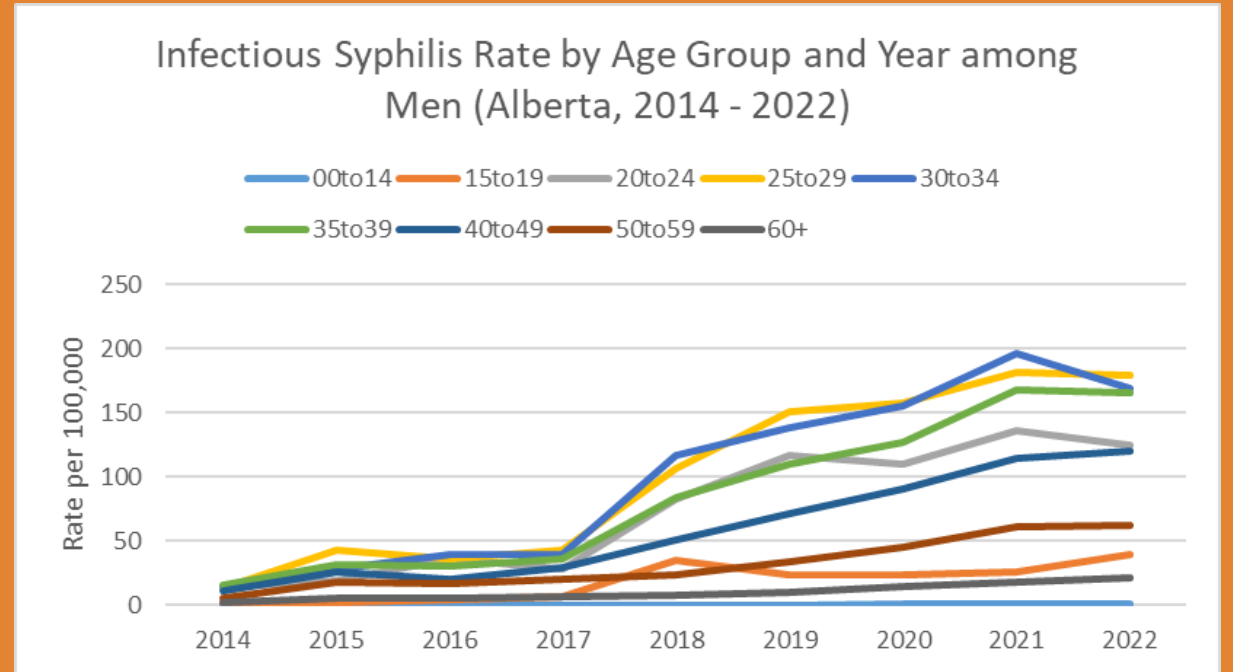
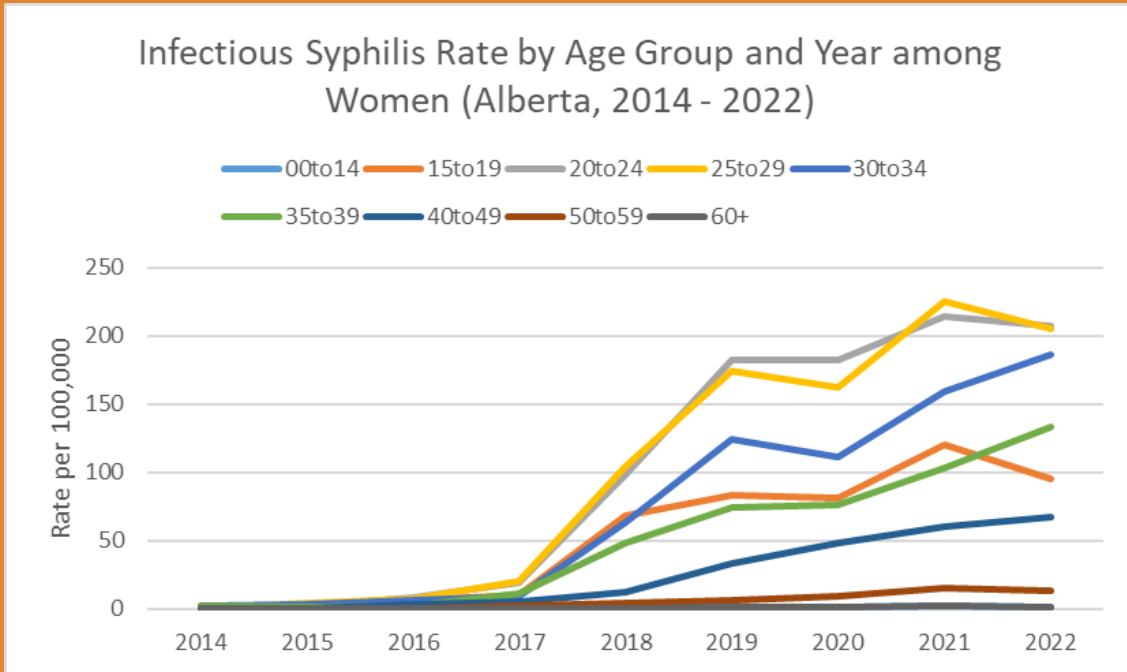
As the outbreak has progressed, the proportion of cases among First Nations people has increased to ~50% while comprising only 6.8% of the AB population.



The majority of infectious syphilis cases report opposite sex partners since 2018.

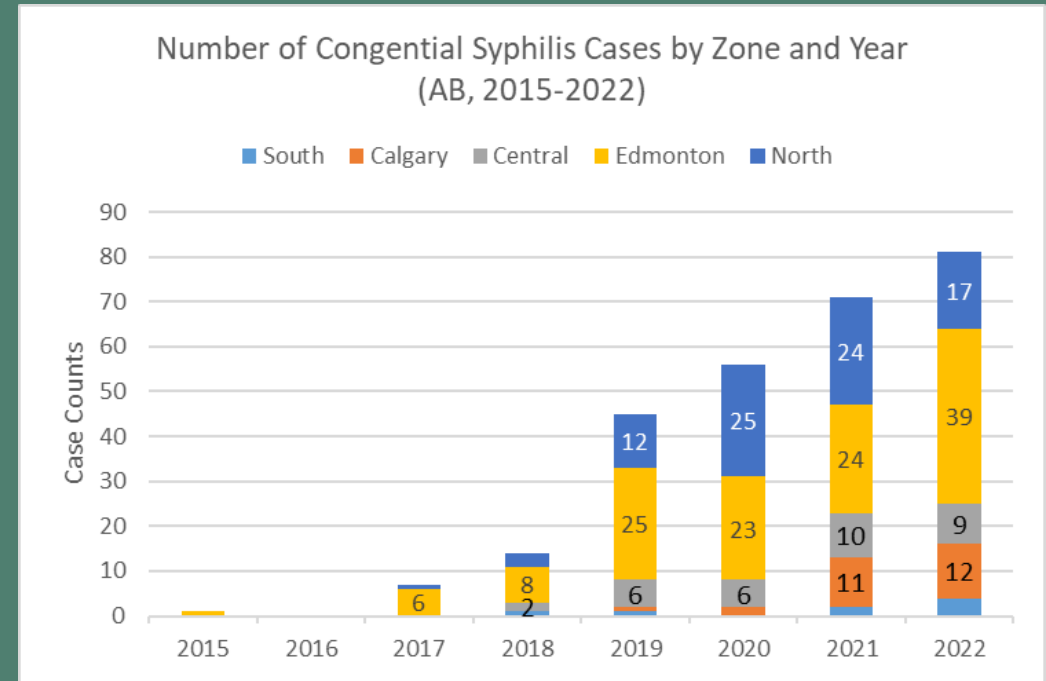
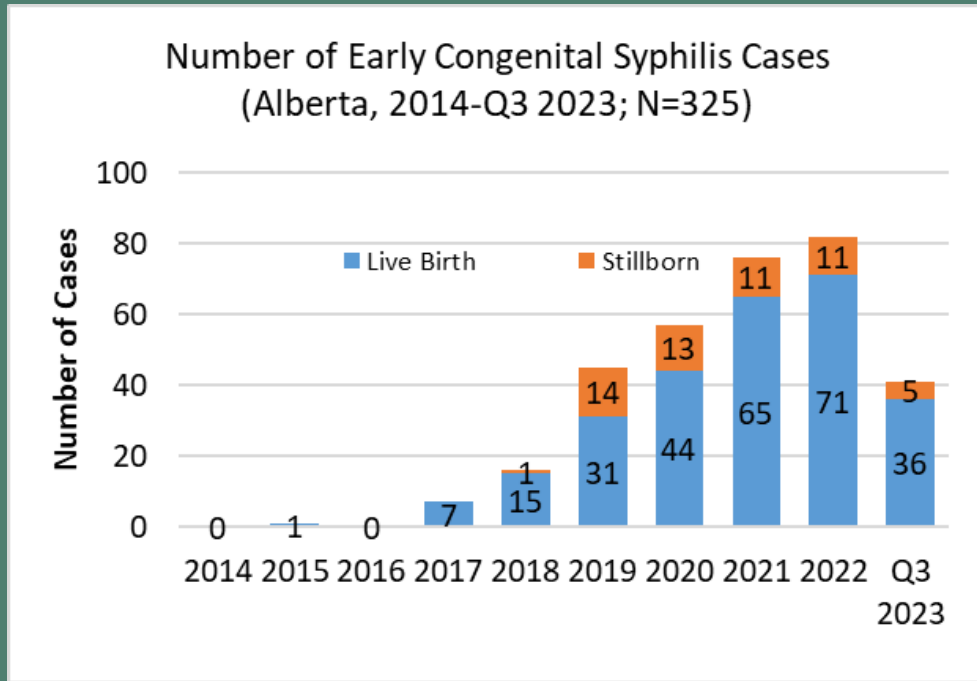


Infectious Syphilis by Age Group



Most cases among women are in child-bearing age groups.
 For both sexes, the highest rates are among 20- to 29-year-olds.

Congenital Syphilis, ALBERTA



325 infants have been diagnosed with congenital syphilis since the outbreak began in 2015. 20% of cases resulted in **infant deaths**. The expected number of cases is zero.

Cases of congenital syphilis have been reported in every zone, with the majority being reported in the Edmonton zone.

Outcomes of infectious syphilis in pregnant women in Alberta, 2017-2020

374 cases of infectious syphilis in pregnancy

61% (n=228) self reported First Nations ethnicity

9.6% (n=36) self reported Metis ethnicity



9% were in a correctional facility

80% live births (7.5% still born, 4% spontaneous abortion, 9.4% therapeutic abortion)

Outcomes of infectious syphilis in pregnant women in Alberta, 2017-2020: Correlates of congenital syphilis

Screening in the third trimester [AOR* 8.4, 95% CI** 2.9-24.6]

Fewer than 28 days prior to delivery [AOR 8.1, 1.4-47.8]

Inadequate treatment [AOR 86.1, 15.9-466.5]

*AOR = adjusted odds ratio; ** CI = confidence interval

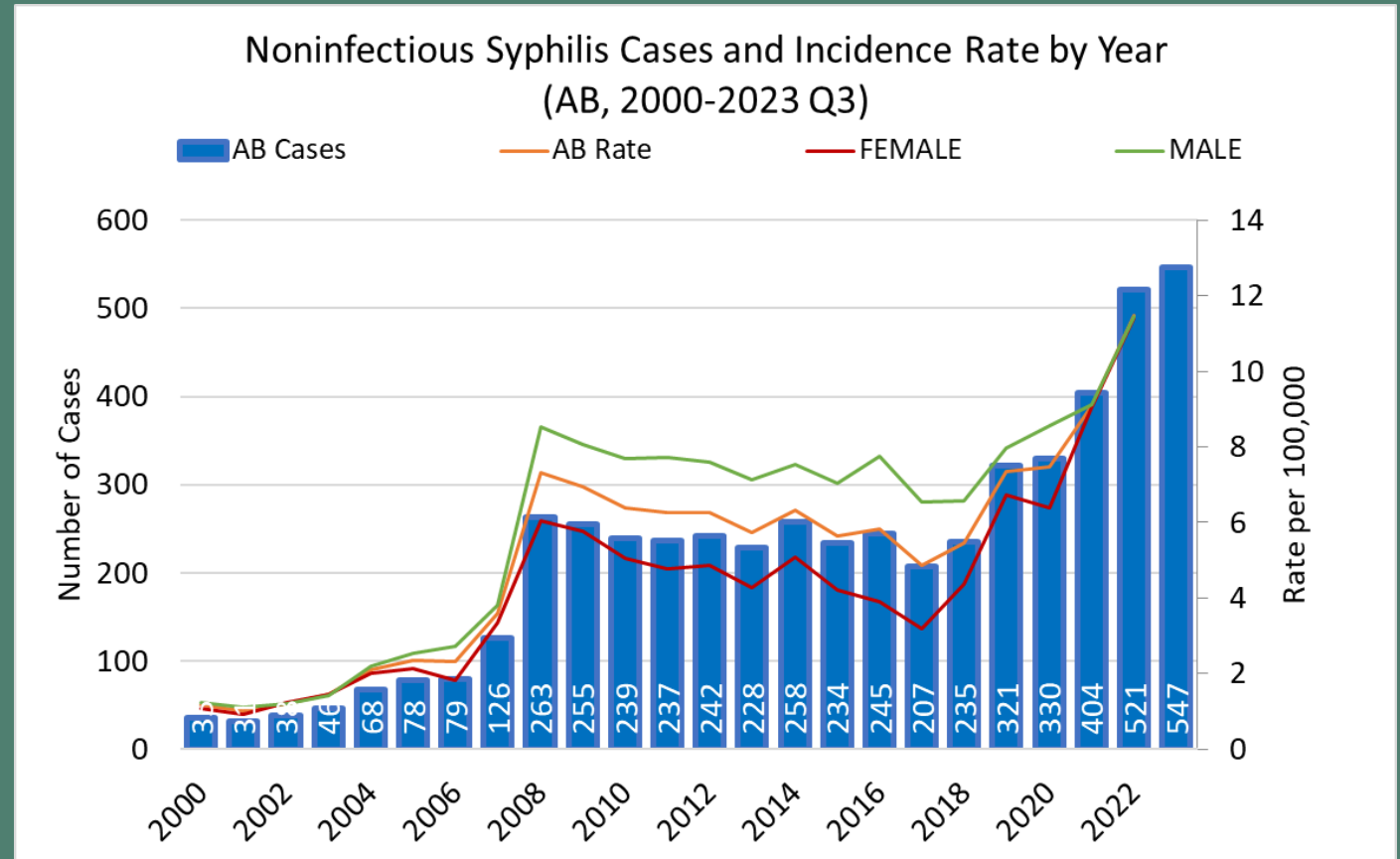
Infectious syphilis in Alberta: strong association with stimulant drug use

Of 2759 individuals with infectious syphilis, 42% (n=1153) reported lifetime stimulant use

Stimulant use was associated with persons who injected drugs, had correctional involvement or reported multiple sex partners

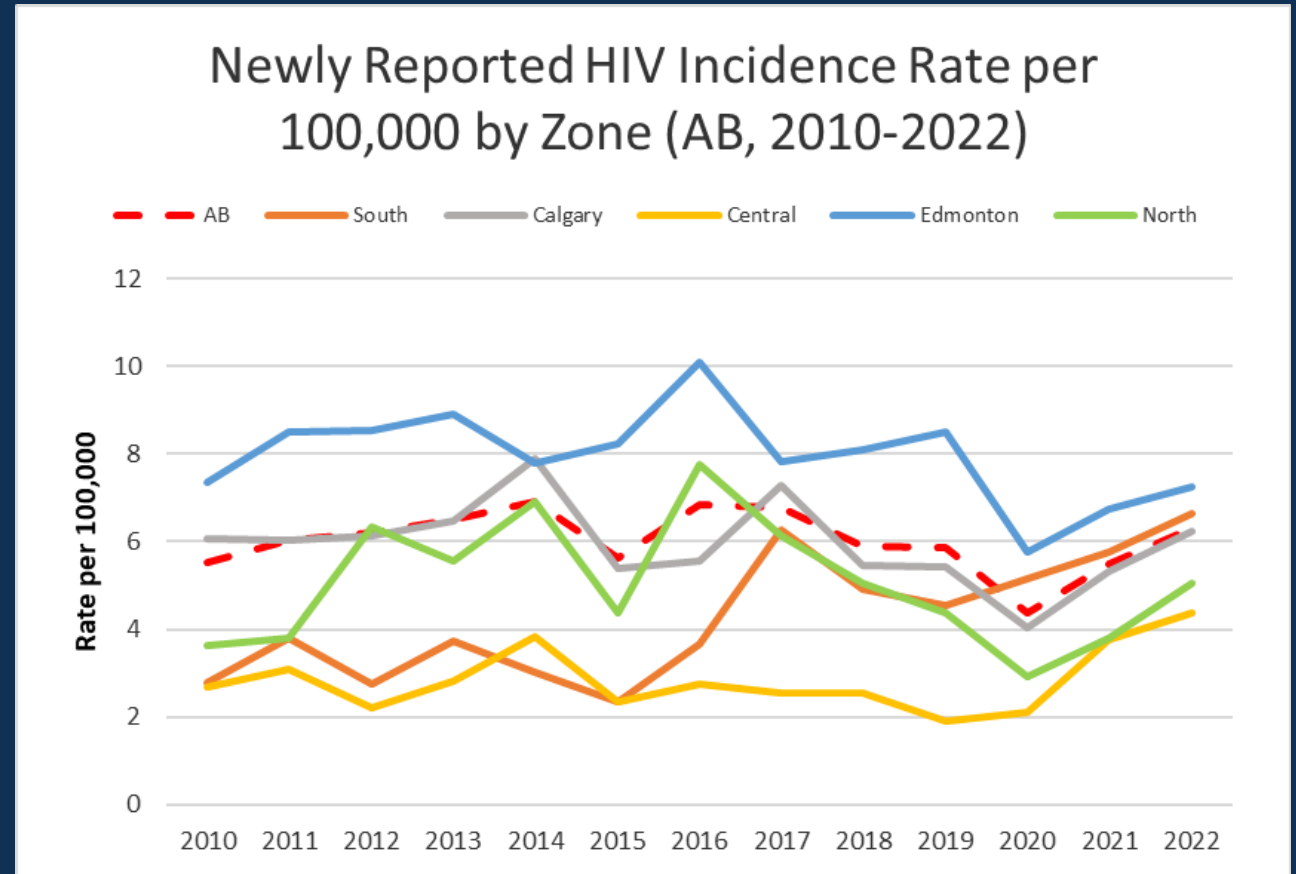
Non-infectious Syphilis, ALBERTA

The rate of non-infectious syphilis has been increasing as the syphilis outbreak continues.

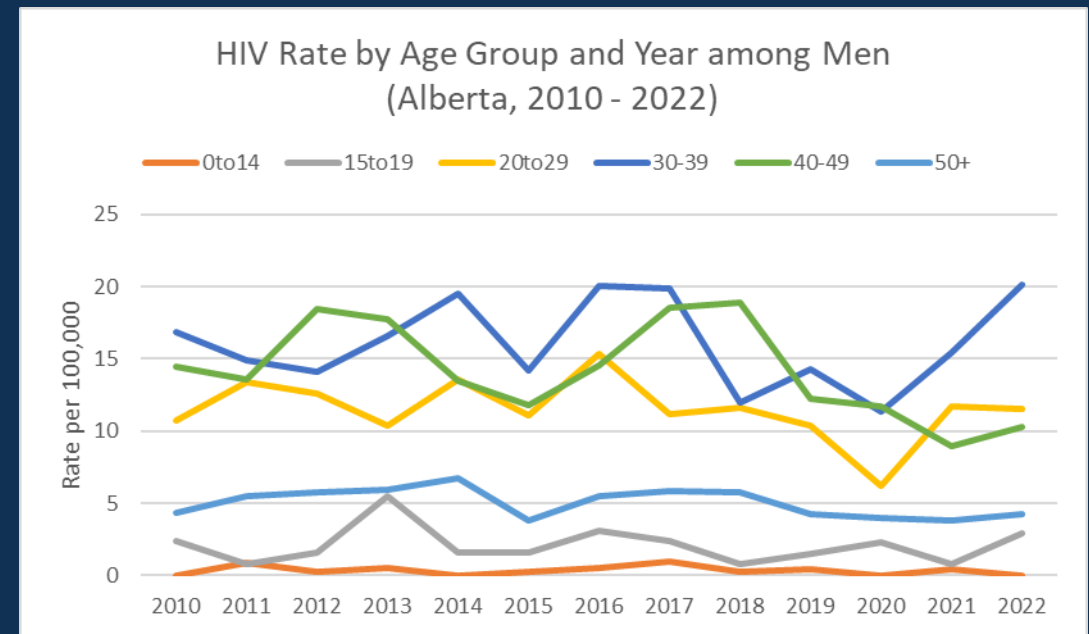
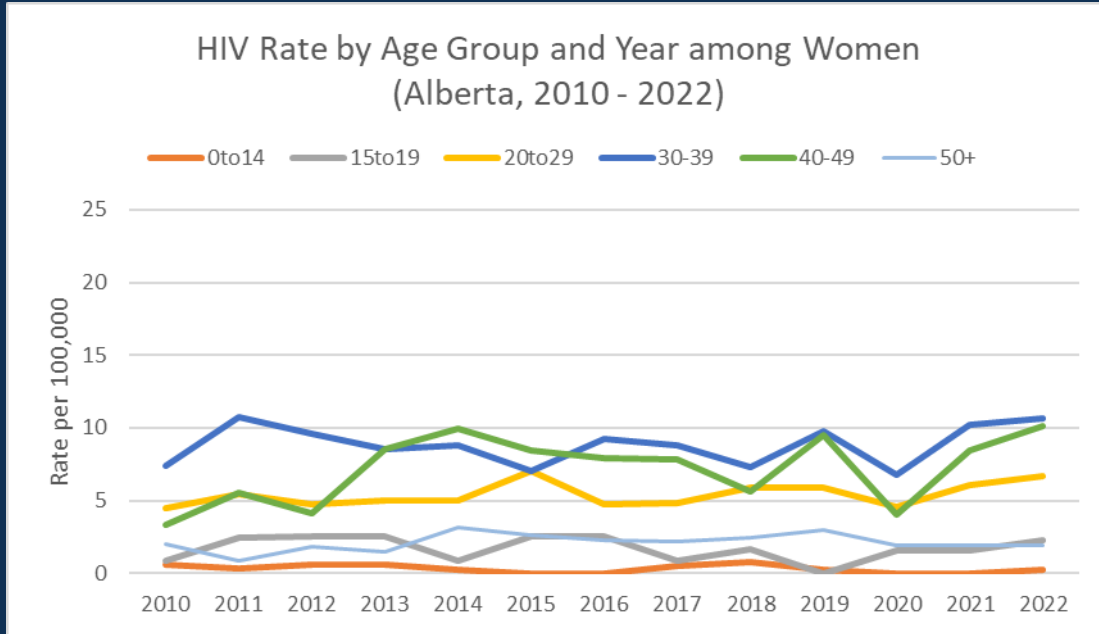


HIV

- + The provincial rate of newly reported HIV cases in 2022 returned to pre-pandemic levels.
- + All zones saw increases in rates in 2022; the largest increase was in the North Zone.



HIV by Age Group



The highest rates for both sexes was among males 20 to 39 years of age.

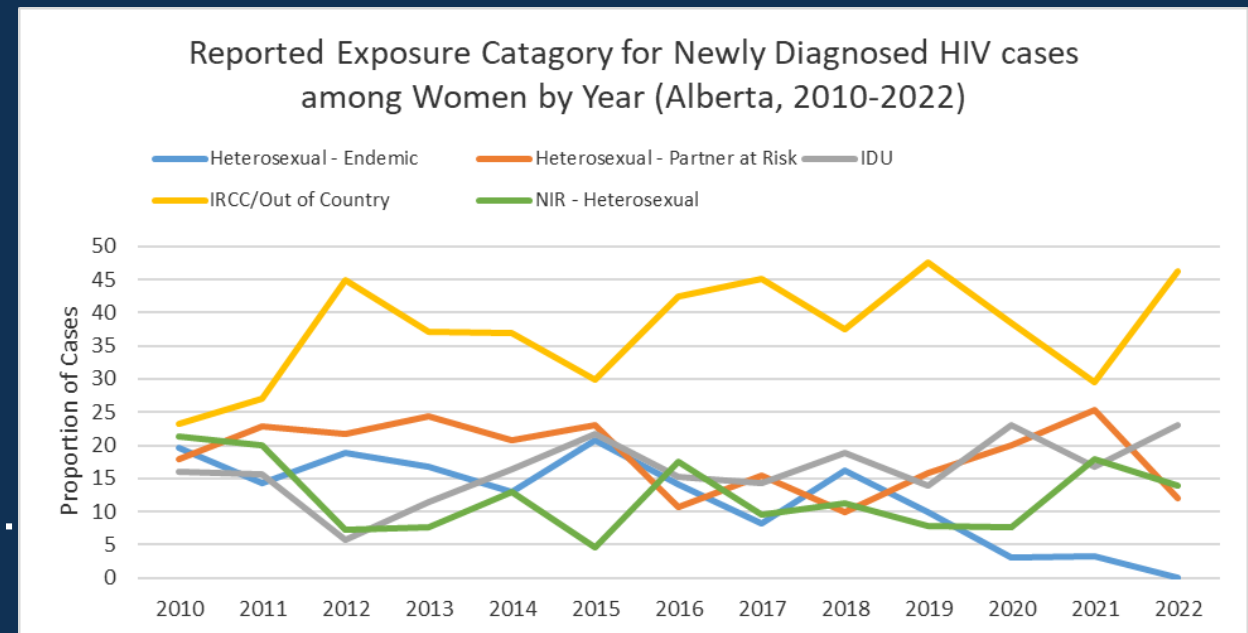
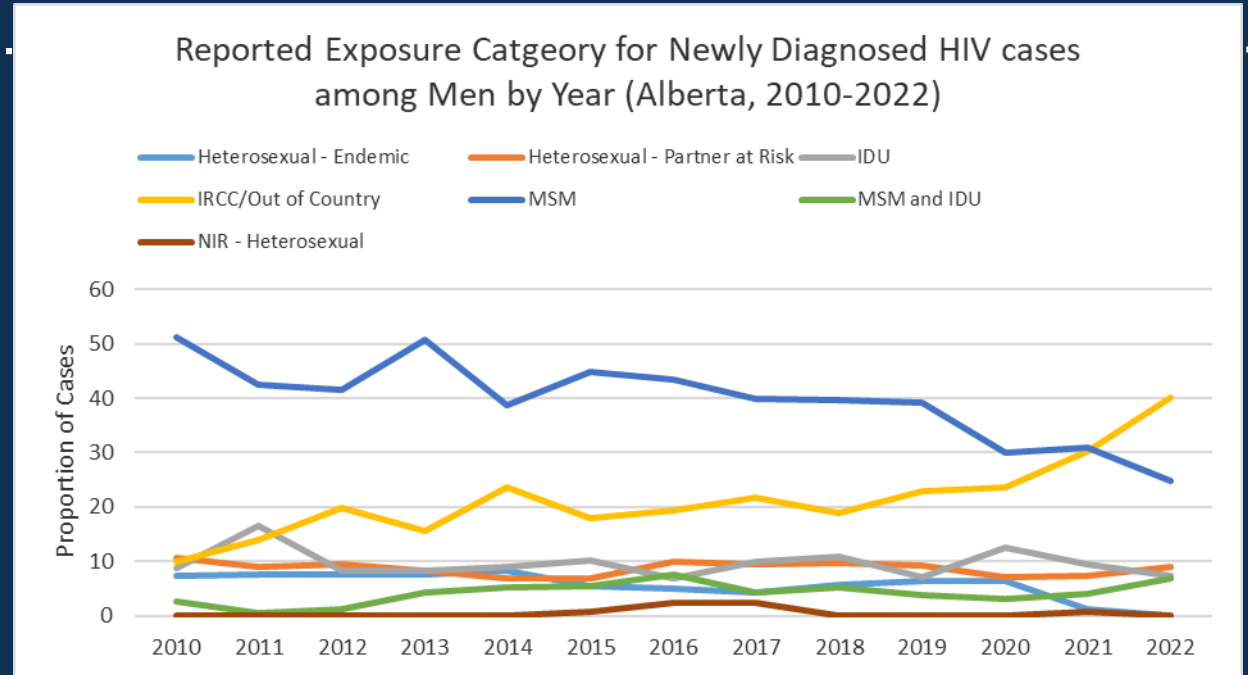
Newly reported HIV in Alberta by exposure category, 2022

40% (n=71) males cases
were diagnosed out of
country (heterosexual
endemic)

46% (n=50) female
cases were diagnosed
out of country
(heterosexual endemic)

HIV, Alberta

- + The proportion of male cases reporting Men having Sex with Men (MSM) has been dropping over time.
- + AHS introduced HIV PrEP in October 2018.
- + Among females, cases acquired through injection drug use have fluctuated between 20-25% of all cases



Summary of syphilis and HIV in Alberta

- +• HIV in 2022: increase of 17.2 per cent compared to 2021 but the majority of cases diagnosed out of country (heterosexual endemic).
 - +• Infectious syphilis in 2022: ongoing heterosexual outbreak of infectious syphilis with parallel increase in congenital syphilis cases. Strong association with other social determinants of health
-

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