



Northwestern
Health Unit

www.nwhu.on.ca

Contents

Purpose	2
Background	2
Methods	2
Report Highlights	3
Results	3
Incidence	3
Cases by Age Group and Sex	6
Cases by Geographic Location	7
Risk Factors (since beginning of the surge).....	8
Reason for Testing	10
Limitations	11
Conclusion.....	11

Northwestern Health Unit
Syphilis Epidemiologic Summary
April 22, 2020

Purpose

This report describes recent epidemiologic statistics on confirmed cases of syphilis that have occurred in the Northwestern Health Unit (NWHU) catchment area since August 2018, with a particular focus on cases that have occurred since September 2019 when incidence rates began to slow down. The report highlights the incidence and epidemiologic curve of recent cases, demographics of cases and risk factors for infection.

Background

The NWHU provides programming related to reportable diseases in Ontario as per the Infectious Disease Protocol published by the Ministry of Health and Long-Term Care (MOHLTC). As part of this programming, the NWHU does ongoing collection, analysis and reporting of the incidence of all reportable diseases occurring in the catchment area.

In October 2018 the NWHU detected a statistically significant increase in reported cases of syphilis in the catchment area, and particularly in the Kenora region, beginning August 1, 2018. As part of the investigation into this increase in cases, epidemiologic trends are being monitored and reported on frequently.

Methods

Data for reported cases of all types of syphilis within the NWHU catchment area dating back to August 2013 were extracted from the Integrated Public Health Information System (iPHIS), the provincial database used by public health units to collect and store all communicable disease data, on April 22, 2020. Accurate Episode Date was the field used to assign a date to when the cases were reported. Analysis case counts, demographics, geography and risk factors was carried out using Microsoft Excel.

Report Highlights

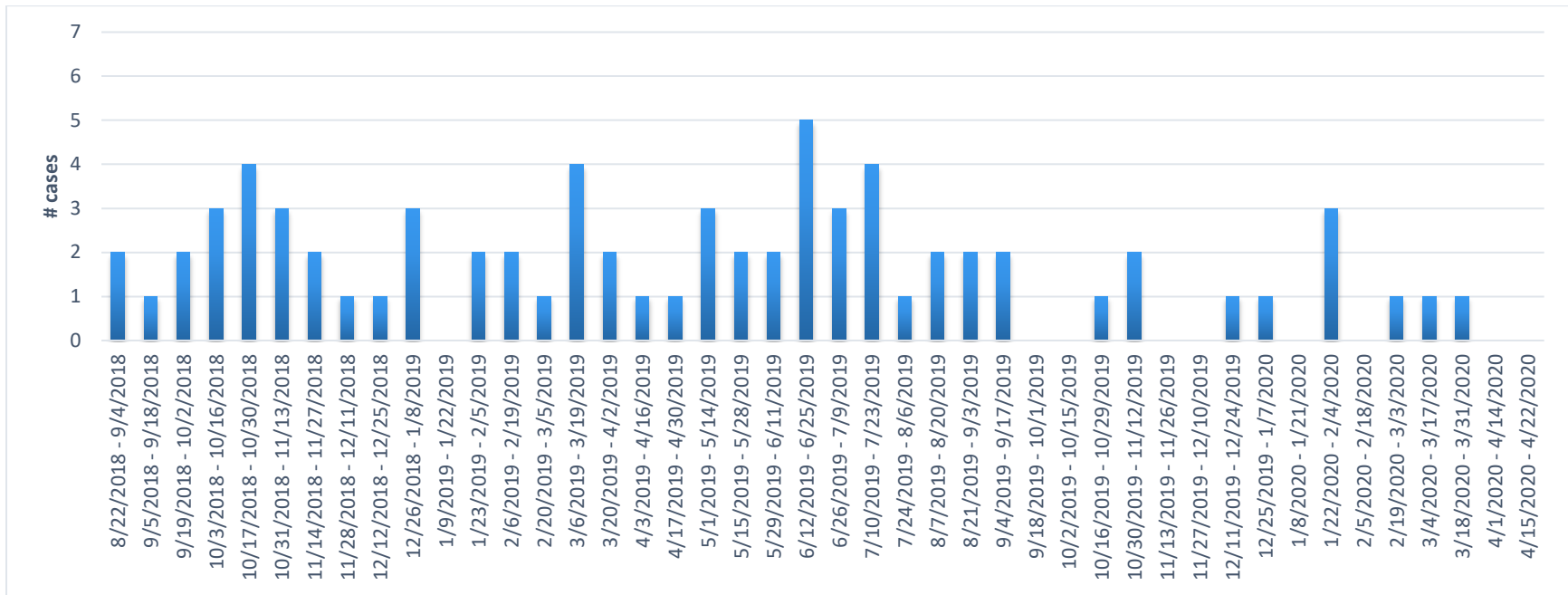
- There have been 72 confirmed cases of syphilis in the NWHU catchment area since August 1, 2018 when the surge in cases began
 - o Incidence of 51.3 per 100,000 per year, and at some points in 2019 was higher than 100 per 100,000 per year.
 - o Incidence has slowed since September 2019; 25.3 per 100,000 per year
 - o Typical incidence in the region is 2.9 per 100,000 per year, historically
- 13 cases in the region since September 2019. Median age of 30.0, 10 females and 3 males
- 8 of the cases since September 2019 (61.5%) have been in the Kenora Local Health Hub (LHH) area
- Most common risk factors for cases include not using a condom, injection drug use, multiple sex partners and being underhoused/homeless.
- The main reasons for testing of cases was contact tracing, symptoms being present, and routine screening

Results

Incidence

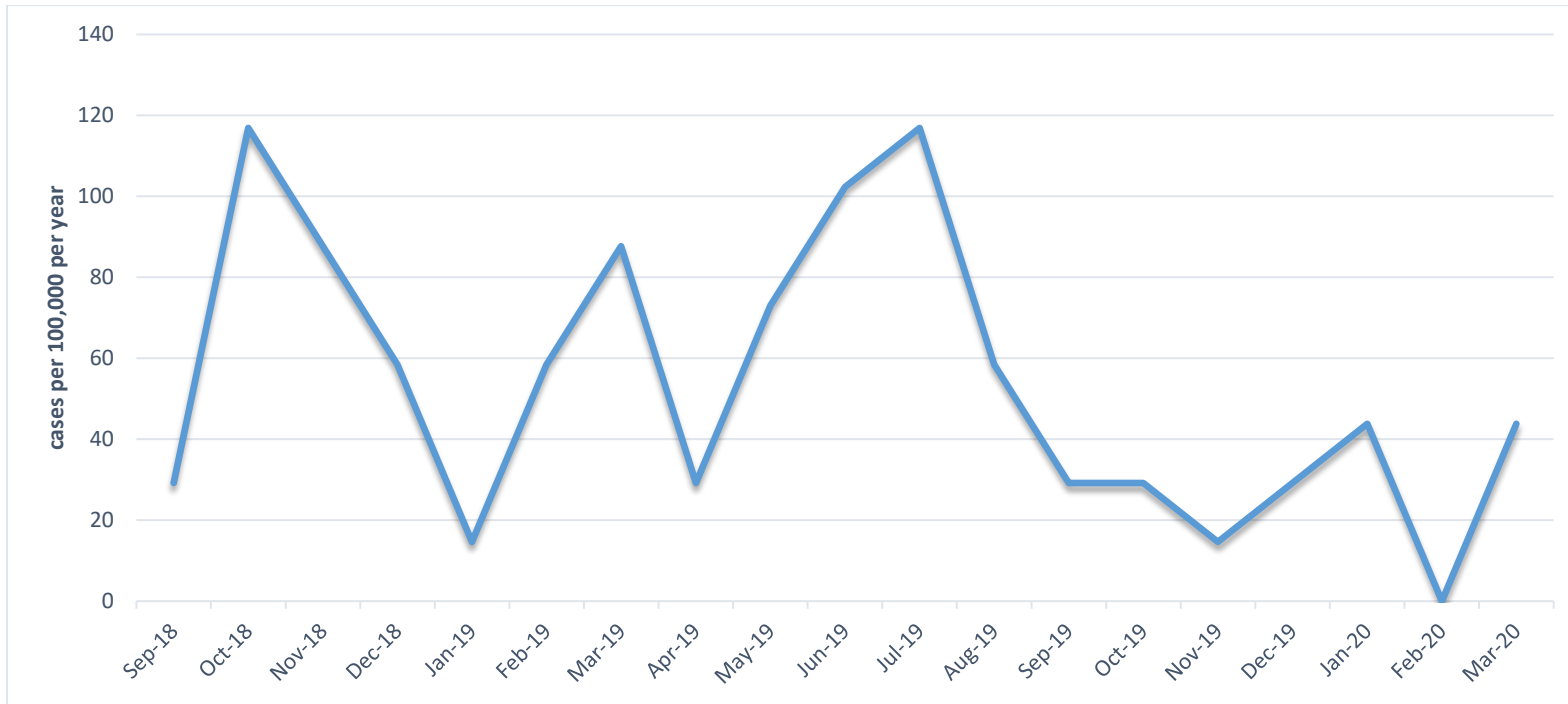
- The surge was classified as beginning as of August 1, 2018, since which time there have been 72 confirmed cases in the region, an incidence rate of 51.3 per 100,000 per year. Incidence has been higher than 100 cases per 100,000 per year at certain times in 2019.
- Incidence has slowed down since the fall of 2019; since September the incidence rate is 25.3 per 100,000 per year.
- The average annual incidence of syphilis in the NWHU catchment area between 2013 and 2017 was 2.9 per 100,000 per year, which serves as a historical baseline.

Figure 1: Syphilis cases in the NWHU catchment area, September 2018-present



Source: iPHIS, extracted April 22, 2020
 Case dates are based on the field Accurate Episode Date in iPHIS

Figure 2: Syphilis incidence in the NWHU catchment area by month, September 2018-March 2020

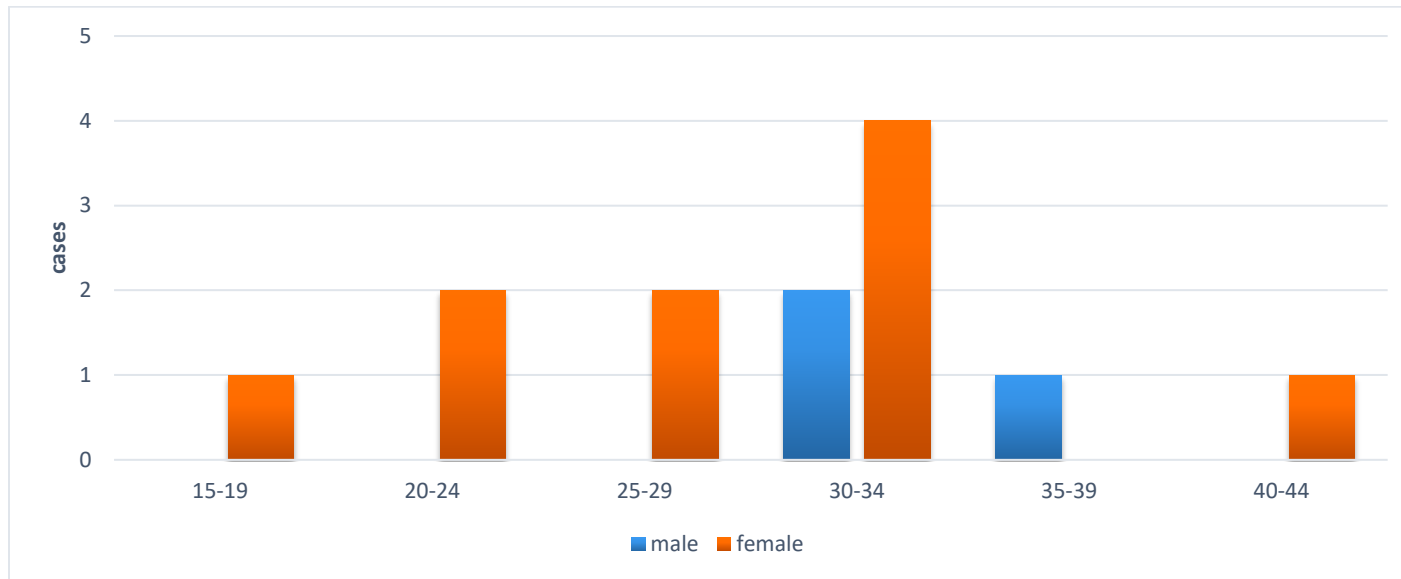


Source: iPHIS, extracted April 22, 2020
Case dates are based on the field Accurate Episode Date in iPHIS

Cases by Age Group and Sex

- Median age of 30 years old since September 2019
- 10 females and 3 males

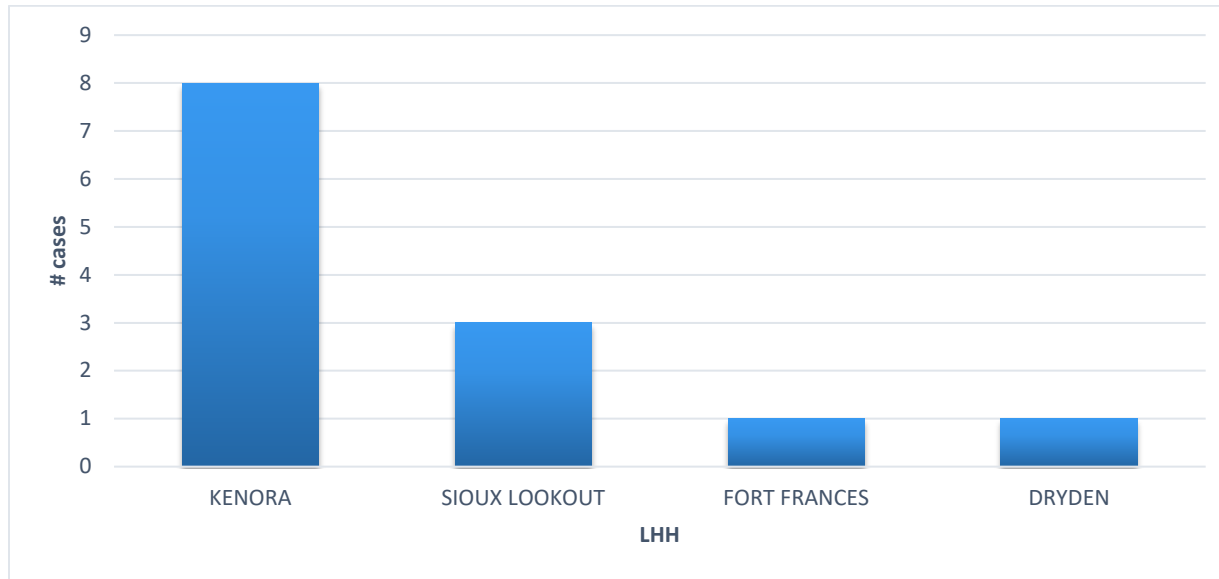
Figure 3: Syphilis cases in the NWHU catchment area by age group and sex, September 1 2019-present



Source: iPHIS, extracted April 22, 2020

Cases by Geographic Location

Figure 4: Syphilis cases in the NWHU catchment area by Local Health Hub (LHH), September 1 2019-present

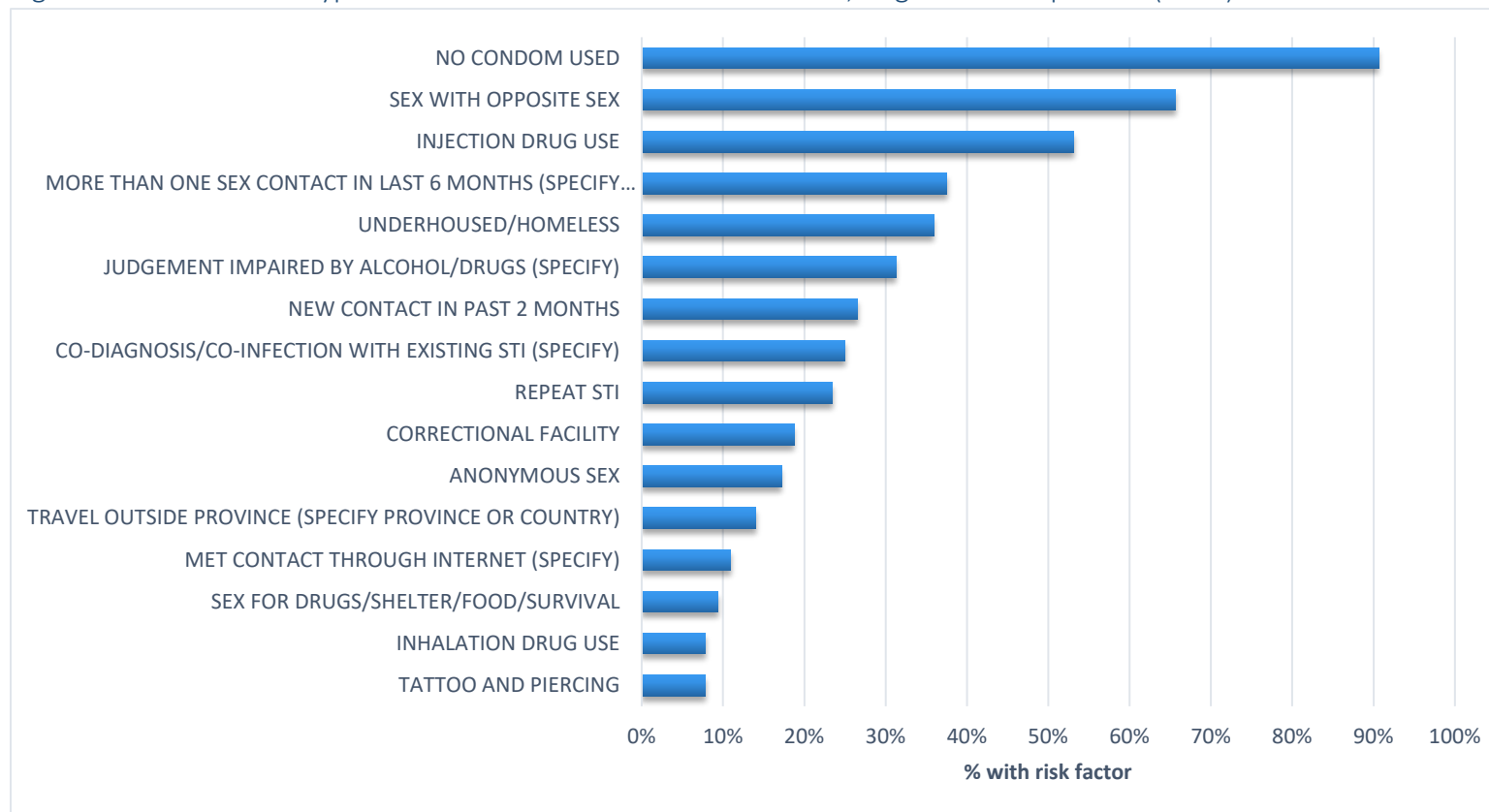


Source: iPHIS, extracted April 22, 2020

Risk Factors (since beginning of the surge)

- Most common risk factor since the beginning of the surge is not using a condom (87% of cases), followed by sex with opposite sex (69%), injection drug use (57%), and underhoused/homeless (37%).

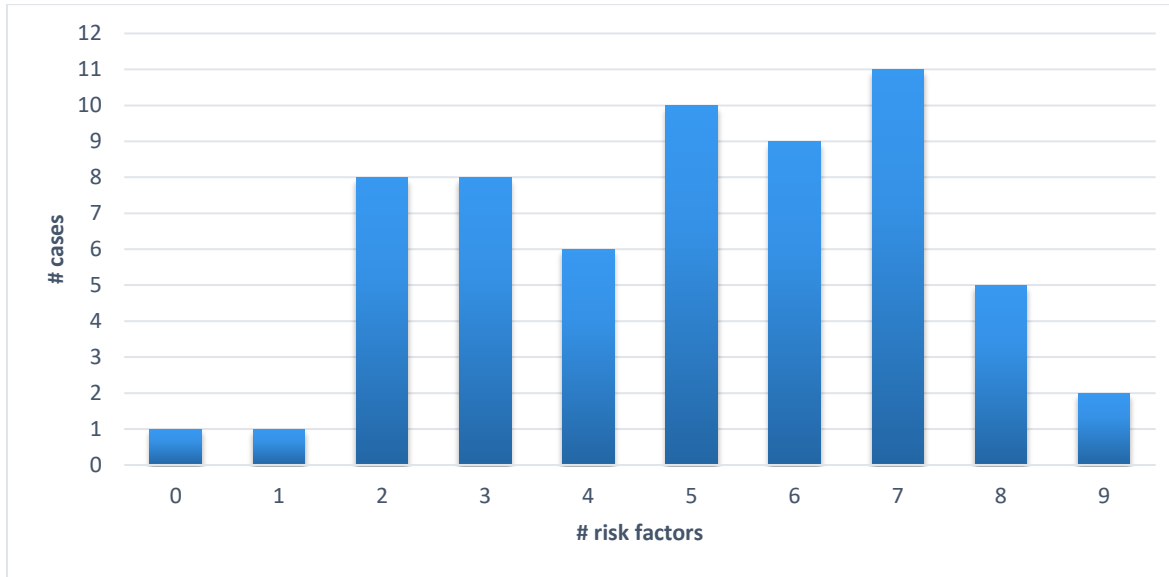
Figure 5: Risk factors of syphilis cases in the NWHU catchment area, August 1 2018-present (n=64)



Source: iPHIS, extracted April 22, 2020

- 62 of the cases have 2 or more risk factors

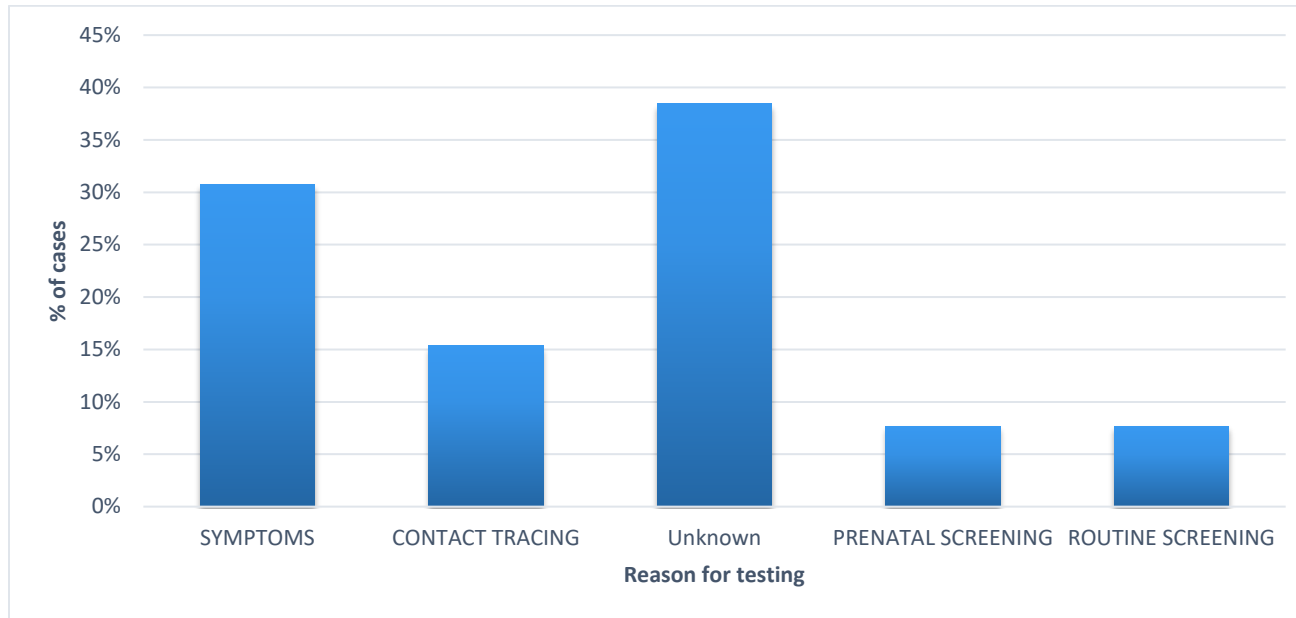
Figure 6: Number of risk factors per case in the NWHU catchment area, August 1 2018-present



Source: iPHIS, extracted April 22, 2020

Reason for Testing

Figure 7: Reason for testing of syphilis cases in the NWHU catchment area, September 1 2019-present



Source: iPHIS, extracted April 22, 2020

Limitations

Case follow-up, data collection and entering into iPHIS is an ongoing process, and the statistics in this report are only reflective of the situation as of April 22, 2020.

Conclusion

The NWHU has experienced a surge in syphilis incidence in the region since August 1, 2018. To date, there have been 72 confirmed cases reported in the region since the beginning of the surge, an incidence rate of 51.3 per 100,000 people per year. However, since September 2019 the incidence rate has decreased to 25.3 per 100,000 per year. The NWHU will continue to monitor trends in syphilis incidence in the region in order to inform our public health programming and interventions.