



Northwestern Health Unit
Syphilis Epidemiologic Summary
May 18, 2021

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 between October 1, 2020 and March 31, 2021. 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 May 18, 2021. 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

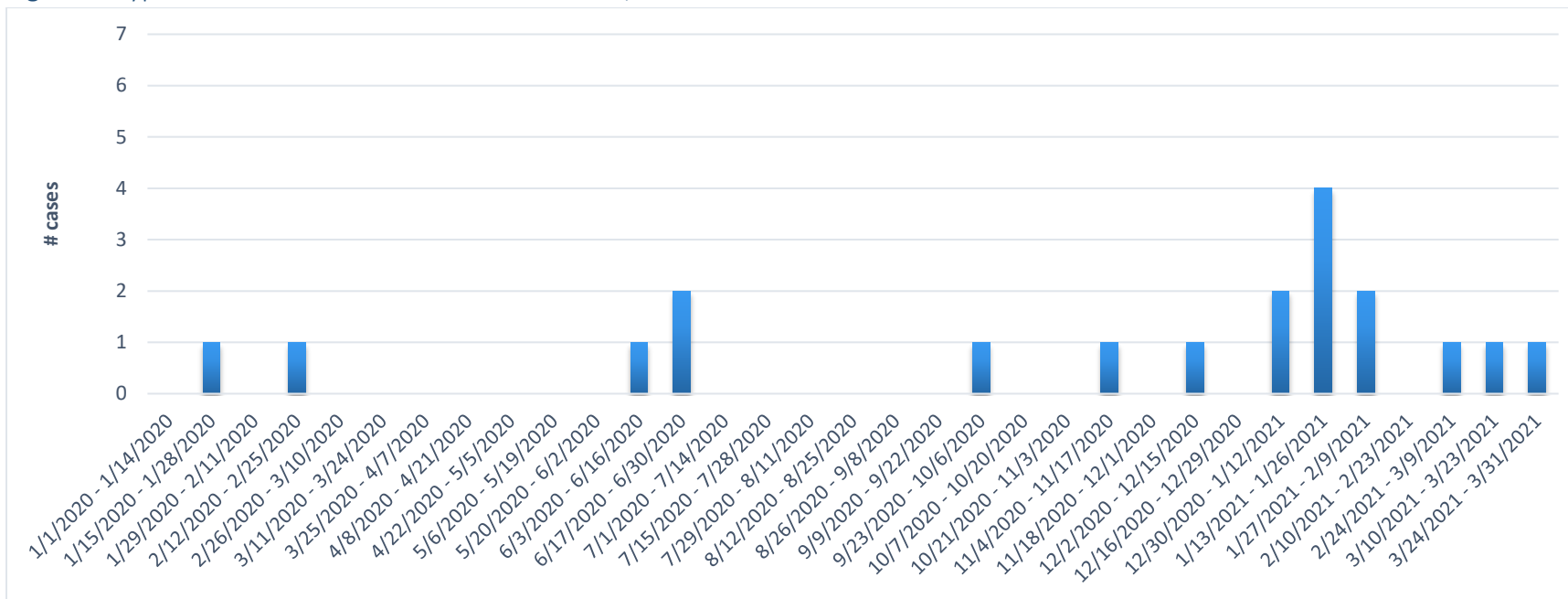
- There have been 45 confirmed cases of syphilis in the NWHU catchment area in the 6 months between October 1, 2020 and March 31, 2021
 - o Incidence of 51.4 per 100,000 people over this 6 month period. Incidence in the previous 6 months was 27.4 per 100,000
 - o Typical incidence in the region is 2.9 per 100,000 per year, historically.
- Median age of 31, 23 females and 22 males
- 49% of cases in those 6 months were in the Sioux Lookout health hub, and 36% were in the Kenora health hub.
- 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

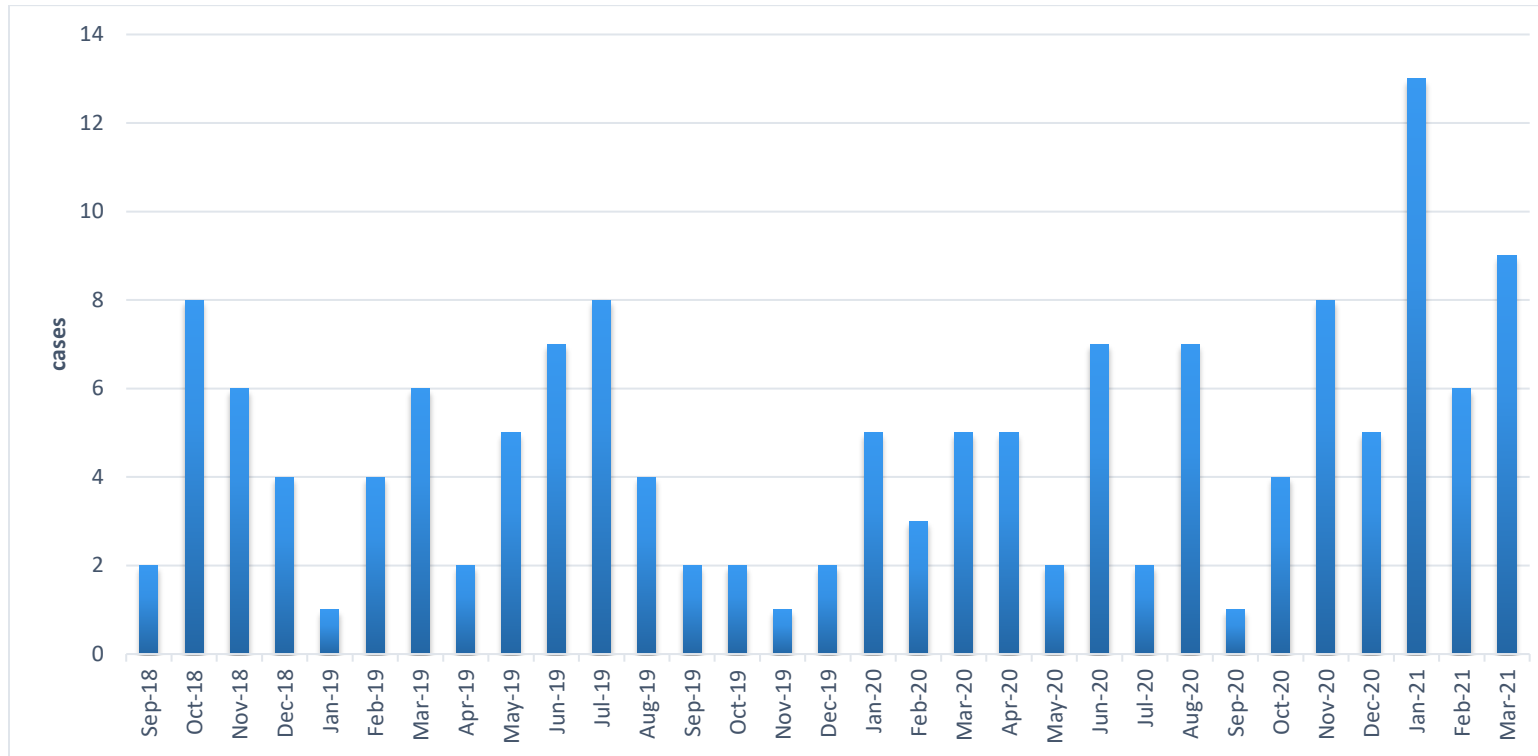
- 45 cases in the past 6 months (October 1, 2020 to March 31, 2021), incidence of 51.4 per 100,000 people. Incidence in the previous 6 months was 27.4 per 100,000
- The average annual incidence of syphilis in the NWHU catchment area between 2013 and 2017 was 2.9 per 100,000 per year, which serves as a historical baseline.

Figure 1: Syphilis cases in the NWHU catchment area, Jan 2020 – March 2021



Source: iPHIS, extracted May 18, 2021
 Case dates are based on the field Accurate Episode Date in iPHIS

Figure 2: Syphilis cases in the NWHU catchment area by month, September 2018-March 2021



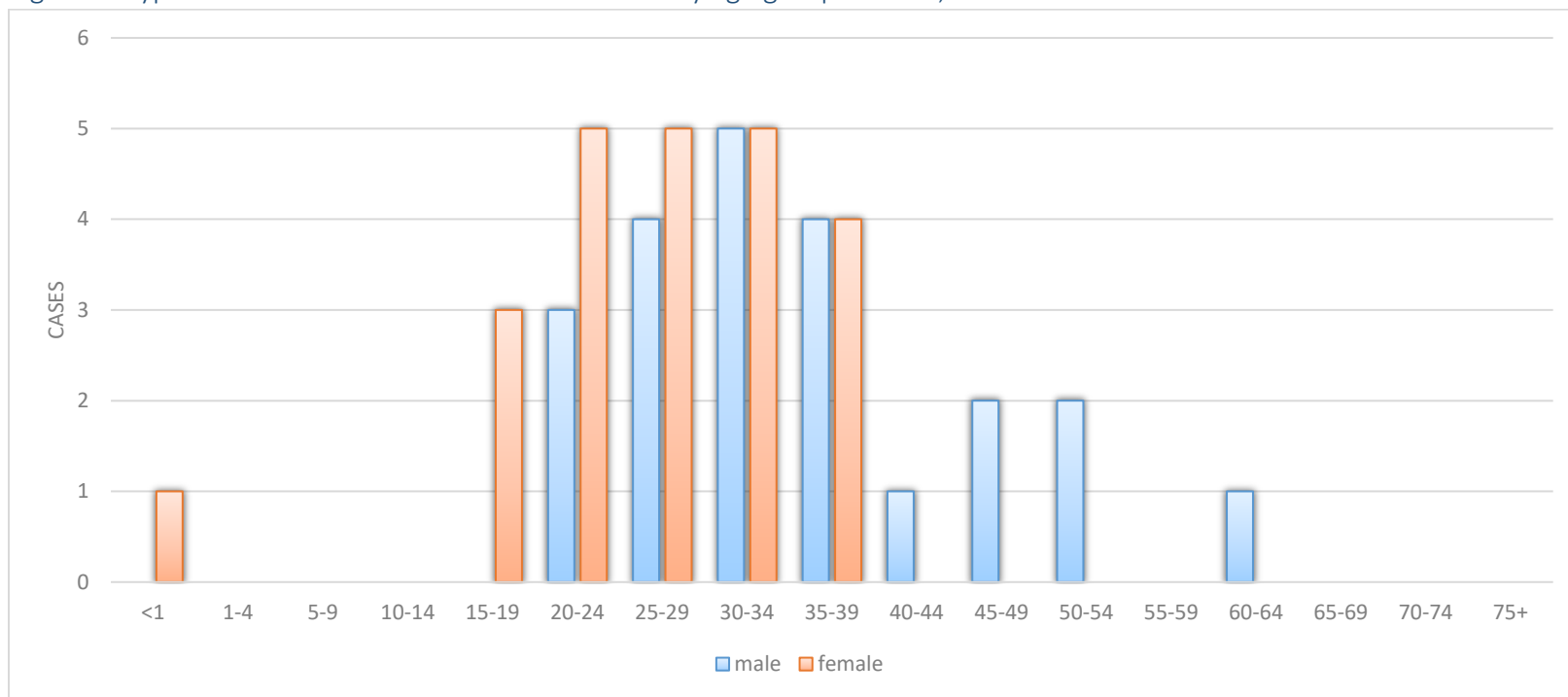
Source: iPHIS, extracted May 18, 2021

Case dates are based on the field Accurate Episode Date in iPHIS

Cases by Age Group and Sex

- Median age of 31 years old in 2020
- 23 females and 22 males

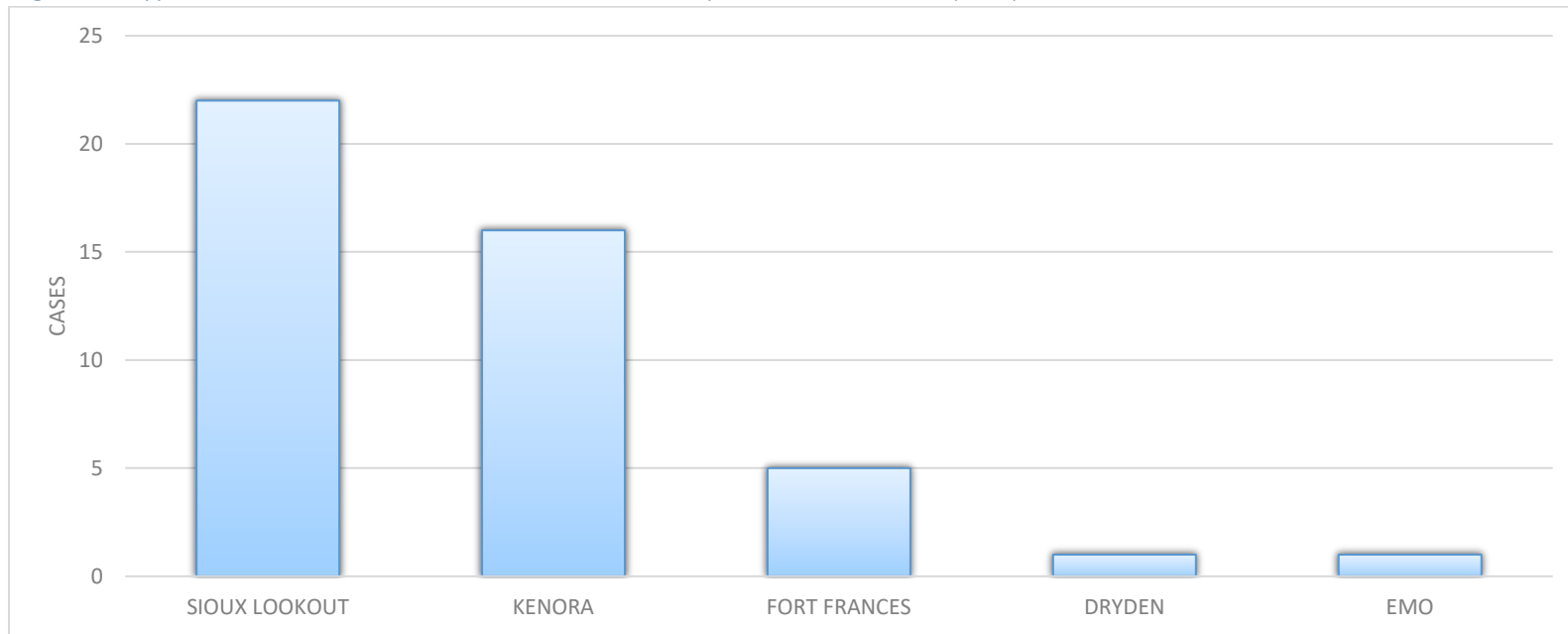
Figure 3: Syphilis cases in the NWHU catchment area by age group and sex, October 2020 – March 2021



Source: iPHIS, extracted May 18, 2021

Cases by Geographic Location

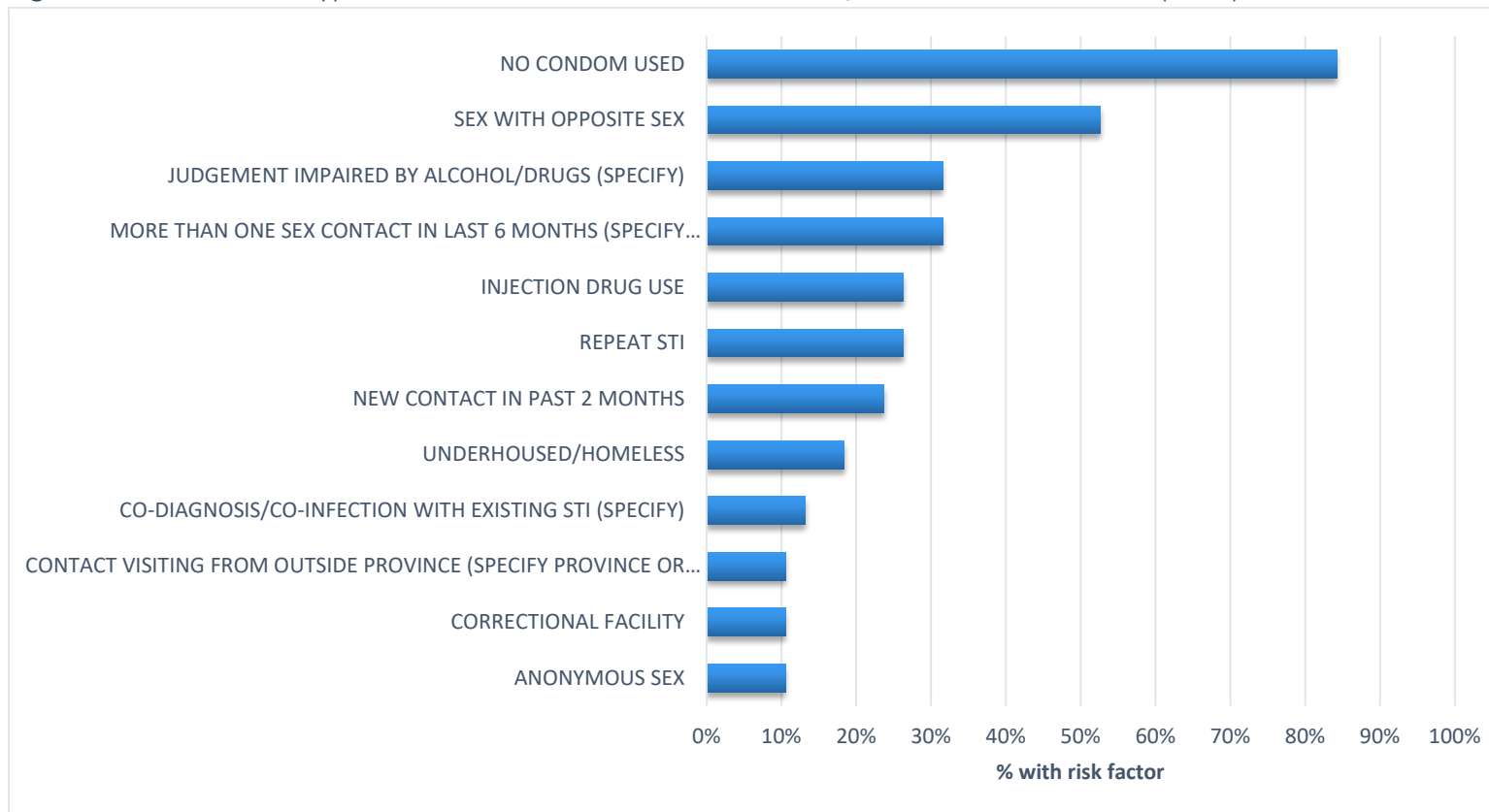
Figure 4: Syphilis cases in the NWHU catchment area by Local Health Hub (LHH), October 2020 – March 2021



Source: iPHIS, extracted May 18, 2021

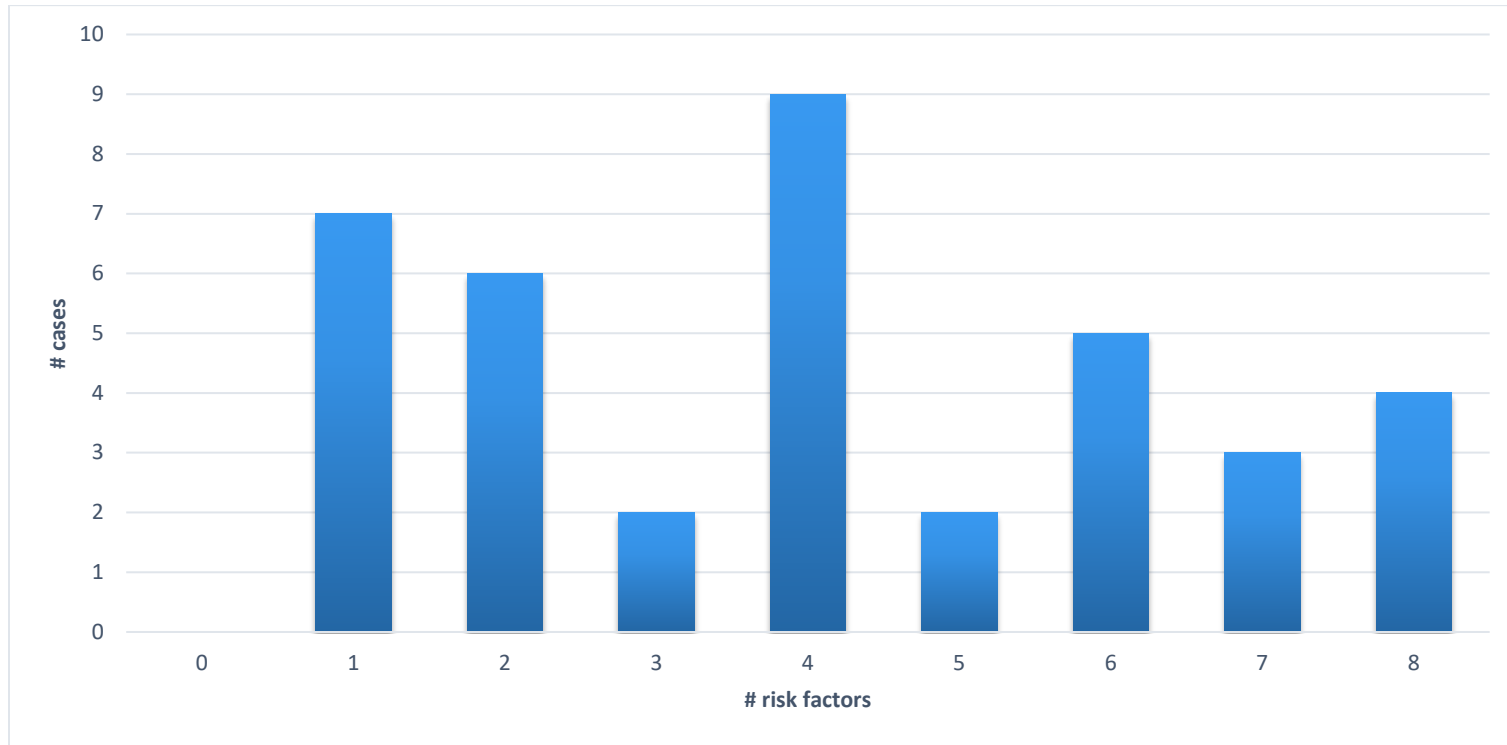
Risk Factors

Figure 5: Risk factors of syphilis cases in the NWHU catchment area, Jan 2020 – March 2021 (n=38)



Source: iPHIS, extracted May 18, 2021

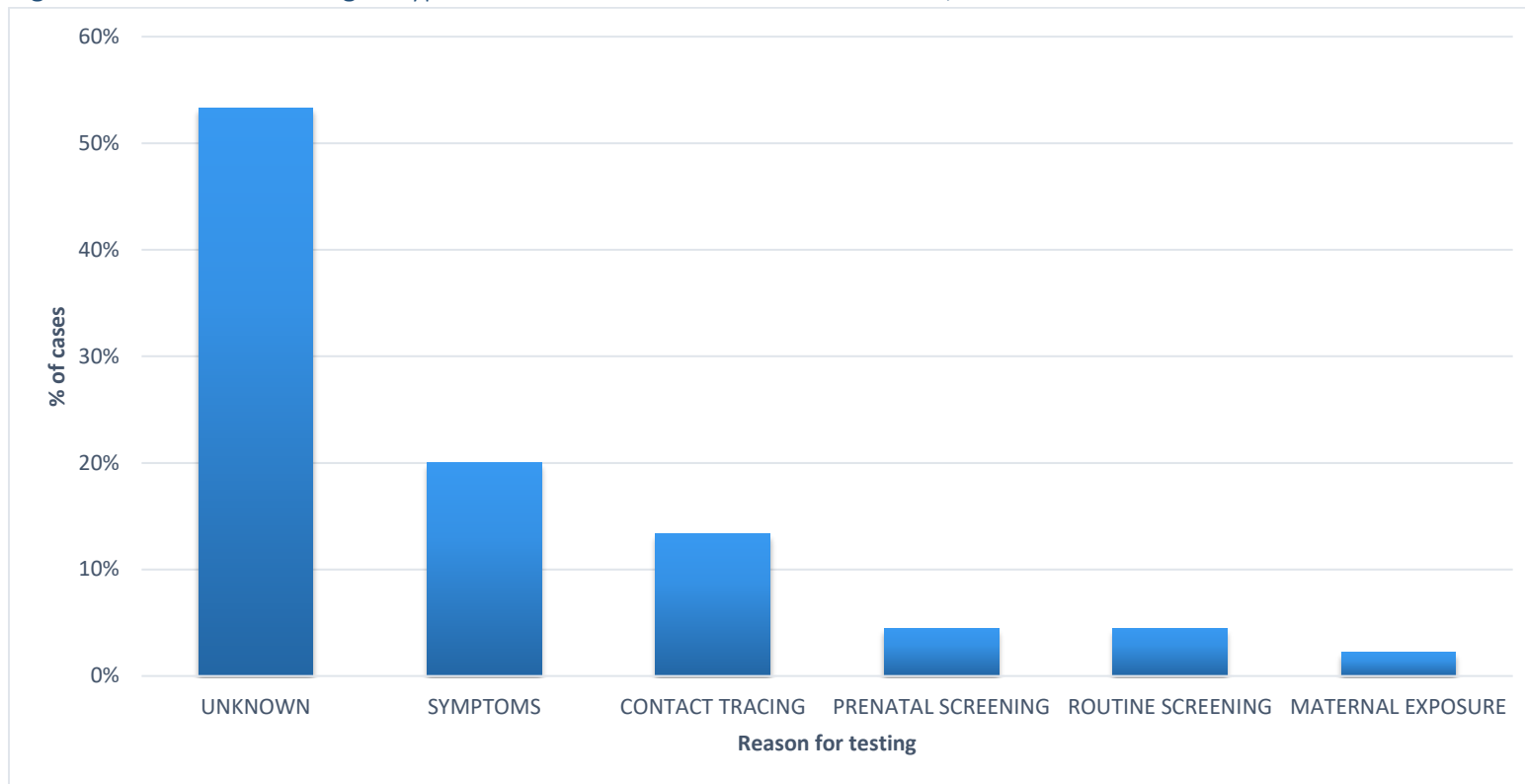
Figure 6: Number of risk factors per case in the NWHU catchment area, Jan 2020 – March 2021



Source: iPHIS, extracted May 18, 2021

Reason for Testing

Figure 7: Reason for testing of syphilis cases in the NWHU catchment area, Jan 2020 – March 2021



Source: iPHIS, extracted May 18, 2021

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 May 18, 2021.

Conclusion

The NWHU has experienced a surge in syphilis incidence in the region since August 1, 2018, extending into late summer of 2019. Incidence began to decrease in fall of 2019, and has been relatively stable since then throughout most of 2020, but we have seen an increase again since October 2020. The NWHU will continue to periodically monitor and report on the situation as it develops.