



**Northwestern
Health Unit**

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Northwestern Health Unit

Syphilis Epidemiologic Summary

January 28, 2022

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 in 2021. The report highlights the incidence and epidemiologic curve of recent cases, demographics of cases and risk factors for infection.

Background

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, NWHU does ongoing collection, analysis and reporting of the incidence of all reportable diseases occurring in the catchment area.

In October 2018, 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. Incidence has subsequently increased each year since then. As part of the investigation into this increase in cases, epidemiologic trends are being monitored and reported on periodically in order to guide mitigation efforts.

Methods

Data for reported cases of all types of syphilis within the NWHU catchment area dating back to 2018 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 January 28, 2022. Analysis of case counts, demographics, geography and risk factors was carried out using Microsoft Excel.

Report Highlights

There were 118 confirmed cases of syphilis in the NWHU catchment area in 2021. Incidence increased by 107% from 2020 to 2021.

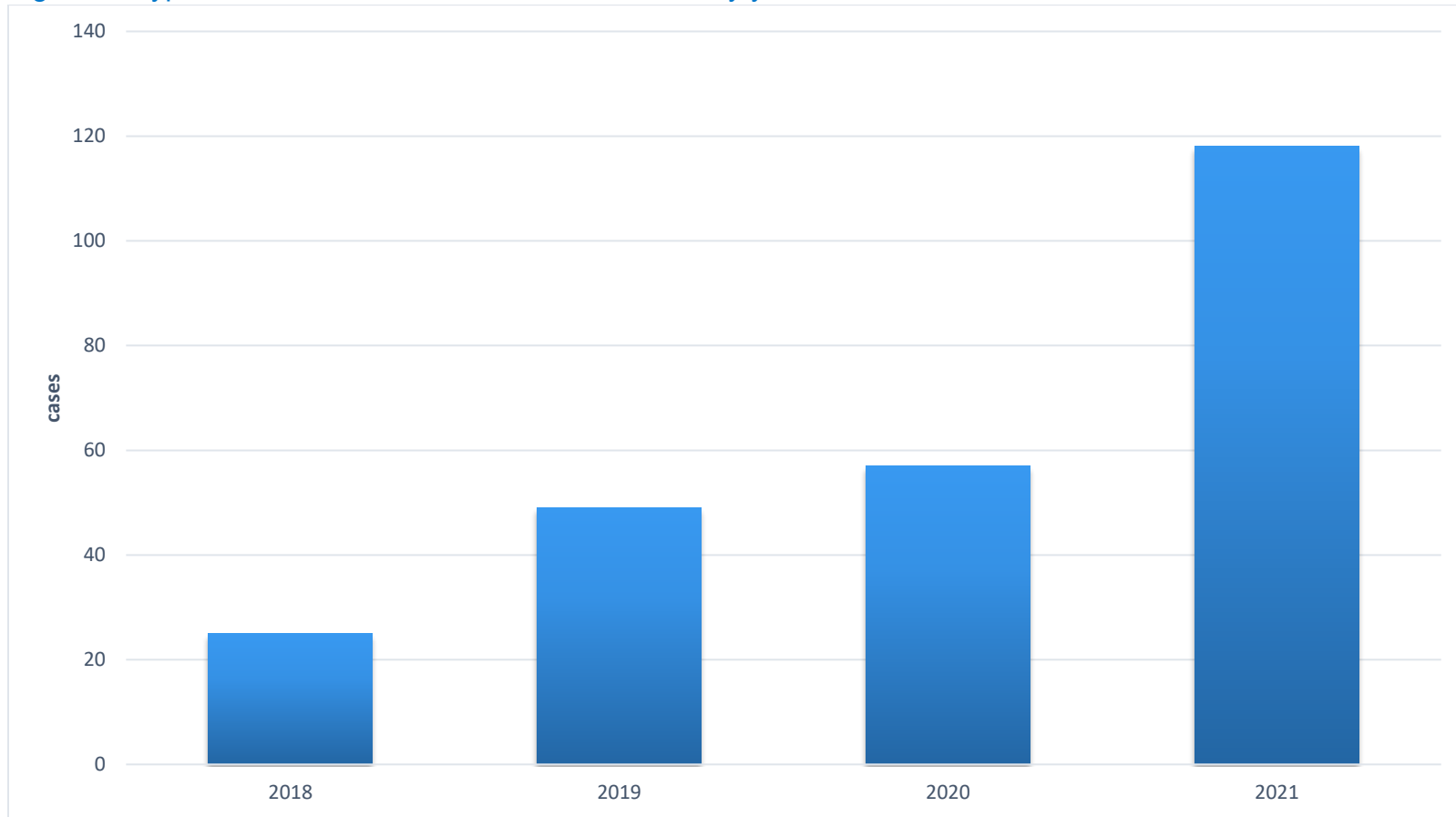
- Incidence rates per 100,00 people:
 - 2021: 145.4
 - 2020: 70.3
 - 2019: 60.4
 - 2018: 30.8
- Typical incidence in the region prior to the 2018 increase was 2.9 per 100,000 per year, historically.
- Median age of cases in 2021 was 32 years old, 51% were female, 47% were male, 2% unspecified sex.
- 46.6% of cases in 2021 were in the Sioux Lookout health hub, 36.4% were in the Kenora health hub, 9.3% in the Fort Frances health hub, and the remainder were elsewhere in the catchment 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 were contact tracing, symptoms being present, and routine screening.

Results

Incidence

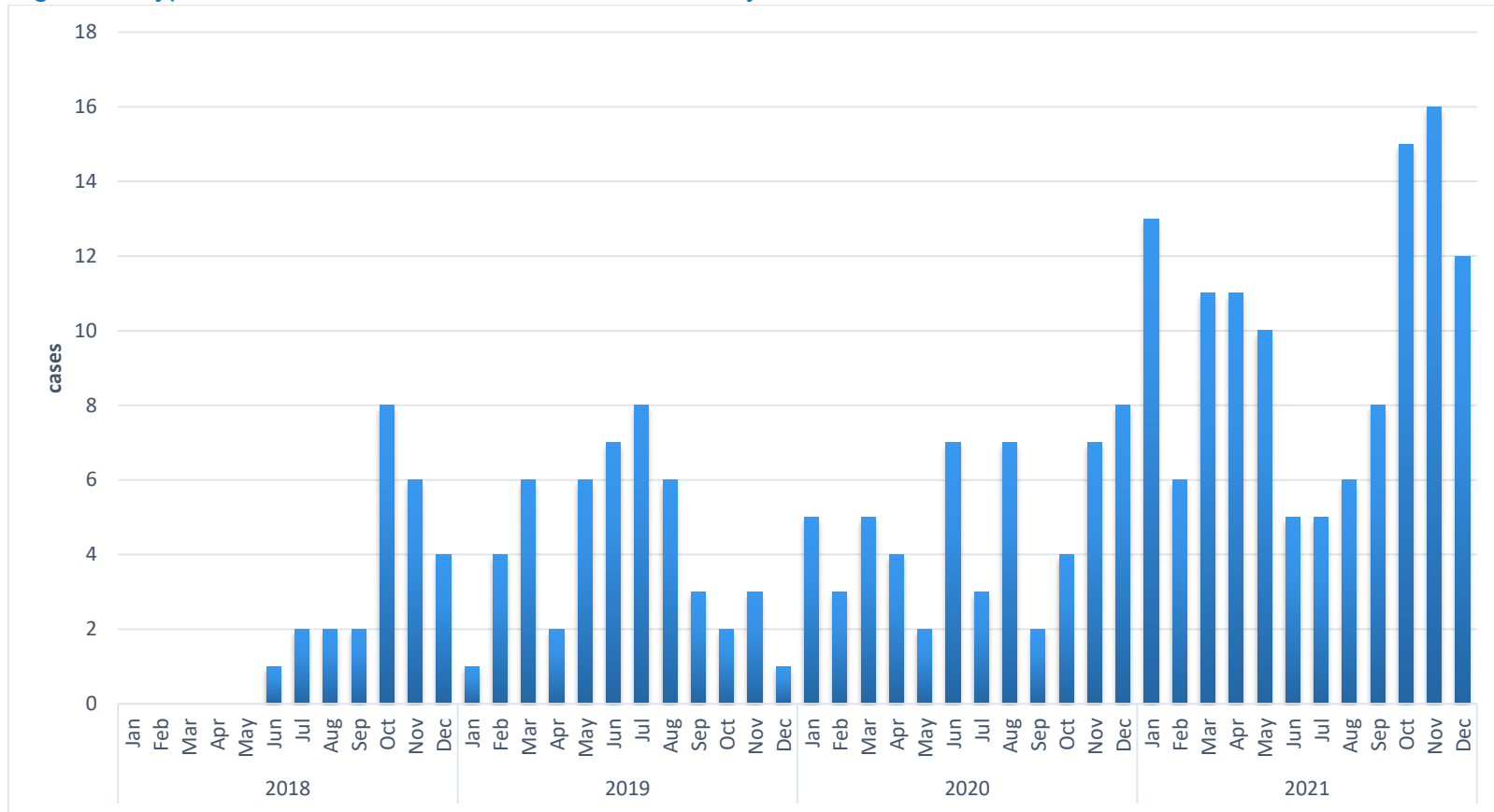
- 118 cases in 2021, an incidence rate of 145.4 per 100,000 people. Incidence increased by 107% from 2020.
- The average annual incidence of syphilis in the NWHU catchment area between 2013 and 2017 was 2.9 per 100,000 per year, which serves as a historical baseline for syphilis cases in the region.

Figure 1: Syphilis cases in the NWHU catchment area by year, 2018-2021



Source: iPHIS, extracted January 28, 2022

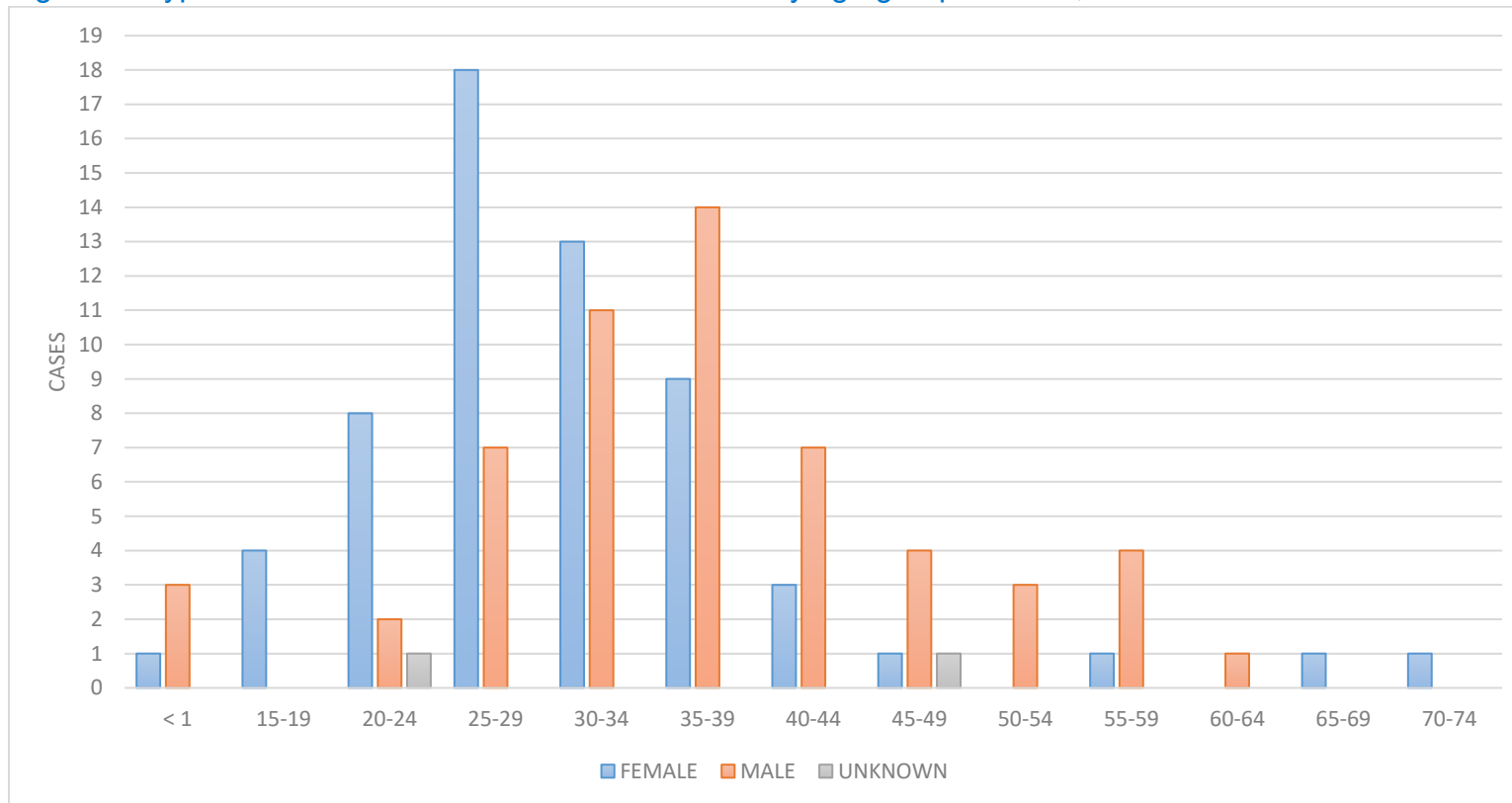
Figure 2: Syphilis cases in the NWHU catchment area by month, 2018-2021



Source: iPHIS, extracted January 28, 2022

Cases by Age Group and Sex

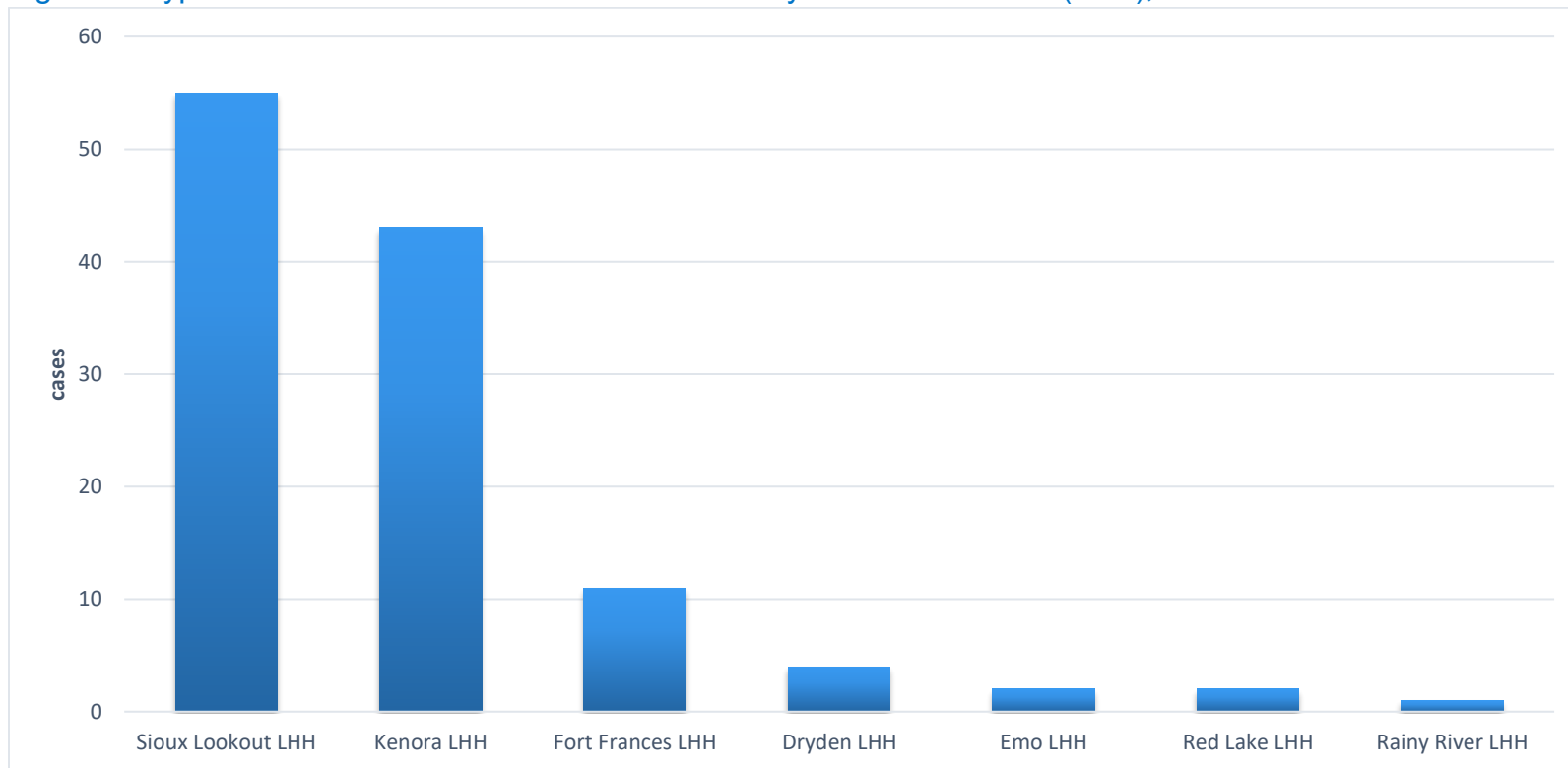
Figure 3: Syphilis cases in the NWHU catchment area by age group and sex, 2021



Source: iPHIS, extracted January 28, 2022

Cases by Geographic Location

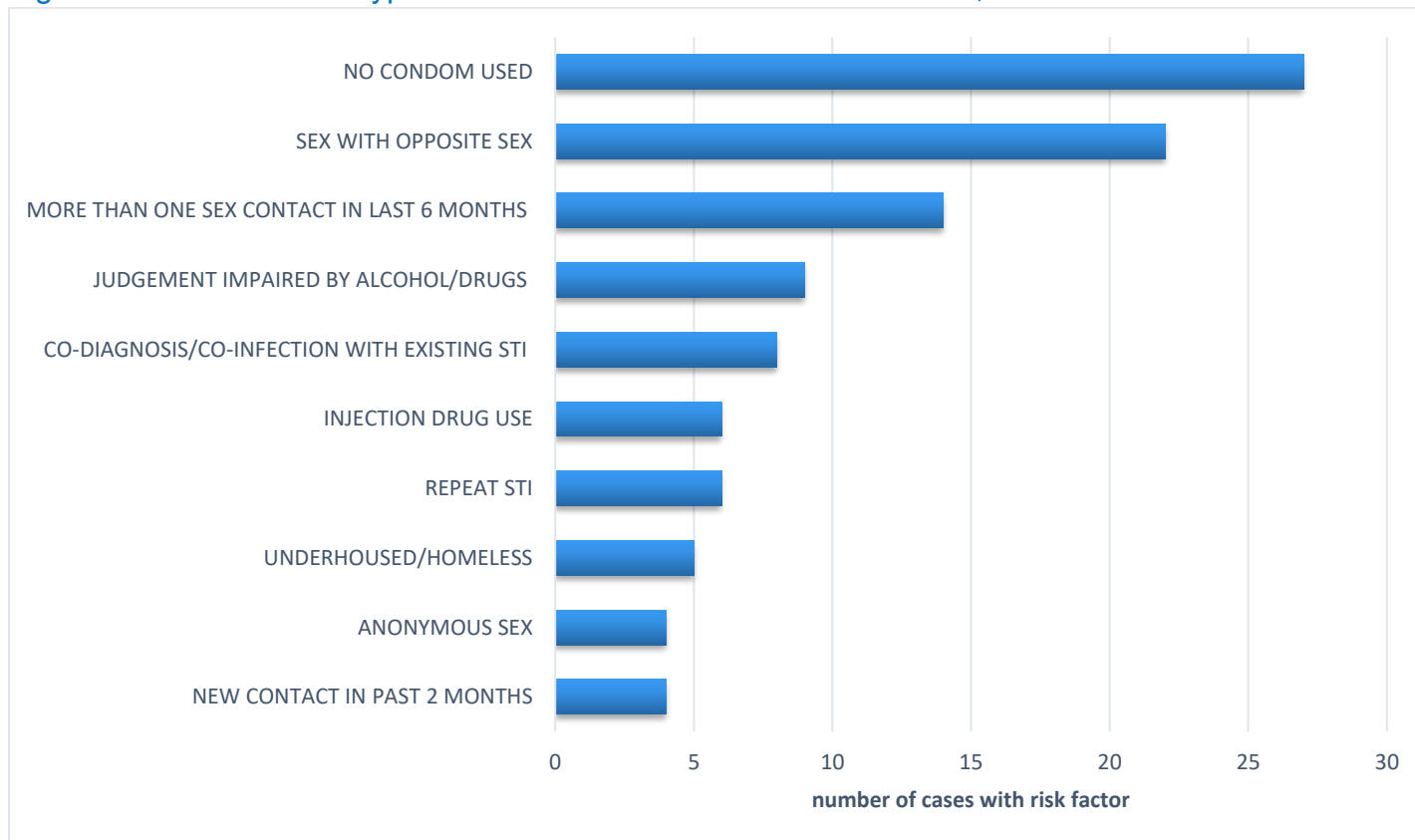
Figure 4: Syphilis cases in the NWHU catchment area by Local Health Hub (LHH), 2021



Source: iPHIS, extracted January 28, 2022

Risk Factors

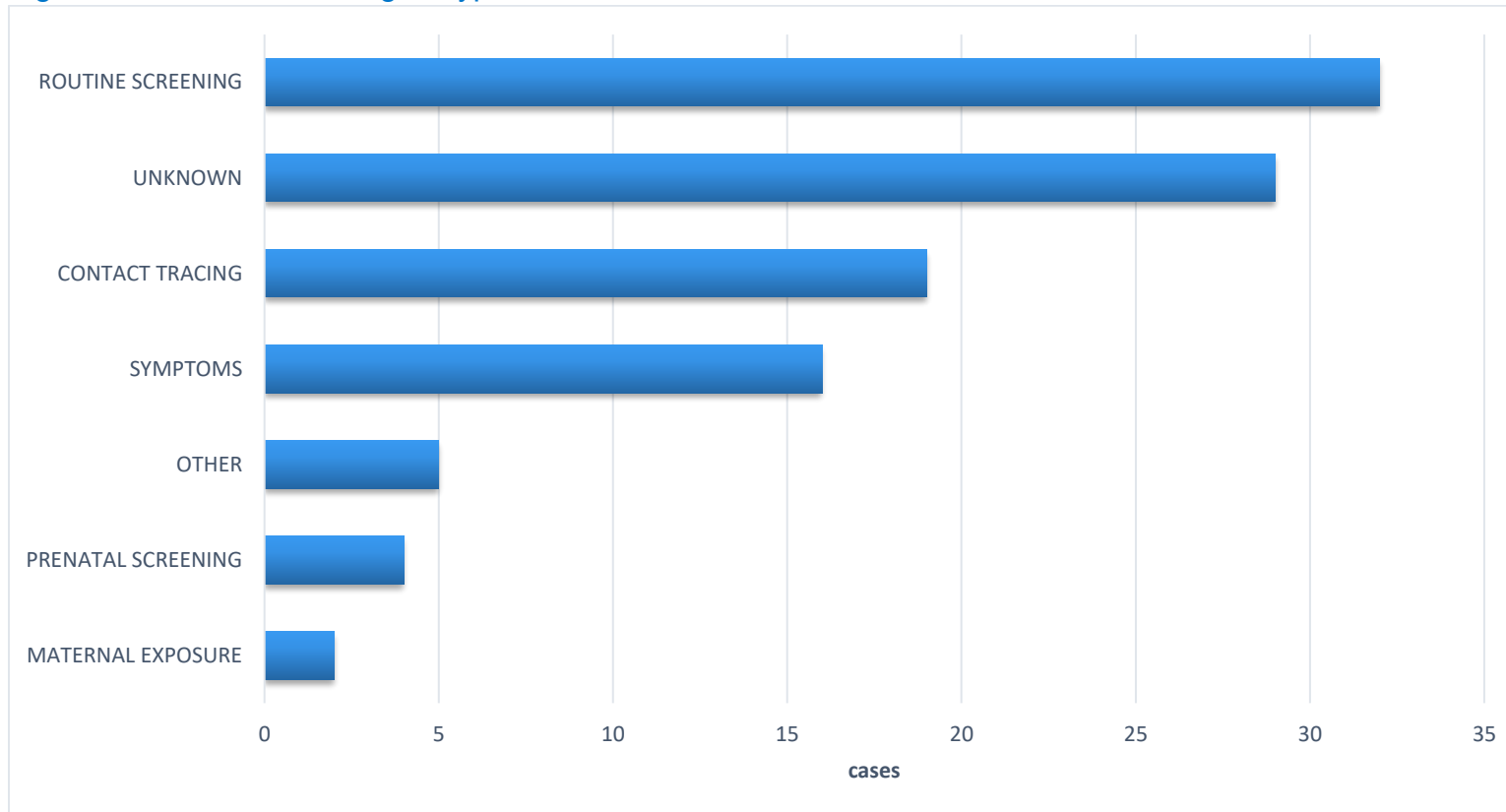
Figure 5: Risk factors of syphilis cases in the NWHU catchment area, 2021



Source: iPHIS, extracted January 28, 2022

Reasons for Testing

Figure 6: Reason for testing of syphilis cases in the NWHU catchment area, 2021



Source: iPHIS, extracted January 28, 2022

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 January 28, 2022. Risk factor information for some cases is incomplete or missing.

Conclusion

NWHU has experienced a surge in syphilis incidence in the region since August 1, 2018. Incidence has subsequently increased with each calendar year, with the highest rate yet seen in 2021. Incidence in 2021 increased by 107% compared with 2020. Northwestern Health Unit will continue to monitor syphilis trends and encourage testing and treatment across the region in our ongoing efforts to mitigate the impact of the disease.