



**Northwestern
Health Unit**

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Northwestern Health Unit

Syphilis Epidemiologic Summary

January 29, 2024

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 occurred in 2023. 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 10, 2024. Analysis of case counts, demographics, geography and risk factors was carried out using Microsoft Excel.

Report Highlights

There were 109 confirmed cases of syphilis in the NWHU catchment area in 2023, which is an incidence rate of 133.9 per 100,000. This rate is down 23% from 2022 when the rate was 174.3 per 100,000. This is the first time the annual incidence has decreased since the beginning of the increased incidence in 2018.

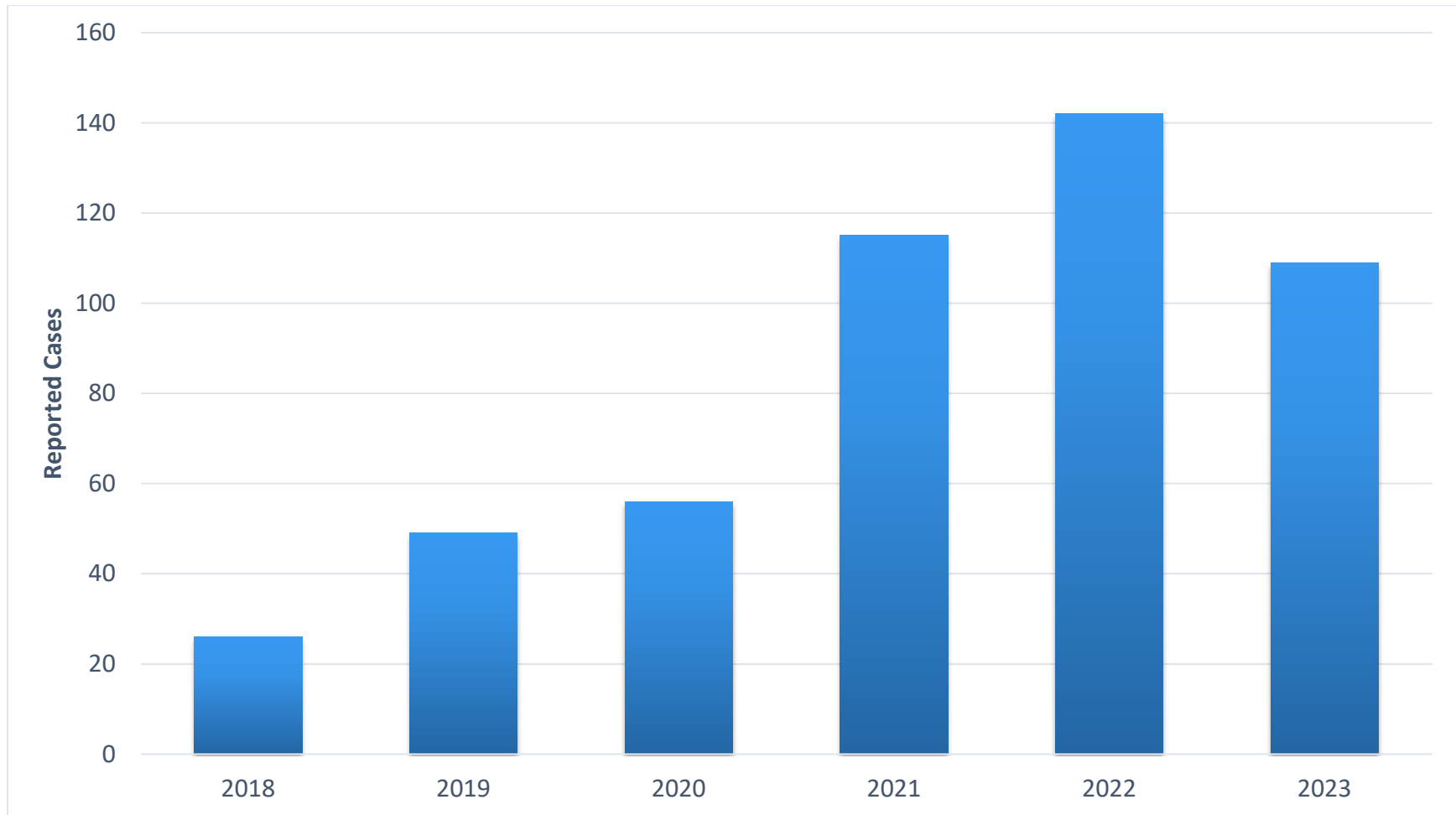
- Incidence rates per 100,00 people:
 - 2023: 133.9
 - 2022: 174.3
 - 2021: 141.7
 - 2020: 68.8
 - 2019: 60.3
 - 2018: 33.2
- Typical incidence in the region prior to the 2018 increase was 2.9 per 100,000 per year, historically.
- Median age of cases in 2023 was 29 years old. 57% of cases were female, 41% were male, and 2% were unknown.
- 50.4% of cases in 2022 are in the Sioux Lookout health hub, 42.4% were in the Kenora health hub, with the remainder being elsewhere in the catchment area.
- Most common risk factors for cases include not using a condom, injection drug use, multiple sex partners, and having impaired judgment from alcohol or other drugs.
- The main reasons for testing of cases were routine screening, contact tracing, and symptoms being present.

Results

Incidence

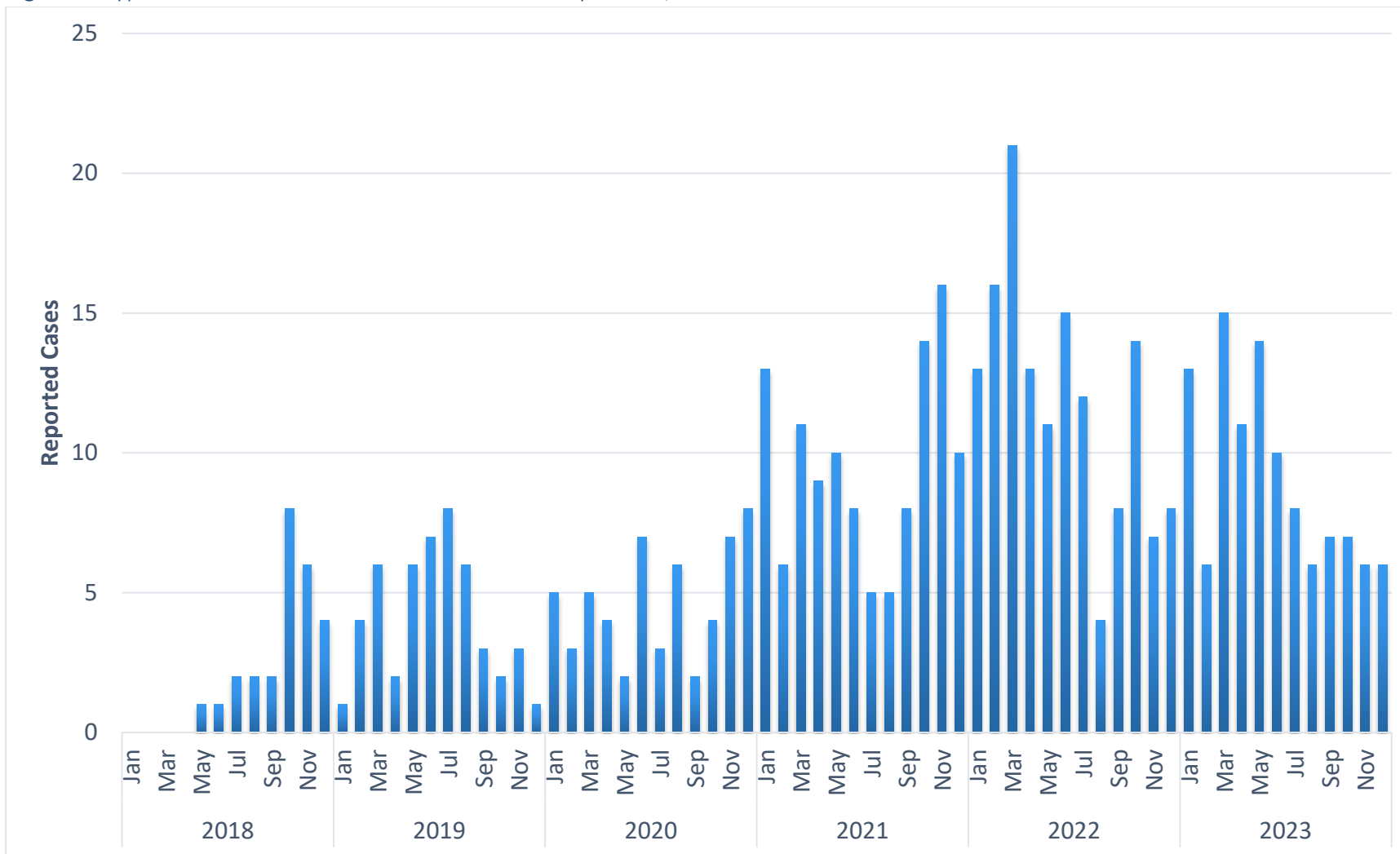
There were 109 cases in 2023, an incidence rate of 133.9 per 100,000. This incidence rate is down 23% from the peak incidence of 174.3 in 2022. The average annual incidence of syphilis in the NWHU catchment area between 2013 and 2017 was 2.9 per 100,000 per year, which serves as a historical baseline for syphilis cases in the region.

Figure 1: Syphilis cases in the NWHU catchment area by year, 2018-2022



Source: iPHIS, extracted January 10, 2024

Figure 2: Syphilis cases in the NWHU catchment area by month, 2018-2023

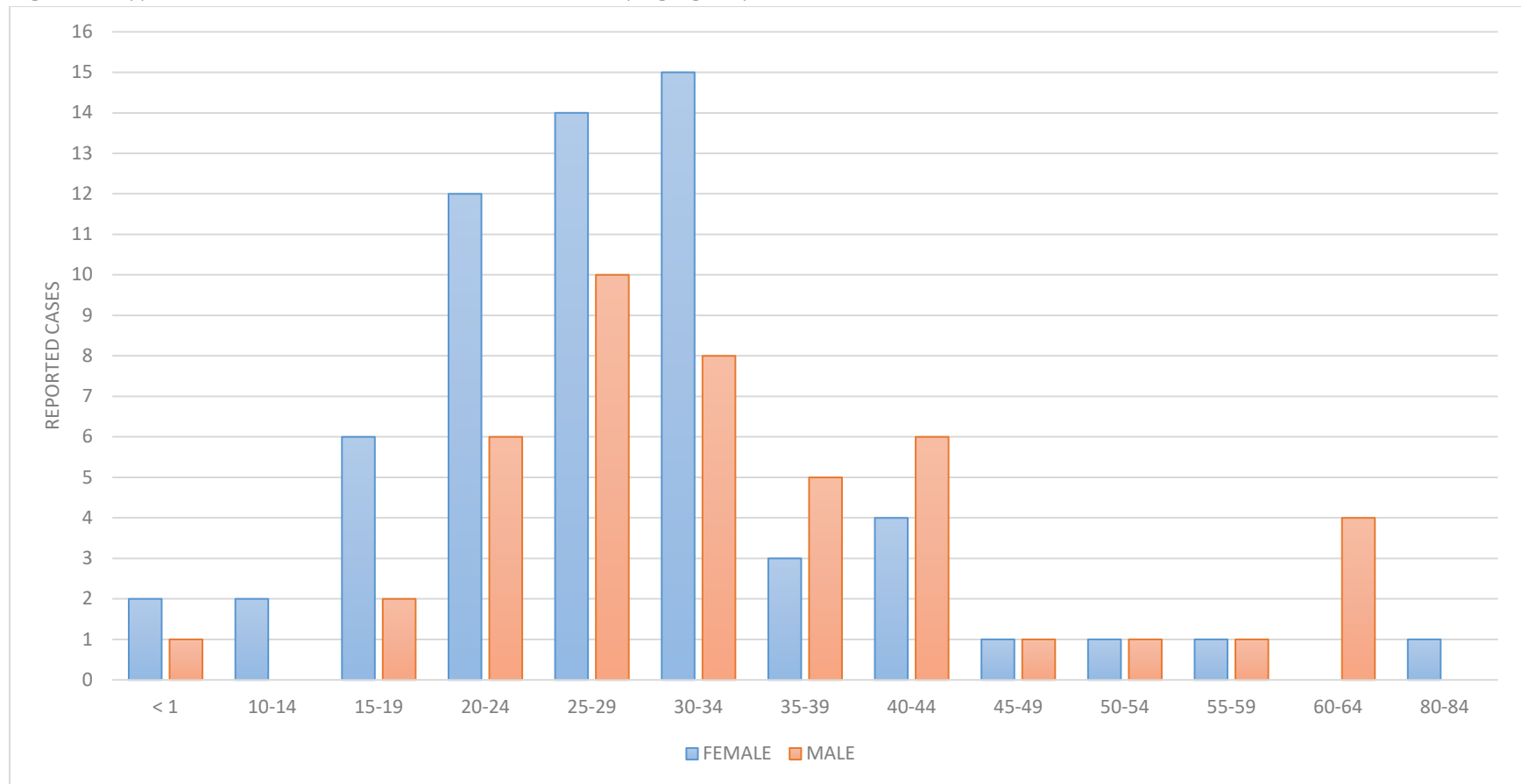


Source: iPHIS, extracted January 10, 2024

Cases by Age Group and Sex

In 2023, the median age of cases was 29 years old. 57% of cases were female while 41% were male; the remaining 2% of cases were of unknown/unreported sex. The younger female demographic has typically had the highest number of cases each year. Incidence in older age groups has been higher in males than females.

Figure 3: Syphilis cases in the NWHU catchment area by age group and sex, 2023

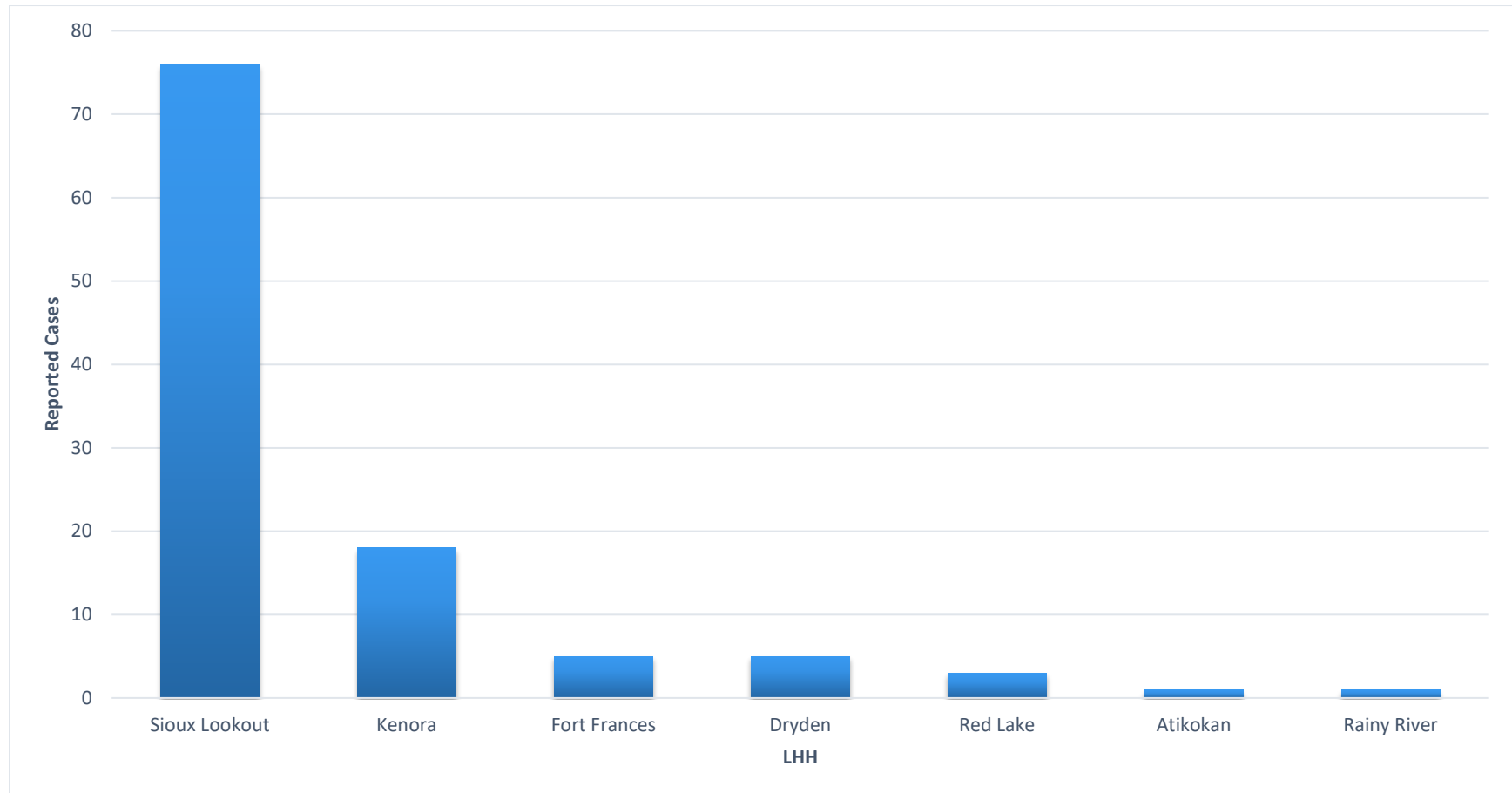


Source: iPHIS, extracted January 10, 2024

Cases by Geographic Location

The majority of cases in 2023 were in the Sioux Lookout local health hub area, with 76 cases (69.7% of cases) reported in the area. This was followed by the Kenora area with 18 cases (16.5% of cases). Since the increase began in 2018, Kenora and Sioux Lookout areas have had the highest rates consistently.

Figure 4: Syphilis cases in the NWHU catchment area by Local Health Hub (LHH), 2023

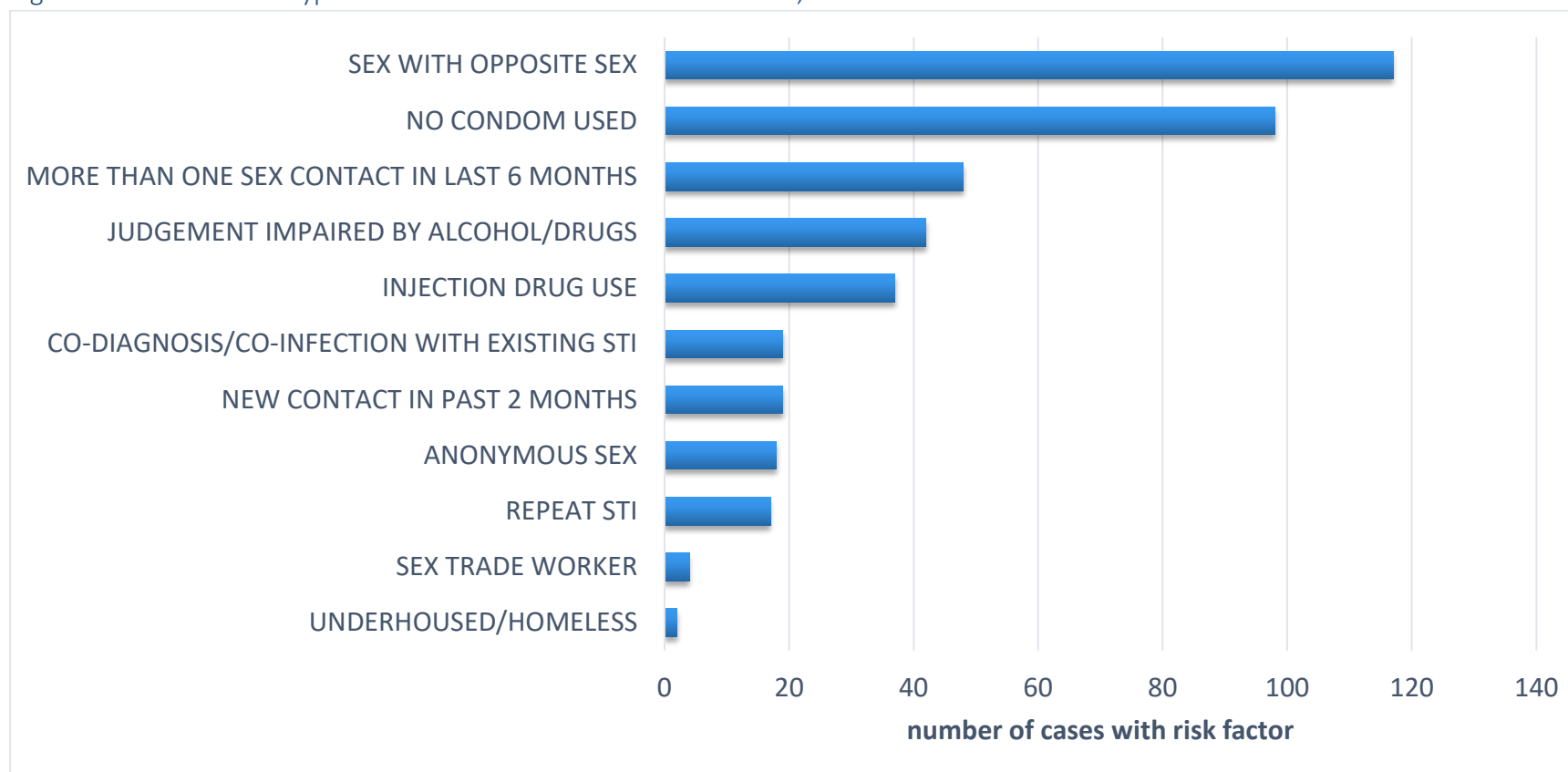


Source: iPHIS, extracted January 10, 2024

Risk Factors

Common risk factors for syphilis cases seen over the past two years include not using a condom, having multiple sexual partners, impaired judgment by alcohol or other drugs, and injection drug use. These risk factor trends have been consistent since the beginning of the increase in 2018.

Figure 5: Risk factors of syphilis cases in the NWHU catchment area, 2022-2023

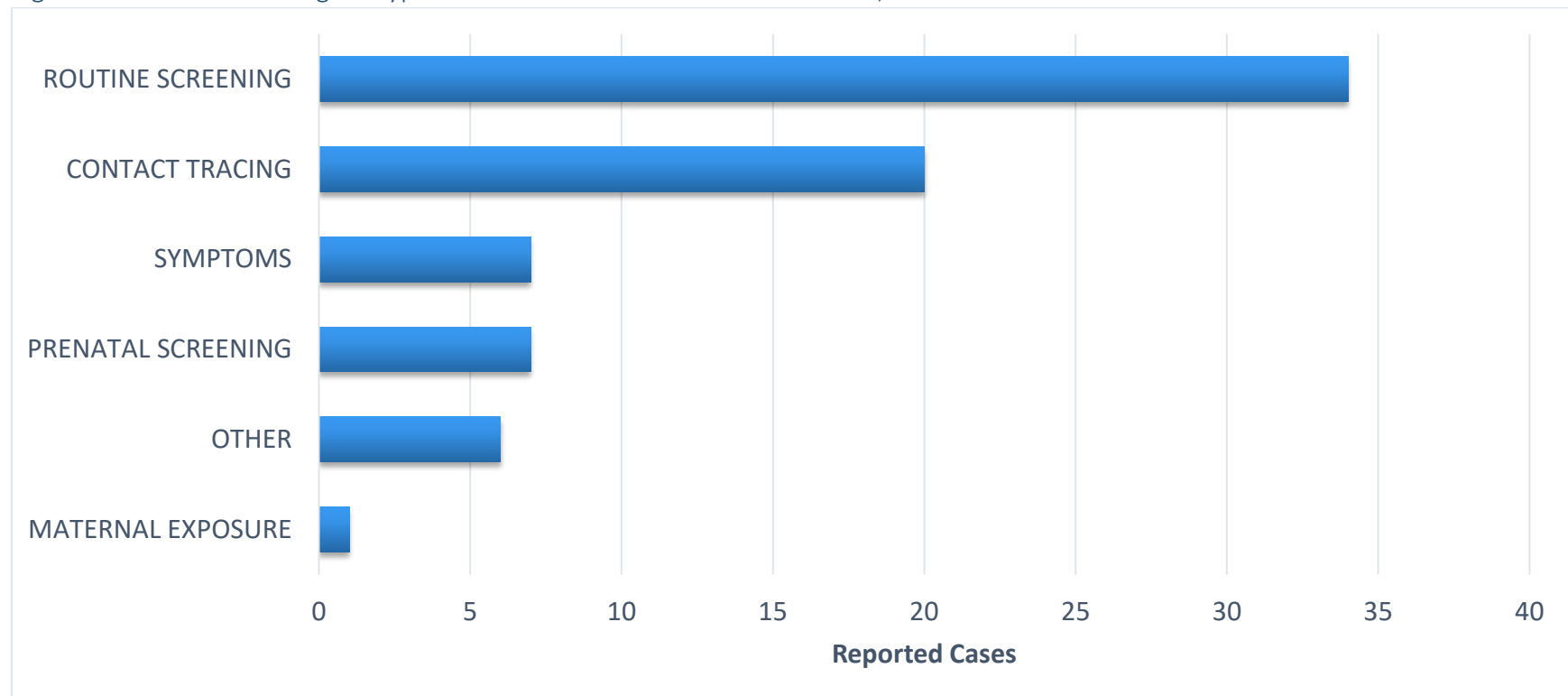


Source: iPHIS, extracted January 10, 2024

Reasons for Testing

The most common reason for testing amongst syphilis cases in 2023 was routine screening, with 31.2% of cases being tested for that reason. Contact tracing accounted for 18.3% of cases, symptomatic status accounted for 6.4%, and prenatal screening also accounted for 6.4%.

Figure 6: Reason for testing for syphilis cases in the NWHU catchment area, 2023



Source: iPHIS, extracted January 10, 2024

Limitations

Case follow-up, data collection, and data entry into iPHIS is an ongoing process, and the statistics in this report are only reflective of the situation as of January 10, 2024. Risk factor information for some cases is incomplete or missing.

Conclusion

NWHU has experienced a surge in syphilis incidence in the region since August 2018. Incidence subsequently increased with each calendar year until 2022, while 2023 saw the first decrease in annual incidence despite still being high compared to historical baselines. Incidence in 2021 increased by 106% compared with 2020, and increased again by 23% in 2022. 2023 saw a decrease of 23% from 2022. 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.