Public Health Ontario | Santé publique Ontario

ENHANCED EPIDEMIOLOGICAL SUMMARY

Mpox in Ontario: May 1, 2022 to May 23, 2023

Introduction

This report provides an epidemiologic summary of mpox (formerly known as monkeypox) in Ontario and includes the most current information available from Ontario's integrated Public Health Information System (iPHIS) as of **May 23, 2023.**

The current provincial case definition for mpox can be found in Appendix 1 of the Infectious Disease Protocol for Smallpox and other Orthopoxviruses including Monkeypox.

For further information regarding the mpox virus, including signs, symptoms, and how to reduce your risk of infection, visit the Ontario Ministry of Health's MPOX Virus webpage and Public Health Ontario's Mpox webpage for additional resources.

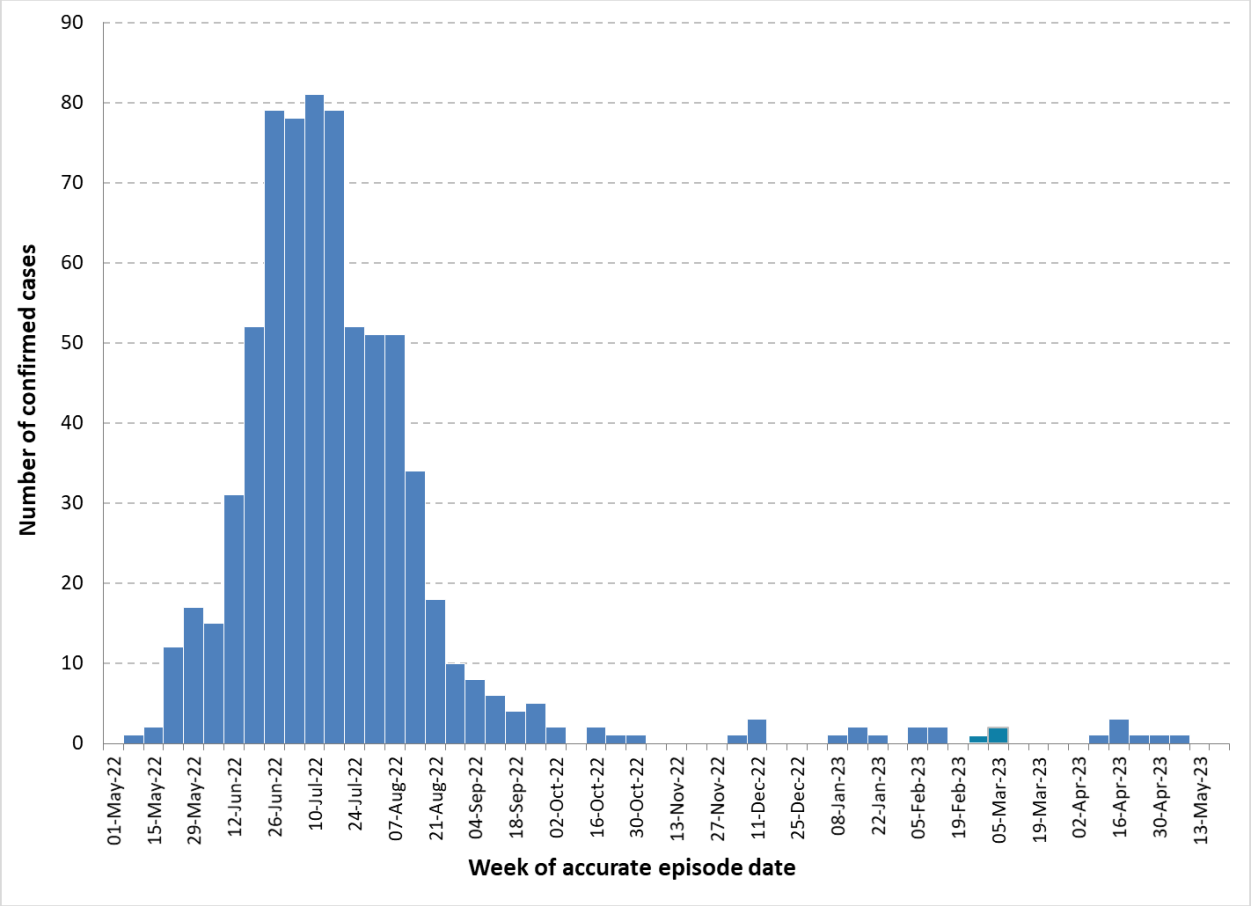
Highlights

Since May 1, 2022, a total of 714 confirmed cases of mpox have been reported in Ontario (+8 confirmed cases since the last report).

- 692/714 (96.9%) cases were associated with the provincial outbreak that was declared over on December 10, 2022.
- 522/714 (73.1%) cases were reported by Toronto Public Health (see Table 3 for confirmed cases by public health unit).
- 708/714 (99.2%) cases are male and 6/714 (0.8%) are female.
- The median age is 35.0 years (interquartile range: 30.0 – 42.0 years).
- The most commonly reported symptoms include rash, oral/genital lesions, swollen lymph nodes, headache, fever, chills, myalgia and fatigue.
- 2/714 (0.3%) cases required hospitalization in an intensive care unit (ICU); an additional 20/714 (2.8%) cases were hospitalized but did not require admission to the ICU; no deaths have been reported.

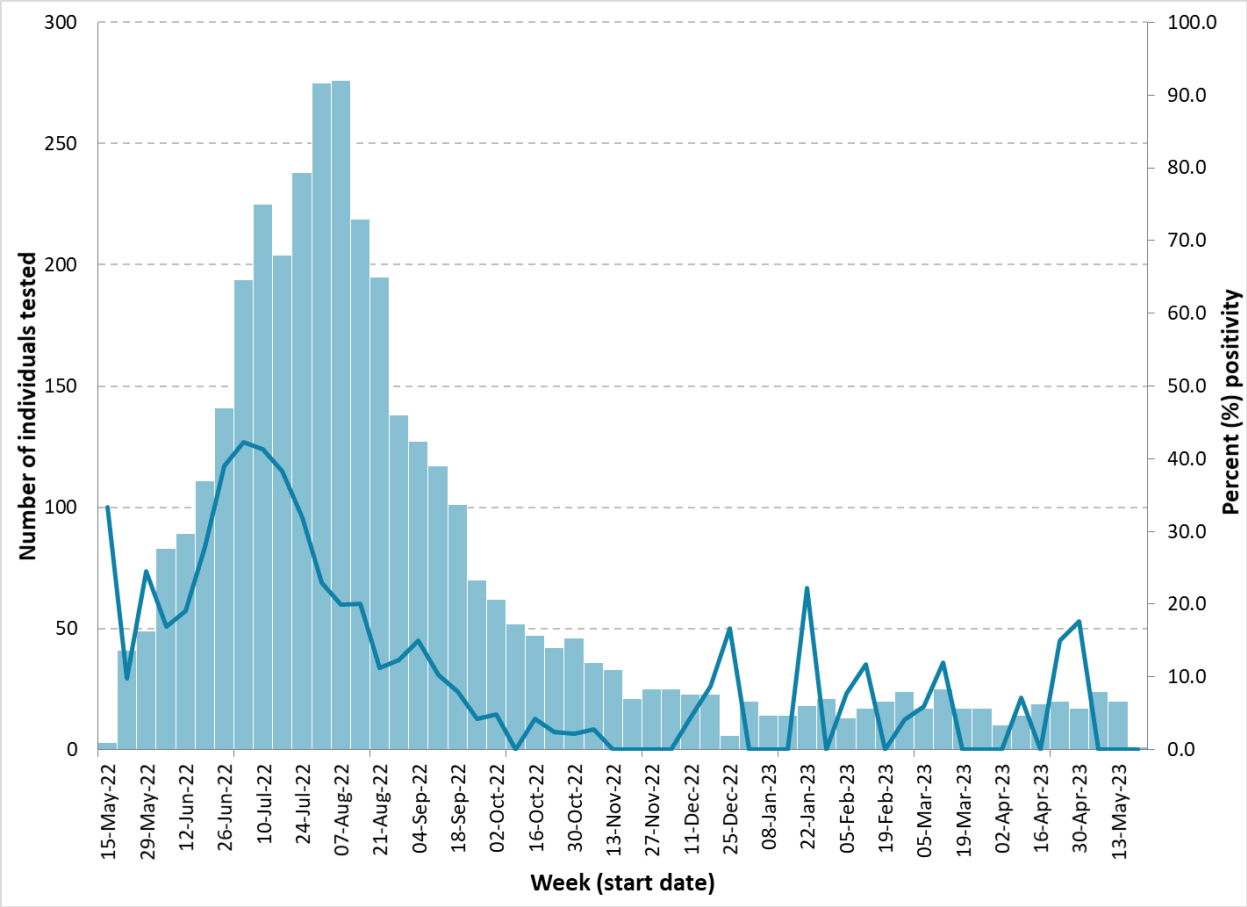
Case Characteristics

Figure 1. Confirmed mpox cases by week of accurate episode date: Ontario, May 1, 2022 to May 23, 2023



Note: Accurate Episode Date is defined in the Data Caveats. Due to potential delays between symptom onset, reporting of laboratory test results, and data entry into iPHIS, case counts for the last week may be incomplete and should be interpreted with caution.

Figure 2. Number of individuals tested for mpox and percent positivity by week: Ontario, May 15, 2022 to May 23, 2023



Data Source: Public Health Ontario Laboratory Information Management System.
Note: Week was assigned using sample collection date, if provided, and login date otherwise. Not all testing has been completed for the most recent week.

Table 1. Gender* and age group of mpox cases by year: Ontario, May 1, 2022 to May 23, 2023

Gender and Age Group	2022 n (%)	2023 n (%)	Total n (%)
Gender: Male	690 (99.1)	18 (100.0)	708 (99.2)
Gender: Female	6 (0.9)	0 (0.0)	6 (0.8)
Age group: < 20 years	5 (0.7)	0 (0.0)	5 (0.7)
Age group: 20 - 29 years	158 (22.7)	0 (0.0)	158 (22.1)
Age group: 30 - 39 years	290 (41.7)	8 (44.4)	298 (41.7)
Age group: 40 - 49 years	169 (24.3)	5 (27.8)	174 (24.4)
Age group: 50 - 59 years	56 (8.1)	4 (22.2)	60 (8.4)
Age group: 60 - 69 years	14 (2.0)	0 (0.0)	14 (2.0)
Age group: ≥ 70 years	4 (0.6)	1 (5.6)	5 (0.7)
Total	**696 (97.5)**	**18 (2.5)**	**714 (100.0)**

*__Note:__ The gender category captures an individual's internal and individual experience of gender and not necessarily their sex assignment at birth. Case counts may fluctuate based on data cleaning at the local public health unit level.

Table 2. Predominant symptoms reported by mpox cases by year: Ontario, May 1, 2022 to May 23, 2023

Symptom	2022 n (%)	2023 n (%)	Total n (%)
Rash	549 (78.9)	11 (61.1)	560 (78.4)
Oral/genital lesions	445 (63.9)	11 (61.1)	456 (63.9)
Fever	343 (49.3)	6 (33.3)	349 (48.9)
Fatigue	316 (45.4)	2 (11.1)	318 (44.5)
Swollen lymph nodes	307 (44.2)	0 (0.0)	307 (43.0)
Chills	298 (42.8)	6 (33.3)	304 (42.6)
Headache	233 (33.5)	5 (27.8)	238 (33.3)
Myalgia	228 (32.8)	2 (11.1)	230 (32.2)
Sweating	189 (27.2)	3 (16.7)	192 (26.9)
Sore throat	172 (24.7)	0 (0.0)	172 (24.1)
Prostration (exhaustion)	125 (18.0)	2 (11.1)	127 (17.8)
Back pain/back ache	107 (15.4)	1 (5.6)	108 (15.1)
Other*	247 (35.5)	6 (33.3)	253 (35.4)

*__Note__: other symptoms include: constipation, coryza (runny nose), cough, diarrhea, dysuria (painful urination), malaise, and nausea.

Table 3. Diagnosing public health unit of mpox cases by year: Ontario, May 1, 2022 to May 23, 2023

Public Health Unit	2022 n (%)	2023 n (%)	Total n (%)
Algoma Public Health	0 (0.0)	0 (0.0)	0 (0.0)
Brant County Health Unit	4 (0.6)	0 (0.0)	4 (0.6)
Chatham-Kent Public Health	0 (0.0)	0 (0.0)	0 (0.0)
City of Hamilton Public Health Services	20 (2.9)	0 (0.0)	20 (2.8)
Durham Region Health Department	11 (1.6)	1 (5.6)	12 (1.7)
Eastern Ontario Health Unit	0 (0.0)	0 (0.0)	0 (0.0)
Grey Bruce Health Unit	2 (0.3)	0 (0.0)	2 (0.3)
Haldimand-Norfolk Health Unit	3 (0.4)	0 (0.0)	3 (0.4)
Haliburton, Kawartha, Pine Ridge District Health Unit	2 (0.3)	0 (0.0)	2 (0.3)
Halton Region Public Health	11 (1.6)	0 (0.0)	11 (1.6)
Hastings Prince Edward Public Health	0 (0.0)	0 (0.0)	0 (0.0)
Huron Perth Public Health	0 (0.0)	0 (0.0)	0 (0.0)
Kingston, Frontenac and Lennox & Addington Public Health	2 (0.3)	2 (11.1)	4 (0.6)
Lambton Public Health	1 (0.1)	0 (0.0)	1 (0.1)
Leeds, Grenville & Lanark District Health Unit	2 (0.3)	0 (0.0)	2 (0.3)
Middlesex-London Health Unit	15 (2.2)	0 (0.0)	15 (2.1)
Niagara Region Public Health	8 (1.2)	0 (0.0)	8 (1.1)
North Bay Parry Sound District Health Unit	1 (0.1)	0 (0.0)	1 (0.1)
Northwestern Health Unit	0 (0.0)	0 (0.0)	0 (0.0)
Ottawa Public Health	42 (6.0)	0 (0.0)	42 (5.9)
Peel Public Health	25 (3.6)	1 (5.6)	26 (3.6)
Peterborough Public Health	5 (0.7)	0 (0.0)	5 (0.7)
Porcupine Health Unit	0 (0.0)	0 (0.0)	0 (0.0)

Public Health Unit	2022 n (%)	2023 n (%)	Total n (%)
Public Health Sudbury & Districts	1 (0.1)	0 (0.0)	1 (0.1)
Region of Waterloo Public Health and Emergency Services	4 (0.6)	0 (0.0)	4 (0.6)
Renfrew County and District Health Unit	1 (0.1)	0 (0.0)	1 (0.1)
Simcoe Muskoka District Health Unit	3 (0.4)	0 (0.0)	3 (0.4)
Southwestern Public Health	1 (0.1)	0 (0.0)	1 (0.1)
Thunder Bay District Health Unit	0 (0.0)	0 (0.0)	0 (0.0)
Timiskaming Health Unit	0 (0.0)	0 (0.0)	0 (0.0)
Toronto Public Health	508 (73.0)	14 (77.8)	522 (73.1)
Wellington-Dufferin-Guelph Public Health	6 (0.9)	0 (0.0)	6 (0.8)
Windsor-Essex County Health Unit	9 (1.3)	0 (0.0)	9 (1.3)
York Region Public Health	9 (1.3)	0 (0.0)	9 (1.3)
Total	**696 (97.5)**	**18 (2.5)**	**714 (100.0)**

Table 4. Severity and outcome of mpox cases by year: Ontario, May 1, 2022 to May 23, 2023

Severity and outcome	2022 n (%)	2023 n (%)	Total n (%)
Hospitalized in ICU	2 (0.3)	0 (0.0)	2 (0.3)
Hospitalized (not in ICU)	19 (2.7)	1 (5.6)	20 (2.8)
Total hospitalized	21 (3.0)	1 (5.6)	22 (3.1)
Outcome: fatal	0 (0.0)	0 (0.0)	0 (0.0)

Risk Factors

Of the 714 confirmed mpox cases reported to date, a total of 670 (93.8%) had at least one risk factor entered in iPHIS. Of these, 524/670 (78.2%) reported engaging in sexual or intimate contact (e.g., hugging, kissing, cuddling) with new and/or more than one partner. Other reported risk factors include being immunocompromised, having close contact with a symptomatic individual, and travel outside of the province; however, none of the most recent cases have reported travel outside of Ontario suggesting local transmission.

Although cases have mostly been identified among males who report sexual or intimate contact with other males (MSM), anyone can get mpox. Various factors that may increase the potential risk for exposure include close, sexual, and/or other intimate contact with someone who has a mpox rash, sore, or scabs.

Technical Notes

Data Sources

- The data for this report were based on information entered in the Ontario Ministry of Health (MOH) integrated Public Health Information System (iPHIS) database as of **May 23, 2023 at 1:00 p.m.** and the Public Health Ontario Laboratory Information Management System as of **May 23, 2023 at 11:00 a.m..**

- iPHIS is a dynamic disease reporting system that allows ongoing updates to previously entered data. As a result, data extracted from iPHIS represent a snapshot at the time of extraction and may differ from previous or subsequent reports.

Data Caveats

- These data only represent confirmed cases of mpox reported to public health and recorded in iPHIS. As a result, all case counts are subject to varying degrees of underreporting due to a variety of factors, such as disease awareness and medical care seeking behaviours that may depend on severity of illness, clinical practices, and changes in laboratory testing and reporting behaviours.

- Only mpox cases meeting the confirmed case classification as listed in the Ontario MOH surveillance case definitions are included in the reported case counts.

- Cases of mpox are reported based on the Episode Date, which is an estimate of the onset date of disease for a case. In order to determine this date, the following hierarchy exists in iPHIS: Onset Date > Specimen Collection Date > Lab Test Date > Reported Date.

    - For example: If an Onset Date exists, it will be used as the Episode Date. If Onset Date is not available, then the next available date in the hierarchy (i.e., Specimen Collection Date) will be used, and so on.

- Case counts by geography are based on the diagnosing health unit (DHU). DHU refers to the case's public health unit of residence at the time of illness onset or report to public health and not necessarily the location of exposure.

    - Cases for which the DHU was reported as MOHLTC (to signify a case that is not a resident of Ontario) or MUSKOKA-PARRY SOUND (a public health unit that no longer exists) were excluded from this analysis.

- Hospitalized cases (including those admitted to ICU) include those with an Intervention Type Description of 'Hospitalization' or 'ICU' and an Intervention Start Date that occurs on or after the case's Episode Date.

- Fatal cases include those with an Outcome of 'Fatal' and Type of Death is not captured as 'Reportable Disease was Unrelated to Cause of Death'.

- Cases for which the Disposition Status was reported as ENTERED IN ERROR, DOES NOT MEET DEFINITION, DUPLICATE-DO NOT USE, or any variation on these values, were excluded from this analysis.

- The potential for duplicates exists because duplicate sets were not identified and excluded unless they were already resolved at either the local or provincial level prior to data extraction from iPHIS.

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Enhanced epidemiological summary: Mpox in Ontario – May 1, 2022 to May 23, 2023. Toronto, ON: King's Printer for Ontario; 2023.

Disclaimer

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