

QUARTERLY INFECTIOUS DISEASES SURVEILLANCE REPORT

Diseases of Public Health Significance Cases for January to December 2022

This report publishes recent data on Diseases of Public Health Significance (DOPHS) in Ontario, as reported through the integrated Public Health Information System (iPHIS). The presented case counts and rates include confirmed cases for all diseases, and probable cases for select diseases (refer to the 'Data Caveats and Notes' section for details).

Please interpret surveillance results for Diseases of Public Health Significance in 2020, 2021 and 2022 with caution due to changes in the availability of health care, health seeking behaviour, public health follow up, and case entry during the COVID-19 pandemic.

The following table provides case counts by month, followed by the total counts and rates per 1,000,000 population for 2022 to date (i.e., January to December 2022). The last two columns of the table provide the comparison historical data of 5-year counts and rates per 1,000,000 population for an average year-to-date (i.e., average of January – December counts based on data from 2017 to 2021).

Disease of Public Health Significance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2022 to date COUNT	2022 to date RATE per 1,000,000 population	5-year average year-to-date COUNT	5-year average year-to-date RATE
Acute Flaccid Paralysis	0	0	0	0	0	0	0	0	0	0	0	1	1	0.1	4	0.3
AIDS	5	7	5	2	1	4	4	10	6	5	4	5	58	3.9	62	4.3
Amebiasis	18	22	20	24	41	35	36	41	26	24	25	27	339	22.5	443	30.5
Blastomycosis	8	6	5	7	11	4	5	6	7	13	12	5	89	5.9	n/a	n/a
Botulism	0	0	0	0	0	0	1	1	0	1	0	0	3	0.2	1	0.1
Brucellosis	1	1	1	0	0	0	1	1	0	0	0	0	5	0.3	5	0.3
Campylobacter enteritis	97	96	151	105	128	231	308	293	249	226	140	131	2155	143.2	2867	197.1

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Carbapenemase-Producing <i>Enterobacteriaceae</i> (CPE)	25	24	41	30	46	54	38	45	58	60	57	42	520	34.5	n/a	n/a
Chlamydial Infections	2523	2708	3619	3076	3190	3399	3115	3522	3552	3312	3807	3078	38901	2584.1	43340	2980.3
Cholera	0	1	1	0	0	1	0	0	0	0	0	0	3	0.2	2	0.1
Cryptosporidiosis	17	17	34	20	27	32	78	105	58	34	13	14	449	29.8	589	40.5
Cyclosporiasis	0	1	4	5	84	236	105	25	9	4	6	7	486	32.3	292	20.1
<i>Echinococcus multilocularis</i> Infection	0	0	0	0	0	1	0	0	0	0	0	1	2	0.1	n/a	n/a
Encephalitis	1	2	7	1	1	2	2	1	3	4	1	3	28	1.9	35	2.4
Encephalitis/Meningitis	7	7	7	12	12	13	12	18	26	10	10	9	143	9.5	149	10.2
Food Poisoning, All Causes	0	0	7	1	11	4	2	18	7	3	3	2	58	3.9	37	2.5
Giardiasis	49	44	54	52	55	63	79	108	120	68	56	44	792	52.6	1177	80.9
Gonorrhoea (All Types)	820	738	1093	952	1025	1046	1009	1062	1053	996	1000	941	11735	779.5	9671	665.0
Group A Streptococcal Disease, Invasive	86	68	73	56	70	60	73	57	63	76	101	131	914	60.7	1008	69.3
Group B Streptococcal Disease, Neonatal	3	1	4	1	1	2	2	6	4	2	1	4	31	2.1	44	3.0
<i>Haemophilus Influenzae</i> Disease, All Types, Invasive	8	4	6	7	13	17	15	13	18	37	48	48	234	15.5	n/a	n/a
Hepatitis A	6	3	4	11	6	3	6	12	18	6	4	10	89	5.9	136	9.4
Hepatitis B (Acute)	5	6	12	9	9	12	12	9	3	9	12	6	104	6.9	91	6.3
Hepatitis B (Chronic)	82	85	108	64	90	86	72	81	86	100	83	64	1001	66.5	1673	115.0
Hepatitis C	211	201	274	235	234	238	228	266	220	219	228	183	2737	181.8	4225	290.5

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HIV	50	47	68	54	68	60	71	82	90	82	81	85	838	55.7	815	56.0
Influenza	14	6	139	412	721	247	71	23	83	1902	8773	5330	17721	1177.2	10961	753.7
Legionellosis	12	8	14	17	13	40	34	39	83	41	36	19	356	23.6	323	22.2
Leprosy	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	2	0.1
Listeriosis	6	3	3	4	9	9	5	15	5	6	5	3	73	4.8	69	4.7
Lyme Disease	21	15	17	29	98	358	404	241	101	75	75	21	1455	96.7	1098	75.5
Measles [#]	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1	6	0.4
Meningitis	4	7	13	6	7	5	7	12	17	5	9	8	100	6.6	171	11.8
Meningococcal Disease, Invasive	1	0	3	0	0	2	6	2	1	3	5	4	27	1.8	27	1.9
Mumps	1	1	1	0	2	1	1	6	2	3	3	2	23	1.5	98	6.7
Ophthalmia neonatorum	0	0	0	0	1	1	0	0	1	0	1	0	4	0.3	1	0.1
Paralytic Shellfish Poisoning	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0
Paratyphoid Fever	3	4	10	8	7	7	1	3	8	1	3	1	56	3.7	30	2.1
Pertussis (Whooping Cough)	0	0	4	1	4	3	12	12	15	20	36	44	151	10.0	312	21.5
Pneumococcal Disease, Invasive	110	47	63	89	111	84	65	56	85	161	187	208	1266	84.1	1009	69.4
Q Fever	1	0	2	0	1	1	0	0	0	1	0	1	7	0.5	9	0.6
Rabies	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0
Rubella [#]	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0
Rubella, Congenital Syndrome [#]	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0

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Salmonellosis	74	91	146	176	185	142	173	183	169	139	139	144	1761	117.0	2101	144.5
Shigellosis	9	15	24	16	24	15	20	18	43	23	23	17	247	16.4	241	16.6
Syphilis, Early Congenital	0	3	1	3	2	2	3	2	2	3	3	2	26	1.7	4	0.3
Syphilis, Infectious	264	260	294	292	305	298	307	324	282	290	281	224	3421	227.2	2291	157.5
Syphilis, Other	118	113	146	131	147	153	153	169	174	205	197	144	1850	122.9	965	66.4
Tetanus	0	0	0	0	0	0	1	1	0	0	0	0	2	0.1	2	0.1
Trichinosis	0	0	1	0	1	0	0	1	0	0	0	0	3	0.2	7	0.5
Tuberculosis*	58	62	60	55	56	64	60	65	68	52	69	80	749	49.8	695	47.8
Tularemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	1	0.1
Typhoid Fever	7	9	24	17	14	8	10	17	10	5	3	4	128	8.5	83	5.7
Verotoxin Producing <i>E. coli</i> Including HUS	4	8	16	18	16	15	28	32	20	18	10	15	200	13.3	166	11.4
West Nile Virus Illness	0	0	0	0	0	0	0	14	12	1	2	0	29	1.9	92	6.3
Yersiniosis	22	18	21	12	18	12	14	21	25	23	19	12	217	14.4	255	17.5

Ontario Cases: Ontario Ministry of Health, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2023/03/08].

Ontario Population: Population Projections [2018-2022] and Estimates [2017], Ontario Ministry of Health and Long-Term Care, IntelliHEALTH Ontario, Dates Extracted [2019/11/26].

* Tuberculosis results for the period of January to September 2022 were incorrectly stated in the previous report published in December 2022. The following indicators were impacted: case counts by month, 2022 to date count, 2022 to date rate per 1,000,000, 5-year average year-to-date count, and the 5-year average year-to-date rate. Counts published in this report reflect corrected values for all indicators.

Although measles, rubella, and congenital rubella syndrome have been eliminated in Canada, these diseases remain endemic in other countries and therefore, imported and import-related cases continue to occur in Ontario.

n/a Five-year historical data are not yet available for these diseases (n/a):

- Blastomycosis, carbapenemase-producing *Enterobacteriaceae*, and *Echinococcus multilocularis* Infection, first designated under diseases of public health significance in May 2018.
- Invasive *Haemophilus influenzae* (all types), due to changes in reporting. As of May 1, 2018, all serotypes became reportable (prior to which only serotype b was reportable)

Data Notes and Caveats

- iPHIS is a dynamic reporting system which allows ongoing updates to data previously entered. As a result, data extracted from iPHIS represent a snap shot at the time of extraction and may differ from previous or subsequent reports. The data only represent cases reported to public health and recorded in iPHIS that meet the Ontario Ministry of Health's confirmed and/or probable [surveillance case definitions](#) in place at the time that the case was reported. Refer to the [Factors Affecting Reportable Diseases in Ontario](#) report for additional information on case definition changes and associated trends from 1991 to 2016. Note that the potential for underreporting and unresolved duplicates exists.
- Case counts for amebiasis, invasive *Haemophilus influenzae* disease (all types), invasive meningococcal disease, Lyme disease, mumps, pertussis, and West Nile Virus illness are based on the sum of confirmed and probable cases as reported in iPHIS. All other diseases reported in the table are based on confirmed cases only.
- Chronic and acute hepatitis B case counts are not mutually exclusive and should not be added to obtain a total for hepatitis B cases in Ontario.
- A case is reported as encephalitis and/or meningitis when an agent is not specifically identified through laboratory testing or is not reportable.
- Case counts of carbapenemase-producing *Enterobacteriaceae* (CPE) include CPE-Infection, CPE-Colonization, and CPE-Unspecified. Where multiple reports with the same carbapenemase are entered in iPHIS for a client, only the first report is included.
- Table 1 is not an exhaustive list of all Diseases of Public Health Significance (DOPHS) in Ontario. Historical annual counts and rates for most diseases designated under DOPHS are available in the [Infectious Disease Trends in Ontario reports](#). The following designated diseases/outbreaks are omitted from the table:
 - Counts of Creutzfeldt-Jakob disease are not updated frequently enough for monthly publication as a result of an additional data reconciliation step that is required.
 - Diseases that are extremely rare or have zero incidence in recent years: anthrax, chancroid, diphtheria, hantavirus pulmonary syndrome, hemorrhagic fevers and Lassa fever, plague, acute poliomyelitis, psittacosis/ornithosis, and smallpox.
 - Diseases that are only reportable in outbreak situations or as a combination of individual and aggregate counts: chickenpox (varicella), *Clostridium difficile* infection (CDI) outbreaks in public hospitals, and gastroenteritis and respiratory infection outbreaks in institutions and public hospitals.
 - Counts of coronaviruses causing severe acute respiratory illness are no longer included, because COVID-19 cases are now reported through several other systems in addition to iPHIS. Visit [COVID-19 data and surveillance](#) for detailed, up-to-date reporting on COVID-19 activity in Ontario.
- Detailed reporting on respiratory infection outbreaks in institutions and public hospitals is available in the [Ontario Respiratory Pathogen Bulletin](#).
- Information on CDI outbreaks in public hospitals is available in the [Infectious Disease Trends in Ontario reports](#).

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