

QUARTERLY INFECTIOUS DISEASES SURVEILLANCE REPORT

Diseases of Public Health Significance Cases for January to December 2021

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 and 2021 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 2021 to date (i.e., Jan. to Dec 2021). 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 Jan. – Dec counts based on data from 2016 to 2020). The data in this report is updated on a quarterly basis.

Disease of Public Health Significance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2021 to date COUNT	2021 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	1	0	0	0	0	1	0.1	5	0.3
AIDS	3	1	7	4	5	6	7	6	2	9	3	3	56	3.7	66	4.6
Amebiasis	18	15	17	16	9	27	20	24	32	8	6	9	201	13.4	560	38.8
Blastomycosis	11	2	3	5	3	5	5	2	4	7	27	7	81	5.4	n/a	n/a
Botulism	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	1	0.1

Disease of Public Health Significance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2021 to date COUNT	2021 to date RATE per 1,000,000 population	5-year average year-to-date COUNT	5-year average year-to-date RATE
Brucellosis	0	0	0	0	0	1	0	0	1	0	1	2	5	0.3	5	0.3
Campylobacter enteritis	94	88	88	82	109	240	395	352	278	200	129	108	2,163	143.7	3,140	217.6
Carbapenemase-Producing <i>Enterobacteriaceae</i> (CPE)	17	21	19	20	14	19	17	18	24	31	31	14	245	16.3	n/a	n/a
Chlamydial Infections	2,999	2,599	3,007	2,650	2,418	2,779	2,715	3,159	2,587	2,522	2,537	2,140	32,112	2,133.1	44,614	3092.3
Cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	2	0.1
Cryptosporidiosis	10	12	16	13	9	25	112	144	57	46	30	23	497	33.0	572	39.6
Cyclosporiasis	0	0	1	1	4	39	20	15	2	0	9	5	96	6.4	327	22.7
<i>Echinococcus multilocularis</i> Infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	n/a	n/a
Encephalitis	0	0	2	3	0	0	1	1	2	1	2	2	14	0.9	36	2.5
Encephalitis/Meningitis	8	12	14	5	10	9	17	10	10	12	13	6	126	8.4	172	11.9
Food Poisoning, All Causes	0	0	0	2	0	0	1	4	5	1	2	1	16	1.1	38	2.6
Giardiasis	44	41	27	36	39	43	76	116	103	48	64	45	682	45.3	1,264	87.6
Gonorrhoea (All Types)	808	669	747	628	648	728	742	945	732	750	680	569	8,646	574.3	9,062	628.1

Disease of Public Health Significance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2021 to date COUNT	2021 to date RATE per 1,000,000 population	5-year average year-to-date COUNT	5-year average year-to-date RATE
Group A Streptococcal Disease, Invasive	83	70	66	59	66	47	63	52	63	49	78	99	795	52.8	990	68.6
Group B Streptococcal Disease, Neonatal	3	3	4	2	2	3	3	5	5	4	4	2	40	2.7	44	3.0
<i>Haemophilus Influenzae</i> Disease, All Types, Invasive	3	2	5	5	11	4	1	4	9	10	13	13	80	5.3	n/a	n/a
Hepatitis A	2	2	3	1	3	3	1	9	7	7	13	2	53	3.5	146	10.1
Hepatitis B (Acute)	7	11	4	4	2	2	8	6	4	10	6	5	69	4.6	95	6.6
Hepatitis B (Chronic)	96	78	99	85	79	93	63	67	66	68	86	54	934	62.0	1,792	124.2
Hepatitis C	240	219	285	262	253	250	296	246	255	222	236	199	2,963	196.8	4,490	311.2
HIV	40	42	48	39	31	50	72	50	51	55	52	38	568	37.7	826	57.3
Influenza	2	3	2	0	1	0	1	1	3	5	14	39	71	4.7	13,827	958.4
Legionellosis	12	8	12	15	11	31	66	63	45	56	43	14	376	25.0	272	18.9
Leprosy	0	0	1	0	0	0	0	0	0	0	1	0	2	0.1	3	0.2
Listeriosis	5	1	4	4	5	11	13	5	15	5	4	1	73	4.8	73	5.1
Lyme Disease	8	8	12	40	86	300	561	266	125	96	72	23	1,597	106.1	824	57.1
Measles [#]	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	7	0.5

Disease of Public Health Significance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2021 to date COUNT	2021 to date RATE per 1,000,000 population	5-year average year-to-date COUNT	5-year average year-to-date RATE
Meningitis	4	4	2	7	7	6	6	4	5	3	4	5	57	3.8	190	13.2
Meningococcal Disease, Invasive	1	1	1	0	1	0	3	1	0	1	1	1	11	0.7	30	2.1
Mumps	1	1	0	0	0	0	0	2	0	0	2	0	6	0.4	104	7.2
Ophthalmia neonatorum	0	1	0	0	0	0	0	0	0	0	0	1	2	0.1	2	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	0	0	2	3	0	0	1	2	0	2	0	1	11	0.7	33	2.3
Pertussis (Whooping Cough)	0	1	1	0	0	1	2	1	2	3	2	2	15	1.0	402	27.9
Pneumococcal Disease, Invasive	54	36	44	58	41	39	25	41	40	68	94	92	632	42.0	1,093	75.8
Q Fever	0	0	1	2	2	0	0	0	0	0	0	0	5	0.3	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
Salmonellosis	54	48	51	46	83	103	165	157	152	109	64	95	1,127	74.9	2,484	172.2
Shigellosis	14	10	10	5	5	6	10	18	5	11	16	13	123	8.2	291	20.2

Disease of Public Health Significance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2021 to date COUNT	2021 to date RATE per 1,000,000 population	5-year average year-to-date COUNT	5-year average year-to-date RATE
Syphilis, Early Congenital	0	0	1	0	0	1	0	4	1	0	2	0	9	0.6	2	0.1
Syphilis, Infectious	244	215	243	216	208	241	191	214	263	240	235	168	2,678	177.9	1,965	136.2
Syphilis, Other	88	85	121	110	123	117	116	100	84	122	123	122	1,311	87.1	857	59.4
Tetanus	1	0	1	0	0	0	0	0	0	1	0	0	3	0.2	1	0.1
Trichinosis	0	0	1	0	1	0	0	0	0	0	0	0	2	0.1	8	0.6
Tuberculosis	42	66	51	51	67	67	61	62	39	59	62	49	676	44.9	679	47.1
Tularemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0
Typhoid Fever	0	2	1	3	1	1	1	5	7	4	4	3	32	2.1	90	6.2
Verotoxin Producing <i>E. coli</i> Including HUS	1	4	6	13	9	27	19	28	24	13	12	6	162	10.8	168	11.6
West Nile Virus Illness	1	0	0	2	0	0	2	7	10	2	0	0	24	1.6	97	6.7
Yersiniosis	20	14	29	16	15	19	18	28	22	8	9	11	209	13.9	266	18.4

Ontario Cases: Ontario Ministry of Health, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2022/02/10].

Ontario Population: Population Projections [2018-2021] and Estimates [2016-2017], Ontario Ministry of Health and Long-Term Care, IntelliHEALTH Ontario, Dates Extracted [2019/11/26].

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](#).

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Diseases of public health significance cases for January to December 2021. Toronto, ON: Queen's Printer for Ontario; 2022.

Disclaimer

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario's government, public health organizations and health care providers. PHO's work is guided by the current best available evidence at the time of publication.

The application and use of this document is the responsibility of the user. PHO assumes no liability resulting from any such application or use.

This document may be reproduced without permission for non-commercial purposes only and provided that appropriate credit is given to PHO. No changes and/or modifications may be made to this document without express written permission from PHO.

Public Health Ontario

Public Health Ontario is a Crown corporation dedicated to protecting and promoting the health of all Ontarians and reducing inequities in health. Public Health Ontario links public health practitioners, front-line health workers and researchers to the best scientific intelligence and knowledge from around the world.

For more information about PHO, visit publichealthontario.ca.

©Queen's Printer for Ontario, 2022

Ontario 