

## DAILY EPIDEMIOLOGICAL SUMMARY

# COVID-19 in Ontario: January 15, 2020 to December 21, 2021

This report includes the most current information available from CCM as of **December 21, 2021**.

A [weekly summary report](#) is available with additional information to complement the daily report.

Please visit the interactive [Ontario COVID-19 Data Tool](#) to explore recent COVID-19 data by public health unit, age group, sex, and trends over time. For more information about whole genome sequencing, please see the [SARS CoV-2 Whole Genome Sequencing in Ontario report](#).

This **daily** report provides an epidemiologic summary of recent COVID-19 activity in Ontario. The change in cases is determined by taking the cumulative difference between the current day and the previous day.

## Highlights

- There are a total of 661,563 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
  - An increase of 4,383 confirmed cases (percent change of +26.9%)
  - An increase of 9\* deaths (percent change -18.2%)
  - An increase of 1,787 resolved cases (percent change of +34.2%)

\* This number only includes deaths that have occurred in the last month.

In this document, the term 'change in cases' refers to cases publicly reported by the province for a given day. Data corrections or updates can result in case records being removed and or updated from past reports and may result in subset totals for updated case counts (i.e., age group, sex) differing from the overall updated case counts.

The term public health unit reported date in this document refers to the date local public health units were first notified of the case.

## Case Characteristics

**Table 1a. Summary of recent confirmed cases of COVID-19: Ontario**

	Change in cases December 20, 2021	Change in cases December 21, 2021	Percentage change December 21, 2021 compared to December 20, 2021	Cumulative case count as of December 21, 2021
Total number of cases	3,453	4,383	+26.9	661,563
Number of deaths	11	9	-18.2%	10,133*
Number resolved	1,332	1,787	+34.2%	623,142

**Note:** The number of cases publicly reported by the province each day may not align with case counts reported to public health on a given day; public health unit reported date refers to the date local public health was first notified of the case. Data corrections or updates can result in case records being removed and or updated from past reports. The number of deaths presented in the change in cases column for each day only includes deaths that occurred in the last 30 days.

\* There was 1 death that occurred more than one month ago and was added to the cumulative count based on data cleaning.

**Data Source:** CCM

**Table 1b. Summary of recent confirmed cases of COVID-19 by age group and sex: Ontario**

	Change in cases December 20, 2021	Change in cases December 21, 2021	Cumulative case count as of December 21, 2021
Sex: Male	1,747	2,290	330,888
Sex: Female	1,698	2,061	328,265
Ages: 0-4	113	95	19,608
Ages: 5-11	357	417	41,065
Ages: 12-19	373	478	59,072
Ages: 20-39	1,453	1,912	247,300
Ages: 40-59	870	1,118	183,357
Ages: 60-79	256	328	83,872
Ages: 80 and over	34	38	27,165

**Note:** Not all cases have a reported age or sex reported. Data corrections or updates can result in case records being removed and or updated from past reports and may result in subset totals (i.e., age group, sex) differing from past publicly reported case counts.

**Data Source:** CCM

**Table 2. Summary of recent confirmed cases of COVID-19 in long-term care homes: Ontario**

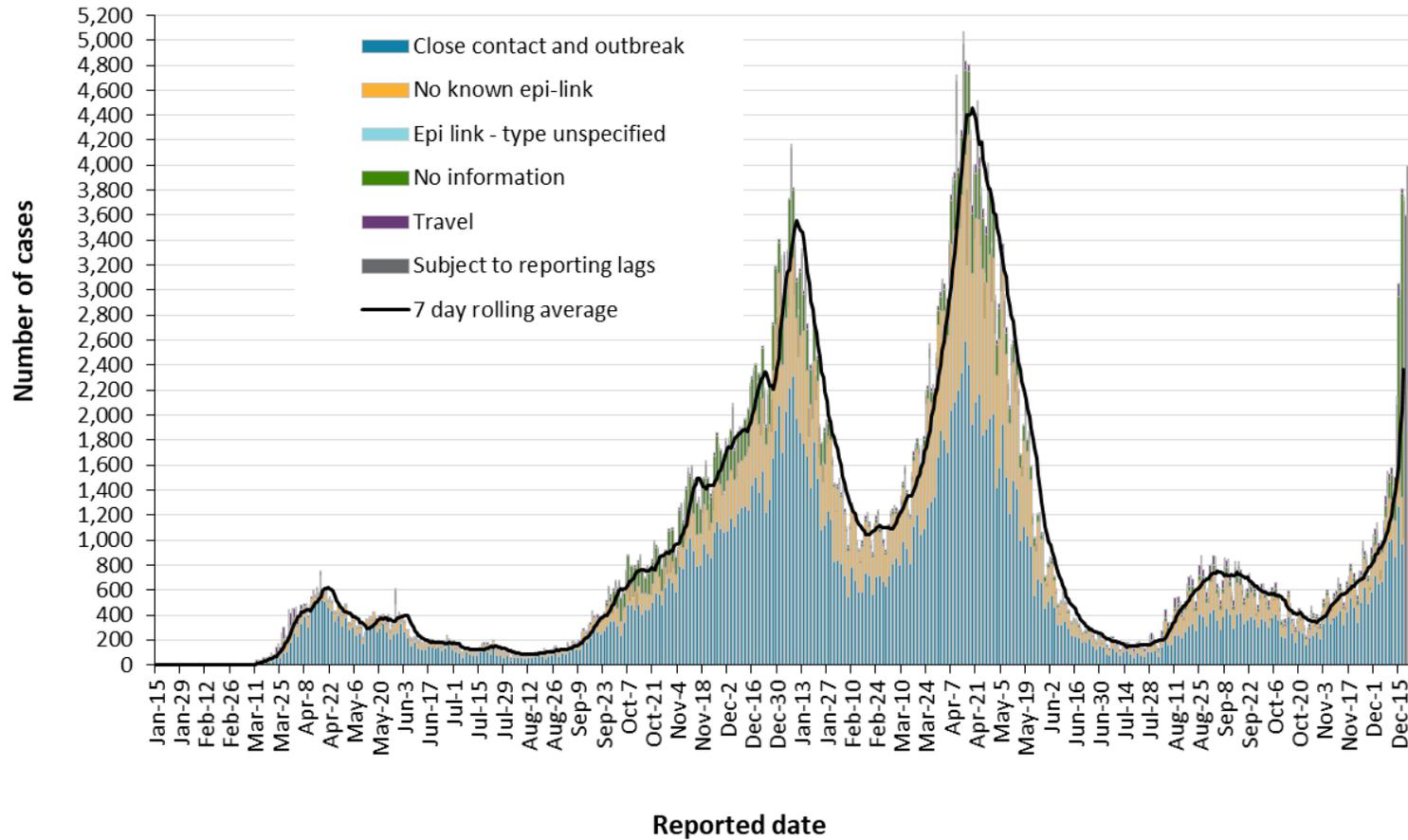
Long-term care home cases	Change in cases December 20, 2021	Change in cases December 21, 2021	Cumulative case count as of December 21, 2021
Residents	1	2	15,711
Health care workers	2	2	7,455
Deaths among residents	0	2	4,032
Deaths among health care workers	0	0	10

**Note:** Information on how long-term care home residents and health care workers are identified is available in the [technical notes](#). Also, the change in cases in these categories may represent existing case records that have been updated.

**Data Source:** CCM

# Time

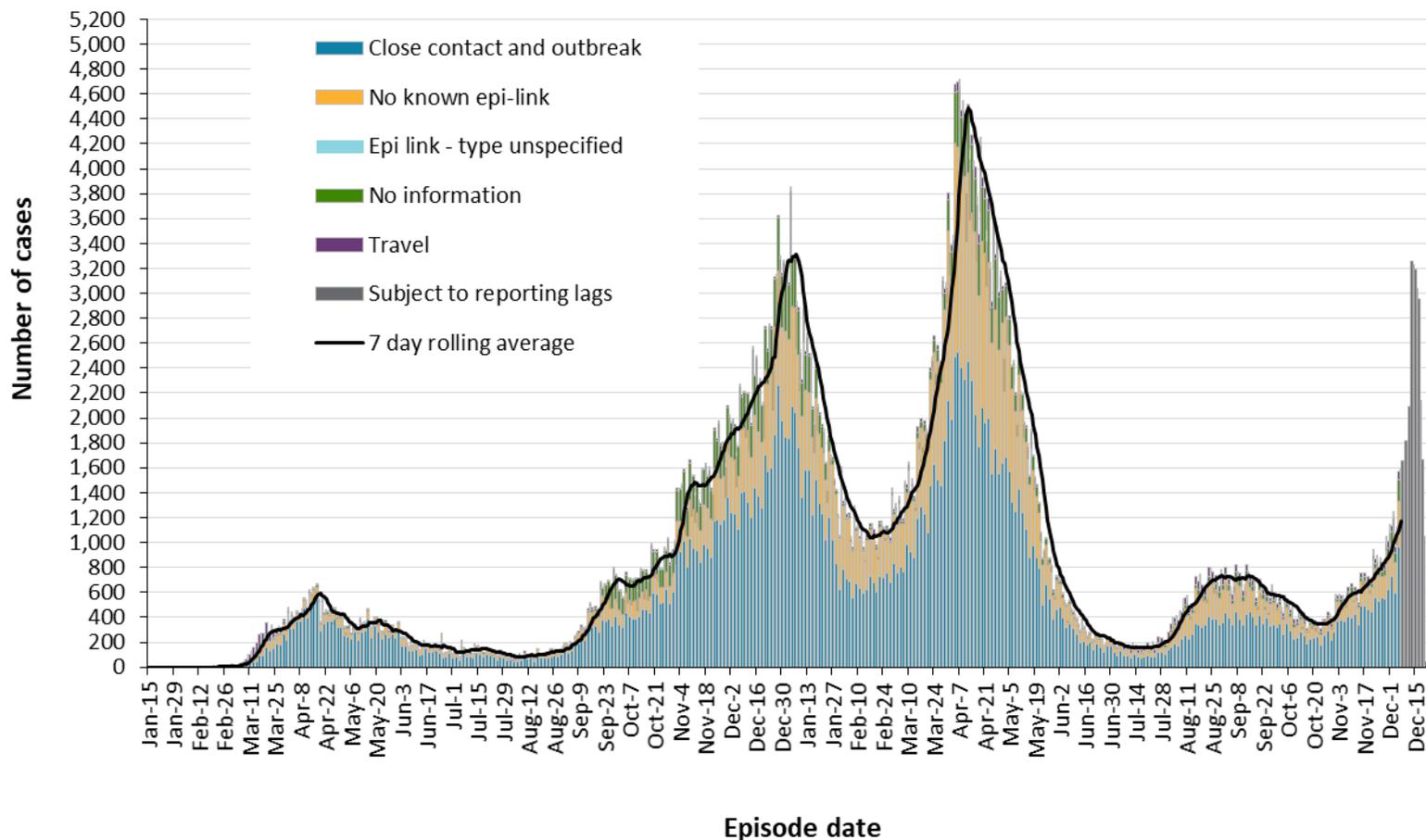
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to December 21, 2021



Data Source: CCM

COVID-19 in Ontario: January 15, 2020 to December 21, 2021

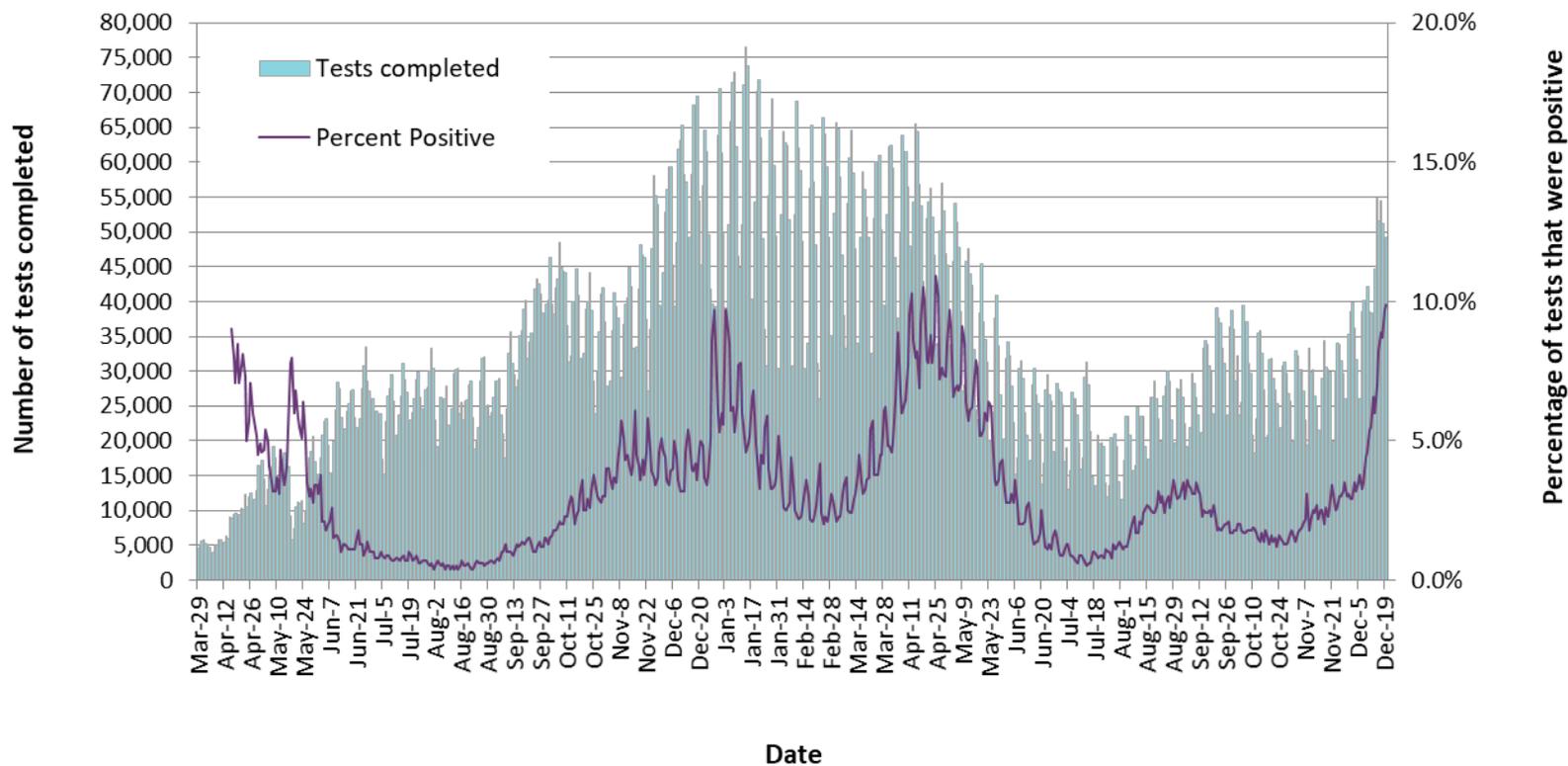
**Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to December 21, 2021**



**Note:** Not all cases may have an episode date and those without one are not included in the figure. Episode date is defined and available in the [technical notes](#).

**Data Source:** CCM

**Figure 3. Number of COVID-19 tests completed and percent positivity: Ontario, March 29, 2020 to December 20, 2021**

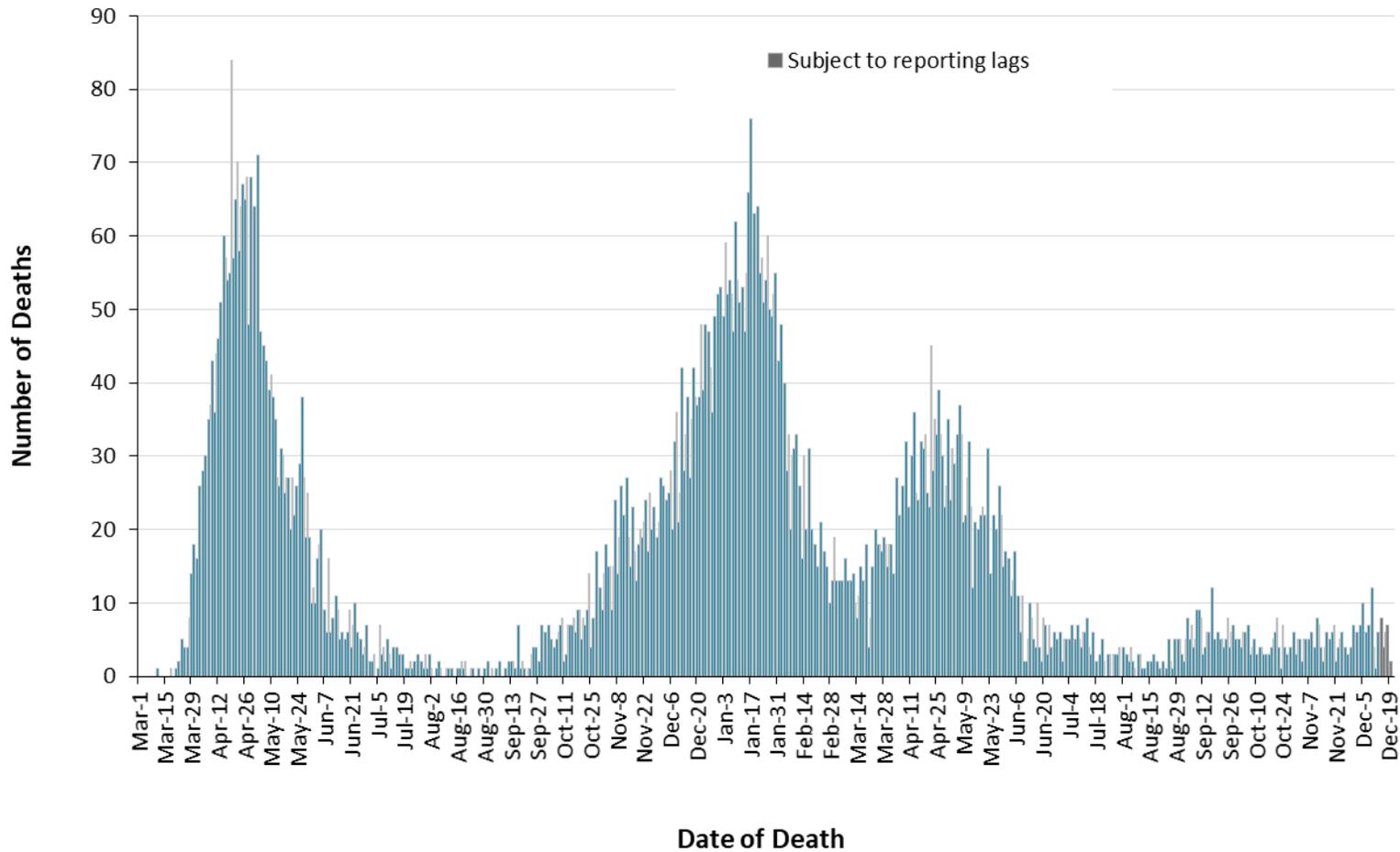


**Note:** The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

**Data Source:** The Provincial COVID-19 Diagnostics Network, data reported by member microbiology laboratories.

# Severity

Figure 4. Confirmed deaths among COVID-19 cases by date of death: Ontario, March 1, 2020 to December 21, 2021



**Note:** Cases without a death date are not included in the figure.

**Data Source:** CCM

**Table 3. Confirmed cases of COVID-19 by severity: Ontario**

	Cumulative case count as of December 21, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	10,133	1.5%
Deaths reported in ages: 19 and under	7	<0.1%
Deaths reported in ages: 20-39	112	<0.1%
Deaths reported in ages: 40-59	720	0.4%
Deaths reported in ages: 60-79	3,346	4.0%
Deaths reported in ages: 80 and over	5,947	21.9%
Ever in ICU	6,336	1.0%
Ever hospitalized	31,983	4.8%

**Note:** Not all cases have an age reported. Data corrections or updates can result in case records being removed and/or updated and may result in totals differing from past publicly reported case counts. Percentage of deaths reported for each age group is calculated using all cases in the age group as the denominator.

**Data Source:** CCM

## Geography

**Table 4. Summary of recent confirmed cases of COVID-19 by public health unit and region: Ontario**

Public Health Unit Name	Change in cases December 20, 2021	Change in cases December 21, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	6	19	1,402	1,726.9
Thunder Bay District Health Unit	4	10	3,837	2,433.0
<b>TOTAL NORTH WEST</b>	10	29	5,239	2,193.1
Algoma Public Health	10	14	1,648	1,398.5
North Bay Parry Sound District Health Unit	9	17	1,042	805.8
Porcupine Health Unit	0	27	2,393	2,815.3
Public Health Sudbury & Districts	11	53	4,582	2,232.3
Timiskaming Health Unit	3	6	501	1,478.5
<b>TOTAL NORTH EAST</b>	33	117	10,166	1,779.5
Ottawa Public Health	359	363	35,255	3,379.7
Eastern Ontario Health Unit	27	24	6,320	2,927.8
Hastings Prince Edward Public Health	34	67	2,384	1,379.4
Kingston, Frontenac and Lennox & Addington Public Health	118	103	4,729	2,260.2
Leeds, Grenville & Lanark District Health Unit	48	30	2,599	1,444.3
Renfrew County and District Health Unit	16	5	1,038	956.9
<b>TOTAL EASTERN</b>	602	592	52,325	2,711.9

Public Health Unit Name	Change in cases December 20, 2021	Change in cases December 21, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	160	238	29,973	4,213.1
Haliburton, Kawartha, Pine Ridge District Health Unit	18	26	2,821	1,479.1
Peel Public Health	280	335	120,233	7,689.3
Peterborough Public Health	24	30	2,249	1,518.4
Simcoe Muskoka District Health Unit	82	159	17,935	2,966.9
York Region Public Health	345	479	62,023	5,167.5
<b>TOTAL CENTRAL EAST</b>	909	1,267	235,234	5,323.6
Toronto Public Health	901	1,284	187,362	6,269.6
<b>TOTAL TORONTO</b>	901	1,284	187,362	6,269.6
Chatham-Kent Public Health	8	7	3,377	3,167.3
Grey Bruce Health Unit	15	40	2,818	1,599.8
Huron Perth Public Health	11	10	2,873	1,964.5
Lambton Public Health	17	34	4,731	3,557.9
Middlesex-London Health Unit	110	111	16,299	3,192.1
Southwestern Public Health	34	27	6,020	2,750.0
Windsor-Essex County Health Unit	65	68	23,563	5,467.8
<b>TOTAL SOUTH WEST</b>	260	297	59,681	3,464.9
Brant County Health Unit	24	23	5,418	3,528.3
City of Hamilton Public Health Services	158	149	27,406	4,711.2

Public Health Unit Name	Change in cases December 20, 2021	Change in cases December 21, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	13	17	3,755	3,129.0
Halton Region Public Health	245	223	21,943	3,593.8
Niagara Region Public Health	64	136	20,035	4,159.0
Region of Waterloo Public Health and Emergency Services	168	172	22,500	3,717.6
Wellington-Dufferin-Guelph Public Health	66	77	10,499	3,365.1
<b>TOTAL CENTRAL WEST</b>	<b>738</b>	<b>797</b>	<b>111,556</b>	<b>3,894.0</b>
<b>TOTAL ONTARIO</b>	<b>3,453</b>	<b>4,383</b>	<b>661,563</b>	<b>4,490.0</b>

**Notes:** Health units with data corrections or updates could result in records being removed from totals, leading to negative or zero counts.

**Data Source:** CCM

## Outbreaks

**Table 5. Summary of recent confirmed COVID-19 outbreaks reported in long-term care homes, retirement homes and hospitals by status: Ontario**

Institution type	Change in outbreaks December 20, 2021	Change in outbreaks December 21, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	2	3	25	1,577
Retirement homes	0	2	5	929
Hospitals	2	1	12	633

**Note:** Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset date of first case, or if missing the outbreak reported date, or else if that is also missing, then the outbreak created date.

**Data Source:** CCM

## Variant COVID-19 Cases

As of December 6, 2021 all eligible COVID-19 PCR-positive specimens in Ontario will be screened for S gene target failure (SGTF) as a marker for the Omicron variant. For more information please see the [SARS-CoV-2 \(COVID-19 Virus\) Variant of Concern \(VOC\) S Screening and Genomic Sequencing for Surveillance website](#).

**Table 6. Summary of confirmed COVID-19 cases with a lineage\* or S-gene target failure \*\* detected from October 31, 2021 to December 21, 2021: Ontario**

	Change in cases December 20, 2021	Change in cases December 21, 2021	Cumulative case count since October 31, 2021***
Variant of Concern			
Lineage B.1.1.7 (Alpha)	0	0	1
Lineage B.1.351 (Beta)	0	0	0
Lineage P.1 (Gamma)	0	1	2
Lineage B.1.617.2 (Delta)	569	458	15,748
Lineage B.1.1.529 (Omicron)	395	197	932
Mutations			
S-gene Target Failure	975	780	6,304

**Note:** Interpret the VOC trends with caution due to the varying time required to complete genomic analysis following the initial positive test for SARS-CoV-2. Due to the nature of the genomic analysis, test results may be completed in batches. Data corrections or updates can result in case records being removed and/or updated and may result in totals differing from past publicly reported case counts. Data for calculating the change in cases and the cumulative case counts uses data from the Investigation Lineage or Investigation Mutation fields only. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the [data caveats](#) section.

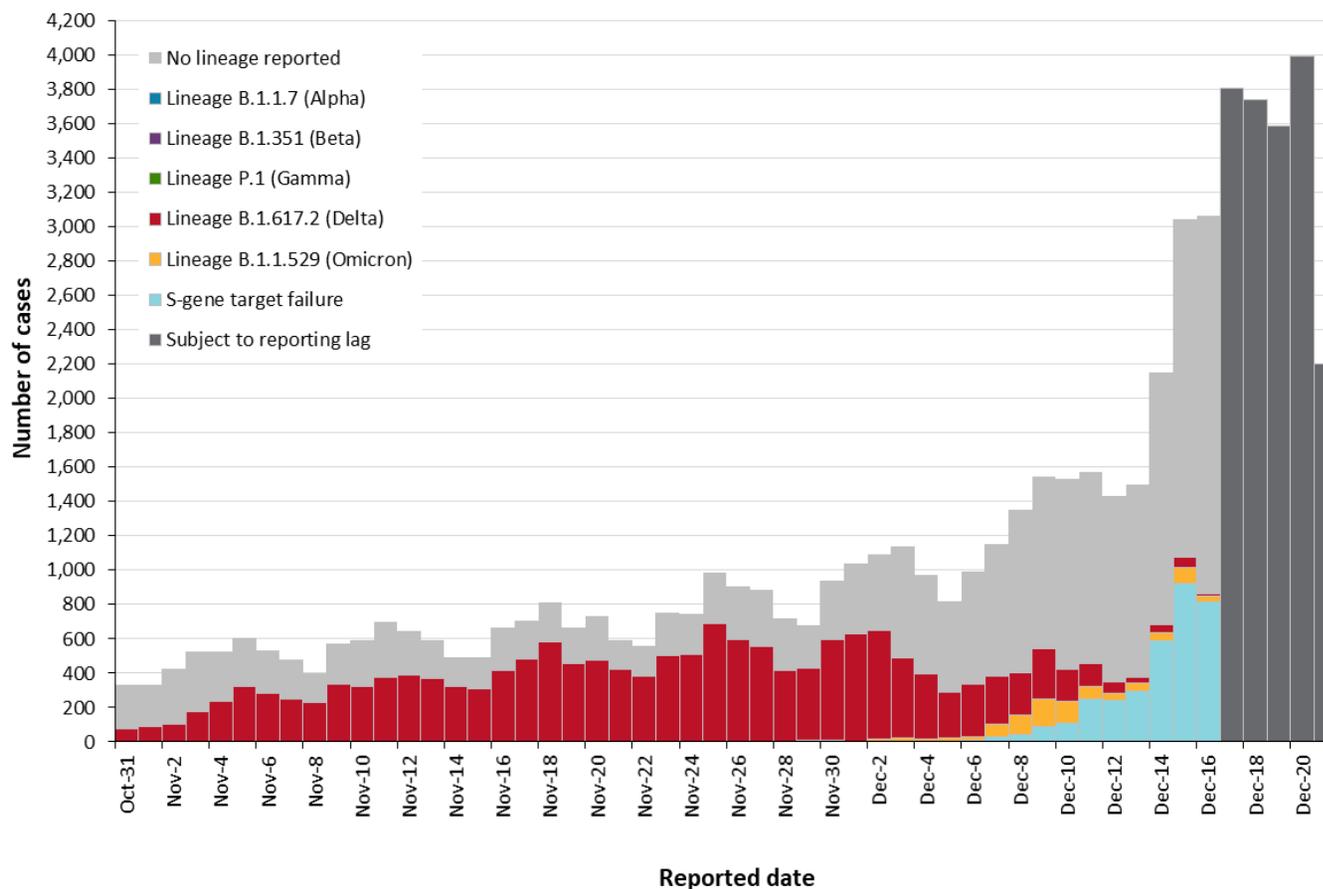
\*Includes all confirmed COVID-19 cases with a lineage identified by genomic analysis and reported in CCM as of the extraction time. B.1.617.2 (Delta) includes all Delta sublineage cases identified by genomic analysis.

\*\*Includes all confirmed COVID-19 cases with an S-gene target failure identified by PCR assay and reported in CCM as of the extraction time. If a VOC is identified through genomic analysis cases initially classified as a mutation may be updated and moved to the appropriate lineage (e.g. B.1.1.529)

\*\*\*Cumulative case counts may be impacted by lags in case identification, reporting and/or data entry.

**Data Source:** CCM

**Figure 5. Confirmed COVID-19 cases with a lineage\* or S-gene target failure\*\* detected by public health unit reported date: Ontario, October 31, 2021 to December 21, 2021**



**Note:** Reported date is the date the case was reported, not the date that the VOC was identified. Details on testing for variants of concern are in the [technical notes](#). Interpret the VOC trends with caution due to the varying time required to complete testing and/or genomic analysis following the initial positive test for SARS-CoV-2.

\*Includes all confirmed COVID-19 cases with a lineage identified by genomic analysis. B.1.617.2 (Delta) includes all Delta sublineage cases identified by genomic analysis.

\*\*Includes all confirmed COVID-19 cases with an S-gene target failure identified by PCR assay and reported in CCM as of the extraction time

**Data Source:** CCM

# Technical Notes

## Data Sources

- The data for this report were based on information successfully extracted from the Public Health Case and Contact Management Solution (CCM) for all PHUs by PHO as of **December 21, 2021 at 1 p.m.** for cases reported from February 1, 2021 onwards and as of **December 20, 2021 at 9 a.m.** for cases reported up to January 31, 2021.
- CCM is a dynamic disease reporting system, which allows ongoing updates to data previously entered. As a result, data extracted from CCM represent a snapshot at the time of extraction and may differ from previous or subsequent reports.
- Ontario population estimate data were sourced from Statistics Canada. Population estimates 2001-2020: Table 1 annual population estimates by age and sex for July 1, 2001 to 2020, health regions, Ontario [unpublished data table]. Ottawa, ON: Government of Canada; 2021 [received April 22, 2021].
- COVID-19 test data were based on information from The Provincial COVID-19 Diagnostics Network, reported by member microbiology laboratories.

## Data Caveats

- The data only represent cases reported to public health units and recorded in CCM. As a result, all counts will be subject to varying degrees of underreporting due to a variety of factors, such as disease awareness and medical care seeking behaviours, which may depend on severity of illness, clinical practice, changes in laboratory testing, and reporting behaviours.
- Data cleaning for older cases is incorporated on Mondays and Thursdays and may impact the case count published on Tuesdays and Fridays.
- Lags in CCM data entry due to weekend staffing may result in lower case counts than would otherwise be recorded.
- Only cases meeting the confirmed case classification as listed in the [MOH Case Definition – Coronavirus Disease \(COVID-19\) document](#) are included in the report counts from CCM.
- Cases of confirmed reinfection, as defined in the provincial case definitions, are counted as unique investigations.
- Case classification information may be updated for individuals with a positive result issued from a point-of-care assays.
- The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.
- Reported date is the date the case was reported to the public health unit.

- Case episode date represents an estimate of disease onset. This date is calculated based on the earliest date of symptom onset, specimen collection/test date, or the date reported to the public health unit.
- Resolved cases are determined only for COVID-19 cases that have not died. Cases that have died are considered fatal and not resolved. The following cases are classified as resolved:
  - Cases that are reported as ‘recovered’ in CCM
  - Cases that are not hospitalized and are 14 days past their episode date
  - Cases that are currently hospitalized (no hospital end date entered) and have a status of ‘closed’ in CCM (indicating public health unit follow-up is complete) and are 14 days past their symptom onset date or specimen collection date
- Hospitalization includes all cases for which a hospital admission date was reported or hospitalization/ICU was reported as ‘Yes’ at the time of data extraction. It includes cases that have been discharged from hospital as well as cases that are currently hospitalized. Emergency room visits are not included in the number of reported hospitalizations.
- ICU admission includes all cases for which an ICU admission date was reported at the time of data extraction. It is a subset of the count of hospitalized cases. It includes cases that have been treated or that are currently being treated in an ICU.
- Orientation of case counts by geography is based on the permanent health unit. This is equivalent to the diagnosing health unit (DHU) in iPHIS. DHU refers to the case's public health unit of residence at the time of illness onset and not necessarily the location of exposure. Cases for which the DHU was reported as MOH-PHO (to signify a case that is not a resident of Ontario) have been excluded from the analyses.
- Male/Female information presented in this report are sourced from the Sex field in CCM and are intended to represent sex assigned at birth. On October 14, 2021 changes were made in CCM to enable reporting on the Sex field where these data are supplemented by archived Male/Female information previously entered in the Gender field.
- Likely source of acquisition is determined by examining the epidemiologic link and epidemiologic link status fields in CCM. If no epidemiologic link is identified in those fields the risk factor fields are examined to determine whether a case travelled, was associated with a confirmed outbreak, was a contact of a case, had no known epidemiological link (sporadic community transmission) or was reported to have an unknown source/no information was reported. Some cases may have no information reported if the case is untraceable, was lost to follow-up or referred to FNIHB. Cases with multiple risk factors were assigned to a single likely acquisition source group which was determined hierarchically in the following order:
  - For cases with an episode date *on or after* April 1, 2020: Outbreak-associated > close contact of a confirmed case > travel > no known epidemiological link > information missing or unknown
  - For cases with an episode date *before* April 1, 2020: Travel > outbreak-associated > close contact of a confirmed case > no known epidemiological link > information missing or unknown
- Deaths are determined by using the outcome field in CCM. Any case marked ‘Fatal’ is included in the deaths data. The CCM field Type of Death is not used to further categorize the data.

- If the date of death is missing the outcome date field is used as a proxy for cases marked as 'Fatal' in the outcome field.
- COVID-19 cases from CCM for which the Classification and/or Disposition was reported as ENTERED IN ERROR, DOES NOT MEET DEFINITION, IGNORE, DUPLICATE or any variation on these values have been excluded. The provincial case count for COVID-19 may include some duplicate records, if these records were not identified and resolved.
- Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset date of first case, or if missing the outbreak reported date, or else if that is also missing, then the outbreak created date.
- 'Long-term care home residents' includes cases that reported 'Yes' to the risk factor 'Resident of a long-term care home'; or 'Yes' to the risk factor 'Resident of nursing home or other chronic care facility' and reported to be part of an outbreak assigned as a long-term care home (via the Outbreak number or case comments field); or were reported to be part of an outbreak assigned as a long-term care home (via the outbreak number or case comments field) with an age over 70 years and did not report 'No' to the risk factors 'Resident of long-term care home' or 'Resident of nursing home or other chronic care facility'. 'Long-term care home residents' excludes cases that reported 'Yes' to any of the health care worker occupational risk factors.
- The 'health care workers' variable includes cases that reported 'Yes' to any of the occupation of health care worker, doctor, nurse, dentist, dental hygienist, midwife, other medical technicians, personal support worker, respiratory therapist, first responder.
- 'Health care workers associated with long-term care outbreaks' includes 'health care workers' reported to be part of an outbreak assigned as a long-term care home (via the outbreak number or case comments field). Excludes cases that reported 'Yes' to risk factors 'Resident of long-term care home' or 'Resident of nursing home or other chronic care facility' and 'Yes' to the calculated 'health care workers' variable.
- Percent change is calculated by taking the difference between the current period (i.e., daily count or sum of the daily count over a 7-day period) and previous period (i.e., daily count or sum of the daily count over a 7-day period), divided by the previous period.
- Public Health Ontario conducts testing and genomic analyses for SARS-CoV-2 positive specimens using the criteria outlined here: <https://www.publichealthontario.ca/en/laboratory-services/test-information-index/covid-19-voc>
- Lineage nomenclature is dynamic. PANGO lineage naming and assignment may change as more samples are sequenced and analyzed.
- Variant status may be updated based on scientific evidence. Variants designated as a VOC in Canada is available on the [Public Health Agency of Canada's SARS-CoV-2 Variants webpage](#).
- The laboratory detection of a variant of concern is a multi-step process. Samples that test positive for SARS-CoV-2 and have a cycle threshold (Ct) value  $\leq 30$ , may then undergo genomic analyses to identify the VOC lineage.
- If a VOC is identified through genomic analysis cases initially classified as a mutation may be updated and moved to the appropriate lineage (e.g. B.1.1.529, B.1.617.2)

## Appendix A

**Table A1. Weekly rates of confirmed COVID-19 cases per 100,000 population over recent rolling 7-day periods, by reported date and public health unit: Ontario, December 6 to December 18, 2021**

Public Health Unit Name	Dec 6 to Dec 12	Dec 7 to Dec 13	Dec 8 to Dec 14	Dec 9 to Dec 15	Dec 10 to Dec 16	Dec 11 to Dec 17	Dec 12 to Dec 18	% change from Dec 6 – Dec 12 to Dec 12 – Dec 18
<b>NORTH WEST</b>								
Northwestern Health Unit	33.3	41.9	49.3	82.5	108.4	124.4	125.6	+277.2%
Thunder Bay District Health Unit	45.7	41.2	35.5	32.3	30.4	30.4	29.8	-34.8%
<b>NORTH EAST</b>								
Algoma Public Health	141.7	146.0	157.0	159.5	157.0	148.5	135.8	-4.2%
North Bay Parry Sound District Health Unit	29.4	28.6	30.9	28.6	27.8	31.7	30.9	+5.1%
Porcupine Health Unit	38.8	41.2	45.9	50.6	44.7	62.4	61.2	+57.7%
Public Health Sudbury & Districts	116.4	110.1	118.9	112.1	112.1	108.2	111.1	-4.6%
Timiskaming Health Unit	103.3	135.8	129.9	147.6	147.6	153.5	156.4	+51.4%
<b>EASTERN</b>								
Ottawa Public Health	64.4	67.4	79.9	99.6	113.3	135.5	146.1	+126.9%
Eastern Ontario Health Unit	41.7	44.0	45.4	48.2	56.5	72.3	89.4	+114.4%
Hastings Prince Edward Public Health	116.3	117.5	122.1	131.9	127.3	136.6	149.3	+28.4%
Kingston, Frontenac and Lennox & Addington Public Health	345.1	366.1	389.0	456.4	494.2	495.6	499.9	+44.9%

Public Health Unit Name	Dec 6 to Dec 12	Dec 7 to Dec 13	Dec 8 to Dec 14	Dec 9 to Dec 15	Dec 10 to Dec 16	Dec 11 to Dec 17	Dec 12 to Dec 18	% change from Dec 6 – Dec 12 to Dec 12 – Dec 18
Leeds, Grenville & Lanark District Health Unit	88.9	102.8	109.5	117.3	121.1	129.5	135.6	+52.5%
Renfrew County and District Health Unit	24.0	25.8	29.5	21.2	31.3	35.0	35.0	+45.8%
<b>CENTRAL EAST</b>								
Durham Region Health Department	57.2	57.8	64.1	70.4	83.1	102.9	119.9	+109.6%
Haliburton, Kawartha, Pine Ridge District Health Unit	29.4	35.7	38.3	40.9	46.1	48.8	56.6	+92.5%
Peel Public Health	36.7	40.7	45.3	51.5	59.1	72.7	84.0	+128.9%
Peterborough Public Health	27.7	27.0	25.0	26.3	29.7	48.6	62.8	+126.7%
Simcoe Muskoka District Health Unit	95.3	94.3	96.8	111.3	119.8	128.5	141.9	+48.9%
York Region Public Health	51.8	55.9	63.9	73.2	83.0	102.1	120.6	+132.8%
<b>TORONTO</b>								
Toronto Public Health	49.7	53.3	61.1	76.9	91.0	117.6	144.6	+190.9%
<b>SOUTH WEST</b>								
Chatham-Kent Public Health	130.4	131.3	124.7	124.7	127.6	123.8	125.7	-3.6%
Grey Bruce Health Unit	39.7	46.6	47.7	65.3	69.3	79.5	92.5	+133.0%
Huron Perth Public Health	67.0	67.0	76.6	83.4	82.7	76.6	80.7	+20.4%
Lambton Public Health	58.7	67.7	79.7	85.7	100.0	110.5	126.3	+115.2%
Middlesex-London Health Unit	64.0	72.1	77.6	88.5	103.0	120.6	123.6	+93.1%

Public Health Unit Name	Dec 6 to Dec 12	Dec 7 to Dec 13	Dec 8 to Dec 14	Dec 9 to Dec 15	Dec 10 to Dec 16	Dec 11 to Dec 17	Dec 12 to Dec 18	% change from Dec 6 – Dec 12 to Dec 12 – Dec 18
Southwestern Public Health	74.5	76.7	84.1	87.7	98.7	103.2	111.9	+50.2%
Windsor-Essex County Health Unit	137.1	134.8	146.0	139.0	141.3	137.6	139.2	+1.5%
<b>CENTRAL WEST</b>								
Brant County Health Unit	96.4	94.4	87.9	89.2	85.3	95.7	106.1	+10.1%
City of Hamilton Public Health Services	64.3	67.4	74.4	87.8	102.1	113.8	136.0	+111.5%
Haldimand-Norfolk Health Unit	76.7	78.3	75.8	80.0	85.0	98.3	110.8	+44.5%
Halton Region Public Health	65.0	73.7	85.0	107.4	127.1	150.4	173.4	+166.8%
Niagara Region Public Health	63.7	64.8	73.3	81.2	90.3	94.2	102.8	+61.4%
Region of Waterloo Public Health and Emergency Services	61.0	61.6	69.2	80.8	88.2	97.0	107.2	+75.7%
Wellington-Dufferin-Guelph Public Health	63.8	71.8	70.2	91.7	95.5	120.2	135.3	+112.1%
<b>TOTAL ONTARIO</b>	<b>65.1</b>	<b>68.5</b>	<b>75.3</b>	<b>86.8</b>	<b>97.1</b>	<b>112.6</b>	<b>127.3</b>	<b>+95.5%</b>

**Note:** Rates are based on the sum of the daily case counts during the date ranges specified in each column.

**Data Source:** CCM

**Table A2. Cumulative\* count of confirmed COVID-19 cases with lineage\*\* identified by public health unit: Ontario, as of December 21, 2021**

Public Health Unit Name	Lineage B.1.1.7 (Alpha)	Lineage B.1.351 (Beta)	Lineage P.1 (Gamma)	Lineage B.1.617.2 (Delta)	Lineage B.1.1.529 (Omicron)
Algoma Public Health	0	0	0	256	0
Brant County Health Unit	0	0	0	329	0
Chatham-Kent Public Health	0	0	0	210	0
City of Hamilton Public Health Services	0	0	0	729	25
Durham Region Health Department	0	0	0	662	24
Eastern Ontario Health Unit	0	0	0	183	2
Grey Bruce Health Unit	0	0	0	107	1
Haldimand-Norfolk Health Unit	0	0	0	361	0
Haliburton, Kawartha, Pine Ridge District Health Unit	0	0	0	89	0
Halton Region Public Health	0	0	0	478	62
Hastings Prince Edward Public Health	0	0	0	238	5
Huron Perth Public Health	0	0	0	180	1
Kingston, Frontenac and Lennox & Addington Public Health	0	0	0	642	221
Lambton Public Health	0	0	0	172	0
Leeds, Grenville & Lanark District Health Unit	0	0	0	192	29
Middlesex-London Health Unit	0	0	0	381	15
Niagara Region Public Health	0	0	0	189	2

Public Health Unit Name	Lineage B.1.1.7 (Alpha)	Lineage B.1.351 (Beta)	Lineage P.1 (Gamma)	Lineage B.1.617.2 (Delta)	Lineage B.1.1.529 (Omicron)
North Bay Parry Sound District Health Unit	0	0	0	59	0
Northwestern Health Unit	0	0	0	32	0
Ottawa Public Health	1	0	0	775	97
Peel Public Health	0	0	1	986	66
Peterborough Public Health	0	0	0	105	0
Porcupine Health Unit	0	0	0	46	0
Public Health Sudbury & Districts	0	0	0	476	0
Region of Waterloo Public Health and Emergency Services	0	0	0	662	33
Renfrew County and District Health Unit	0	0	0	55	2
Simcoe Muskoka District Health Unit	0	0	0	1,540	38
Southwestern Public Health	0	0	0	592	0
Thunder Bay District Health Unit	0	0	0	208	7
Timiskaming Health Unit	0	0	0	98	0
Toronto Public Health	0	0	1	2,153	233
Wellington-Dufferin-Guelph Public Health	0	0	0	269	17
Windsor-Essex County Health Unit	0	0	0	1,130	2
York Region Public Health	0	0	0	1,164	50
<b>TOTAL ONTARIO</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>15,748</b>	<b>932</b>

**Note:** Interpret the VOC trends with caution due to the varying time required to complete genomic analysis following the initial positive test for SARS-CoV-2. Due to the nature of the genomic analysis, test results may be completed in batches. Data corrections or updates can result in case records being removed and/or updated and may result in totals differing from past publicly reported case counts. Data for calculating the change in cases and the cumulative case counts uses data from the Investigation Lineage field only. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the [data caveats](#) section.

\*Cumulative counts include cases with a reported date since October 31, 2021 and may be impacted by lags in case identification, reporting and/or data entry.

\*\*Includes all confirmed COVID-19 cases with a lineage identified by genomic analysis and reported in CCM as of the extraction time. B.1.617.2 (Delta) includes all Delta sublineage cases identified by genomic analysis.

**Data Source:** CCM

## Citation

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## For Further Information

For more information, [cd@oahpp.ca](mailto:cd@oahpp.ca).

## Public Health Ontario

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