

## DAILY EPIDEMIOLOGICAL SUMMARY

# COVID-19 in Ontario: January 15, 2020 to April 24, 2021

This report includes the most current information available from CCM as of **April 24, 2021**.

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.

A [weekly summary report](#) is available with additional information to complement the daily 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 445,351 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
  - An increase of 3,947 confirmed cases (percent change of -3.6%)
  - An increase of 24 deaths (percent change of 0.0%)
  - An increase of 4,239 resolved cases (percent change of -2.1%)

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, gender) 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 April 23, 2021	Change in cases April 24, 2021	Percentage change April 24, 2021 compared to April 23, 2021	Cumulative case count as of April 24, 2021
Total number of cases	4,094	3,947	-3.6%	445,351
Number of deaths	24	24	0.0%	7,911
Number resolved	4,332	4,239	-2.1%	396,283

**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.

**Data Source:** CCM

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

	Change in cases April 23, 2021	Change in cases April 24, 2021	Cumulative case count as of April 24, 2021
Gender: Male	2,077	1,952	221,113
Gender: Female	1,969	1,938	221,208
Ages: 19 and under	707	748	68,000
Ages: 20-39	1,594	1,510	163,749
Ages: 40-59	1,198	1,177	128,554
Ages: 60-79	518	457	61,725
Ages: 80 and over	80	65	23,214

**Note:** Not all cases have a reported age or gender 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, gender) differing from past publicly reported case counts.

**Data Source:** CCM

**Table 2. Summary of recent confirmed cases of COVID-19 in school aged children by age group, August 30, 2020 to April 24, 2021: Ontario**

	Change in cases April 23, 2021	Change in cases April 24, 2021	Cumulative case count from August 30, 2020 to April 24, 2021
Ages: 4 to 8	144	147	12,318
Ages: 9 to 13	152	152	16,008
Ages: 14 to 17	166	190	15,963

**Note:** Includes all confirmed cases of COVID-19 for specified ages, regardless of school attendance. 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) differing from past publicly reported case counts.

**Data Source:** CCM

**Table 3. Summary of recent confirmed cases of COVID-19 in long-term care homes: Ontario**

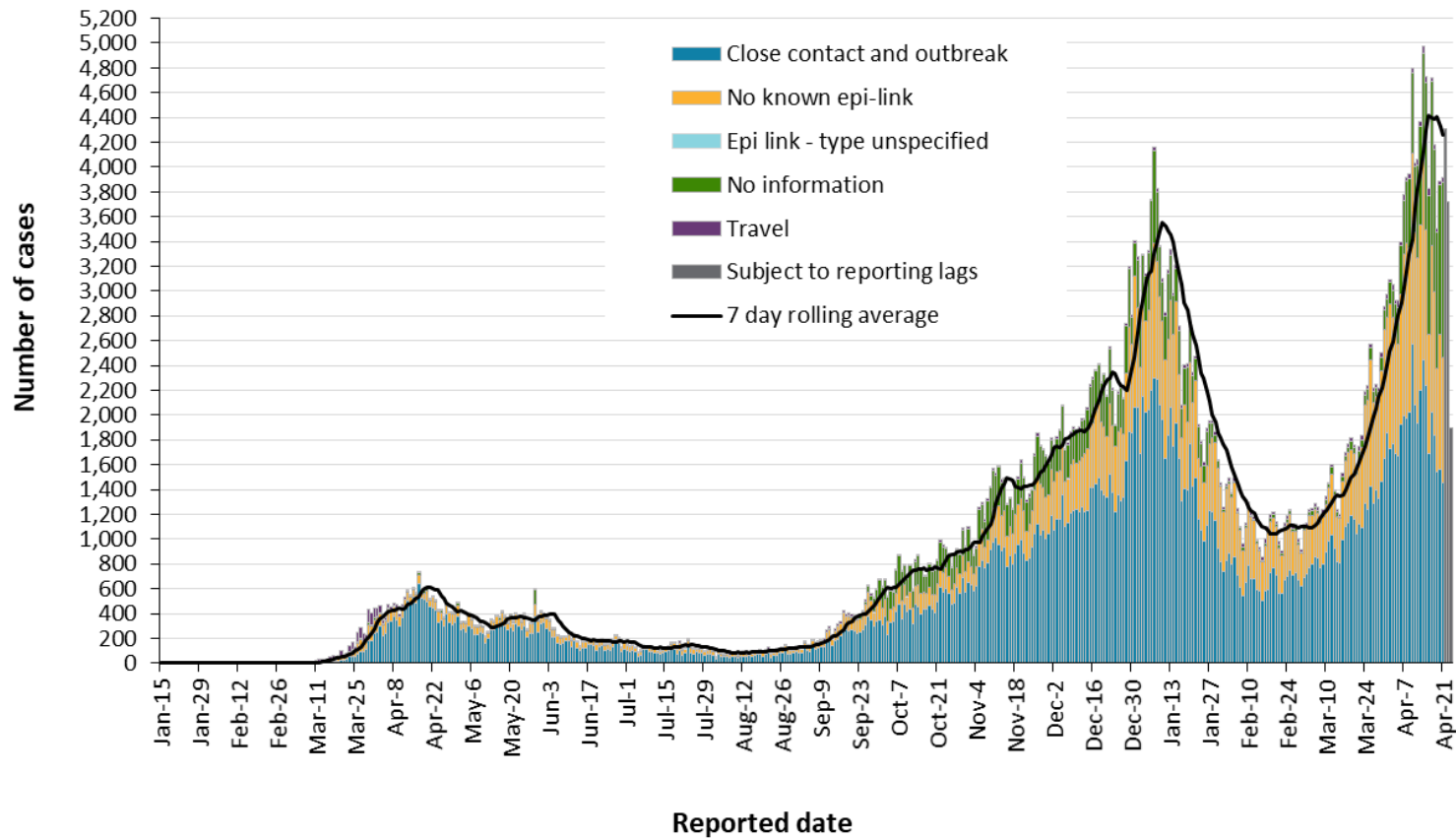
Long-term care home cases	Change in cases April 23, 2021	Change in cases April 24, 2021	Cumulative case count as of April 24, 2021
Residents	-6	12	15,124
Health care workers	6	3	6,924
Deaths among residents	0	1	3,914
Deaths among health care workers	0	0	10

**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

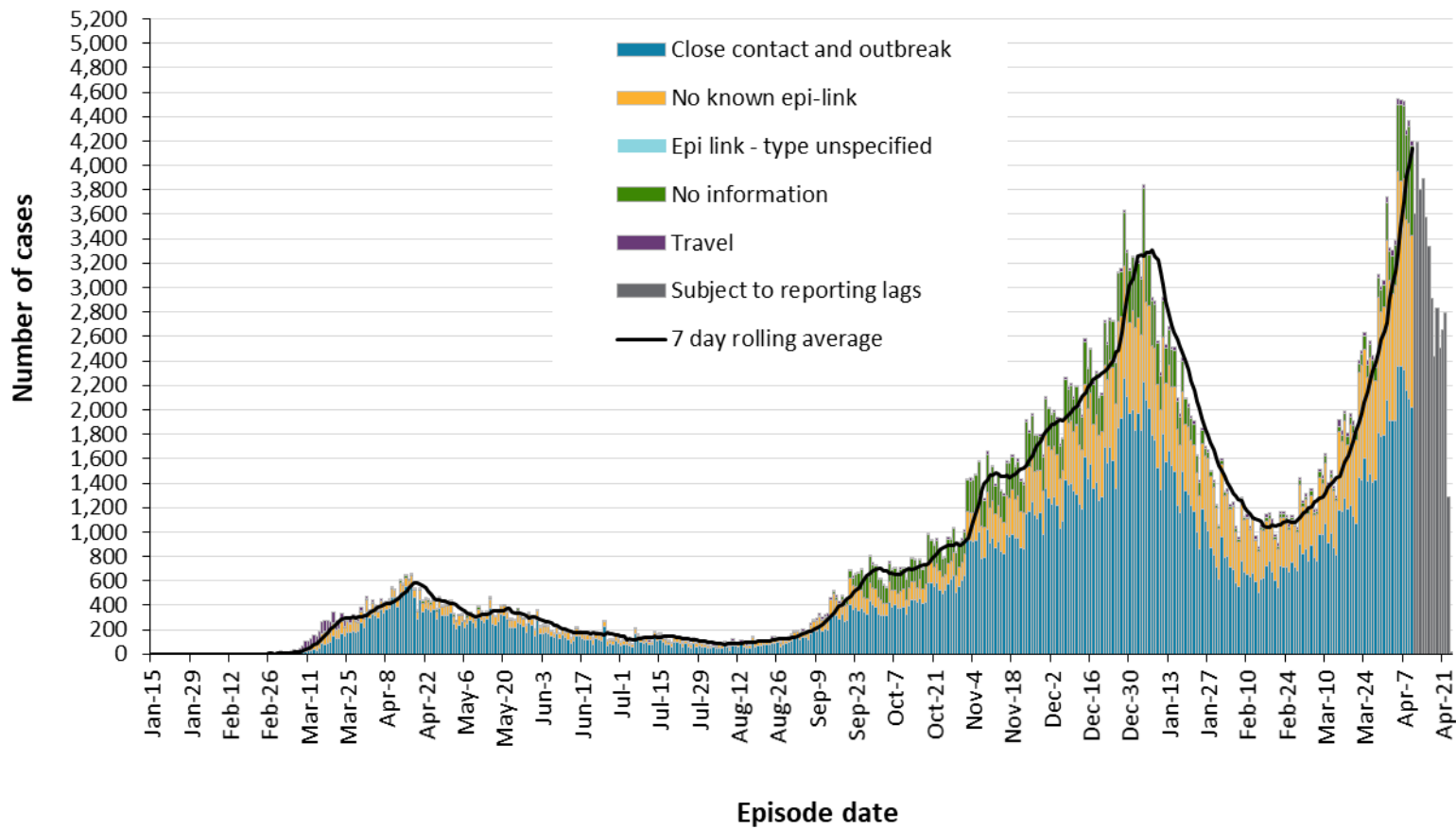
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to April 24, 2021



Data Source: CCM

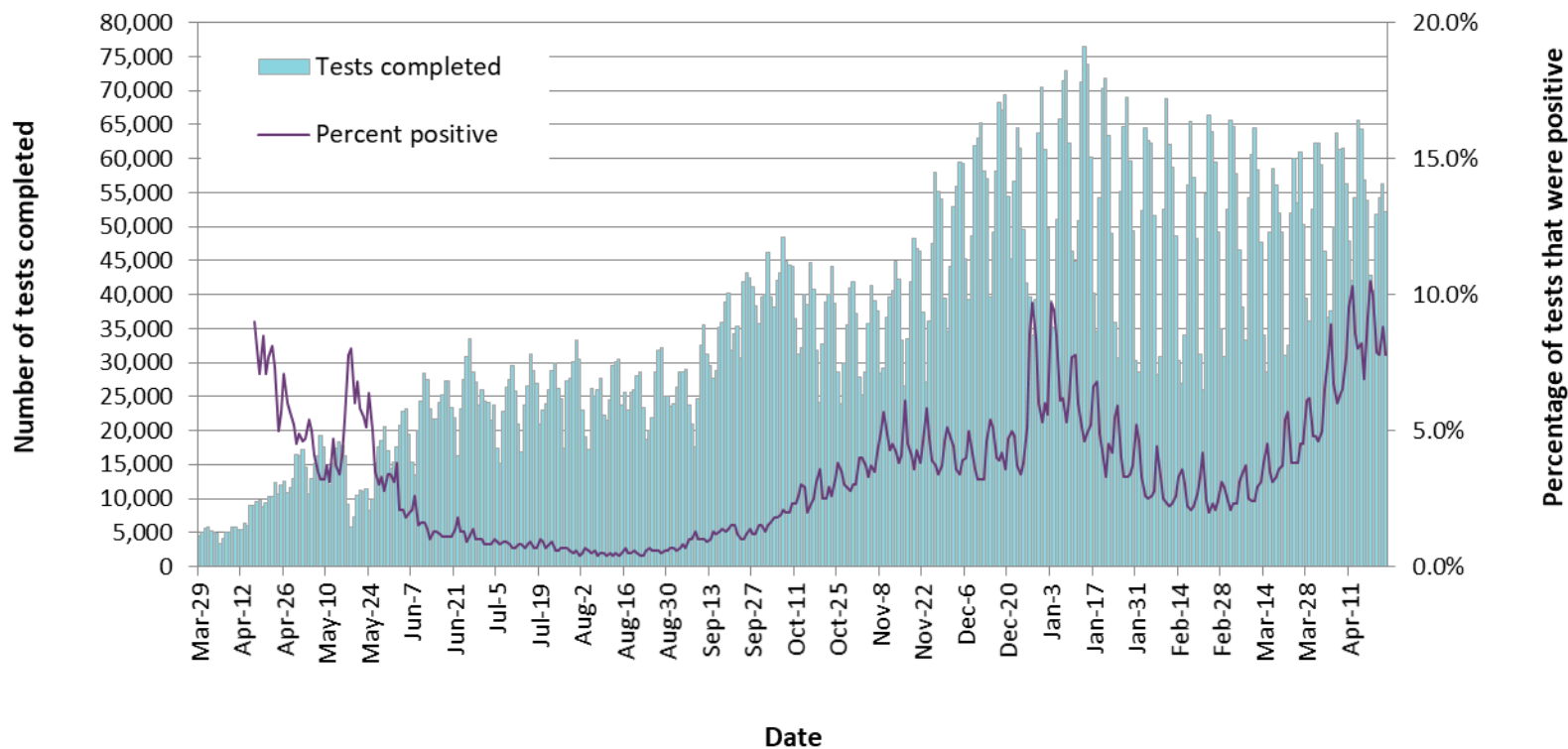
COVID-19 in Ontario: January 15, 2020 to April 24, 2021

**Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to April 24, 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 April 23, 2021**

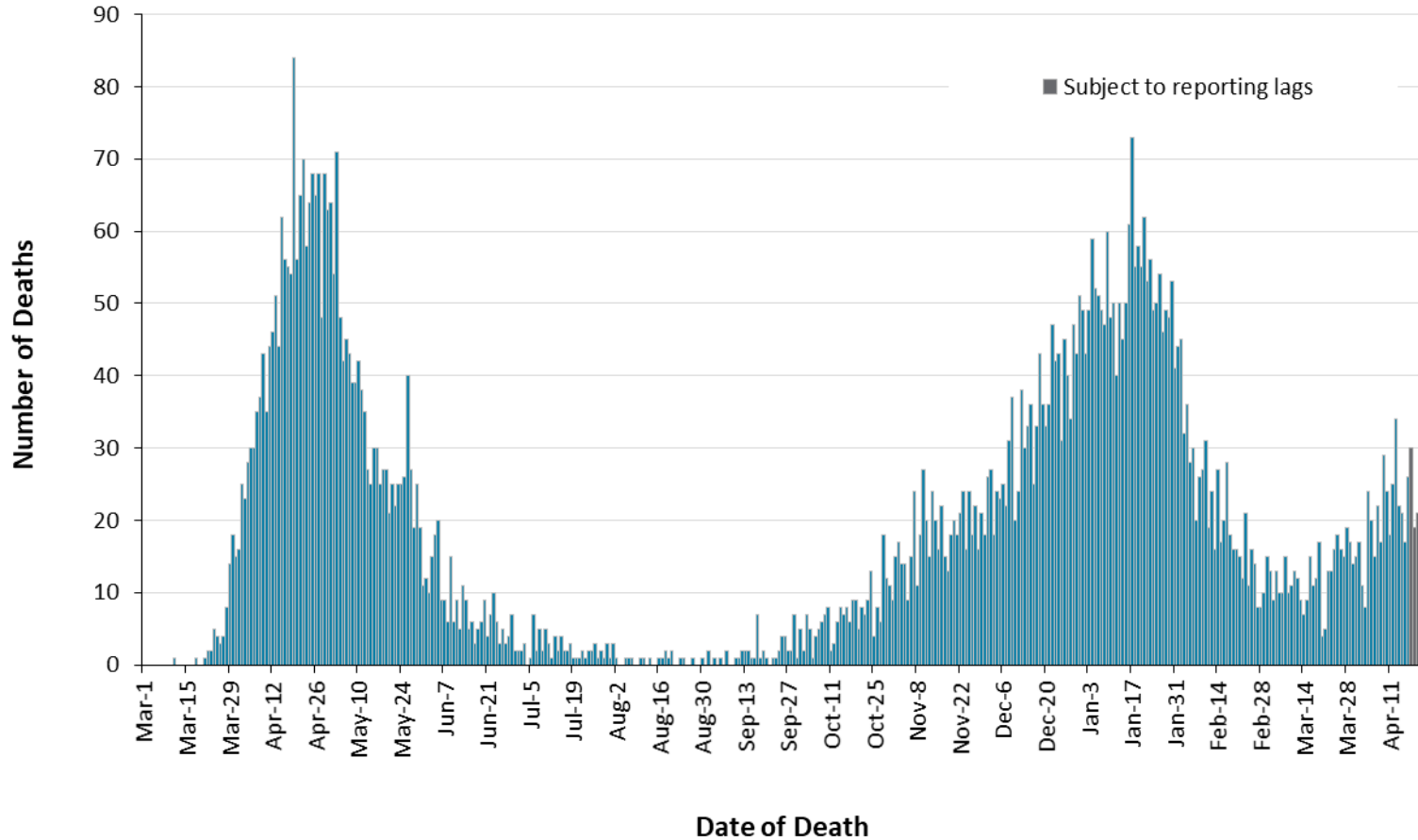


**Note:** The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

**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 April 24, 2021



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

**Data Source:** CCM



**Table 4. Confirmed cases of COVID-19 by severity: Ontario**

	Cumulative case count as of April 24, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	7,911	1.8%
Deaths reported in ages: 19 and under	3	<0.1%
Deaths reported in ages: 20-39	48	<0.1%
Deaths reported in ages: 40-59	366	0.3%
Deaths reported in ages: 60-79	2,325	3.8%
Deaths reported in ages: 80 and over	5,168	22.3%
Ever in ICU	3,883	0.9%
Ever hospitalized	21,388	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.

**Data Source:** CCM

## Geography

**Table 5. Summary of recent confirmed cases of COVID-19 by public health unit and region: Ontario**

Public Health Unit Name	Change in cases April 23, 2021	Change in cases April 24, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	9	11	870	992.3
Thunder Bay District Health Unit	9	13	3,071	2,047.9
<b>TOTAL NORTH WEST</b>	18	24	3,941	1,658.4
Algoma Public Health	0	1	315	275.3
North Bay Parry Sound District Health Unit	1	2	337	259.7
Porcupine Health Unit	15	3	562	673.5
Public Health Sudbury & Districts	4	10	1,871	940.1
Timiskaming Health Unit	3	5	162	495.6
<b>TOTAL NORTH EAST</b>	23	21	3,247	580.5
Ottawa Public Health	158	209	23,265	2,205.9
Eastern Ontario Health Unit	32	31	4,174	1,999.9
Hastings Prince Edward Public Health	6	13	868	515.2
Kingston, Frontenac and Lennox & Addington Public Health	9	12	1,208	567.9
Leeds, Grenville & Lanark District Health Unit	12	10	1,572	907.8
Renfrew County and District Health Unit	5	11	552	508.1
<b>TOTAL EASTERN</b>	222	286	31,639	1,642.4

Public Health Unit Name	Change in cases April 23, 2021	Change in cases April 24, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	199	207	19,434	2,728.0
Haliburton, Kawartha, Pine Ridge District Health Unit	14	6	1,575	833.6
Peel Public Health	1,014	901	87,895	5,473.1
Peterborough Public Health	8	14	1,163	785.9
Simcoe Muskoka District Health Unit	86	111	10,067	1,679.0
York Region Public Health	406	406	44,108	3,598.3
<b>TOTAL CENTRAL EAST</b>	1,727	1,645	164,242	3,665.6
Toronto Public Health	1,191	1,136	137,243	4,398.3
<b>TOTAL TORONTO</b>	1,191	1,136	137,243	4,398.3
Chatham-Kent Public Health	3	3	1,747	1,643.2
Grey Bruce Health Unit	14	7	1,123	661.0
Huron Perth Public Health	7	6	1,572	1,124.8
Lambton Public Health	12	8	3,182	2,429.7
Middlesex-London Health Unit	96	104	9,888	1,948.3
Southwestern Public Health	16	33	3,321	1,570.2
Windsor-Essex County Health Unit	45	59	15,169	3,570.6
<b>TOTAL SOUTH WEST</b>	193	220	36,002	2,129.3
Brant County Health Unit	32	31	2,997	1,931.0
City of Hamilton Public Health Services	133	109	16,346	2,760.4

Public Health Unit Name	Change in cases April 23, 2021	Change in cases April 24, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	31	16	2,139	1,875.0
Halton Region Public Health	109	153	13,840	2,235.6
Niagara Region Public Health	226	115	13,023	2,756.3
Region of Waterloo Public Health and Emergency Services	111	118	13,856	2,371.1
Wellington-Dufferin-Guelph Public Health	78	73	6,836	2,191.7
<b>TOTAL CENTRAL WEST</b>	720	615	69,037	2,423.0
<b>TOTAL ONTARIO</b>	<b>4,094</b>	<b>3,947</b>	<b>445,351</b>	<b>2,996.1</b>

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

**Data Source:** CCM

## Outbreaks

**Table 6. 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 April 23, 2021	Change in outbreaks April 24, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	1	3	43	1,426
Retirement homes	0	0	17	837
Hospitals	3	1	35	512

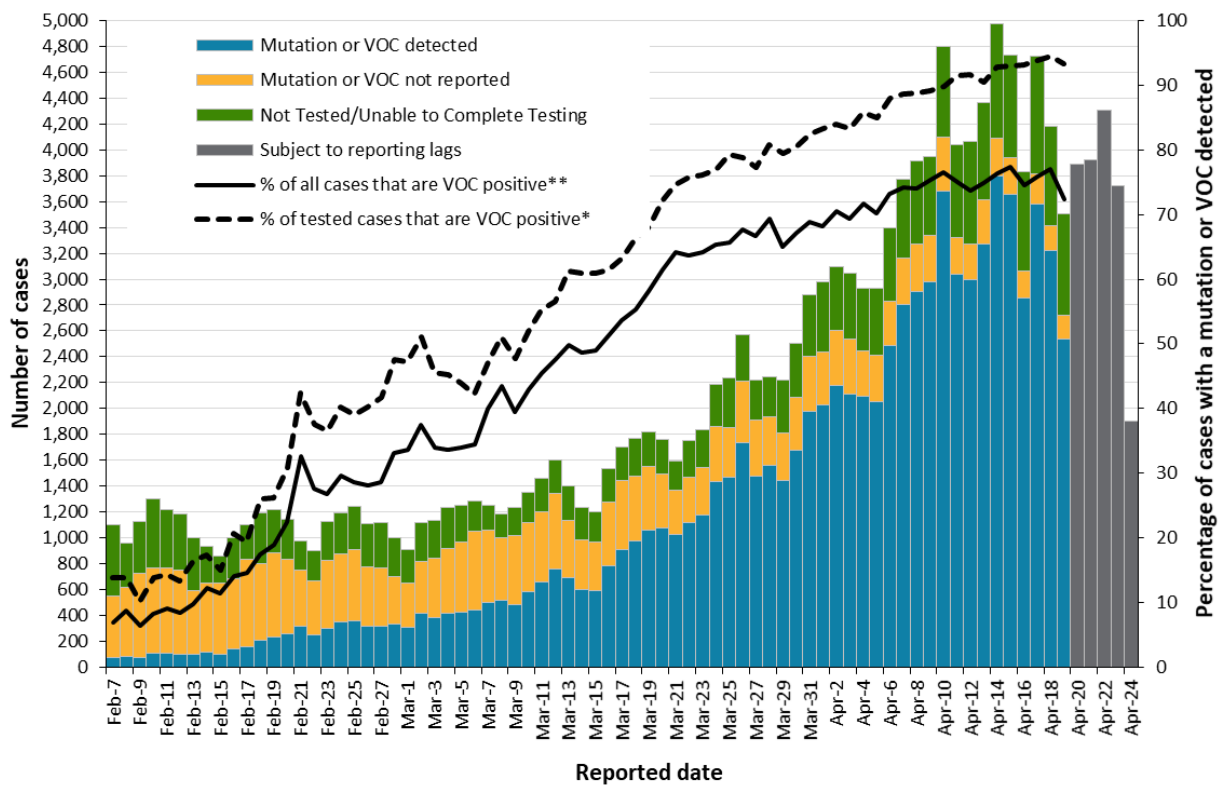
**Note:** Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset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

The laboratory detection of a variant of concern (VOC) is a multi-step process. Samples that test positive for SARS-CoV-2 and have a cycle threshold (Ct) value  $\leq 35$  can be tested for mutations common to variants of concern. If positive for the mutation of interest these samples may then undergo genomic analyses to identify the VOC. VOC lineages may still be confirmed using genomic analysis despite specific S gene mutation(s) being documented as 'unable to complete' due to poor sequence quality at the genome position.

**Figure 5. Number of confirmed COVID-19 cases and percent positive for mutations or VOCs: Ontario, February 7, 2021 to April 24, 2021**



**Note:** Data used to calculate the number of cases tested for mutations common to VOCs or lineages using genomic analyses are obtained using information from the Laboratory object in CCM in addition to the data from the Investigation Subtype field. Therefore, comparisons to counts using only information from the Investigation Subtype field may not align. The percent of cases due to a VOC may be higher than described in this report.

\*The denominator includes only confirmed COVID-19 cases that were able to be tested for VOCs (e.g. those identified as 'Detected' or 'Not Detected').

\*\*The denominator includes all confirmed COVID-19 cases, including those that were unable to be tested for VOCs (e.g. those identified as 'Detected', 'Not Detected' and 'Not Tested/Unable to Complete Testing').

**Data Source:** CCM

**Table 7. Summary of confirmed COVID-19 cases with a mutation or VOC detected: Ontario**

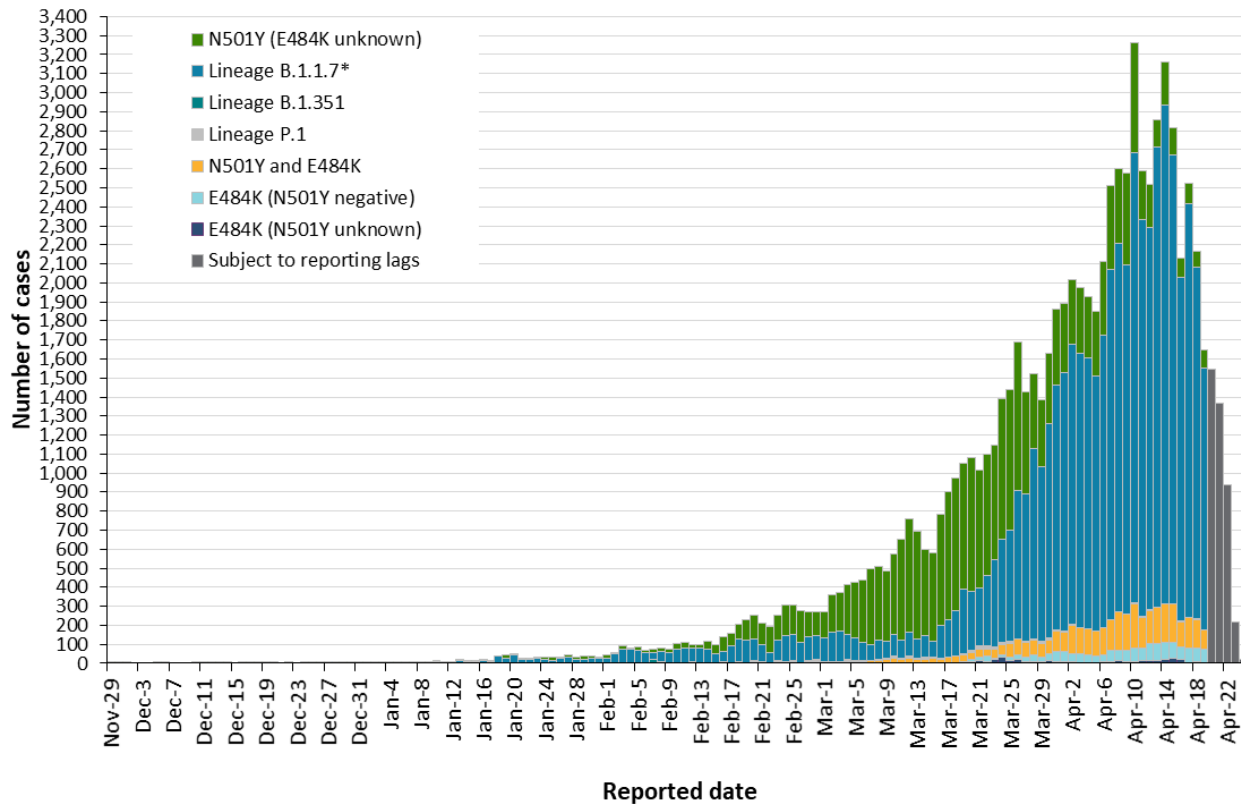
	Change in cases April 23, 2021	Change in cases April 24, 2021	Cumulative case count up to April 24, 2021
Variant of Concern			
Lineage B.1.1.7*	2,955	2,538	52,398
Lineage B.1.351	16	14	164
Lineage P.1	43	80	347
Mutations			
N501Y and E484K	202	133	4,575
N501Y (E484K unknown)**	-301	-105	22,738
E484K (N501Y negative)	95	84	1,679
E484K (N501Y unknown)	17	16	405

**Note:** Interpret the VOC and mutation trends with caution due to the varying time required to complete VOC testing and/or 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 Subtype field 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 where lineage B.1.1.7 was identified by genomic analysis and those presumed to be B.1.1.7 based on positive N501Y and negative E484K mutation in the Investigation Subtype field  
 \*\*The category 'N501Y (E484K unknown)' mainly consists of results from before the introduction of the E484K test. Counts will shift from this category into a VOC lineage category as E484K tests or genomic analysis are completed.

**Data Source:** CCM

**Figure 6. Confirmed COVID-19 cases with a mutation or VOC detected by public health unit reported date: Ontario, November 29, 2020 to April 24, 2021**



**Note:** Reported date is based on the date the case was reported, not the date that the VOC or mutation was identified. Further details on testing for variants of concern can be found in the [technical notes](#). Interpret the VOC and mutation 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. Data for calculating the change in cases and the cumulative case count uses data from the Investigation Subtype field only. Data for cases with a B.1.1.7, B.1.351, and P.1 lineage detected or any of the mutations listed above are determined using the Investigation Subtype field 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 where lineage B.1.1.7 was identified by genomic analysis and those presumed to be B.1.1.7 based on positive N501Y and negative E484K mutation. Starting March 22, 2021, specimens tested for the both the N501Y and E484K mutation, and if found to be positive for the N501Y mutation only, are not forwarded for further genomic analysis and presumed to be B.1.1.7.

**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 **April 24, 2021 at 1 p.m.** for cases reported in 2021 and as of **April 19, 2021 at 9 a.m.** for cases reported in 2020
- 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 projection data for 2020 were sourced from Ministry, IntelliHEALTH Ontario. Data were extracted on November 26, 2019.
- 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.
- 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](#)
- 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 is based on an estimate of the best date of disease onset. This date is calculated based on either the 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 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 diagnosing health unit (DHU). 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.
  - 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.
    - The date of death is determined using the outcome date field 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
- COVID-19 in Ontario: January 15, 2020 to April 24, 2021

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.
- PANGO lineage B.1.1.7: This lineage was first detected in England in September, 2020. Early evidence suggests that the N501Y mutation may increase SARS-CoV-2 transmissibility. The PANGO lineage B.1.1.7 is assigned to genome sequences with at least 5 of the 17 defining B.1.1.7 SNPs.
- PANGO lineage B.1.351 (also known as 501Y.V2): This lineage was first detected October, 2020 in South Africa and has several mutations of concern, including spike (S) gene: N501Y, K417N, and E484K. Early evidence suggests that these mutations may increase SARS-CoV-2 transmissibility and decrease vaccine efficacy. The PANGO lineage B.1.351 will be assigned to genome sequences at least 5 of the 9 defining B.1.351 SNPs.
- PANGO lineage P.1 (also known as 501Y.V3): This lineage was first detected January, 2021 in Brazil and has several mutations of concern, including spike (S) gene N501Y, K417T, and E484K. Early evidence suggests that these mutations may increase SARS-CoV-2 transmissibility and decrease vaccine efficacy. The PANGO lineage P.1 is assigned to genome sequences with more than 10 of the 17 defining P.1 SNPs.
- 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>
- Changes to the VOC testing algorithm may occur over time and trends should be interpreted with caution. Since February 3, 2021 all PCR positive SARS-CoV-2 specimens with CT values  $\leq 35$  are tested for a N501Y mutation. Starting March 22, 2021, these specimens are tested for the

E484K mutation as well. Specimens that are positive for the N501Y mutation only are not being forwarded for further genomic analysis. Specimens that are E484K positive (with or without N501Y) are forwarded for genomic analysis.

- 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  $\leq 35$  can be tested for mutations common to variants of concern. If positive for the mutation of interest these samples may then undergo genomic analyses to identify the VOC. VOC lineages may still be confirmed using genomic analysis despite specific S gene mutation(s) being documented as 'unable to complete' due to poor sequence quality at the genome position.
- VOC testing data are analyzed for cases with a reported date on or after February 07, 2021. VOC testing data are based on CCM information reported within the laboratory object for select Logical Observation Identifiers Names and Codes (LOINC) and supplemented with information from the Investigation Subtype field. A confirmed Case Investigation is assigned a VOC test value (e.g., VOC test detected, VOC test not detected) based on the following hierarchy:
  - If multiple laboratory results are identified, a VOC test value is assigned based on the following hierarchy: Detected > Not Detected > Unable to complete
  - If a laboratory result is 'Not Detected' or 'Unable to complete', but data on the Investigation Subtype field is listed as a lineage or mutation common to a VOC, then the VOC test value is set to 'Detected'
- If a VOC is identified through genomic analysis cases initially classified as a mutation may be updated and moved to the appropriate lineage (B.1.1.7, B.1.351 and P.1)
- LOINCs are a set of internationally used result description codes. In the absence of a standard LOINC, Ontario Health can create local result codes, which are identified with an 'XON' prefix. LOINCs incorporate details of the result value (e.g. test method, target detected - such as IgG, DNA, isolate etc.) and are unique to each result.
- VOC testing data in this report are assigned on a per case basis. Multiple laboratory results may be associated to a single case investigation, but for analysis purposes are only counted once.
  - The percent of cases that test VOC positive is calculated by taking the number of VOC test positive, divided by the total number of confirmed COVID-19 cases for a given reported date.
- The VOC percent positive may be higher than described in this report. While all confirmed COVID-19 cases are included in the denominator, not all cases were able to be tested for VOCs. As testing algorithms change, the VOC percent positivity may not be reflective of the exact number of COVID-19 cases due to VOCs
- Only CCM case investigations with a CONFIRMED classification have their laboratory records with VOC testing information included in the percent positivity calculations

## 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, April 9 to April 21, 2021**

Public Health Unit Name	Apr 9 to Apr 15	Apr 10 to Apr 16	Apr 11 to Apr 17	Apr 12 to Apr 18	Apr 13 to Apr 19	Apr 14 to Apr 20	Apr 15 to Apr 21	% change from Apr 9 - Apr 15 to Apr 15 - Apr 21
<b>NORTH WEST</b>								
Northwestern Health Unit	74.1	60.5	59.3	61.6	53.6	62.7	67.3	-9.2%
Thunder Bay District Health Unit	34.0	27.3	25.3	24.0	26.0	27.3	28.7	-15.6%
<b>NORTH EAST</b>								
Algoma Public Health	28.0	23.6	22.7	23.6	20.1	22.7	19.2	-31.4%
North Bay Parry Sound District Health Unit	10.0	9.2	11.6	13.9	9.2	6.9	6.9	-31.0%
Porcupine Health Unit	88.7	88.7	89.9	112.7	115.1	125.8	131.8	+48.6%
Public Health Sudbury & Districts	90.9	71.3	70.3	52.3	47.7	44.7	46.7	-48.6%
Timiskaming Health Unit	21.4	24.5	24.5	21.4	36.7	48.9	55.1	+157.5%
<b>EASTERN</b>								
Ottawa Public Health	210.4	214.6	204.9	203.7	192.0	177.5	169.2	-19.6%
Eastern Ontario Health Unit	157.2	151.4	149.5	142.8	134.6	133.7	119.3	-24.1%
Hastings Prince Edward Public Health	64.1	65.3	60.5	57.6	45.7	43.3	35.0	-45.4%
Kingston, Frontenac and Lennox & Addington Public Health	48.0	44.2	36.7	43.2	40.9	34.3	31.5	-34.4%

Public Health Unit Name	Apr 9 to Apr 15	Apr 10 to Apr 16	Apr 11 to Apr 17	Apr 12 to Apr 18	Apr 13 to Apr 19	Apr 14 to Apr 20	Apr 15 to Apr 21	% change from Apr 9 - Apr 15 to Apr 15 - Apr 21
Leeds, Grenville & Lanark District Health Unit	65.3	57.2	58.3	54.3	50.8	47.4	44.5	-31.9%
Renfrew County and District Health Unit	33.1	31.3	34.1	23.9	23.9	29.5	22.1	-33.2%
<b>CENTRAL EAST</b>								
Durham Region Health Department	254.6	261.5	236.8	245.1	245.6	235.5	233.9	-8.1%
Haliburton, Kawartha, Pine Ridge District Health Unit	85.7	85.7	88.4	85.7	76.2	64.6	65.1	-24.0%
Peel Public Health	351.9	351.4	353.5	364.4	367.2	352.6	359.8	+2.2%
Peterborough Public Health	77.7	71.6	75.7	75.7	71.0	64.2	54.7	-29.6%
Simcoe Muskoka District Health Unit	128.9	124.8	121.8	114.2	116.9	119.1	112.2	-13.0%
York Region Public Health	287.4	286.7	288.4	280.8	266.4	267.3	253.0	-12.0%
<b>TORONTO</b>								
Toronto Public Health	283.4	280.2	283.5	289.0	282.7	285.3	269.5	-4.9%
<b>SOUTH WEST</b>								
Chatham-Kent Public Health	23.5	23.5	29.2	35.7	31.0	30.1	33.9	+44.3%
Grey Bruce Health Unit	85.9	88.9	87.7	88.3	82.4	74.8	58.3	-32.1%
Huron Perth Public Health	37.9	35.1	33.6	34.3	33.6	26.5	22.9	-39.6%
Lambton Public Health	68.7	62.6	58.0	48.9	51.9	51.9	50.4	-26.6%
Middlesex-London Health Unit	178.1	176.3	165.1	154.9	159.4	152.1	136.2	-23.5%

Public Health Unit Name	Apr 9 to Apr 15	Apr 10 to Apr 16	Apr 11 to Apr 17	Apr 12 to Apr 18	Apr 13 to Apr 19	Apr 14 to Apr 20	Apr 15 to Apr 21	% change from Apr 9 - Apr 15 to Apr 15 - Apr 21
Southwestern Public Health	89.4	87.5	83.2	74.7	75.7	70.0	67.6	-24.4%
Windsor-Essex County Health Unit	93.2	102.2	102.9	102.9	108.5	106.9	100.7	+8.0%
<b>CENTRAL WEST</b>								
Brant County Health Unit	179.8	173.3	170.1	185.6	174.6	175.3	175.9	-2.2%
City of Hamilton Public Health Services	192.7	194.9	206.2	206.4	203.8	214.5	204.0	+5.9%
Haldimand-Norfolk Health Unit	170.9	173.6	175.3	185.8	163.0	157.8	149.0	-12.8%
Halton Region Public Health	175.9	176.7	180.3	179.6	175.7	171.7	165.4	-6.0%
Niagara Region Public Health	233.7	237.5	247.0	252.7	246.6	251.9	240.2	+2.8%
Region of Waterloo Public Health and Emergency Services	103.4	101.5	105.9	97.2	102.5	96.5	99.1	-4.2%
Wellington-Dufferin-Guelph Public Health	158.7	160.0	155.2	154.2	154.9	144.0	142.3	-10.3%
<b>TOTAL ONTARIO</b>	<b>208.0</b>	<b>207.2</b>	<b>206.7</b>	<b>207.7</b>	<b>203.9</b>	<b>200.7</b>	<b>193.6</b>	<b>-6.9%</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. Summary of confirmed COVID-19 cases with a mutation or VOC by public health unit: Ontario as of April 24, 2021**

Public Health Unit Name	Cumulative count for Lineage B.1.1.7*	Cumulative count for Lineage B.1.351	Cumulative count for Lineage P.1	Cumulative count for mutations**
Algoma Public Health	35	0	0	10
Brant County Health Unit	255	0	4	306
Chatham-Kent Public Health	33	4	0	104
City of Hamilton Public Health Services	2,074	1	2	966
Durham Region Health Department	3,996	2	16	1,763
Eastern Ontario Health Unit	494	2	0	277
Grey Bruce Health Unit	171	0	0	39
Haldimand-Norfolk Health Unit	79	0	0	164
Haliburton, Kawartha, Pine Ridge District Health Unit	133	0	0	200
Halton Region Public Health	2,662	1	2	439
Hastings Prince Edward Public Health	7	0	1	256
Huron Perth Public Health	33	0	0	43
Kingston, Frontenac and Lennox & Addington Public Health	174	0	4	130
Lambton Public Health	259	0	0	80
Leeds, Grenville & Lanark District Health Unit	203	1	0	45
Middlesex-London Health Unit	1,550	0	2	236
Niagara Region Public Health	1,472	0	0	706



Public Health Unit Name	Cumulative count for Lineage B.1.1.7*	Cumulative count for Lineage B.1.351	Cumulative count for Lineage P.1	Cumulative count for mutations**
North Bay Parry Sound District Health Unit	48	27	0	12
Northwestern Health Unit	21	0	0	20
Ottawa Public Health	2,780	9	0	1,049
Peel Public Health	12,873	20	69	4,492
Peterborough Public Health	248	0	0	152
Porcupine Health Unit	11	2	0	4
Public Health Sudbury & Districts	257	0	0	429
Region of Waterloo Public Health and Emergency Services	1,233	1	1	352
Renfrew County and District Health Unit	78	0	0	17
Simcoe Muskoka District Health Unit	1,931	3	30	754
Southwestern Public Health	309	0	0	40
Thunder Bay District Health Unit	0	0	0	11
Timiskaming Health Unit	27	1	0	0
Toronto Public Health	8,707	82	172	13,637
Wellington-Dufferin-Guelph Public Health	1,063	0	1	153
Windsor-Essex County Health Unit	690	2	0	81
York Region Public Health	8,492	6	43	2,430
<b>TOTAL ONTARIO</b>	<b>52,398</b>	<b>164</b>	<b>347</b>	<b>29,397</b>

**Note:** Interpret the VOC and mutation trends with caution due to the varying time required to complete VOC testing and/or 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 count uses data from the Investigation Subtype field 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 where lineage B.1.1.7 was identified by genomic analysis and those presumed to be B.1.1.7 based on positive N501Y and negative E484K mutation.

\*\*Mutations includes all confirmed COVID-19 cases with the following mutations detected, reported from the Investigation Subtype field: N501Y and E484K, N501Y (E484K unknown), E484K (N501Y negative), E484K (N501Y unknown).

If a VOC is identified through genomic analysis, the change in cases and/or cumulative case counts for mutations will fluctuate as the case is moved to one of the listed lineages.

**Data Source:** CCM

**Table A3. Weekly percent positivity for cases tested for mutations or VOCs over recent rolling 7-day periods, by reported date and public health unit: Ontario, April 7 to April 19, 2021**

Public Health Unit Name	April 7 to April 13	April 8 to April 14	April 9 to April 15	April 10 to April 16	April 11 to April 17	April 12 to April 18	April 13 to April 19
Algoma Public Health	53.1	58.3	68.8	77.8	84.6	92.6	82.6
Brant County Health Unit	67.1	70.8	71.7	75.5	76.9	75.7	73.1
Chatham-Kent Public Health	51.5	55.9	64.0	72.0	67.7	73.7	78.8
City of Hamilton Public Health Services	79.2	78.4	79.0	78.6	79.2	79.3	75.6
Durham Region Health Department	82.5	84.5	85.0	85.6	84.3	84.3	83.9
Eastern Ontario Health Unit	66.3	63.4	59.1	57.6	57.7	57.0	54.1
Grey Bruce Health Unit	58.5	60.6	62.3	60.3	61.1	65.3	66.4
Haldimand-Norfolk Health Unit	78.0	79.5	81.0	80.8	81.5	78.8	74.7
Haliburton, Kawartha, Pine Ridge District Health Unit	66.1	66.9	62.3	63.6	63.5	64.8	67.4
Halton Region Public Health	79.4	78.8	78.5	77.2	78.2	77.0	74.5
Hastings Prince Edward Public Health	75.4	74.3	72.2	72.7	72.5	73.2	76.6
Huron Perth Public Health	40.7	46.3	41.5	49.0	46.8	50.0	48.9
Kingston, Frontenac and Lennox & Addington Public Health	69.8	72.3	73.5	78.7	80.8	81.5	83.9
Lambton Public Health	68.4	71.8	73.3	73.2	73.7	71.9	69.1
Leeds, Grenville & Lanark District Health Unit	75.2	68.8	67.3	68.7	65.3	63.8	63.6

Public Health Unit Name	April 7 to April 13	April 8 to April 14	April 9 to April 15	April 10 to April 16	April 11 to April 17	April 12 to April 18	April 13 to April 19
Middlesex-London Health Unit	59.0	61.2	63.8	65.5	67.9	67.6	67.9
Niagara Region Public Health	67.9	68.4	68.8	69.8	70.6	71.4	65.3
North Bay Parry Sound District Health Unit	73.7	75.0	69.2	66.7	73.3	77.8	83.3
Northwestern Health Unit	27.6	22.0	21.5	15.1	15.4	9.3	10.6
Ottawa Public Health	67.4	66.4	67.0	66.6	66.8	66.4	64.8
Peel Public Health	74.6	75.5	76.4	76.1	76.0	75.8	75.6
Peterborough Public Health	69.3	71.7	73.0	75.5	75.9	76.8	77.1
Porcupine Health Unit	76.3	70.0	73.0	75.7	74.7	73.4	72.9
Public Health Sudbury & Districts	73.1	73.3	71.8	70.4	70.0	71.2	72.6
Region of Waterloo Public Health and Emergency Services	66.3	66.9	66.9	65.6	64.9	68.7	72.1
Renfrew County and District Health Unit	86.8	76.1	75.0	73.5	78.4	69.2	65.4
Simcoe Muskoka District Health Unit	74.4	77.4	79.8	79.9	80.3	81.0	82.3
Southwestern Public Health	73.2	74.4	74.6	74.1	72.2	67.7	66.3
Thunder Bay District Health Unit	10.5	9.8	11.8	7.3	0.0	0.0	2.6
Timiskaming Health Unit	100.0	85.7	85.7	87.5	87.5	85.7	66.7
Toronto Public Health	77.5	77.4	77.9	77.5	76.6	77.0	78.4

Public Health Unit Name	April 7 to April 13	April 8 to April 14	April 9 to April 15	April 10 to April 16	April 11 to April 17	April 12 to April 18	April 13 to April 19
Wellington-Dufferin-Guelph Public Health	69.0	68.3	66.9	66.5	66.1	74.8	74.1
Windsor-Essex County Health Unit	63.4	62.7	60.9	57.8	57.4	57.0	56.6
York Region Public Health	82.8	83.1	82.9	83.0	83.4	83.4	84.1
<b>TOTAL ONTARIO</b>	<b>74.9</b>	<b>75.3</b>	<b>75.7</b>	<b>75.6</b>	<b>75.5</b>	<b>75.7</b>	<b>75.6</b>

**Note:** Data for calculating the number of cases tested for mutations common to VOCs or lineages using genomic analyses are obtained using information from the Laboratory object in CCM in addition to the data from the Investigation subtype field. Therefore, comparisons to counts using only information from the Investigation Subtype field may not align. The percent of cases due to a VOC may be higher than described in this report. While all confirmed COVID-19 cases are included in the denominator, not all cases were able to be tested for VOCs. Percent positivity is based on the sum of the daily cases that test positive divided by the number of cases reported during the date ranges specified in each column.

**Data Source:** CCM.

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