

## DAILY EPIDEMIOLOGICAL SUMMARY

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

This report includes the most current information available from CCM as of **April 21, 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 432,805 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
  - An increase of 3,682 confirmed cases (percent change of -12.6%)
  - An increase of 40 deaths (percent change of +25.0%)
  - An increase of 4,597 resolved cases (percent change of +9.3%)

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 20, 2021	Change in cases April 21, 2021	Percentage change April 21, 2021 compared to April 20, 2021	Cumulative case count as of April 21, 2021
Total number of cases	4,212	3,682	-12.6%	432,805
Number of deaths	32	40	+25.0%	7,829
Number resolved	4,204	4,597	+9.3%	383,014

**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 20, 2021	Change in cases April 21, 2021	Cumulative case count as of April 21, 2021
Gender: Male	2,102	1,818	214,819
Gender: Female	2,041	1,789	215,195
Ages: 19 and under	759	634	65,752
Ages: 20-39	1,554	1,395	158,960
Ages: 40-59	1,263	1,120	124,778
Ages: 60-79	545	471	60,195
Ages: 80 and over	82	66	23,005

**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 21, 2021: Ontario**

	Change in cases April 20, 2021	Change in cases April 21, 2021	Cumulative case count from August 30, 2020 to April 21, 2021
Ages: 4 to 8	146	112	11,865
Ages: 9 to 13	196	149	15,534
Ages: 14 to 17	161	173	15,395

**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**

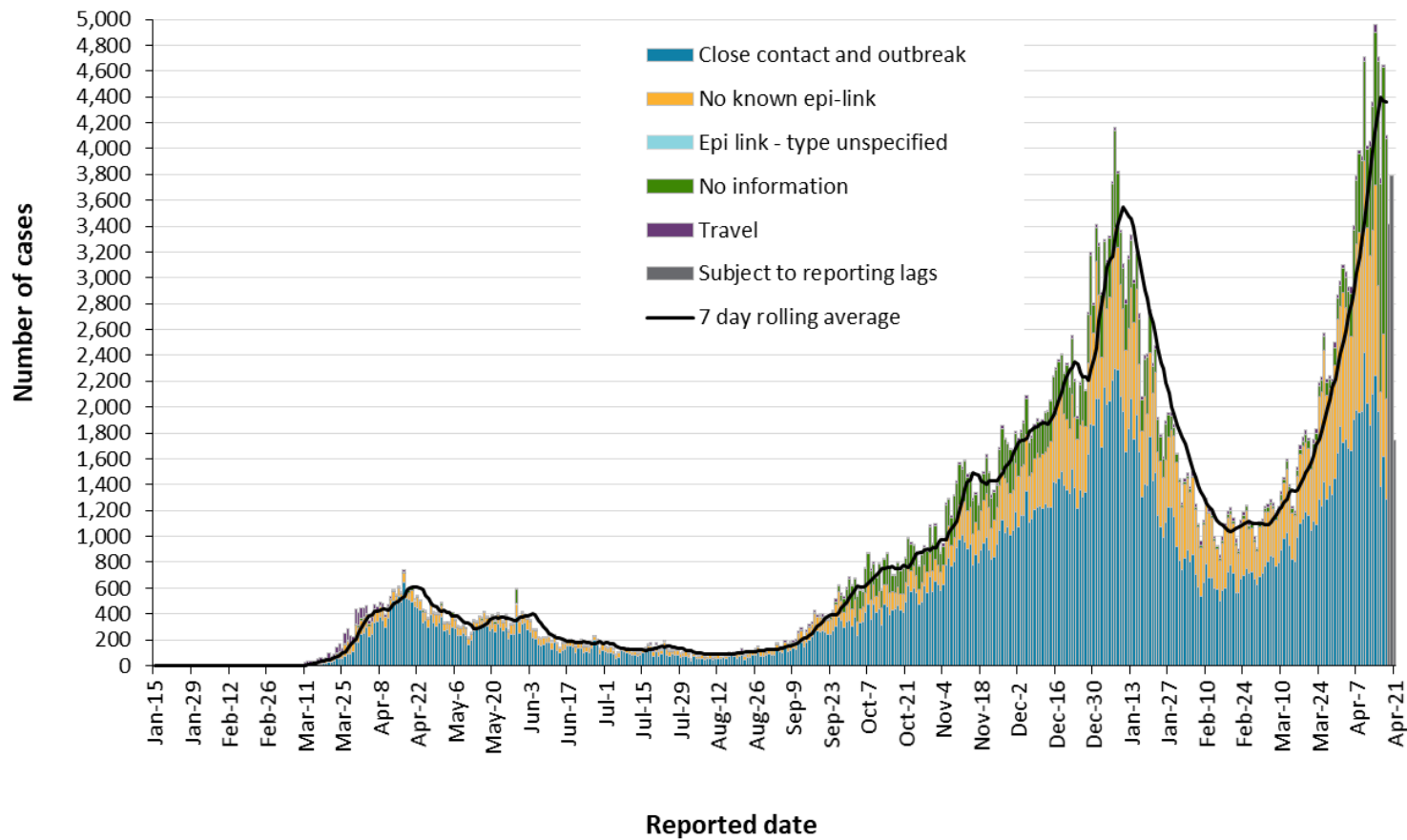
Long-term care home cases	Change in cases April 20, 2021	Change in cases April 21, 2021	Cumulative case count as of April 21, 2021
Residents	2	4	15,117
Health care workers	1	5	6,909
Deaths among residents	0	0	3,912
Deaths among health care workers	0	0	10

**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

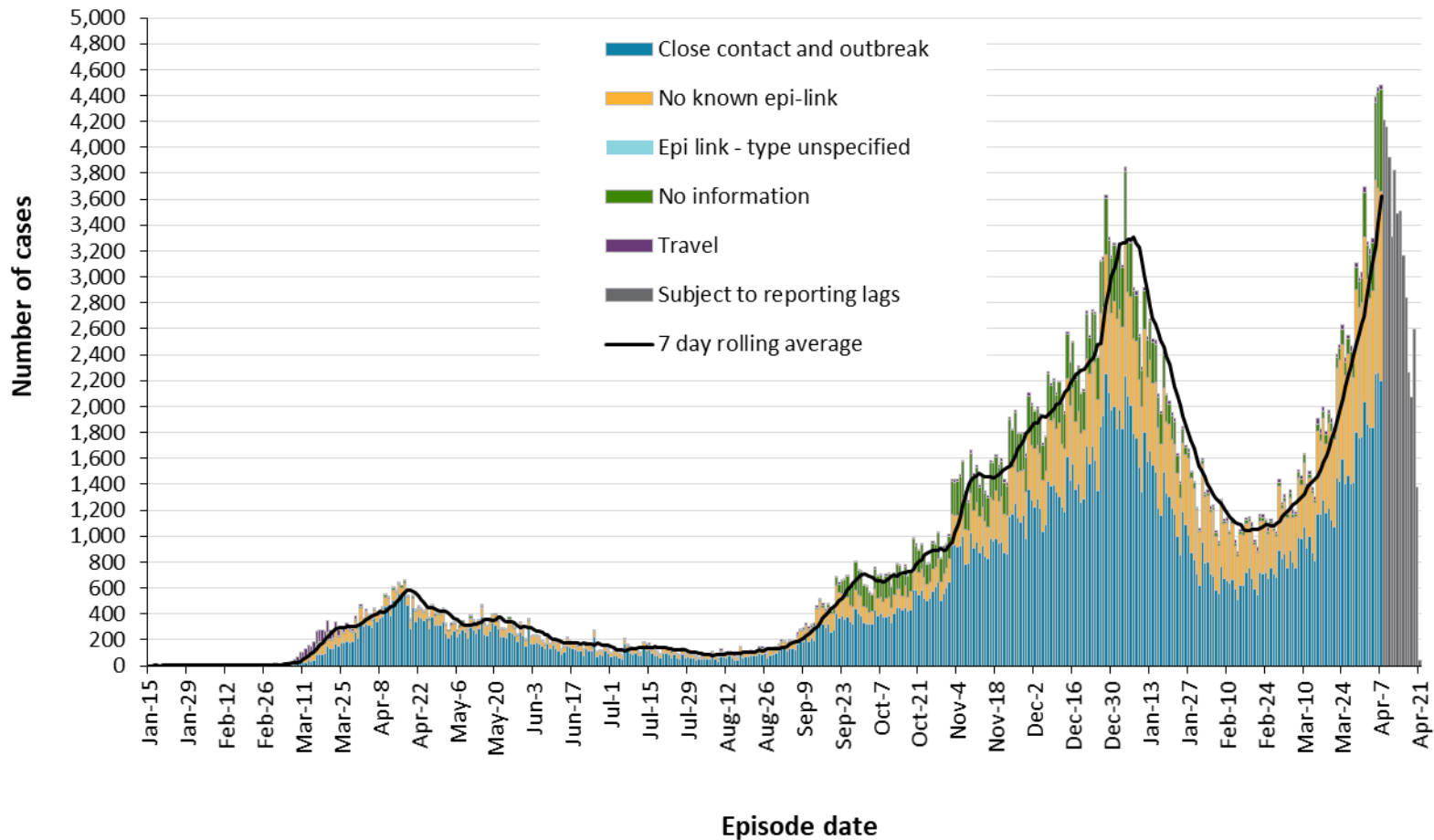
# Time

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



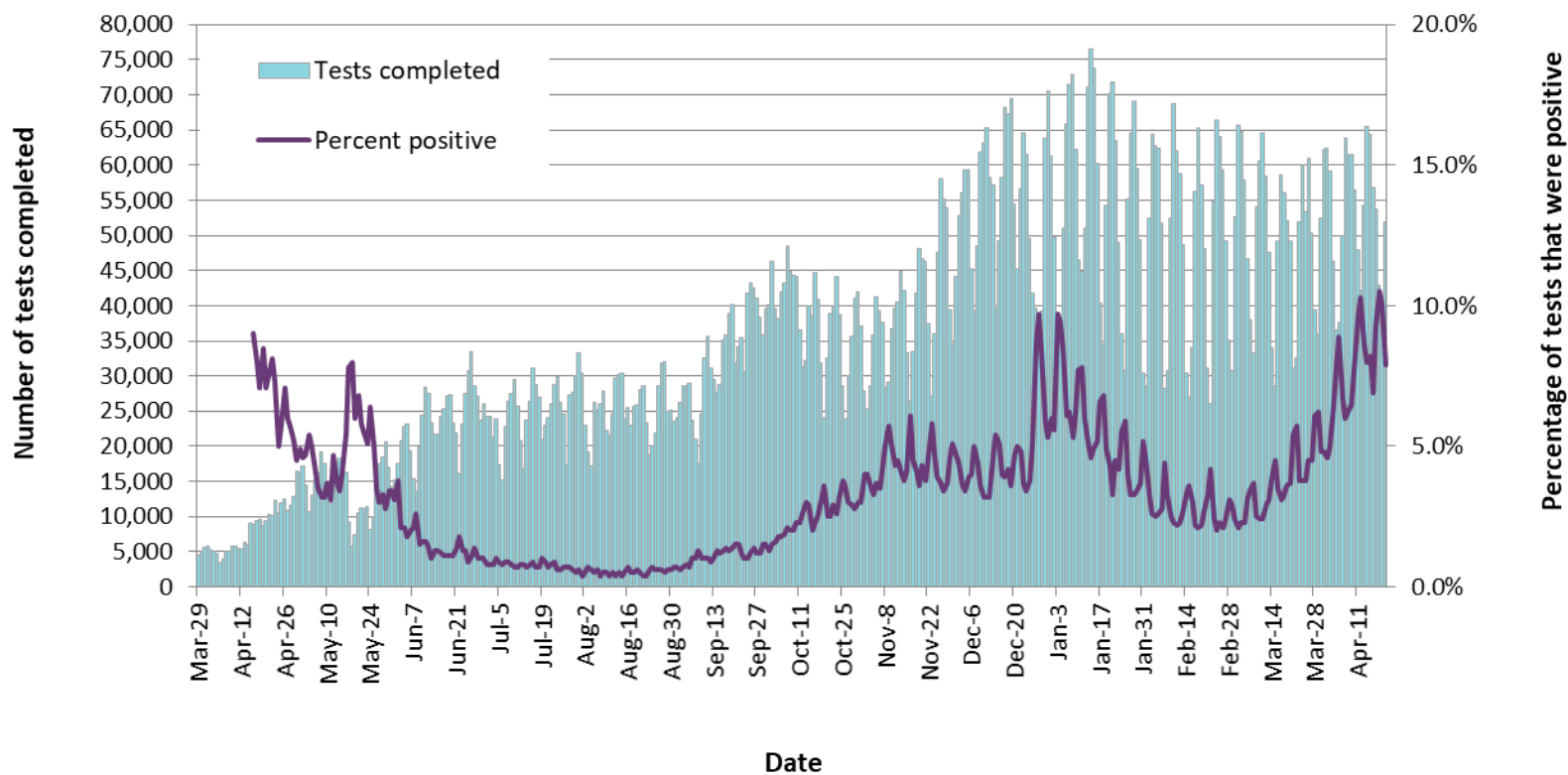
Data Source: CCM  
COVID-19 in Ontario: January 15, 2020 to April 21, 2021

**Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to April 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 April 20, 2021**

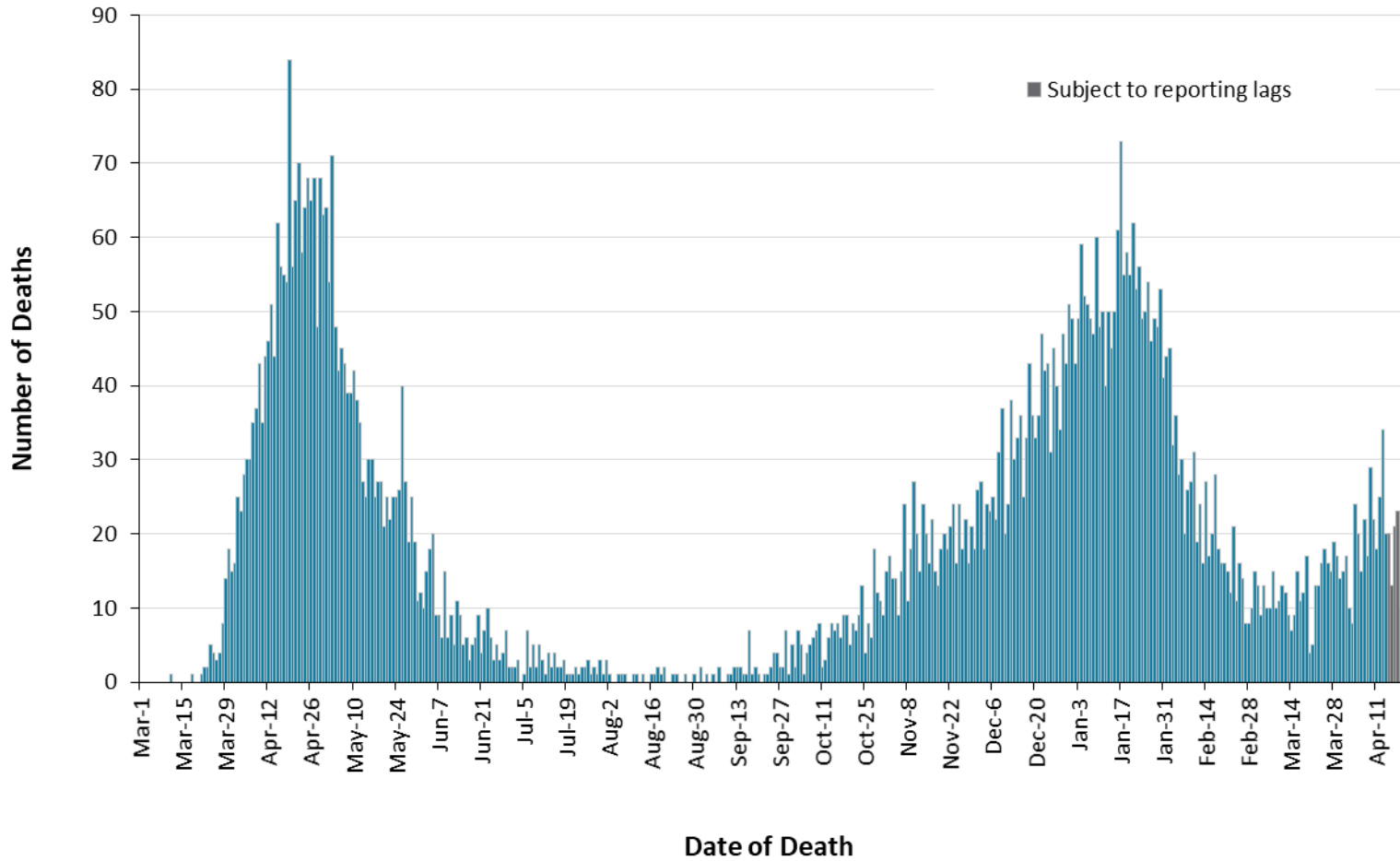


**Note:** The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

**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 April 21, 2021



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

**Data Source:** CCM

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



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

	Cumulative case count as of April 21, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	7,829	1.8%
Deaths reported in ages: 19 and under	2	<0.1%
Deaths reported in ages: 20-39	45	<0.1%
Deaths reported in ages: 40-59	358	0.3%
Deaths reported in ages: 60-79	2,287	3.8%
Deaths reported in ages: 80 and over	5,136	22.3%
Ever in ICU	3,731	0.9%
Ever hospitalized	20,696	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 20, 2021	Change in cases April 21, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	9	14	837	954.7
Thunder Bay District Health Unit	16	7	3,034	2023.2
<b>TOTAL NORTH WEST</b>	25	21	3,871	1629.0
Algoma Public Health	8	6	311	271.8
North Bay Parry Sound District Health Unit	0	3	334	257.4
Porcupine Health Unit	11	17	529	634.0
Public Health Sudbury & Districts	8	16	1,846	927.5
Timiskaming Health Unit	9	5	152	465.0
<b>TOTAL NORTH EAST</b>	36	47	3,172	567.1
Ottawa Public Health	177	279	22,651	2147.7
Eastern Ontario Health Unit	22	64	4,086	1957.7
Hastings Prince Edward Public Health	11	9	837	496.8
Kingston, Frontenac and Lennox & Addington Public Health	8	8	1,179	554.3
Leeds, Grenville & Lanark District Health Unit	13	10	1,539	888.7
Renfrew County and District Health Unit	0	12	537	494.3
<b>TOTAL EASTERN</b>	231	382	30,829	1600.4

Public Health Unit Name	Change in cases April 20, 2021	Change in cases April 21, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	214	200	18,804	2639.5
Haliburton, Kawartha, Pine Ridge District Health Unit	20	4	1,539	814.6
Peel Public Health	771	507	84,748	5277.1
Peterborough Public Health	11	9	1,132	765.0
Simcoe Muskoka District Health Unit	124	69	9,774	1630.1
York Region Public Health	386	436	42,884	3498.5
<b>TOTAL CENTRAL EAST</b>	1,526	1,225	158,881	3545.9
Toronto Public Health	1,249	1,131	133,659	4283.5
<b>TOTAL TORONTO</b>	1,249	1,131	133,659	4283.5
Chatham-Kent Public Health	0	3	1,729	1626.3
Grey Bruce Health Unit	7	18	1,097	645.7
Huron Perth Public Health	2	5	1,558	1114.8
Lambton Public Health	3	16	3,143	2399.9
Middlesex-London Health Unit	117	113	9,592	1890.0
Southwestern Public Health	24	24	3,259	1540.9
Windsor-Essex County Health Unit	74	47	15,000	3530.8
<b>TOTAL SOUTH WEST</b>	227	226	35,378	2092.4
Brant County Health Unit	50	38	2,876	1853.1
City of Hamilton Public Health Services	276	144	15,969	2696.7

Public Health Unit Name	Change in cases April 20, 2021	Change in cases April 21, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	21	34	2,070	1814.5
Halton Region Public Health	168	129	13,434	2170.0
Niagara Region Public Health	201	165	12,503	2646.2
Region of Waterloo Public Health and Emergency Services	120	94	13,544	2317.7
Wellington-Dufferin-Guelph Public Health	82	46	6,619	2122.1
<b>TOTAL CENTRAL WEST</b>	918	650	67,015	2352.0
<b>TOTAL ONTARIO</b>	<b>4,212</b>	<b>3,682</b>	<b>432,805</b>	<b>2911.7</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 20, 2021	Change in outbreaks April 21, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	3	7	42	1,422
Retirement homes	2	0	18	837
Hospitals	2	3	35	506

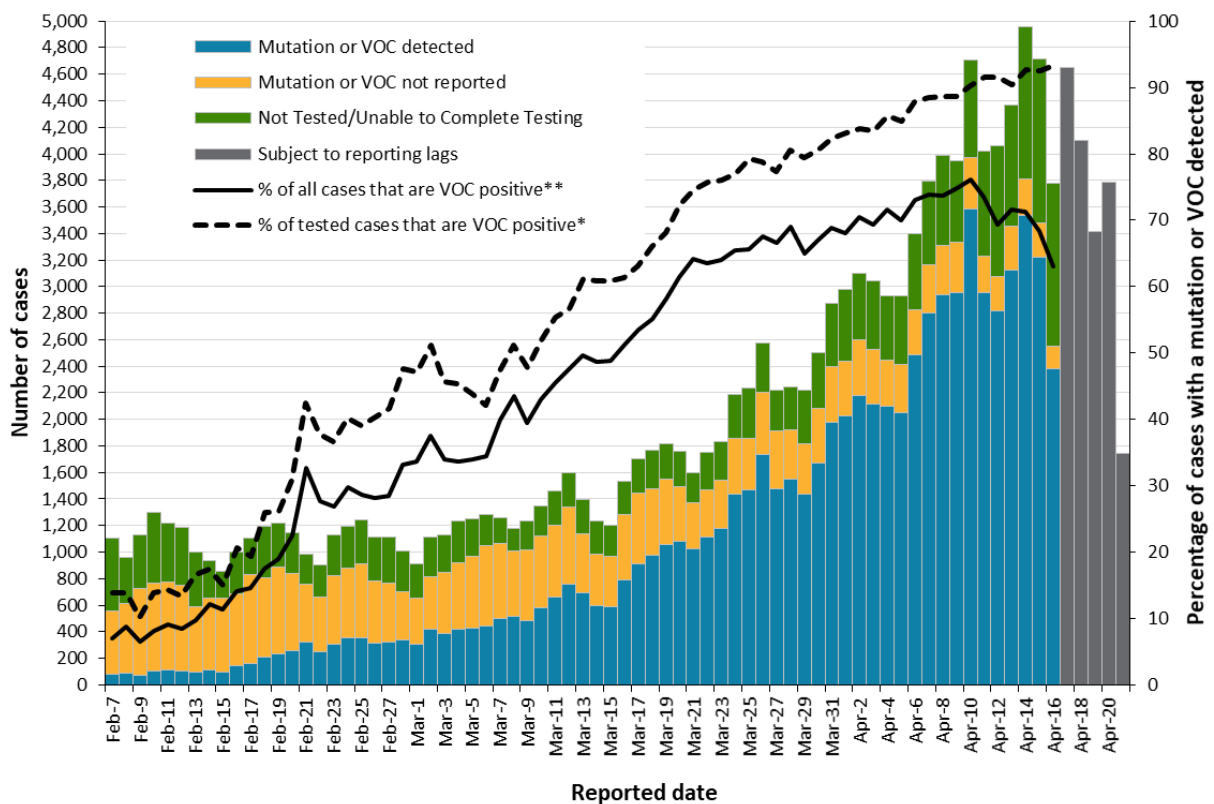
**Note:** Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset 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 21, 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**

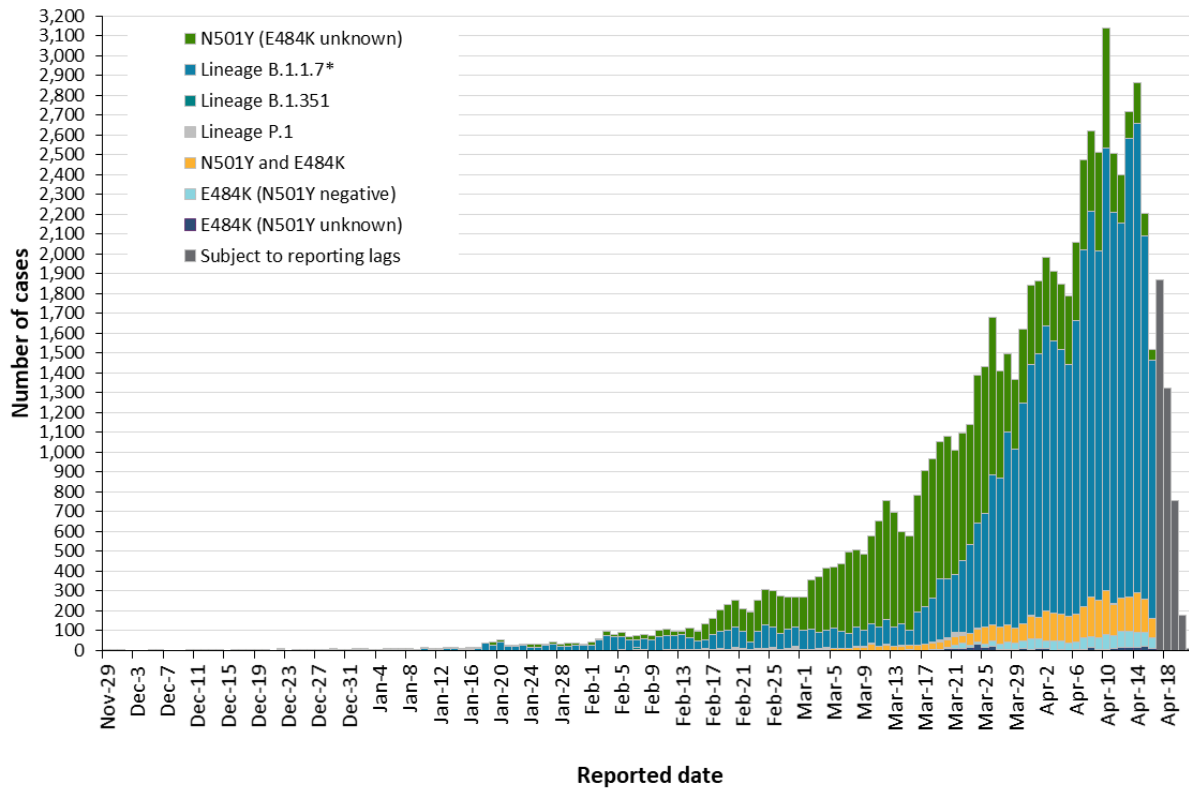
	Change in cases April 20, 2021	Change in cases April 21, 2021	Cumulative case count up to April 21, 2021
Variant of Concern			
Lineage B.1.1.7*	2,119	2,810	44,205
Lineage B.1.351	3	5	113
Lineage P.1	1	6	218
Mutations			
N501Y and E484K	148	148	4,027
N501Y (E484K unknown)**	100	76	23,215
E484K (N501Y negative)	102	83	1,375
E484K (N501Y unknown)	-11	7	352

**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 21, 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 21, 2021 at 1 p.m.** for cases reported in 2021 and as of **April 20, 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

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)
- LOINC codes 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. LOINC codes 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 6 to April 18, 2021**

Public Health Unit Name	Apr 6 to Apr 12	Apr 7 to Apr 13	Apr 8 to Apr 14	Apr 9 to Apr 15	Apr 10 to Apr 16	Apr 11 to Apr 17	Apr 12 to Apr 18	% change from Apr 6 - Apr 12 to Apr 12 - Apr 18
<b>NORTH WEST</b>								
Northwestern Health Unit	61.6	66.2	67.3	74.1	60.5	59.3	60.5	-1.8%
Thunder Bay District Health Unit	42.0	38.0	40.7	33.3	26.7	25.3	24.0	-42.9%
<b>NORTH EAST</b>								
Algoma Public Health	27.1	28.0	31.5	28.0	23.6	22.7	23.6	-12.9%
North Bay Parry Sound District Health Unit	14.6	14.6	12.3	10.0	9.2	11.6	13.9	-4.8%
Porcupine Health Unit	49.1	44.3	47.9	88.7	88.7	89.9	113.9	+132.0%
Public Health Sudbury & Districts	86.4	83.4	80.9	90.9	71.3	70.3	52.3	-39.5%
Timiskaming Health Unit	9.2	15.3	21.4	21.4	24.5	24.5	21.4	+132.6%
<b>EASTERN</b>								
Ottawa Public Health	181.0	197.7	203.0	200.5	204.4	203.5	203.9	+12.7%
Eastern Ontario Health Unit	136.1	139.4	151.9	157.6	151.9	150.0	143.3	+5.3%
Hastings Prince Edward Public Health	75.4	67.7	67.1	64.1	65.3	60.5	57.6	-23.6%
Kingston, Frontenac and Lennox & Addington Public Health	52.7	54.5	52.7	48.0	44.2	36.2	42.8	-18.8%

Public Health Unit Name	Apr 6 to Apr 12	Apr 7 to Apr 13	Apr 8 to Apr 14	Apr 9 to Apr 15	Apr 10 to Apr 16	Apr 11 to Apr 17	Apr 12 to Apr 18	% change from Apr 6 - Apr 12 to Apr 12 - Apr 18
Leeds, Grenville & Lanark District Health Unit	69.3	67.6	64.7	65.3	57.2	57.7	54.3	-21.6%
Renfrew County and District Health Unit	40.5	35.0	42.3	33.1	31.3	34.1	23.9	-41.0%
<b>CENTRAL EAST</b>								
Durham Region Health Department	231.3	245.9	253.9	254.4	261.1	236.8	245.5	+6.1%
Haliburton, Kawartha, Pine Ridge District Health Unit	76.7	88.9	79.9	85.7	85.7	88.4	85.7	+11.7%
Peel Public Health	299.8	316.1	337.2	351.6	351.1	353.6	363.1	+21.1%
Peterborough Public Health	60.1	68.3	71.6	77.7	71.6	75.7	75.7	+26.0%
Simcoe Muskoka District Health Unit	122.4	121.2	122.3	128.9	125.3	121.9	114.6	-6.4%
York Region Public Health	275.2	279.3	283.2	287.2	286.3	287.4	279.7	+1.6%
<b>TORONTO</b>								
Toronto Public Health	263.0	264.1	274.6	282.3	278.0	279.1	282.8	+7.5%
<b>SOUTH WEST</b>								
Chatham-Kent Public Health	32.0	30.1	31.0	22.6	22.6	27.3	32.9	+2.8%
Grey Bruce Health Unit	51.2	63.0	74.8	85.9	88.9	87.7	88.3	+72.5%
Huron Perth Public Health	30.8	42.2	38.6	37.9	35.1	33.6	34.3	+11.4%
Lambton Public Health	90.9	101.6	84.0	69.5	63.4	58.8	49.6	-45.4%
Middlesex-London Health Unit	174.8	184.8	187.4	178.3	176.3	165.3	154.7	-11.5%

Public Health Unit Name	Apr 6 to Apr 12	Apr 7 to Apr 13	Apr 8 to Apr 14	Apr 9 to Apr 15	Apr 10 to Apr 16	Apr 11 to Apr 17	Apr 12 to Apr 18	% change from Apr 6 - Apr 12 to Apr 12 - Apr 18
Southwestern Public Health	66.7	77.1	82.7	88.4	86.5	82.7	74.2	+11.2%
Windsor-Essex County Health Unit	76.5	79.8	88.7	93.0	101.2	102.2	101.9	+33.2%
<b>CENTRAL WEST</b>								
Brant County Health Unit	132.7	146.3	156.6	179.8	173.3	170.1	184.9	+39.3%
City of Hamilton Public Health Services	164.0	169.7	181.7	192.9	194.9	206.0	206.2	+25.7%
Haldimand-Norfolk Health Unit	140.3	152.5	167.4	172.7	175.3	177.1	185.0	+31.9%
Halton Region Public Health	167.7	172.2	173.8	175.6	176.6	179.9	178.8	+6.6%
Niagara Region Public Health	187.3	192.4	218.4	233.2	234.5	243.8	248.7	+32.8%
Region of Waterloo Public Health and Emergency Services	96.2	101.8	103.2	103.2	101.5	105.9	98.9	+2.8%
Wellington-Dufferin-Guelph Public Health	149.7	162.2	166.1	158.4	159.7	154.9	153.6	+2.6%
<b>TOTAL ONTARIO</b>	<b>187.8</b>	<b>194.3</b>	<b>202.1</b>	<b>207.0</b>	<b>205.8</b>	<b>205.5</b>	<b>206.0</b>	<b>+9.7%</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 21, 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	6	0	0	26
Brant County Health Unit	217	0	4	239
Chatham-Kent Public Health	26	4	0	95
City of Hamilton Public Health Services	1,296	1	2	891
Durham Region Health Department	3,495	2	14	1,744
Eastern Ontario Health Unit	459	2	0	276
Grey Bruce Health Unit	149	0	0	38
Haldimand-Norfolk Health Unit	47	0	0	145
Haliburton, Kawartha, Pine Ridge District Health Unit	87	0	0	186
Halton Region Public Health	2,079	1	2	561
Hastings Prince Edward Public Health	6	0	1	240
Huron Perth Public Health	31	0	0	35
Kingston, Frontenac and Lennox & Addington Public Health	147	0	4	129
Lambton Public Health	240	0	0	54
Leeds, Grenville & Lanark District Health Unit	180	1	0	44
Middlesex-London Health Unit	1,350	0	2	214
Niagara Region Public Health	966	0	0	610



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	45	27	0	12
Northwestern Health Unit	19	0	0	20
Ottawa Public Health	2,507	7	0	1,011
Peel Public Health	11,582	18	52	4,363
Peterborough Public Health	223	0	0	151
Porcupine Health Unit	6	2	0	4
Public Health Sudbury & Districts	199	0	0	470
Region of Waterloo Public Health and Emergency Services	1,075	1	1	306
Renfrew County and District Health Unit	63	0	0	13
Simcoe Muskoka District Health Unit	1,625	3	22	721
Southwestern Public Health	276	0	0	39
Thunder Bay District Health Unit	0	0	0	10
Timiskaming Health Unit	27	1	0	0
Toronto Public Health	7,124	36	80	13,706
Wellington-Dufferin-Guelph Public Health	914	0	1	138
Windsor-Essex County Health Unit	565	2	0	76
York Region Public Health	7,174	5	33	2,402
<b>TOTAL ONTARIO</b>	<b>44,205</b>	<b>113</b>	<b>218</b>	<b>28,969</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 4 to April 16, 2021**

Public Health Unit Name	April 4 to April 10	April 5 to April 11	April 6 to April 12	April 7 to April 13	April 8 to April 14	April 9 to April 15	April 10 to April 16
Algoma Public Health	27.6	32.1	45.2	53.1	55.6	65.6	74.1
Brant County Health Unit	52.3	54.9	63.6	66.5	69.5	70.3	74.0
Chatham-Kent Public Health	50.0	59.4	55.9	53.1	57.6	66.7	75.0
City of Hamilton Public Health Services	68.5	71.8	76.4	79.0	78.3	73.6	69.9
Durham Region Health Department	81.6	82.1	82.6	82.0	83.6	82.7	82.3
Eastern Ontario Health Unit	68.9	68.5	69.4	66.3	63.4	59.3	57.7
Grey Bruce Health Unit	55.7	53.8	51.7	57.0	59.1	61.0	58.9
Haldimand-Norfolk Health Unit	66.4	68.9	73.1	77.0	78.5	75.6	74.0
Haliburton, Kawartha, Pine Ridge District Health Unit	60.8	58.8	62.1	62.5	59.6	51.2	46.9
Halton Region Public Health	76.2	78.0	79.1	79.0	78.3	76.7	73.3
Hastings Prince Edward Public Health	72.6	71.2	72.4	74.6	73.5	71.3	68.2
Huron Perth Public Health	44.7	39.5	41.9	40.7	46.3	41.5	49.0
Kingston, Frontenac and Lennox & Addington Public Health	72.5	70.6	72.3	69.8	72.3	73.5	78.7
Lambton Public Health	64.9	67.2	68.1	68.4	71.8	72.5	72.3
Leeds, Grenville & Lanark District Health Unit	71.1	74.2	72.5	74.4	68.8	67.3	68.7

<b>Public Health Unit Name</b>	<b>April 4 to April 10</b>	<b>April 5 to April 11</b>	<b>April 6 to April 12</b>	<b>April 7 to April 13</b>	<b>April 8 to April 14</b>	<b>April 9 to April 15</b>	<b>April 10 to April 16</b>
Middlesex-London Health Unit	54.7	57.0	58.7	58.7	61.0	63.6	65.3
Niagara Region Public Health	59.3	59.6	58.2	58.6	54.6	49.9	44.4
North Bay Parry Sound District Health Unit	80.0	84.6	78.9	73.7	68.8	61.5	58.3
Northwestern Health Unit	24.0	31.9	25.9	27.6	22.0	18.5	11.3
Ottawa Public Health	62.9	64.7	66.3	67.0	66.0	66.3	66.4
Peel Public Health	73.8	73.9	74.1	74.5	75.3	75.8	75.0
Peterborough Public Health	71.1	70.4	70.8	69.3	71.7	72.2	74.5
Porcupine Health Unit	62.2	62.2	65.9	75.7	70.0	73.0	75.7
Public Health Sudbury & Districts	72.4	70.6	70.9	72.9	73.3	71.8	69.7
Region of Waterloo Public Health and Emergency Services	69.6	64.3	65.1	66.1	66.7	66.8	64.6
Renfrew County and District Health Unit	73.0	83.3	81.8	84.2	73.9	72.2	70.6
Simcoe Muskoka District Health Unit	70.0	70.2	69.2	69.7	71.1	70.2	66.3
Southwestern Public Health	73.4	77.7	78.0	73.0	74.3	74.9	74.3
Thunder Bay District Health Unit	10.9	10.0	9.5	10.5	9.8	12.0	7.5
Timiskaming Health Unit	100.0	100.0	100.0	100.0	85.7	85.7	87.5
Toronto Public Health	79.1	78.6	76.0	74.4	72.9	71.8	69.6

Public Health Unit Name	April 4 to April 10	April 5 to April 11	April 6 to April 12	April 7 to April 13	April 8 to April 14	April 9 to April 15	April 10 to April 16
Wellington-Dufferin-Guelph Public Health	73.0	64.3	66.4	68.6	67.8	66.2	62.0
Windsor-Essex County Health Unit	59.4	61.1	63.7	62.5	62.1	60.8	55.1
York Region Public Health	80.8	81.6	81.1	81.4	81.5	80.7	80.4
<b>TOTAL ONTARIO</b>	<b>73.6</b>	<b>73.8</b>	<b>73.5</b>	<b>73.3</b>	<b>72.9</b>	<b>72.1</b>	<b>70.6</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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## For Further Information

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## Public Health Ontario

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