

## DAILY EPIDEMIOLOGICAL SUMMARY

# COVID-19 in Ontario: January 15, 2020 to May 10, 2021

This report includes the most current information available from CCM as of **May 10, 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 497,092 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
  - An increase of 2,073 confirmed cases (percent change of -23.7%)
  - An increase of 15 deaths (percent change of -21.1%)
  - An increase of 2,898 resolved cases (percent change of -6.8%)

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 May 9, 2021	Change in cases May 10, 2021	Percentage change May 10, 2021 compared to May 9, 2021	Cumulative case count as of May 10, 2021
Total number of cases	2,716	2,073	-23.7%	497,092
Number of deaths	19	15	-21.1%	8,342
Number resolved	3,110	2,898	-6.8%	457,599

**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 May 9, 2021	Change in cases May 10, 2021	Cumulative case count as of May 10, 2021
Gender: Male	1,349	1,061	247,129
Gender: Female	1,293	963	246,069
Ages: 19 and under	544	379	77,560
Ages: 20-39	1,112	861	184,645
Ages: 40-59	741	572	143,233
Ages: 60-79	271	220	67,452
Ages: 80 and over	50	42	24,094

**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 May 10, 2021: Ontario**

	Change in cases May 9, 2021	Change in cases May 10, 2021	Cumulative case count from August 30, 2020 to May 10, 2021
Ages: 4 to 8	91	60	14,111
Ages: 9 to 13	135	77	18,107
Ages: 14 to 17	135	91	18,249

**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**

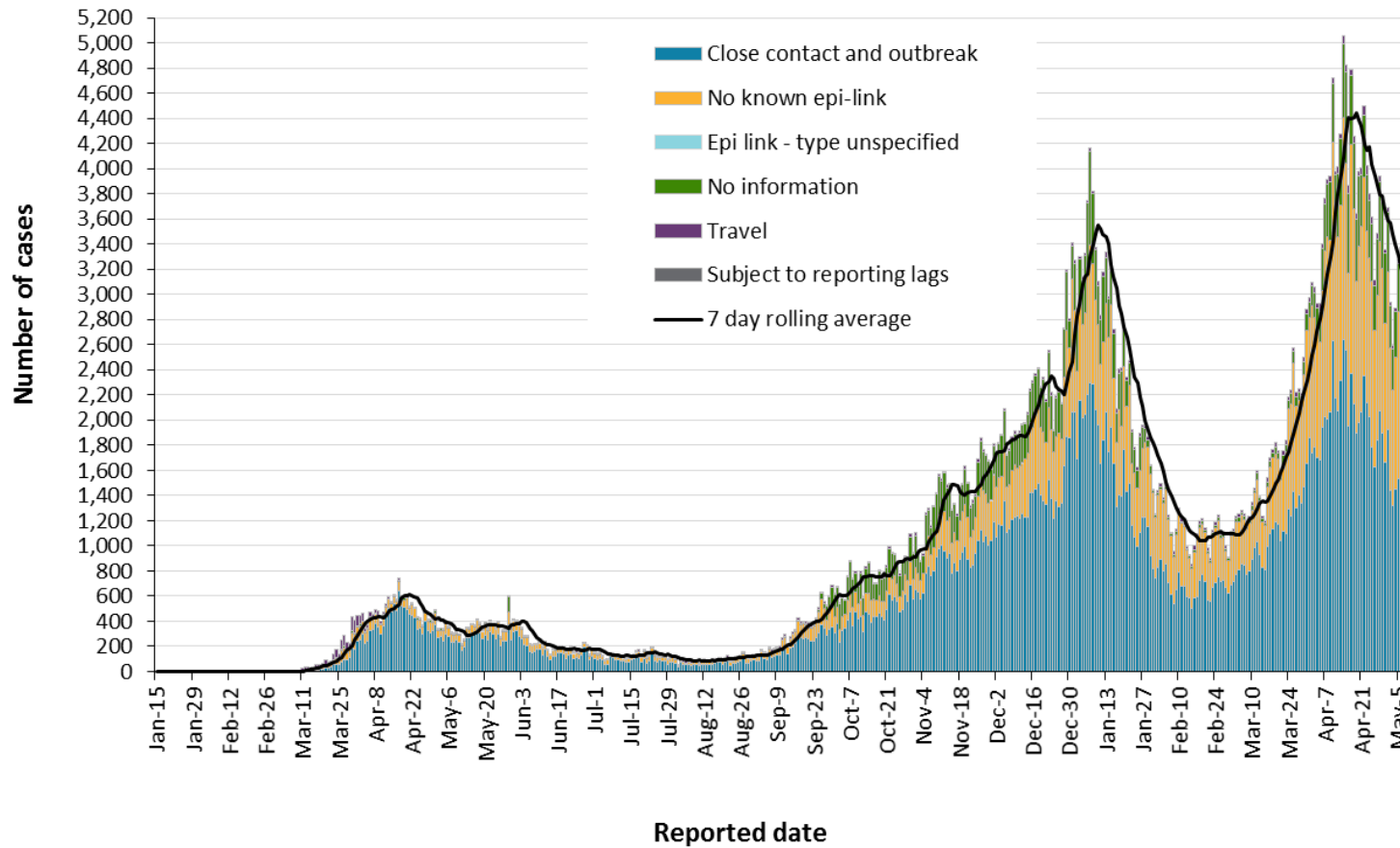
Long-term care home cases	Change in cases May 9, 2021	Change in cases May 10, 2021	Cumulative case count as of May 10, 2021
Residents	3	4	15,207
Health care workers	4	5	7,024
Deaths among residents	0	3	3,934
Deaths among health care workers	0	0	10

**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

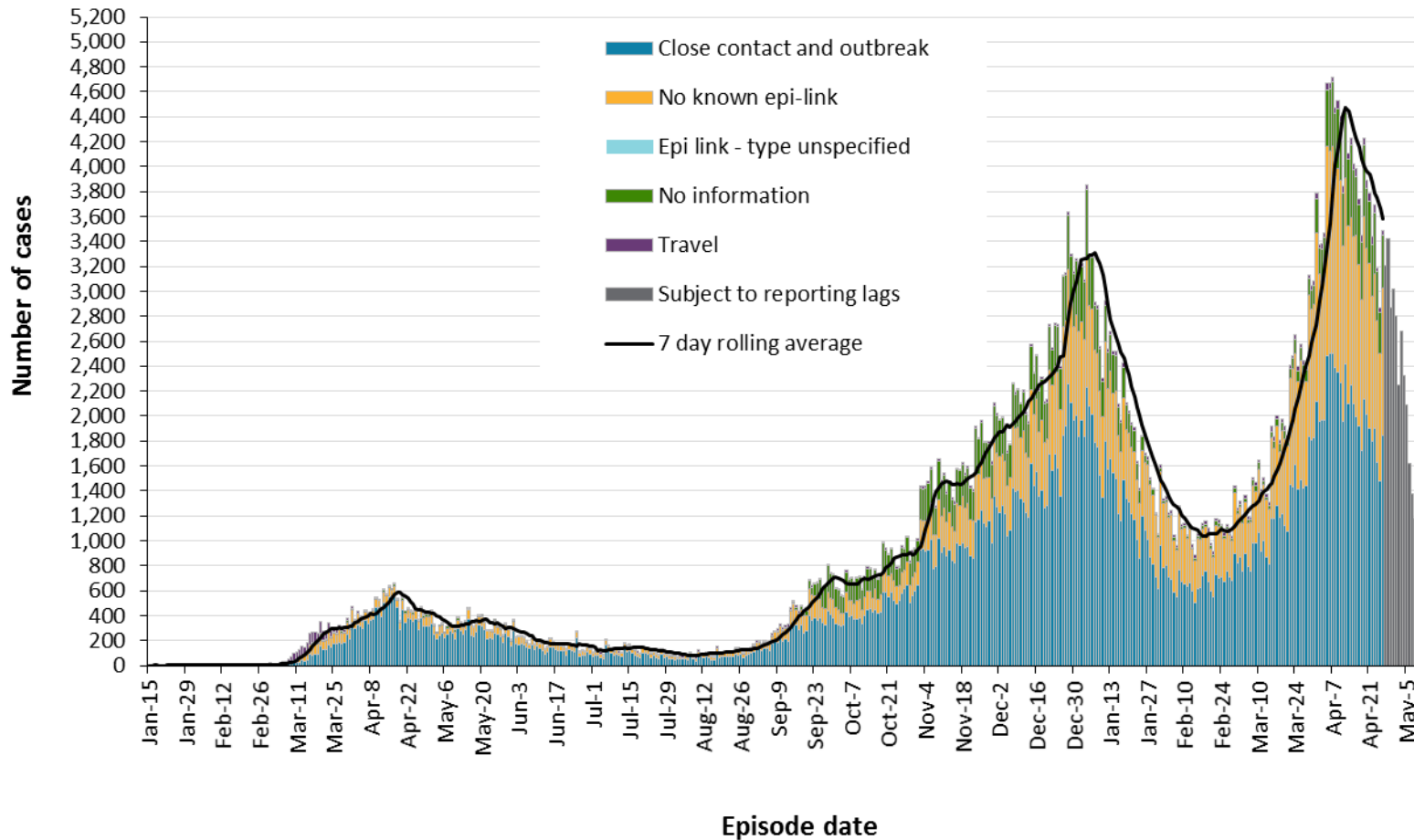
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to May 10, 2021



Data Source: CCM

COVID-19 in Ontario: January 15, 2020 to May 10, 2021

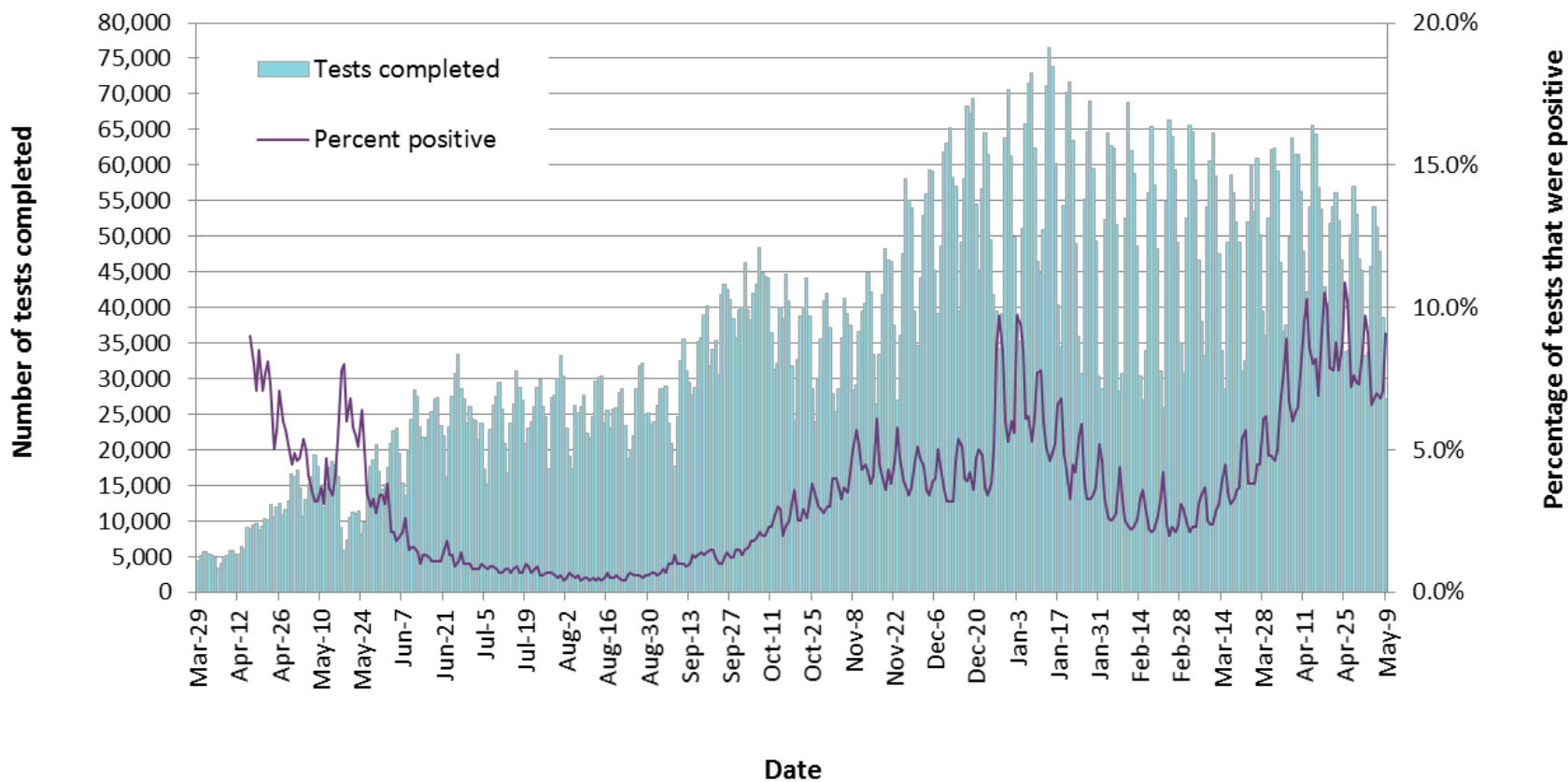
**Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to May 10, 2021**



**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 May 9, 2021**

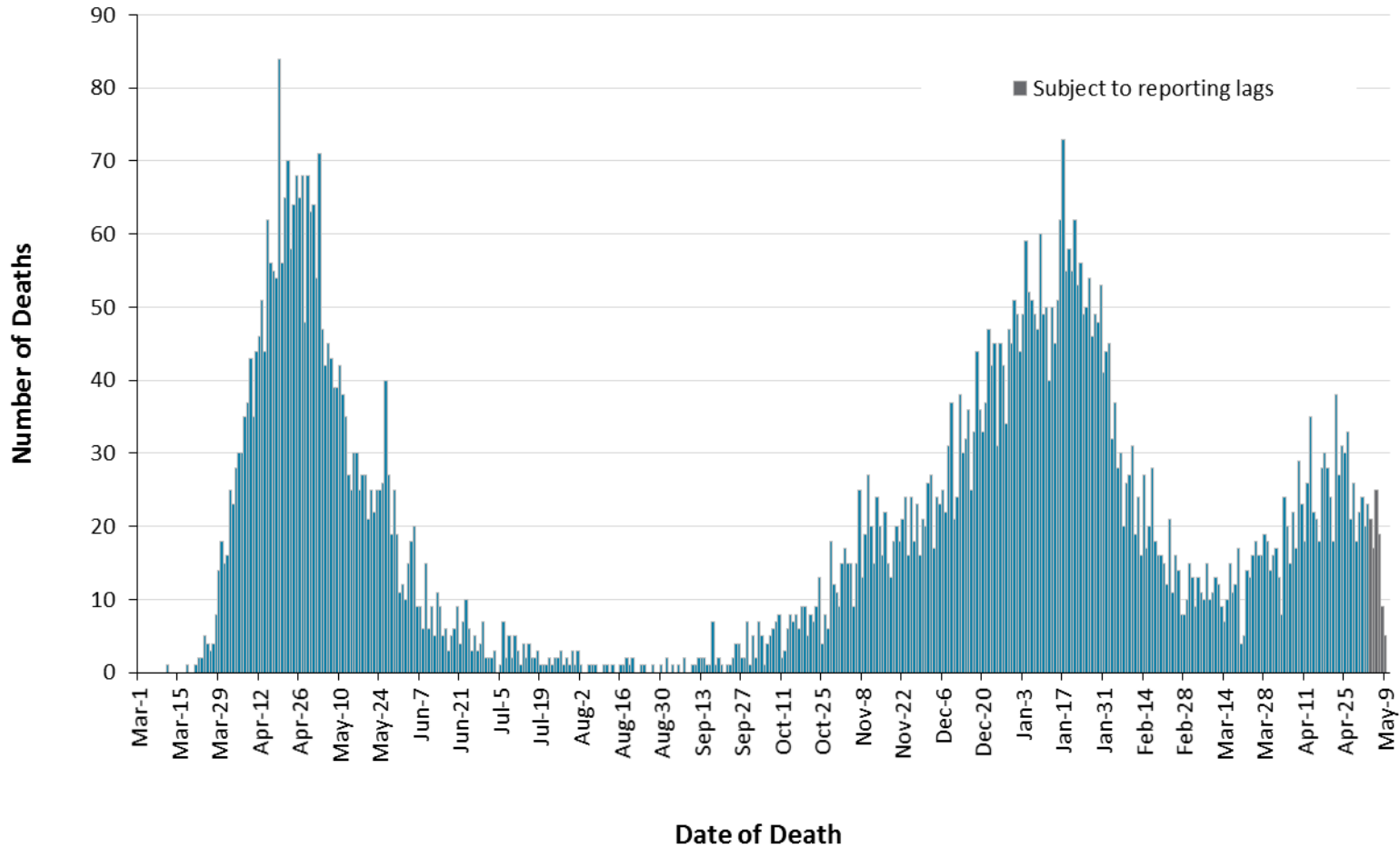


**Note:** The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

**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 May 10, 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 May 10, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	8,342	1.7%
Deaths reported in ages: 19 and under	4	<0.1%
Deaths reported in ages: 20-39	59	<0.1%
Deaths reported in ages: 40-59	427	0.3%
Deaths reported in ages: 60-79	2,514	3.7%
Deaths reported in ages: 80 and over	5,337	22.2%
Ever in ICU	4,426	0.9%
Ever hospitalized	24,155	4.9%

**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 May 9, 2021	Change in cases May 10, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	0	3	1,005	1,146.3
Thunder Bay District Health Unit	1	0	3,143	2,095.9
<b>TOTAL NORTH WEST</b>	<b>1</b>	<b>3</b>	<b>4,148</b>	<b>1,745.5</b>
Algoma Public Health	1	1	348	304.1
North Bay Parry Sound District Health Unit	0	3	386	297.5
Porcupine Health Unit	20	15	737	883.3
Public Health Sudbury & Districts	5	9	1,996	1,002.9
Timiskaming Health Unit	0	1	197	602.6
<b>TOTAL NORTH EAST</b>	<b>26</b>	<b>29</b>	<b>3,664</b>	<b>655.1</b>
Ottawa Public Health	86	77	25,498	2,417.7
Eastern Ontario Health Unit	6	3	4,416	2,115.8
Hastings Prince Edward Public Health	8	5	1,021	606.0
Kingston, Frontenac and Lennox & Addington Public Health	9	17	1,428	671.3
Leeds, Grenville & Lanark District Health Unit	3	2	1,674	966.7
Renfrew County and District Health Unit	20	2	649	597.4
<b>TOTAL EASTERN</b>	<b>132</b>	<b>106</b>	<b>34,686</b>	<b>1,800.6</b>

Public Health Unit Name	Change in cases May 9, 2021	Change in cases May 10, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	168	144	22,552	3,165.6
Haliburton, Kawartha, Pine Ridge District Health Unit	24	6	1,761	932.1
Peel Public Health	707	389	99,754	6,211.5
Peterborough Public Health	11	1	1,299	877.8
Simcoe Muskoka District Health Unit	41	39	11,200	1,867.9
York Region Public Health	294	231	49,108	4,006.2
<b>TOTAL CENTRAL EAST</b>	<b>1,245</b>	<b>810</b>	<b>185,674</b>	<b>4,143.9</b>
Toronto Public Health	807	685	152,767	4,895.8
<b>TOTAL TORONTO</b>	<b>807</b>	<b>685</b>	<b>152,767</b>	<b>4,895.8</b>
Chatham-Kent Public Health	2	3	1,810	1,702.5
Grey Bruce Health Unit	3	7	1,215	715.2
Huron Perth Public Health	18	3	1,682	1,203.5
Lambton Public Health	5	4	3,333	2,545.0
Middlesex-London Health Unit	28	56	11,263	2,219.2
Southwestern Public Health	15	7	3,571	1,688.4
Windsor-Essex County Health Unit	35	30	15,860	3,733.3
<b>TOTAL SOUTH WEST</b>	<b>106</b>	<b>110</b>	<b>38,734</b>	<b>2,290.9</b>
Brant County Health Unit	3	20	3,382	2,179.1
City of Hamilton Public Health Services	106	92	18,685	3,155.4
Haldimand-Norfolk Health Unit	8	1	2,430	2,130.1

Public Health Unit Name	Change in cases May 9, 2021	Change in cases May 10, 2021	Cumulative case count	Cumulative rate per 100,000 population
Halton Region Public Health	95	84	15,785	2,549.7
Niagara Region Public Health	96	59	14,808	3,134.1
Region of Waterloo Public Health and Emergency Services	50	56	14,857	2,542.4
Wellington-Dufferin-Guelph Public Health	41	18	7,472	2,395.6
<b>TOTAL CENTRAL WEST</b>	<b>399</b>	<b>330</b>	<b>77,419</b>	<b>2,717.1</b>
<b>TOTAL ONTARIO</b>	<b>2,716</b>	<b>2,073</b>	<b>497,092</b>	<b>3,344.2</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 May 9, 2021	Change in outbreaks May 10, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	-1	1	42	1,450
Retirement homes	1	1	16	853
Hospitals	1	1	41	551

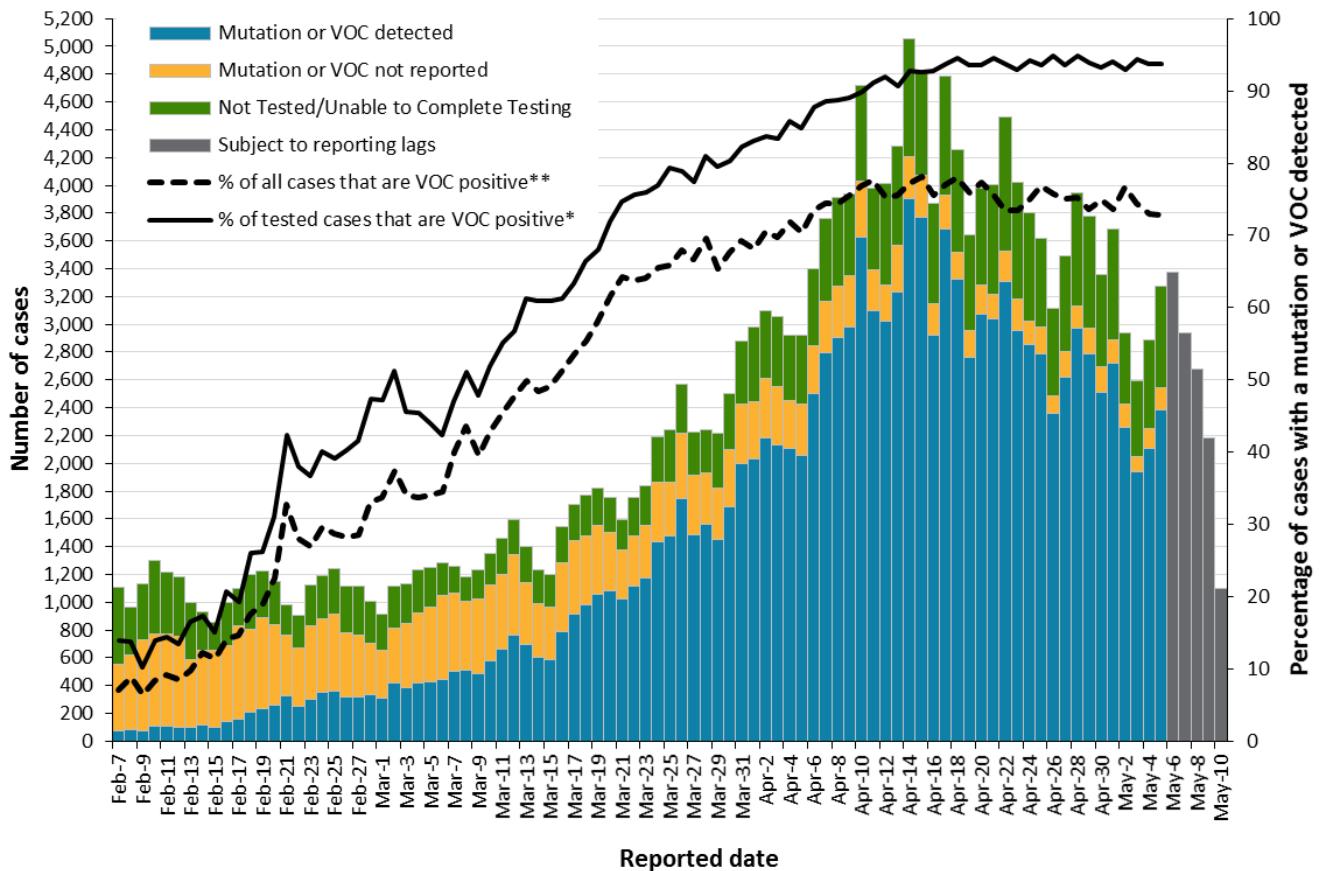
**Note:** Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset 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 May 10, 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 May 9, 2021	Change in cases May 10, 2021	Cumulative case count up to May 10, 2021
Variant of Concern			
Lineage B.1.1.7*	1,639	2,283	95,546
Lineage B.1.351	111	19	530
Lineage P.1	329	34	1,592
Mutations			
N501Y and E484K	-312	59	6,281
N501Y (E484K unknown)**	24	54	22,180
E484K (N501Y negative)	83	104	3,683
E484K (N501Y unknown)	5	-2	500

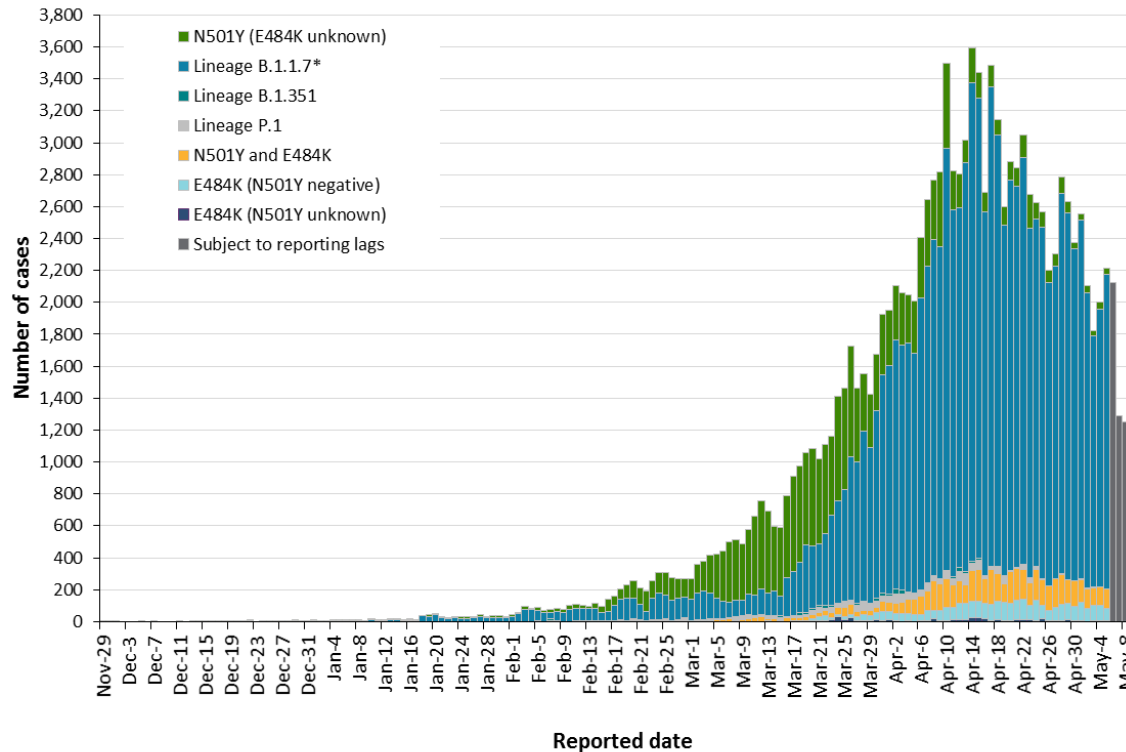
**Note:** Interpret the VOC and mutation trends with caution due to the varying time required to complete VOC testing and/or genomic analysis following the initial positive test for SARS-CoV-2. Due to the nature of the genomic analysis, test results may be completed in batches. Data corrections or updates 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 May 10, 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 **May 10, 2021 at 1 p.m.** for cases reported in 2021 and as of **May 10, 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 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 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 25 to May 7, 2021**

Public Health Unit Name	Apr 25 to May 1	Apr 26 to May 2	Apr 27 to May 3	Apr 28 to May 4	Apr 29 to May 5	Apr 30 to May 6	May 1 to May 7	% change from Apr 25 - May 1 to May 1 - May 7
<b>NORTH WEST</b>								
Northwestern Health Unit	79.8	87.8	82.1	69.6	69.6	71.9	68.4	-14.3%
Thunder Bay District Health Unit	22.7	24.7	25.3	26.7	22.0	24.0	22.0	-3.1%
<b>NORTH EAST</b>								
Algoma Public Health	16.6	14.9	16.6	13.1	9.6	9.6	10.5	-36.7%
North Bay Parry Sound District Health Unit	11.6	10.8	11.6	14.6	15.4	20.8	23.1	+99.1%
Porcupine Health Unit	93.5	87.5	73.1	80.3	74.3	79.1	88.7	-5.1%
Public Health Sudbury & Districts	32.2	32.7	30.1	34.2	31.7	27.1	27.1	-15.8%
Timiskaming Health Unit	61.2	52.0	61.2	48.9	42.8	36.7	39.8	-35.0%
<b>EASTERN</b>								
Ottawa Public Health	110.0	108.9	102.4	97.9	90.9	87.5	80.9	-26.5%
Eastern Ontario Health Unit	61.3	63.2	65.2	55.6	57.5	53.7	51.3	-16.3%
Hastings Prince Edward Public Health	40.4	38.0	39.2	39.2	36.8	35.6	39.2	-3.0%
Kingston, Frontenac and Lennox & Addington Public Health	31.5	36.7	44.2	48.9	52.2	52.2	54.5	+73.0%

Public Health Unit Name	Apr 25 to May 1	Apr 26 to May 2	Apr 27 to May 3	Apr 28 to May 4	Apr 29 to May 5	Apr 30 to May 6	May 1 to May 7	% change from Apr 25 - May 1 to May 1 - May 7
Leeds, Grenville & Lanark District Health Unit	30.0	34.1	30.6	32.9	27.7	26.6	26.0	-13.3%
Renfrew County and District Health Unit	39.6	28.5	31.3	31.3	34.1	34.1	34.1	-13.9%
<b>CENTRAL EAST</b>								
Durham Region Health Department	211.7	207.6	209.2	199.9	184.6	193.1	180.1	-14.9%
Haliburton, Kawartha, Pine Ridge District Health Unit	36.5	32.3	29.6	27.5	27.0	32.3	38.1	+4.4%
Peel Public Health	363.6	346.4	335.2	336.4	311.4	315.1	318.3	-12.5%
Peterborough Public Health	41.9	45.3	42.6	37.2	37.8	35.1	38.5	-8.1%
Simcoe Muskoka District Health Unit	95.1	95.6	93.9	90.4	92.2	90.4	84.9	-10.7%
York Region Public Health	191.1	187.6	175.7	168.1	167.7	173.3	169.4	-11.4%
<b>TORONTO</b>								
Toronto Public Health	242.8	236.6	234.2	226.2	225.4	211.4	203.1	-16.4%
<b>SOUTH WEST</b>								
Chatham-Kent Public Health	27.3	24.5	25.4	23.5	21.6	24.5	24.5	-10.3%
Grey Bruce Health Unit	28.3	28.3	27.7	22.4	19.4	19.4	18.2	-35.7%
Huron Perth Public Health	21.5	20.0	20.8	25.8	28.6	29.3	36.5	+69.8%
Lambton Public Health	53.4	53.4	53.4	52.7	58.0	53.4	51.2	-4.1%
Middlesex-London Health Unit	134.2	125.1	124.7	116.1	119.8	121.8	117.2	-12.7%

Public Health Unit Name	Apr 25 to May 1	Apr 26 to May 2	Apr 27 to May 3	Apr 28 to May 4	Apr 29 to May 5	Apr 30 to May 6	May 1 to May 7	% change from Apr 25 - May 1 to May 1 - May 7
Southwestern Public Health	53.4	53.0	48.7	47.3	49.2	51.5	53.4	0.0%
Windsor-Essex County Health Unit	77.2	73.7	73.9	71.8	69.4	65.9	68.5	-11.3%
<b>CENTRAL WEST</b>								
Brant County Health Unit	112.1	112.1	113.4	115.3	115.3	117.3	102.4	-8.7%
City of Hamilton Public Health Services	180.5	180.9	183.6	181.4	183.1	176.5	167.9	-7.0%
Haldimand-Norfolk Health Unit	119.2	123.6	114.0	122.7	114.0	106.9	111.3	-6.6%
Halton Region Public Health	146.3	143.3	141.7	141.8	137.8	137.3	135.8	-7.2%
Niagara Region Public Health	183.5	167.0	164.0	160.0	154.1	145.0	162.1	-11.7%
Region of Waterloo Public Health and Emergency Services	77.0	80.3	80.4	72.7	70.5	67.8	71.2	-7.5%
Wellington-Dufferin-Guelph Public Health	95.9	97.8	91.7	91.7	92.0	90.7	87.5	-8.8%
<b>TOTAL ONTARIO</b>	<b>168.1</b>	<b>163.5</b>	<b>160.0</b>	<b>156.0</b>	<b>151.5</b>	<b>148.7</b>	<b>146.0</b>	<b>-13.1%</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 May 10, 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	45	0	0	23
Brant County Health Unit	437	0	18	420
Chatham-Kent Public Health	69	4	3	112
City of Hamilton Public Health Services	3,987	10	18	1,043
Durham Region Health Department	7,626	19	79	1,081
Eastern Ontario Health Unit	561	23	2	297
Grey Bruce Health Unit	239	0	3	43
Haldimand-Norfolk Health Unit	288	0	5	323
Haliburton, Kawartha, Pine Ridge District Health Unit	263	0	7	203
Halton Region Public Health	4,026	16	55	561
Hastings Prince Edward Public Health	16	0	1	362
Huron Perth Public Health	93	0	0	70
Kingston, Frontenac and Lennox & Addington Public Health	321	0	21	137
Lambton Public Health	321	0	4	83
Leeds, Grenville & Lanark District Health Unit	257	9	0	38
Middlesex-London Health Unit	2,065	0	16	283
Niagara Region Public Health	2,872	0	3	967



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	88	27	0	15
Northwestern Health Unit	32	0	1	26
Ottawa Public Health	4,508	106	9	753
Peel Public Health	20,749	66	485	5,234
Peterborough Public Health	334	0	1	165
Porcupine Health Unit	170	2	0	9
Public Health Sudbury & Districts	444	3	0	414
Region of Waterloo Public Health and Emergency Services	2,130	3	17	274
Renfrew County and District Health Unit	142	2	0	23
Simcoe Muskoka District Health Unit	2,774	17	68	863
Southwestern Public Health	507	0	2	78
Thunder Bay District Health Unit	20	0	0	41
Timiskaming Health Unit	75	1	0	0
Toronto Public Health	25,067	197	584	15,706
Wellington-Dufferin-Guelph Public Health	1,653	0	17	189
Windsor-Essex County Health Unit	1,118	4	5	92
York Region Public Health	12,249	21	168	2,716
<b>TOTAL ONTARIO</b>	<b>95,546</b>	<b>530</b>	<b>1,592</b>	<b>32,644</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 23 to May 5, 2021**

Public Health Unit Name	April 23 to April 29	April 24 to April 30	April 25 to May 1	April 26 to May 2	April 27 to May 3	April 28 to May 4	April 29 to May 5
Algoma Public Health	72.2	75.0	73.7	70.6	68.4	73.3	81.8
Brant County Health Unit	75.5	79.1	78.7	79.9	79.0	74.3	74.3
Chatham-Kent Public Health	82.8	76.7	75.9	76.9	63.0	60.0	60.9
City of Hamilton Public Health Services	75.5	75.0	73.4	72.2	71.7	70.9	71.3
Durham Region Health Department	84.1	84.9	86.5	86.9	87.3	87.0	87.0
Eastern Ontario Health Unit	40.5	35.7	40.6	37.9	37.5	44.8	42.5
Grey Bruce Health Unit	69.8	76.5	72.9	75.0	74.5	68.4	66.7
Haldimand-Norfolk Health Unit	72.2	70.3	65.4	67.4	66.9	65.0	68.5
Haliburton, Kawartha, Pine Ridge District Health Unit	72.0	73.1	68.1	70.5	71.4	71.2	72.5
Halton Region Public Health	76.4	75.6	75.1	76.4	74.9	76.0	75.6
Hastings Prince Edward Public Health	78.5	79.7	76.5	78.1	77.3	80.3	82.3
Huron Perth Public Health	81.3	77.4	80.0	78.6	75.9	77.8	72.5
Kingston, Frontenac and Lennox & Addington Public Health	72.7	73.8	79.1	80.8	84.0	88.5	89.2
Lambton Public Health	56.9	55.2	55.7	57.1	57.1	66.7	68.4
Leeds, Grenville & Lanark District Health Unit	39.4	42.1	44.2	45.8	43.4	49.1	50.0

Public Health Unit Name	April 23 to April 29	April 24 to April 30	April 25 to May 1	April 26 to May 2	April 27 to May 3	April 28 to May 4	April 29 to May 5
Middlesex-London Health Unit	73.1	72.7	72.8	76.5	78.4	77.9	82.1
Niagara Region Public Health	70.4	69.6	69.2	68.4	65.9	63.4	59.9
North Bay Parry Sound District Health Unit	85.7	80.0	80.0	78.6	80.0	84.2	80.0
Northwestern Health Unit	14.9	15.9	18.6	18.2	19.4	19.7	13.1
Ottawa Public Health	41.2	41.4	40.5	38.7	37.7	36.5	37.6
Peel Public Health	72.0	72.7	71.8	71.3	71.0	70.4	69.0
Peterborough Public Health	83.1	78.3	80.6	79.1	76.2	74.5	73.2
Porcupine Health Unit	79.5	78.3	79.5	78.1	75.4	73.1	69.4
Public Health Sudbury & Districts	87.3	87.5	89.1	89.2	88.3	85.3	84.1
Region of Waterloo Public Health and Emergency Services	66.8	72.4	70.0	70.8	71.3	70.8	70.1
Renfrew County and District Health Unit	83.0	82.2	83.7	80.6	79.4	73.5	78.4
Simcoe Muskoka District Health Unit	79.3	80.4	78.9	77.5	77.8	76.6	76.7
Southwestern Public Health	76.9	76.7	74.3	74.1	72.8	74.0	71.2
Thunder Bay District Health Unit	43.6	41.2	50.0	56.8	57.9	62.5	66.7
Timiskaming Health Unit	84.0	86.4	85.0	82.4	85.0	81.3	85.7
Toronto Public Health	81.4	81.0	80.9	81.1	81.1	81.0	80.2

Public Health Unit Name	April 23 to April 29	April 24 to April 30	April 25 to May 1	April 26 to May 2	April 27 to May 3	April 28 to May 4	April 29 to May 5
Wellington-Dufferin-Guelph Public Health	73.1	73.4	71.9	70.5	69.6	73.8	74.9
Windsor-Essex County Health Unit	72.2	72.8	71.6	71.9	72.3	73.8	74.2
York Region Public Health	81.1	81.6	82.5	82.7	82.8	82.8	82.4
<b>TOTAL ONTARIO</b>	<b>75.0</b>	<b>75.2</b>	<b>75.0</b>	<b>74.9</b>	<b>74.8</b>	<b>74.5</b>	<b>74.1</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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## Public Health Ontario

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