

## DAILY EPIDEMIOLOGICAL SUMMARY

# COVID-19 in Ontario: January 15, 2020 to April 16, 2021

This report includes the most current information available from CCM as of **April 16, 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 412,745 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
  - An increase of 4,362 confirmed cases (percent change of -9.4%)
  - An increase of 34 deaths (percent change of +36.0%)
  - An increase of 3,611 resolved cases (percent change of +14.6%)

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 15, 2021	Change in cases April 16, 2021	Percentage change April 16, 2021 compared to April 15, 2021	Cumulative case count as of April 16, 2021
Total number of cases	4,812	4,362	-9.4%	412,745
Number of deaths	25	34	+36.0%	7,698
Number resolved	3,151	3,611	+14.6%	364,353

**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 15, 2021	Change in cases April 16, 2021	Cumulative case count as of April 16, 2021
Gender: Male	2,415	2,221	204,766
Gender: Female	2,334	2,084	205,558
Ages: 19 and under	831	749	62,046
Ages: 20-39	1,890	1,632	151,607
Ages: 40-59	1,376	1,288	118,790
Ages: 60-79	616	606	57,562
Ages: 80 and over	94	80	22,638

**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 16, 2021: Ontario**

	Change in cases April 15, 2021	Change in cases April 16, 2021	Cumulative case count from August 30, 2020 to April 16, 2021
Ages: 4 to 8	161	142	11,207
Ages: 9 to 13	191	187	14,631
Ages: 14 to 17	200	190	14,474

**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**

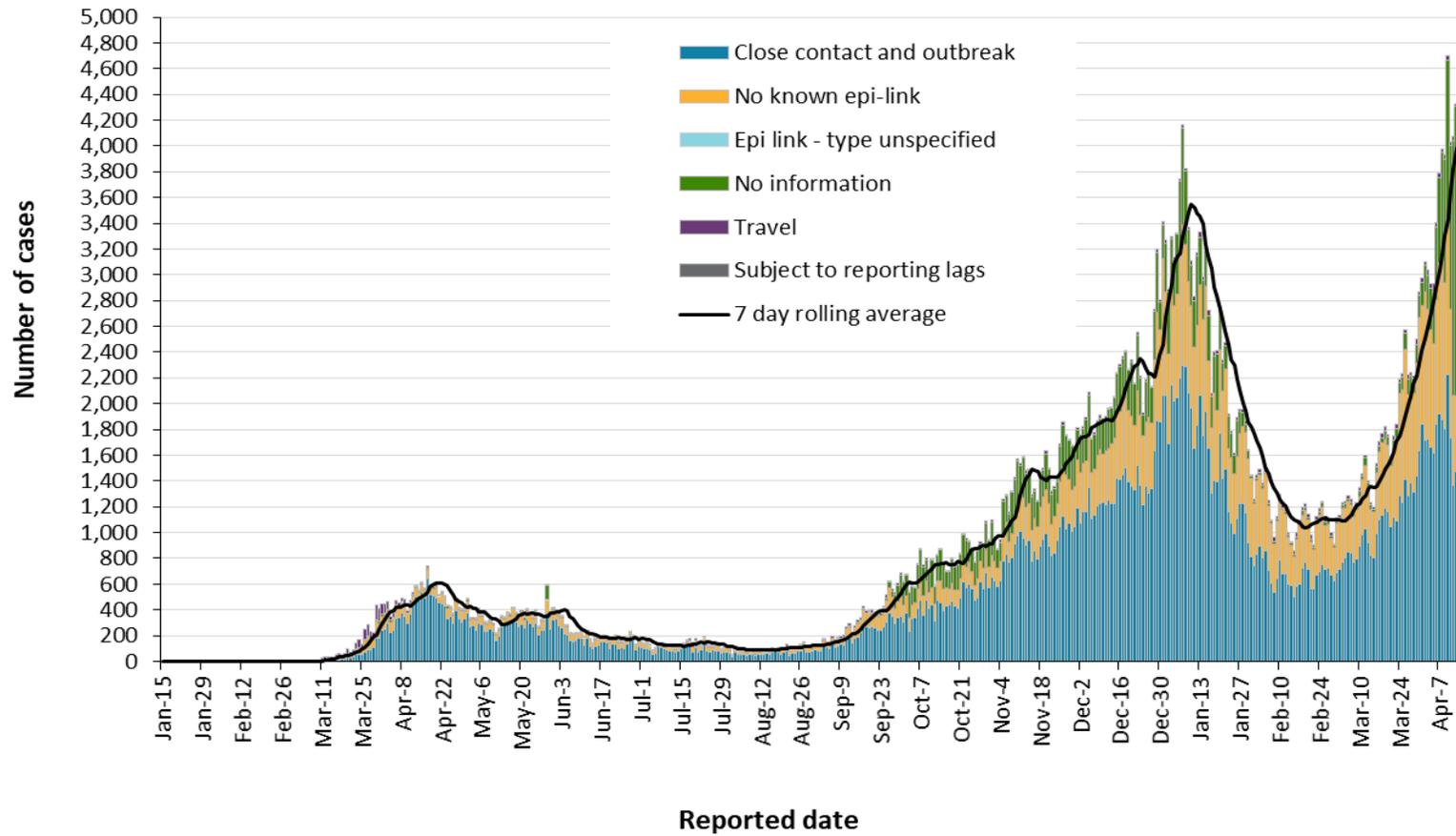
Long-term care home cases	Change in cases April 15, 2021	Change in cases April 16, 2021	Cumulative case count as of April 16, 2021
Residents	10	4	15,095
Health care workers	7	1	6,891
Deaths among residents	1	3	3,912
Deaths among health care workers	0	0	10

**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

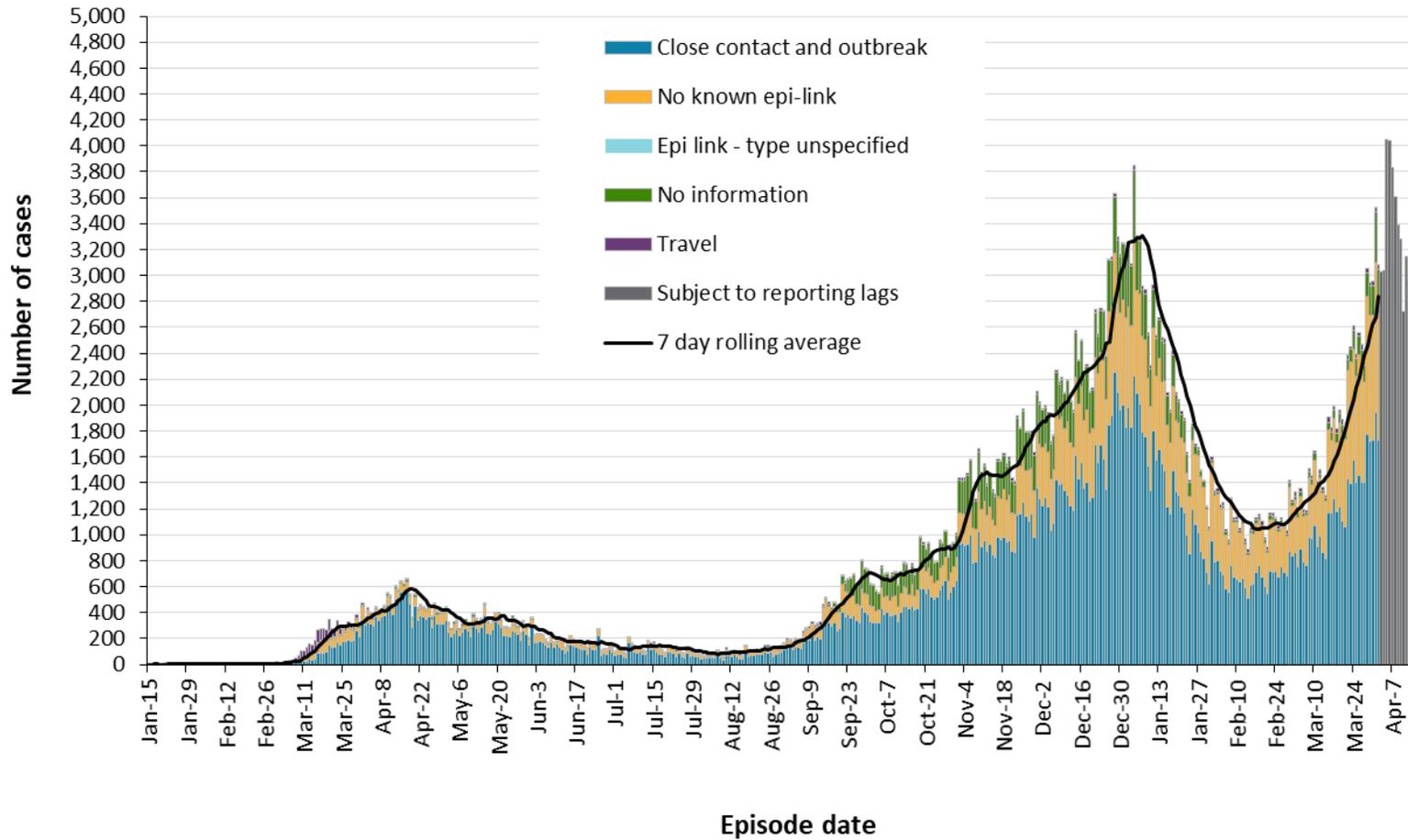
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to April 16, 2021



Data Source: CCM

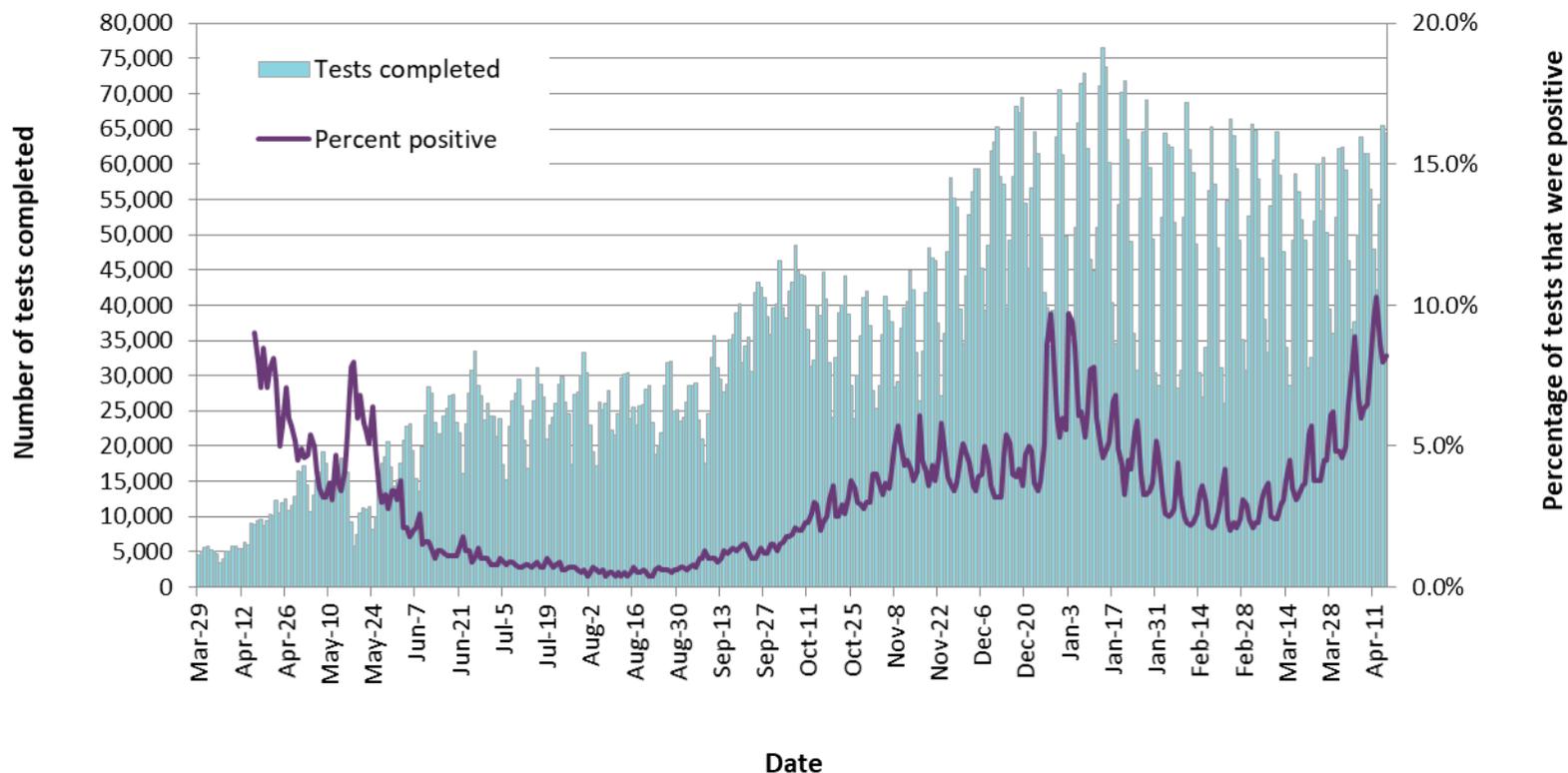
COVID-19 in Ontario: January 15, 2020 to April 16, 2021

**Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to April 16, 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 15, 2021**

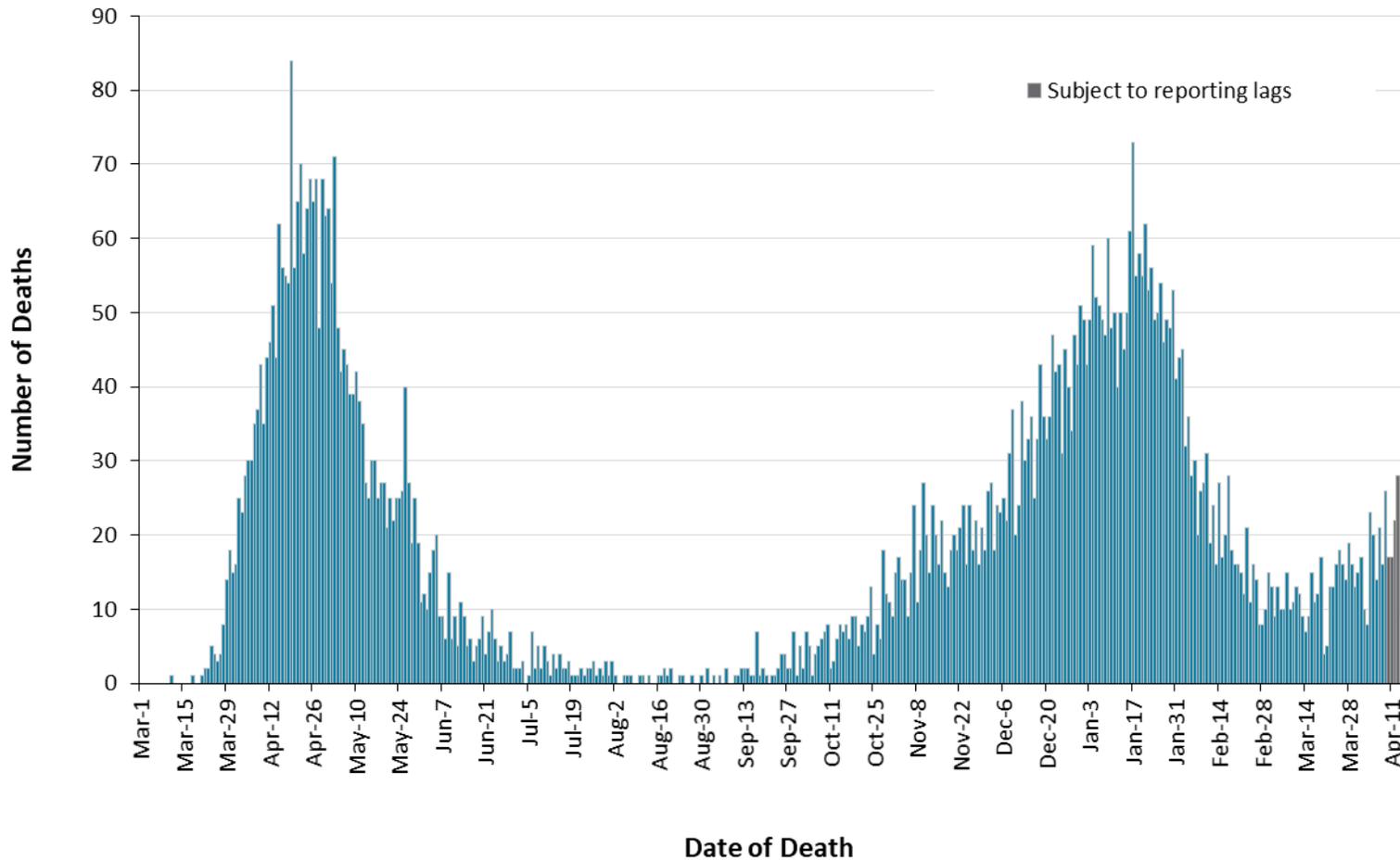


**Note:** The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

**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 16, 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 16, 2021

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

	Cumulative case count as of April 16, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	7,698	1.9%
Deaths reported in ages: 19 and under	2	<0.1%
Deaths reported in ages: 20-39	40	<0.1%
Deaths reported in ages: 40-59	338	0.3%
Deaths reported in ages: 60-79	2,231	3.9%
Deaths reported in ages: 80 and over	5,086	22.5%
Ever in ICU	3,486	0.8%
Ever hospitalized	19,541	4.7%

**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 15, 2021	Change in cases April 16, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	7	10	796	907.9
Thunder Bay District Health Unit	6	7	3,002	2,001.9
<b>TOTAL NORTH WEST</b>	<b>13</b>	<b>17</b>	<b>3,798</b>	<b>1,598.2</b>
Algoma Public Health	7	1	292	255.2
North Bay Parry Sound District Health Unit	2	-1	324	249.7
Porcupine Health Unit	23	31	477	571.7
Public Health Sudbury & Districts	20	13	1,791	899.9
Timiskaming Health Unit	1	1	137	419.1
<b>TOTAL NORTH EAST</b>	<b>53</b>	<b>45</b>	<b>3,021</b>	<b>540.1</b>
Ottawa Public Health	366	251	21,526	2,041.0
Eastern Ontario Health Unit	56	34	3,907	1,872.0
Hastings Prince Edward Public Health	13	16	798	473.6
Kingston, Frontenac and Lennox & Addington Public Health	15	9	1,127	529.8
Leeds, Grenville & Lanark District Health Unit	13	18	1,486	858.1
Renfrew County and District Health Unit	8	0	510	469.5
<b>TOTAL EASTERN</b>	<b>471</b>	<b>328</b>	<b>29,354</b>	<b>1,523.8</b>

Public Health Unit Name	Change in cases April 15, 2021	Change in cases April 16, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	268	301	17,650	2,477.5
Haliburton, Kawartha, Pine Ridge District Health Unit	13	25	1,460	772.7
Peel Public Health	851	936	81,055	5,047.2
Peterborough Public Health	28	12	1,077	727.8
Simcoe Muskoka District Health Unit	101	114	9,289	1,549.2
York Region Public Health	491	430	40,596	3,311.8
<b>TOTAL CENTRAL EAST</b>	1,752	1,818	151,127	3,372.9
Toronto Public Health	1,469	1,162	127,514	4,086.5
<b>TOTAL TORONTO</b>	1,469	1,162	127,514	4,086.5
Chatham-Kent Public Health	4	5	1,709	1,607.5
Grey Bruce Health Unit	24	29	1,026	603.9
Huron Perth Public Health	1	5	1,533	1,096.9
Lambton Public Health	12	6	3,098	2,365.5
Middlesex-London Health Unit	123	117	9,111	1,795.2
Southwestern Public Health	30	15	3,159	1,493.6
Windsor-Essex County Health Unit	74	70	14,719	3,464.7
<b>TOTAL SOUTH WEST</b>	268	247	34,355	2,031.9
Brant County Health Unit	50	46	2,711	1,746.7
City of Hamilton Public Health Services	204	211	15,126	2,554.4

Public Health Unit Name	Change in cases April 15, 2021	Change in cases April 16, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	44	37	1,946	1,705.8
Halton Region Public Health	175	144	12,711	2,053.2
Niagara Region Public Health	192	151	11,679	2,471.8
Region of Waterloo Public Health and Emergency Services	61	84	13,101	2,241.9
Wellington-Dufferin-Guelph Public Health	60	72	6,302	2,020.5
<b>TOTAL CENTRAL WEST</b>	<b>786</b>	<b>745</b>	<b>63,576</b>	<b>2,231.3</b>
<b>TOTAL ONTARIO</b>	<b>4,812</b>	<b>4,362</b>	<b>412,745</b>	<b>2,776.7</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 15, 2021	Change in outbreaks April 16, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	3	-1	40	1,407
Retirement homes	2	0	26	836
Hospitals	1	4	36	495

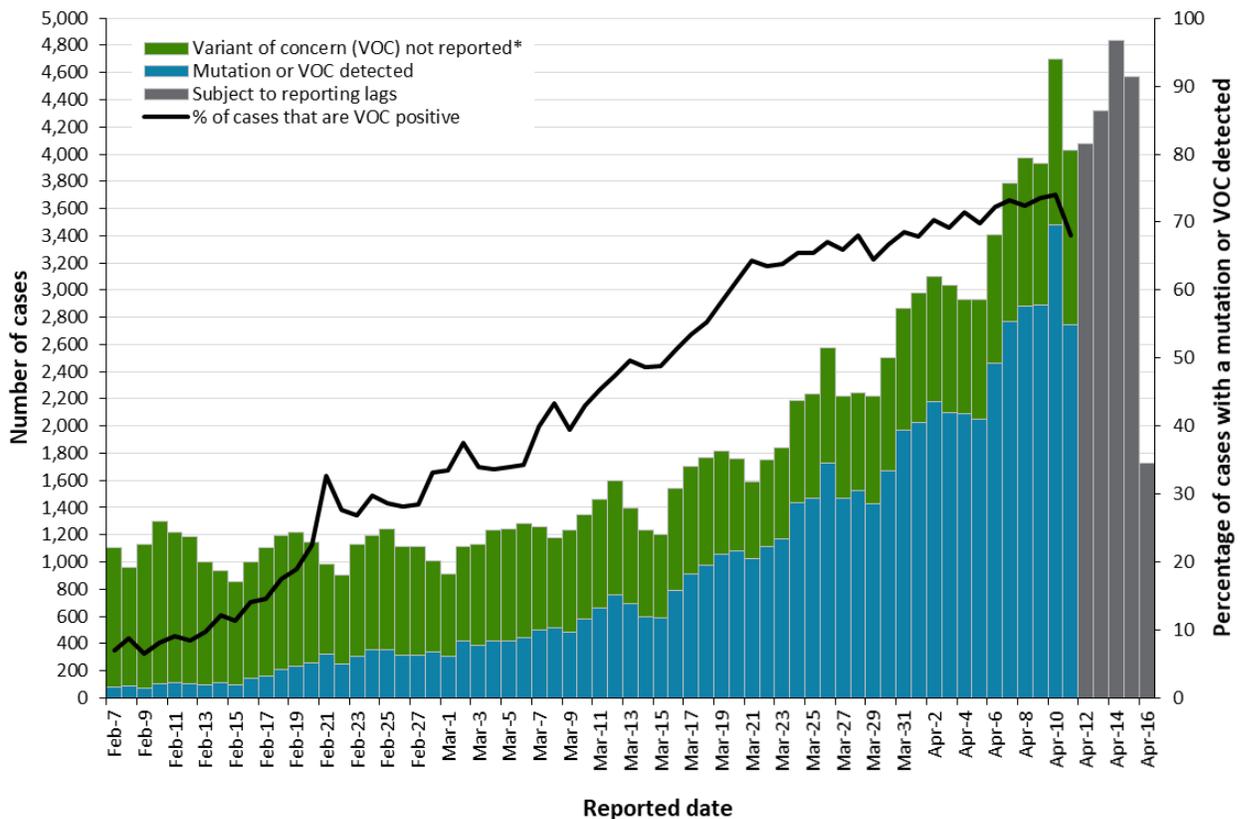
**Note:** Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset 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 16, 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. While all confirmed COVID-19 cases are included in the denominator, not all cases were able to be tested for VOCs. \*VOC not reported category includes cases where mutations common to VOCs or lineages were not detected or where testing results were not available/not completed.

**Data Source:** CCM

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

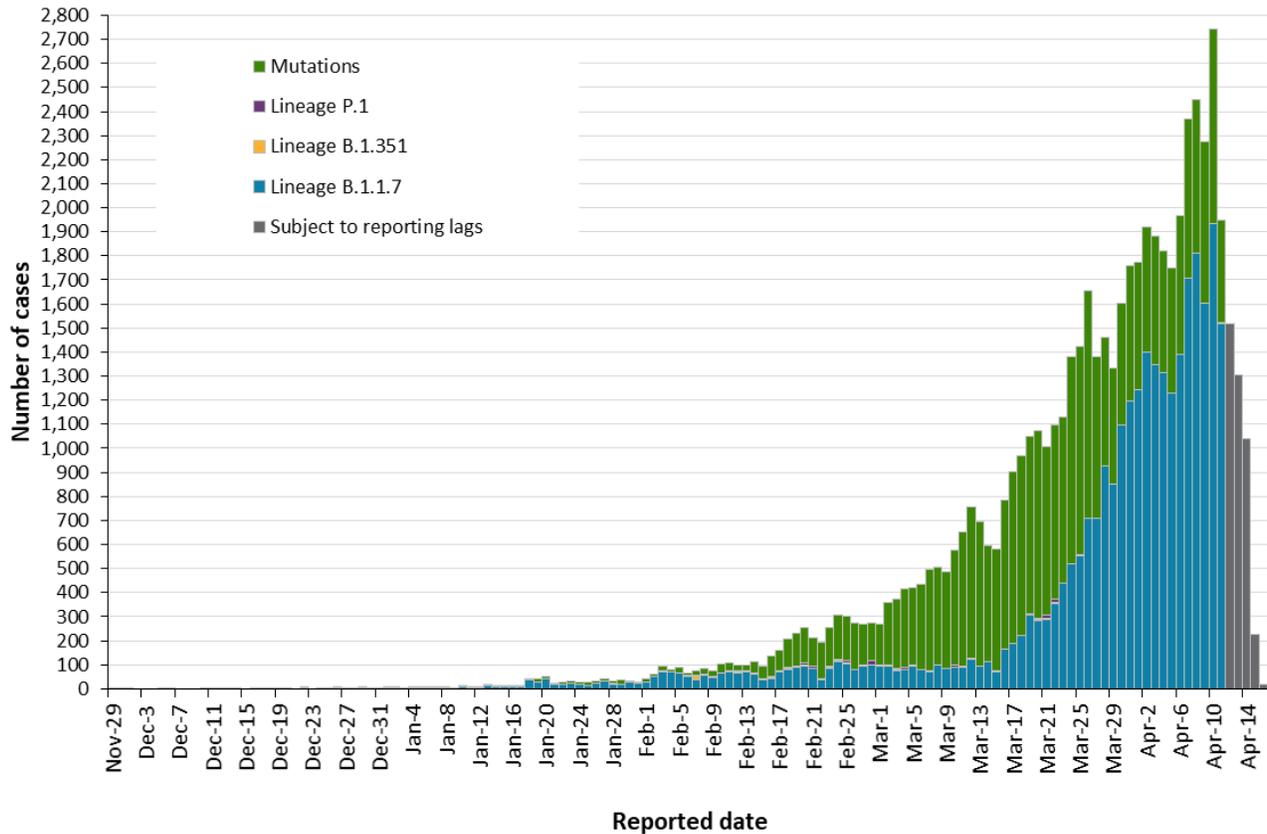
	Change in cases April 15, 2021	Change in cases April 16, 2021	Cumulative case count up to April 16, 2021
Variant of Concern			
Lineage B.1.1.7*	2,897	2,152	32,327
Lineage B.1.351	4	2	101
Lineage P.1	11	5	207
Mutations			
N501Y and E484K	310	206	3,145
N501Y (E484K unknown)**	26	-127	22,647
E484K (N501Y negative)	84	86	943
E484K (N501Y unknown)	20	7	297

**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 16, 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 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.

\*\*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).

**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 16, 2021 at 1 p.m.**
- 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)
- 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 1 to April 13, 2021**

Public Health Unit Name	Apr 1 to Apr 7	Apr 2 to Apr 8	Apr 3 to Apr 9	Apr 4 to Apr 10	Apr 5 to Apr 11	Apr 6 to Apr 12	Apr 7 to Apr 13	% change from Apr 1 - Apr 7 to Apr 7 - Apr 13
<b>NORTH WEST</b>								
Northwestern Health Unit	42.2	41.1	52.5	55.9	52.5	60.5	65.0	+54.0%
Thunder Bay District Health Unit	32.0	34.7	36.7	36.0	39.3	41.3	38.0	+18.8%
<b>NORTH EAST</b>								
Algoma Public Health	21.0	21.0	24.5	26.2	25.3	28.0	28.8	+37.1%
North Bay Parry Sound District Health Unit	13.1	13.1	13.1	12.3	10.8	14.6	14.6	+11.5%
Porcupine Health Unit	27.6	30.0	46.7	44.3	44.3	47.9	43.1	+56.2%
Public Health Sudbury & Districts	83.4	74.4	80.9	85.4	90.4	86.4	83.4	0.0%
Timiskaming Health Unit	6.1	6.1	3.1	3.1	3.1	9.2	15.3	+150.8%
<b>EASTERN</b>								
Ottawa Public Health	132.2	142.4	145.5	160.6	170.3	185.9	205.0	+55.1%
Eastern Ontario Health Unit	114.5	113.6	119.3	127.4	133.2	136.1	139.4	+21.7%
Hastings Prince Edward Public Health	84.9	86.1	84.3	80.1	74.2	74.8	67.1	-21.0%
Kingston, Frontenac and Lennox & Addington Public Health	44.2	47.5	54.5	61.1	55.5	52.2	54.1	+22.4%

Public Health Unit Name	Apr 1 to Apr 7	Apr 2 to Apr 8	Apr 3 to Apr 9	Apr 4 to Apr 10	Apr 5 to Apr 11	Apr 6 to Apr 12	Apr 7 to Apr 13	% change from Apr 1 - Apr 7 to Apr 7 - Apr 13
Leeds, Grenville & Lanark District Health Unit	53.1	54.9	65.8	70.5	69.9	69.9	68.1	+28.2%
Renfrew County and District Health Unit	29.5	39.6	39.6	33.1	37.7	39.6	34.1	+15.6%
<b>CENTRAL EAST</b>								
Durham Region Health Department	160.6	166.6	178.6	215.0	228.0	231.8	246.1	+53.2%
Haliburton, Kawartha, Pine Ridge District Health Unit	58.7	62.5	63.0	63.5	68.8	77.3	90.0	+53.3%
Peel Public Health	257.7	269.6	276.0	295.0	302.3	299.9	316.6	+22.9%
Peterborough Public Health	50.7	52.7	60.1	52.0	54.7	60.1	68.3	+34.7%
Simcoe Muskoka District Health Unit	94.2	98.9	104.1	109.1	121.4	121.8	120.4	+27.8%
York Region Public Health	205.1	217.1	223.0	235.4	254.0	274.4	277.9	+35.5%
<b>TORONTO</b>								
Toronto Public Health	209.9	218.2	226.7	243.8	250.6	261.9	261.0	+24.3%
<b>SOUTH WEST</b>								
Chatham-Kent Public Health	36.7	45.1	38.6	35.7	30.1	32.0	30.1	-18.0%
Grey Bruce Health Unit	40.6	40.0	38.3	39.4	44.1	49.4	61.2	+50.7%
Huron Perth Public Health	22.9	25.0	30.1	33.6	30.8	31.5	42.9	+87.3%
Lambton Public Health	84.0	80.2	80.2	87.8	91.6	91.6	102.3	+21.8%
Middlesex-London Health Unit	155.5	161.8	165.1	163.9	174.8	175.0	184.4	+18.6%

Public Health Unit Name	Apr 1 to Apr 7	Apr 2 to Apr 8	Apr 3 to Apr 9	Apr 4 to Apr 10	Apr 5 to Apr 11	Apr 6 to Apr 12	Apr 7 to Apr 13	% change from Apr 1 - Apr 7 to Apr 7 - Apr 13
Southwestern Public Health	47.3	46.8	53.0	58.6	65.7	66.7	77.1	+63.0%
Windsor-Essex County Health Unit	74.1	77.4	73.4	73.9	75.3	76.3	79.6	+7.4%
<b>CENTRAL WEST</b>								
Brant County Health Unit	120.5	112.8	125.6	141.1	126.3	132.7	146.9	+21.9%
City of Hamilton Public Health Services	130.2	132.9	136.3	138.6	152.2	163.3	168.9	+29.7%
Haldimand-Norfolk Health Unit	84.2	102.6	101.7	119.2	114.0	136.7	145.5	+72.8%
Halton Region Public Health	118.6	131.3	135.7	148.6	155.2	167.5	171.1	+44.3%
Niagara Region Public Health	150.3	146.2	158.1	156.4	160.4	187.5	192.4	+28.0%
Region of Waterloo Public Health and Emergency Services	71.4	74.1	76.8	80.3	89.0	95.7	103.0	+44.3%
Wellington-Dufferin-Guelph Public Health	122.5	138.8	138.5	147.8	153.9	149.1	161.3	+31.7%
<b>TOTAL ONTARIO</b>	<b>149.1</b>	<b>155.8</b>	<b>161.4</b>	<b>172.6</b>	<b>180.0</b>	<b>187.7</b>	<b>193.9</b>	<b>+30.0%</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 16, 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	14	0	0	11
Brant County Health Unit	173	0	4	141
Chatham-Kent Public Health	21	4	0	81
City of Hamilton Public Health Services	807	1	2	855
Durham Region Health Department	2,543	2	12	1,677
Eastern Ontario Health Unit	348	2	0	268
Grey Bruce Health Unit	63	0	0	31
Haldimand-Norfolk Health Unit	24	0	0	90
Haliburton, Kawartha, Pine Ridge District Health Unit	55	0	0	164
Halton Region Public Health	1,484	1	1	533
Hastings Prince Edward Public Health	5	0	1	204
Huron Perth Public Health	12	0	0	33
Kingston, Frontenac and Lennox & Addington Public Health	115	0	4	112
Lambton Public Health	201	0	0	49
Leeds, Grenville & Lanark District Health Unit	152	1	0	36
Middlesex-London Health Unit	883	0	2	190
Niagara Region Public Health	660	0	0	536

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	35	27	0	12
Northwestern Health Unit	12	0	0	18
Ottawa Public Health	1,539	6	0	936
Peel Public Health	8,806	18	52	3,951
Peterborough Public Health	176	0	0	148
Porcupine Health Unit	5	2	0	3
Public Health Sudbury & Districts	149	0	0	476
Region of Waterloo Public Health and Emergency Services	808	1	1	279
Renfrew County and District Health Unit	53	0	0	13
Simcoe Muskoka District Health Unit	1,329	3	20	669
Southwestern Public Health	210	0	0	30
Thunder Bay District Health Unit	0	0	0	10
Timiskaming Health Unit	22	1	0	0
Toronto Public Health	5,225	26	78	12,862
Wellington-Dufferin-Guelph Public Health	690	1	1	133
Windsor-Essex County Health Unit	347	0	0	76
York Region Public Health	5,361	5	29	2,405
<b>TOTAL ONTARIO</b>	<b>32,327</b>	<b>101</b>	<b>207</b>	<b>27,032</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, March 30 to April 11, 2021**

Public Health Unit Name	March 30 to April 5	March 31 to April 6	April 1 to April 7	April 2 to April 8	April 3 to April 9	April 4 to April 10	April 5 to April 11
Algoma Public Health	36.8	30.0	37.5	29.2	28.6	26.7	31.0
Brant County Health Unit	45.7	46.8	46.0	51.4	50.8	52.5	55.1
Chatham-Kent Public Health	44.4	39.1	38.5	45.8	46.3	47.4	56.3
City of Hamilton Public Health Services	61.6	63.2	65.6	67.0	67.8	68.2	65.3
Durham Region Health Department	78.4	79.2	77.6	78.3	78.2	80.9	80.8
Eastern Ontario Health Unit	71.2	70.3	68.2	67.9	67.5	67.3	66.5
Grey Bruce Health Unit	52.5	50.9	47.8	48.5	50.8	50.7	49.3
Haldimand-Norfolk Health Unit	62.1	64.1	61.5	63.2	62.9	66.2	65.4
Haliburton, Kawartha, Pine Ridge District Health Unit	64.9	63.8	64.9	67.8	66.4	60.8	57.7
Halton Region Public Health	71.8	74.2	77.0	77.2	76.7	76.1	76.2
Hastings Prince Edward Public Health	67.4	68.2	69.9	71.0	73.2	72.6	71.2
Huron Perth Public Health	54.2	50.0	40.6	45.7	40.5	44.7	39.5
Kingston, Frontenac and Lennox & Addington Public Health	72.6	73.5	76.6	76.2	73.3	72.3	70.3
Lambton Public Health	35.3	34.1	45.5	58.1	61.9	64.3	66.7
Leeds, Grenville & Lanark District Health Unit	50.0	52.4	63.0	66.3	66.7	70.5	73.6

<b>Public Health Unit Name</b>	<b>March 30 to April 5</b>	<b>March 31 to April 6</b>	<b>April 1 to April 7</b>	<b>April 2 to April 8</b>	<b>April 3 to April 9</b>	<b>April 4 to April 10</b>	<b>April 5 to April 11</b>
Middlesex-London Health Unit	49.2	50.7	53.2	52.5	52.6	54.2	56.1
Niagara Region Public Health	55.0	52.7	53.0	54.0	54.5	55.8	53.0
North Bay Parry Sound District Health Unit	83.3	84.6	70.6	64.7	64.7	50.0	50.0
Northwestern Health Unit	21.1	17.5	24.3	25.0	23.9	22.4	28.3
Ottawa Public Health	55.4	56.5	58.0	60.9	60.8	61.3	62.8
Peel Public Health	69.3	70.4	70.8	71.4	71.9	73.1	73.0
Peterborough Public Health	78.8	81.2	77.3	76.9	77.5	70.1	70.4
Porcupine Health Unit	41.7	41.4	60.9	60.0	64.1	62.2	62.2
Public Health Sudbury & Districts	67.1	68.7	69.9	70.9	69.6	70.0	68.3
Region of Waterloo Public Health and Emergency Services	55.4	57.4	59.5	63.3	66.1	69.3	64.0
Renfrew County and District Health Unit	79.2	80.0	81.3	81.4	79.1	75.0	85.4
Simcoe Muskoka District Health Unit	66.1	65.8	65.5	64.6	68.1	68.3	67.9
Southwestern Public Health	48.0	50.9	55.0	63.6	69.6	73.4	77.7
Thunder Bay District Health Unit	0.0	0.0	0.0	0.0	5.5	11.1	10.2
Timiskaming Health Unit	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Toronto Public Health	77.1	77.8	78.3	78.0	78.3	77.9	76.6

Public Health Unit Name	March 30 to April 5	March 31 to April 6	April 1 to April 7	April 2 to April 8	April 3 to April 9	April 4 to April 10	April 5 to April 11
Wellington-Dufferin-Guelph Public Health	68.6	68.5	69.9	70.7	72.5	73.1	64.4
Windsor-Essex County Health Unit	44.0	47.5	49.2	54.4	56.7	58.3	59.4
York Region Public Health	79.6	78.9	78.9	78.3	79.2	79.8	80.1
<b>TOTAL ONTARIO</b>	<b>69.2</b>	<b>70.0</b>	<b>70.7</b>	<b>71.4</b>	<b>71.8</b>	<b>72.6</b>	<b>72.0</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.

## Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Epidemiologic summary: COVID-19 in Ontario – January 15, 2020 to April 16, 2021. Toronto, ON: Queen’s Printer for Ontario; 2021.

## Disclaimer

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario’s government, public health organizations and health care providers. PHO’s work is guided by the current best available evidence at the time of publication. The application and use of this document is the responsibility of the user. PHO assumes no liability resulting from any such application or use. This document may be reproduced without permission for non-commercial purposes only and provided that appropriate credit is given to PHO. No changes and/or modifications may be made to this document without express written permission from PHO.

## For Further Information

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

## Public Health Ontario

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

For more information about PHO, visit [publichealthontario.ca](http://publichealthontario.ca).

©Queen’s Printer for Ontario, 2021

Ontario 