

DAILY EPIDEMIOLOGICAL SUMMARY

COVID-19 in Ontario: January 15, 2020 to April 18, 2021

This report includes the most current information available from CCM as of April 18, 2021.

Please visit the interactive <u>Ontario COVID-19 Data Tool</u> 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 421,442 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
 - An increase of 4,447 confirmed cases (percent change of +4.6%)
 - An increase of 19 deaths (percent change of +5.6%)
 - An increase of 3,153 resolved cases (percent change of -5.5%)

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 17, 2021	Change in cases April 18, 2021	Percentage change April 18, 2021 compared to April 17, 2021	Cumulative case count as of April 18, 2021
Total number of cases	4,250	4,447	+4.6%	421,442
Number of deaths	18	19	+5.6%	7,735
Number resolved	3,338	3,153	-5.5%	370,844

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.

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

	Change in cases April 17, 2021	Change in cases April 18, 2021	Cumulative case count as of April 18, 2021
Gender: Male	2,146	2,221	209,133
Gender: Female	2,009	2,149	209,716
Ages: 19 and under	775	897	63,718
Ages: 20-39	1,556	1,600	154,763
Ages: 40-59	1,259	1,319	121,368
Ages: 60-79	565	557	58,684
Ages: 80 and over	90	75	22,803

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 18, 2021: Ontario

	Change in cases April 17, 2021	Change in cases April 18, 2021	Cumulative case count from August 30, 2020 to April 18, 2021	
Ages: 4 to 8	140	155	11,502	
Ages: 9 to 13	169	238	15,038	
Ages: 14 to 17	199	226	14,899	

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.

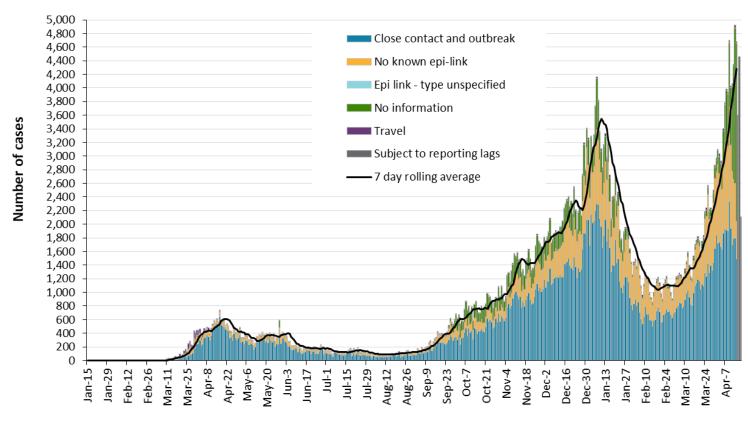
Table 3. Summary of recent confirmed cases of COVID-19 in long-term care homes: Ontario

Long-term care home cases	Change in cases April 17, 2021	Change in cases April 18, 2021	Cumulative case count as of April 18, 2021
Residents	10	4	15,109
Health care workers	5	5	6,901
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.

Time

Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to April 18, 2021

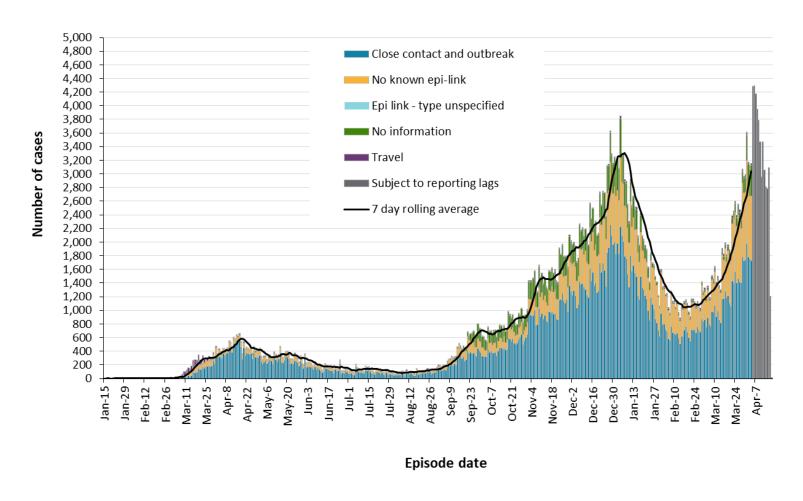


Reported date

Data Source: CCM

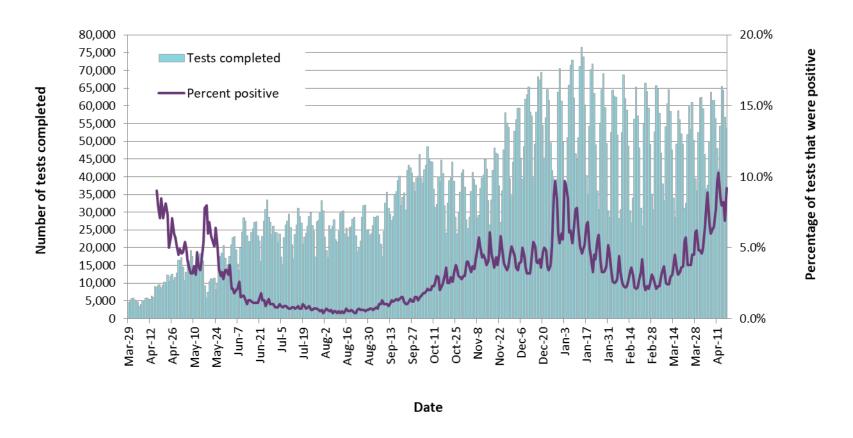
COVID-19 in Ontario: January 15, 2020 to April 18, 2021

Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to April 18, 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

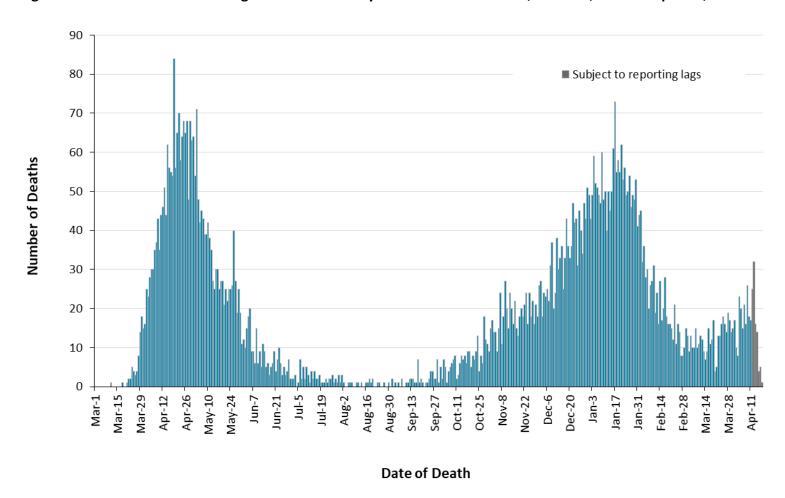




Note: The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive. **Data 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 18, 2021



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

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

	Cumulative case count as of April 18, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	7,735	1.8%
Deaths reported in ages: 19 and under	2	< 0.1%
Deaths reported in ages: 20-39	43	< 0.1%
Deaths reported in ages: 40-59	346	0.3%
Deaths reported in ages: 60-79	2,240	3.8%
Deaths reported in ages: 80 and over	5,103	22.4%
Ever in ICU	3,590	0.9%
Ever hospitalized	20,039	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.

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 17, 2021	Change in cases April 18, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	10	3	809	922.7
Thunder Bay District Health Unit	2	4	3,008	2,005.9
TOTAL NORTH WEST	12	7	3,817	1,606.2
Algoma Public Health	1	3	296	258.7
North Bay Parry Sound District Health Unit	3	4	331	255.1
Porcupine Health Unit	1	12	490	587.2
Public Health Sudbury & Districts	15	11	1,817	913.0
Timiskaming Health Unit	0	0	137	419.1
TOTAL NORTH EAST	20	30	3,071	549.0
Ottawa Public Health	239	233	21,998	2,085.8
Eastern Ontario Health Unit	52	32	3,991	1,912.2
Hastings Prince Edward Public Health	8	7	813	482.5
Kingston, Frontenac and Lennox & Addington Public Health	11	11	1,149	540.1
Leeds, Grenville & Lanark District Health Unit	10	12	1,508	870.8
Renfrew County and District Health Unit	3	11	524	482.4
TOTAL EASTERN	323	306	29,983	1,556.4

Public Health Unit Name	Change in cases April 17, 2021	Change in cases April 18, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	279	205	18,134	2,545.5
Haliburton, Kawartha, Pine Ridge District Health Unit	22	28	1,510	799.2
Peel Public Health	714	926	82,695	5,149.3
Peterborough Public Health	15	16	1,108	748.8
Simcoe Muskoka District Health Unit	101	114	9,504	1,585.1
York Region Public Health	483	577	41,656	3,398.3
TOTAL CENTRAL EAST	1,614	1,866	154,607	3,450.5
Toronto Public Health	1,392	1,299	130,205	4,172.8
TOTAL TORONTO	1,392	1,299	130,205	4,172.8
Chatham-Kent Public Health	6	9	1,724	1,621.6
Grey Bruce Health Unit	24	9	1,059	623.4
Huron Perth Public Health	11	3	1,547	1,106.9
Lambton Public Health	14	5	3,117	2,380.0
Middlesex-London Health Unit	117	56	9,284	1,829.3
Southwestern Public Health	22	10	3,191	1,508.8
Windsor-Essex County Health Unit	75	39	14,833	3,491.5
TOTAL SOUTH WEST	269	131	34,755	2,055.6
Brant County Health Unit	11	39	2,761	1,779.0
City of Hamilton Public Health Services	151	227	15,504	2,618.2

Public Health Unit Name	Change in cases April 17, 2021	Change in cases April 18, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	35	21	2,002	1,754.9
Halton Region Public Health	127	169	13,007	2,101.0
Niagara Region Public Health	149	203	12,031	2,546.3
Region of Waterloo Public Health and Emergency Services	74	79	13,254	2,268.1
Wellington-Dufferin-Guelph Public Health	73	70	6,445	2,066.3
TOTAL CENTRAL WEST	620	808	65,004	2,281.4
TOTAL ONTARIO	4,250	4,447	421,442	2,835.2

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

Outbreaks

Table 6. Summary of recent confirmed COVID-19 outbreaks reported in long-term care homes, retirement homes and hospitals by status: Ontario

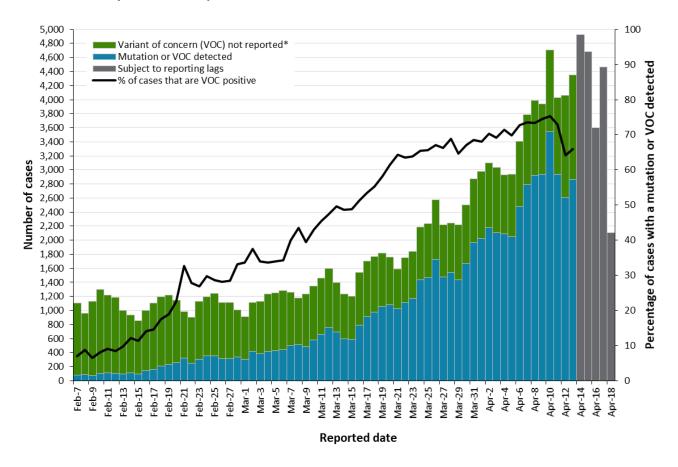
Institution type	Change in outbreaks April 17, 2021	Change in outbreaks April 18, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	1	1	39	1,409
Retirement homes	1	0	22	837
Hospitals	2	1	35	498

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.

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 ≤ 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 18, 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.

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

	Change in cases April 17, 2021	Change in cases April 18, 2021	Cumulative case count up to April 18, 2021
Variant of Concern			
Lineage B.1.1.7*	1,785	2,467	36,579
Lineage B.1.351	3	0	104
Lineage P.1	0	4	211
Mutations			
N501Y and E484K	162	143	3,450
N501Y (E484K unknown)**	88	129	22,864
E484K (N501Y negative)	68	89	1,100
E484K (N501Y unknown)	23	15	335

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.

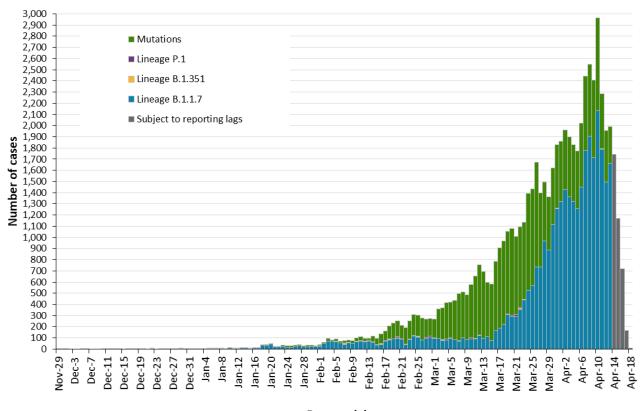


Figure 6. Confirmed COVID-19 cases with a mutation or VOC detected by public health unit reported date: Ontario, November 29, 2020 to April 18, 2021

Reported date

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 <u>technical notes</u>. 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 <u>data caveats</u> 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).

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 18, 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 <u>MOH Case Definition</u> 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-Co-V-2 specimens with CT values ≤ 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 ≤ 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 3 to April 15, 2021

Public Health Unit Name	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	Apr 8 to Apr 14	Apr 9 to Apr 15	% change from Apr 3 - Apr 9 to Apr 9 - Apr 15
NORTH WEST								
Northwestern Health Unit	53.6	57.0	53.6	61.6	66.2	67.3	69.6	+29.9%
Thunder Bay District Health Unit	36.7	36.0	39.3	41.3	37.3	40.0	34.0	-7.4%
NORTH EAST								
Algoma Public Health	24.5	26.2	25.3	28.0	28.8	32.3	28.8	+17.6%
North Bay Parry Sound District Health Unit	13.1	12.3	10.8	14.6	14.6	12.3	10.0	-23.7%
Porcupine Health Unit	46.7	44.3	44.3	47.9	43.1	45.5	86.3	+84.8%
Public Health Sudbury & Districts	80.9	85.4	90.4	86.4	83.4	80.9	90.9	+12.4%
Timiskaming Health Unit	3.1	3.1	3.1	9.2	15.3	21.4	21.4	+590.3%
EASTERN								
Ottawa Public Health	145.6	160.7	170.0	182.7	200.0	209.4	215.5	+48.0%
Eastern Ontario Health Unit	119.3	127.4	133.2	136.1	139.4	152.4	159.1	+33.4%
Hastings Prince Edward Public Health	84.3	80.1	74.2	74.8	67.1	66.5	63.5	-24.7%
Kingston, Frontenac and Lennox & Addington Public Health	55.0	61.6	55.9	52.7	54.5	52.2	47.5	-13.6%

Public Health Unit Name	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	Apr 8 to Apr 14	Apr 9 to Apr 15	% change from Apr 3 - Apr 9 to Apr 9 - Apr 15
Leeds, Grenville & Lanark District Health Unit	65.3	69.9	69.3	69.3	67.6	64.7	65.3	0.0%
Renfrew County and District Health Unit	39.6	34.1	38.7	40.5	35.0	42.3	33.1	-16.4%
CENTRAL EAST								
Durham Region Health Department	178.7	215.2	227.5	231.8	246.3	253.9	254.9	+42.6%
Haliburton, Kawartha, Pine Ridge District Health Unit	63.0	63.5	69.3	77.3	89.4	80.5	86.3	+37.0%
Peel Public Health	276.2	295.1	302.4	299.8	315.9	337.0	347.9	+26.0%
Peterborough Public Health	59.5	51.4	54.7	60.1	68.3	71.6	77.7	+30.6%
Simcoe Muskoka District Health Unit	104.1	109.6	121.9	122.3	120.9	121.8	128.4	+23.3%
York Region Public Health	223.7	235.8	254.4	274.8	279.0	282.8	286.5	+28.1%
TORONTO								
Toronto Public Health	227.0	244.2	251.1	262.8	263.5	272.1	278.2	+22.6%
SOUTH WEST								
Chatham-Kent Public Health	38.6	35.7	30.1	32.0	30.1	31.0	22.6	-41.5%
Grey Bruce Health Unit	40.0	41.2	45.9	51.2	63.0	74.2	85.4	+113.5%
Huron Perth Public Health	30.1	33.6	30.8	30.8	42.2	38.6	37.9	+25.9%
Lambton Public Health	80.2	87.0	90.9	90.9	101.6	84.8	70.2	-12.5%
Middlesex-London Health Unit	165.1	163.9	174.8	175.0	184.8	187.0	177.9	+7.8%

Public Health Unit Name	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	Apr 8 to Apr 14	Apr 9 to Apr 15	% change from Apr 3 - Apr 9 to Apr 9 - Apr 15
Southwestern Public Health	53.0	58.6	65.7	66.7	77.1	82.7	88.4	+66.8%
Windsor-Essex County Health Unit	73.7	74.1	75.6	76.5	79.8	88.7	93.2	+26.5%
CENTRAL WEST								
Brant County Health Unit	125.6	140.5	125.6	132.7	146.3	155.9	179.1	+42.6%
City of Hamilton Public Health Services	136.4	139.2	152.7	163.8	169.4	181.4	192.5	+41.1%
Haldimand-Norfolk Health Unit	101.7	120.1	115.7	139.4	150.8	165.7	170.9	+68.0%
Halton Region Public Health	135.7	148.8	155.1	167.3	171.4	173.5	175.3	+29.2%
Niagara Region Public Health	157.9	155.8	160.0	187.1	192.4	216.1	229.4	+45.3%
Region of Waterloo Public Health and Emergency Services	77.0	80.4	89.5	96.0	101.6	103.0	102.7	+33.4%
Wellington-Dufferin- Guelph Public Health	138.5	147.8	153.9	149.1	161.6	165.8	157.7	+13.9%
TOTAL ONTARIO	161.6	172.8	180.2	187.8	194.2	201.8	206.5	+27.8%

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

Table A2. Summary of confirmed COVID-19 cases with a mutation or VOC by public health unit: Ontario as of April 18, 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	24
Brant County Health Unit	179	0	4	185
Chatham-Kent Public Health	21	4	0	88
City of Hamilton Public Health Services	934	1	2	868
Durham Region Health Department	2,937	2	14	1,700
Eastern Ontario Health Unit	412	2	0	274
Grey Bruce Health Unit	70	0	0	36
Haldimand-Norfolk Health Unit	28	0	0	104
Haliburton, Kawartha, Pine Ridge District Health Unit	55	0	0	181
Halton Region Public Health	1,738	1	1	555
Hastings Prince Edward Public Health	6	0	1	215
Huron Perth Public Health	18	0	0	33
Kingston, Frontenac and Lennox & Addington Public Health	134	0	4	118
Lambton Public Health	216	0	0	50
Leeds, Grenville & Lanark District Health Unit	163	1	0	40
Middlesex-London Health Unit	985	0	2	191
Niagara Region Public Health	743	0	0	560

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	43	27	0	12
Northwestern Health Unit	18	0	0	17
Ottawa Public Health	1,771	6	0	938
Peel Public Health	9,858	18	52	4,153
Peterborough Public Health	202	0	0	149
Porcupine Health Unit	5	2	0	4
Public Health Sudbury & Districts	148	0	0	478
Region of Waterloo Public Health and Emergency Services	922	1	1	288
Renfrew County and District Health Unit	56	0	0	13
Simcoe Muskoka District Health Unit	1,371	3	20	695
Southwestern Public Health	211	1	0	30
Thunder Bay District Health Unit	0	0	0	10
Timiskaming Health Unit	25	1	0	0
Toronto Public Health	6,030	29	80	13,152
Wellington-Dufferin-Guelph Public Health	706	0	1	136
Windsor-Essex County Health Unit	439	0	0	86
York Region Public Health	6,129	5	29	2,366
TOTAL ONTARIO	36,579	104	211	27,749

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.

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 1 to April 13, 2021

Public Health Unit Name	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	April 6 to April 12	April 7 to April 13
Algoma Public Health	37.5	29.2	28.6	26.7	31.0	43.8	48.5
Brant County Health Unit	46.0	51.4	50.8	52.3	54.9	63.6	66.5
Chatham-Kent Public Health	38.5	45.8	46.3	47.4	56.3	52.9	50.0
City of Hamilton Public Health Services	65.8	67.1	67.9	68.4	71.9	72.1	71.8
Durham Region Health Department	77.6	78.5	78.4	81.3	81.7	82.1	81.2
Eastern Ontario Health Unit	68.2	67.9	68.3	68.8	68.3	69.4	66.3
Grey Bruce Health Unit	47.8	48.5	48.5	48.6	47.4	46.0	50.5
Haldimand-Norfolk Health Unit	61.5	63.2	62.9	66.4	68.2	72.3	74.4
Haliburton, Kawartha, Pine Ridge District Health Unit	64.9	67.8	66.4	60.8	58.0	52.7	53.3
Halton Region Public Health	76.9	77.1	76.8	76.1	77.9	78.8	78.5
Hastings Prince Edward Public Health	69.9	71.0	73.2	72.6	71.2	71.4	73.5
Huron Perth Public Health	40.6	45.7	40.5	44.7	39.5	41.9	40.7
Kingston, Frontenac and Lennox & Addington Public Health	76.6	76.2	73.5	72.5	70.6	72.3	69.8
Lambton Public Health	45.5	58.1	61.9	64.9	67.2	68.1	68.4
Leeds, Grenville & Lanark District Health Unit	63.0	66.3	66.4	70.2	73.3	71.7	73.5

Public Health Unit Name	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	April 6 to April 12	April 7 to April 13
Middlesex-London Health Unit	53.4	52.7	52.9	54.6	56.8	58.6	58.2
Niagara Region Public Health	54.5	55.9	56.4	57.7	57.8	50.5	46.1
North Bay Parry Sound District Health Unit	82.4	88.2	88.2	81.3	85.7	78.9	68.4
Northwestern Health Unit	23.7	24.3	23.4	22.0	27.7	22.2	24.1
Ottawa Public Health	58.0	60.8	61.8	62.8	64.8	66.4	67.2
Peel Public Health	71.0	71.7	72.1	73.4	73.4	73.5	73.9
Peterborough Public Health	78.4	77.9	78.4	71.1	70.4	70.8	69.3
Porcupine Health Unit	60.9	60.0	64.1	62.2	62.2	65.0	75.0
Public Health Sudbury & Districts	69.9	70.9	70.2	71.2	69.4	69.8	71.7
Region of Waterloo Public Health and Emergency Services	59.5	63.3	66.2	69.4	64.1	64.7	65.7
Renfrew County and District Health Unit	81.3	81.4	79.1	73.0	83.3	81.8	84.2
Simcoe Muskoka District Health Unit	65.5	64.9	68.6	69.6	69.4	68.1	67.0
Southwestern Public Health	55.0	63.6	69.6	73.4	77.7	78.0	73.0
Thunder Bay District Health Unit	0.0	0.0	5.5	11.1	10.2	9.7	10.7
Timiskaming Health Unit	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Toronto Public Health	78.4	78.2	78.7	78.7	78.0	74.6	71.6

Public Health Unit Name	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	April 6 to April 12	April 7 to April 13
Wellington-Dufferin- Guelph Public Health	69.9	70.7	72.5	73.1	64.4	66.5	68.7
Windsor-Essex County Health Unit	49.2	54.4	57.2	59.4	61.1	63.4	62.2
York Region Public Health	79.2	79.4	80.1	80.7	81.3	80.7	80.5
TOTAL ONTARIO	70.9	71.7	72.3	73.2	73.4	72.4	71.4

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.

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Public Health Ontario

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