

Daily Epidemiologic Summary

COVID-19 in Ontario: January 15, 2020 to April 2, 2021

This report includes the most current information available from CCM as of **April 2, 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 358,558 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
 - An increase of 3,009 confirmed cases (percent change of -2.6%)
 - An increase of 16 deaths (percent change of -30.4%)
 - An increase of 1,819 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 1, 2021	Change in cases April 2, 2021	Percentage change April 2, 2021 compared to April 1, 2021	Cumulative case count as of April 2, 2021
Total number of cases	3,089	3,009	-2.6%	358,558
Number of deaths	23	16	-30.4%	7,428
Number resolved	1,925	1,819	-5.5%	327,940

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 1, 2021	Change in cases April 2, 2021	Cumulative case count as of April 2, 2021
Gender: Male	1,553	1,436	177,320
Gender: Female	1,510	1,517	179,146
Ages: 19 and under	611	648	51,910
Ages: 20-39	1,155	1,093	131,311
Ages: 40-59	877	805	103,025
Ages: 60-79	376	381	50,604
Ages: 80 and over	67	74	21,614

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 2, 2021: Ontario

	Change in cases April 1, 2021	Change in cases April 2, 2021	Cumulative case count from August 30, 2020 to April 2, 2021
Ages: 4 to 8	119	119	9,232
Ages: 9 to 13	155	174	12,103
Ages: 14 to 17	127	128	12,014

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

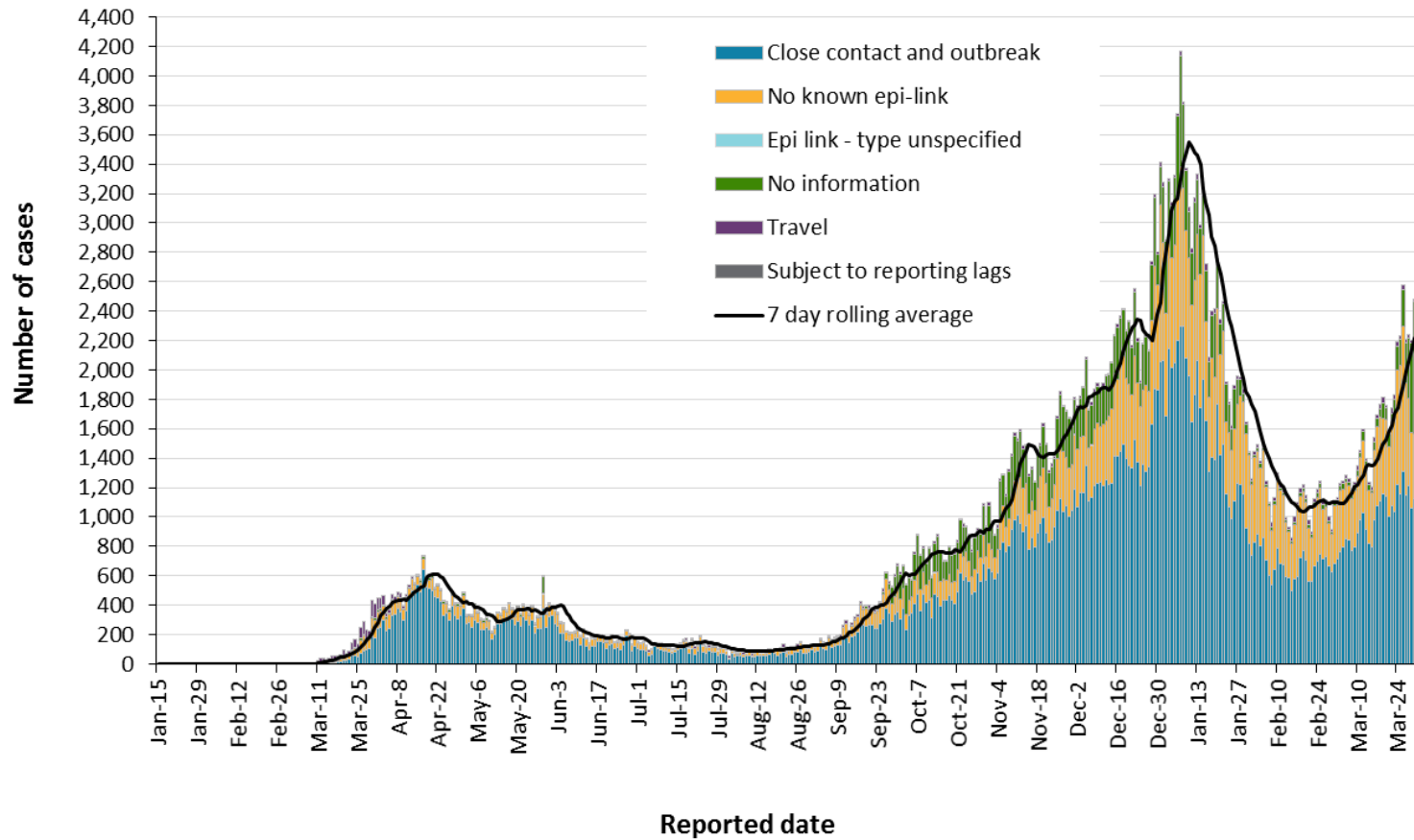
Long-term care home cases	Change in cases April 1, 2021	Change in cases April 2, 2021	Cumulative case count as of April 2, 2021
Residents	4	4	15,055
Health care workers	5	0	6,824
Deaths among residents	0	0	3,901
Deaths among health care workers	0	0	10

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

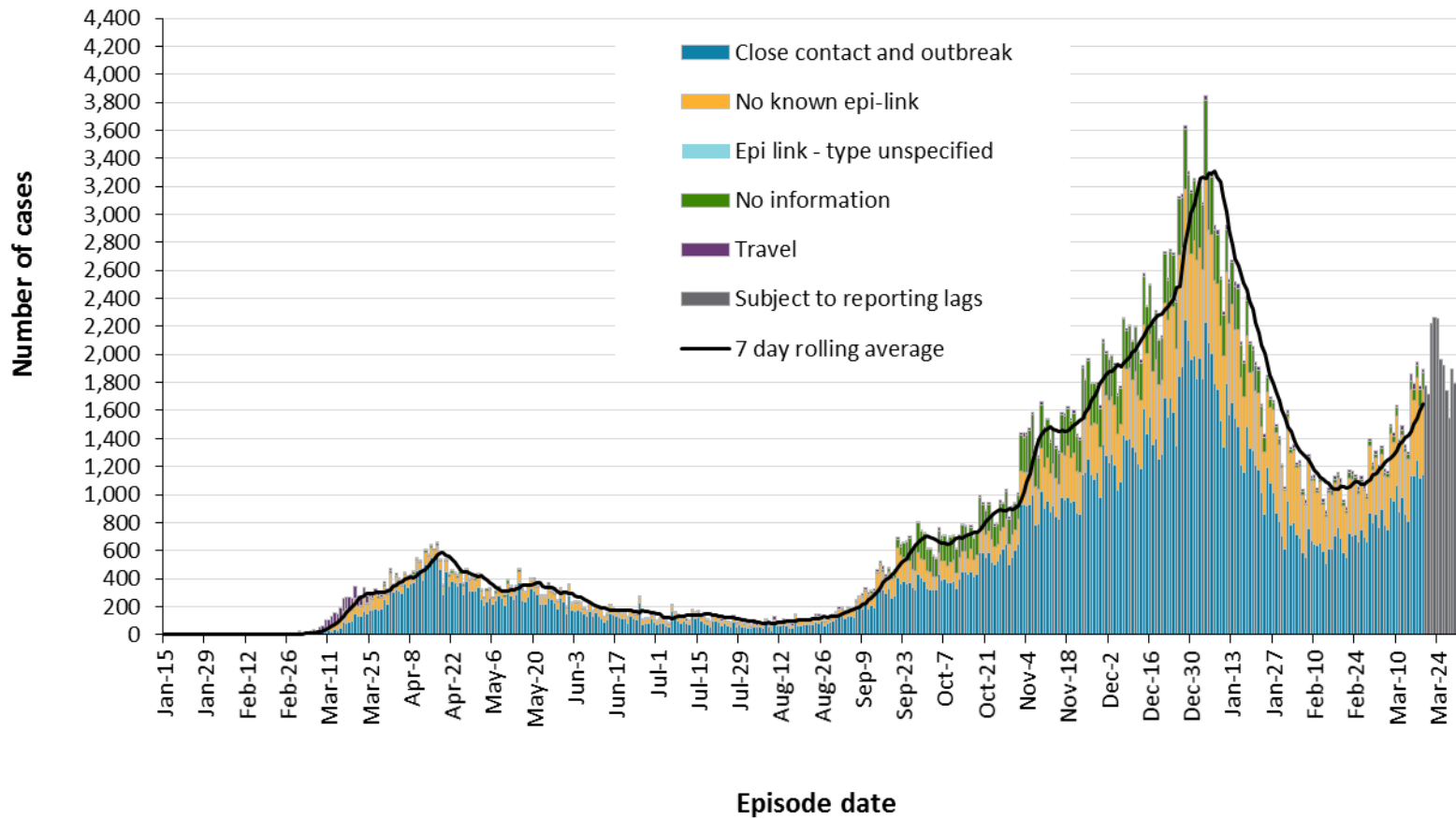
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to April 2, 2021



Data Source: CCM

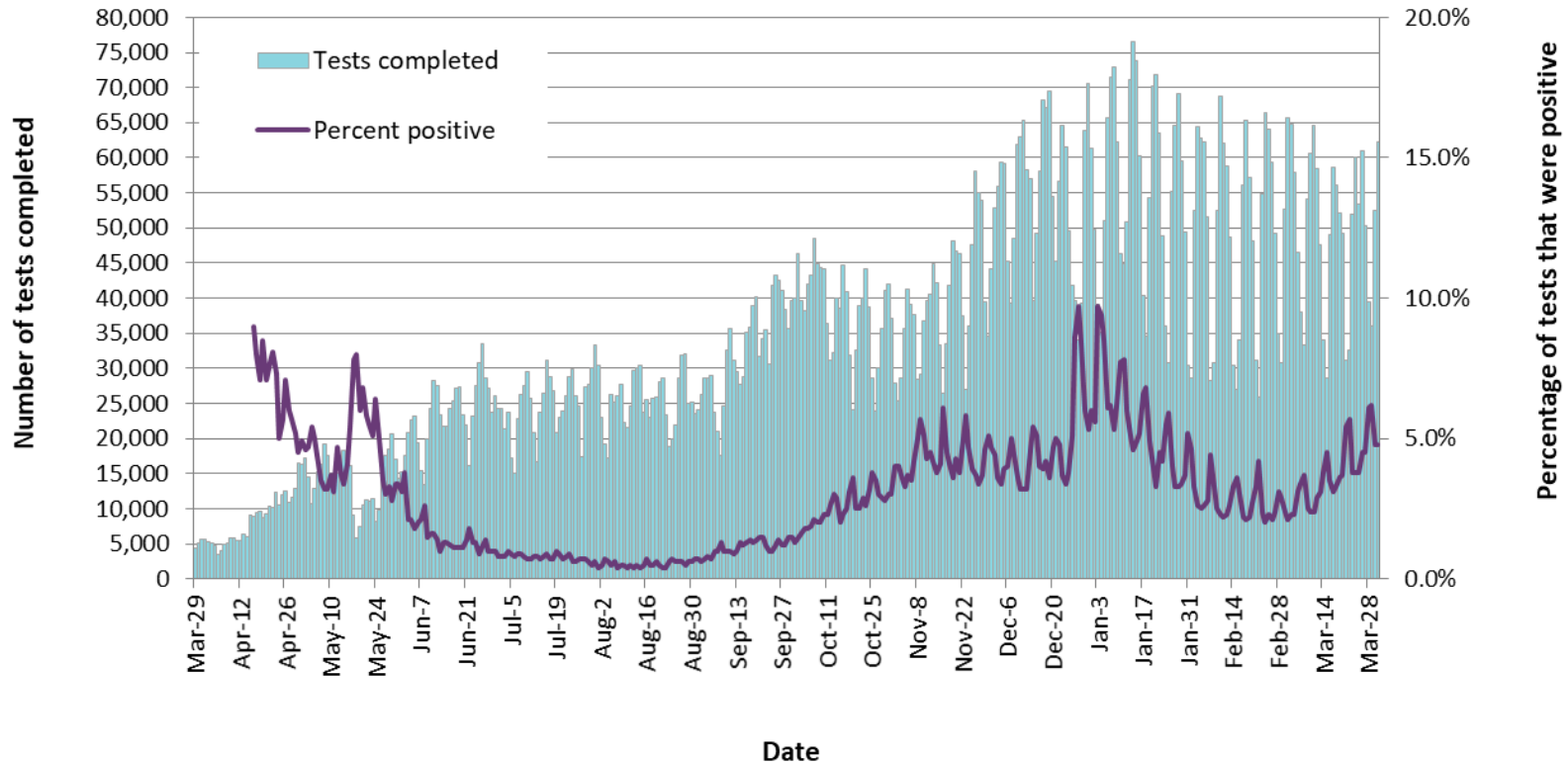
COVID-19 in Ontario: January 15, 2020 to April 2, 2021

Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to April 2, 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 March 31, 2021*



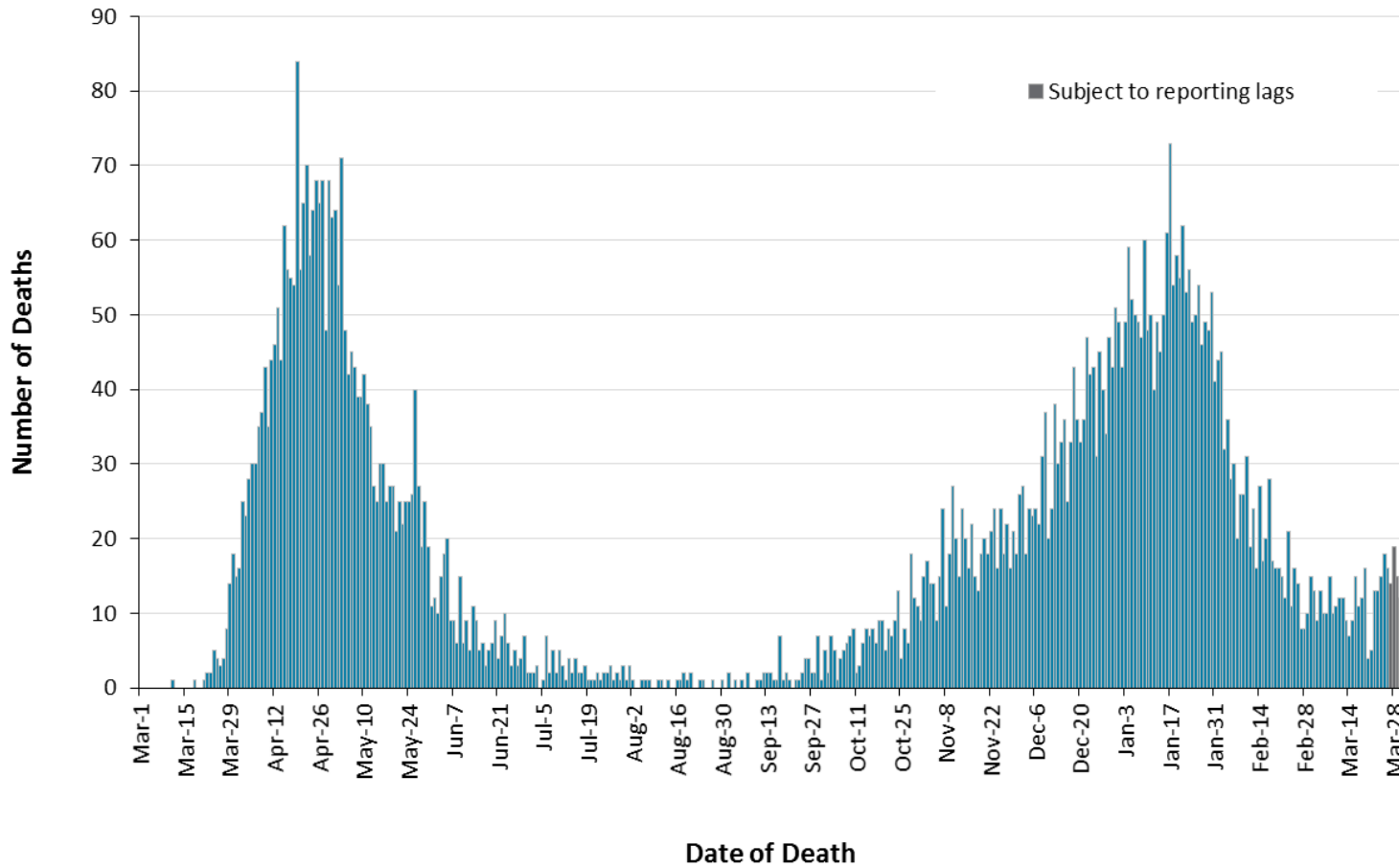
Note: The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

* The daily number of tests completed and percent positivity were not released on April 2, 2021 thus information is not available for April 1, 2021

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 2, 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 2, 2021

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

	Cumulative case count as of April 2, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	7,428	2.1%
Deaths reported in ages: 19 and under	2	< 0.1%
Deaths reported in ages: 20-39	34	< 0.1%
Deaths reported in ages: 40-59	315	0.3%
Deaths reported in ages: 60-79	2,107	4.2%
Deaths reported in ages: 80 and over	4,969	23.0%
Ever in ICU	3,041	0.8%
Ever hospitalized	17,285	4.8%

Note: Not all cases have an age reported. Data corrections or updates can result in case records being removed and/or updated and may result in totals differing from past publicly reported case counts.

Data Source: CCM

Geography

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

Public Health Unit Name	Change in cases April 1, 2021	Change in cases April 2, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	4	10	698	796.1
Thunder Bay District Health Unit	21	6	2,894	1,929.8
TOTAL NORTH WEST	25	16	3,592	1,511.6
Algoma Public Health	0	6	236	206.2
North Bay Parry Sound District Health Unit	1	3	295	227.4
Porcupine Health Unit	9	2	367	439.8
Public Health Sudbury & Districts	12	25	1,463	735.1
Timiskaming Health Unit	0	1	128	391.6
TOTAL NORTH EAST	22	37	2,489	445.0
Ottawa Public Health	175	205	17,768	1,684.7
Eastern Ontario Health Unit	27	44	3,342	1,601.3
Hastings Prince Edward Public Health	14	11	544	322.9
Kingston, Frontenac and Lennox & Addington Public Health	11	9	925	434.8
Leeds, Grenville & Lanark District Health Unit	9	12	1,272	734.5
Renfrew County and District Health Unit	0	2	436	401.4
TOTAL EASTERN	236	283	24,287	1,260.8

Public Health Unit Name	Change in cases April 1, 2021	Change in cases April 2, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	210	138	14,584	2,047.2
Haliburton, Kawartha, Pine Ridge District Health Unit	12	15	1,184	626.7
Peel Public Health	539	434	71,033	4,423.1
Peterborough Public Health	8	9	885	598.1
Simcoe Muskoka District Health Unit	81	72	7,948	1,325.6
York Region Public Health	273	348	34,423	2,808.2
TOTAL CENTRAL EAST	1,123	1,016	130,057	2,902.6
Toronto Public Health	1,052	954	111,863	3,584.9
TOTAL TORONTO	1,052	954	111,863	3,584.9
Chatham-Kent Public Health	5	14	1,639	1,541.6
Grey Bruce Health Unit	11	4	815	479.7
Huron Perth Public Health	8	1	1,446	1,034.7
Lambton Public Health	18	34	2,904	2,217.4
Middlesex-London Health Unit	108	145	7,407	1,459.4
Southwestern Public Health	11	16	2,862	1,353.2
Windsor-Essex County Health Unit	49	45	13,981	3,291.0
TOTAL SOUTH WEST	210	259	31,054	1,836.7
Brant County Health Unit	6	27	2,243	1,445.2
City of Hamilton Public Health Services	81	146	13,192	2,227.8

Public Health Unit Name	Change in cases April 1, 2021	Change in cases April 2, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	12	7	1,634	1,432.3
Halton Region Public Health	85	91	10,814	1,746.8
Niagara Region Public Health	139	77	9,913	2,098.1
Region of Waterloo Public Health and Emergency Services	52	65	12,057	2,063.3
Wellington-Dufferin-Guelph Public Health	46	31	5,363	1,719.4
TOTAL CENTRAL WEST	421	444	55,216	1,937.9
TOTAL ONTARIO	3,089	3,009	358,558	2,412.2

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 1, 2021	Change in outbreaks April 2, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	4	4	62	1,383
Retirement homes	4	3	46	834
Hospitals	0	3	35	464

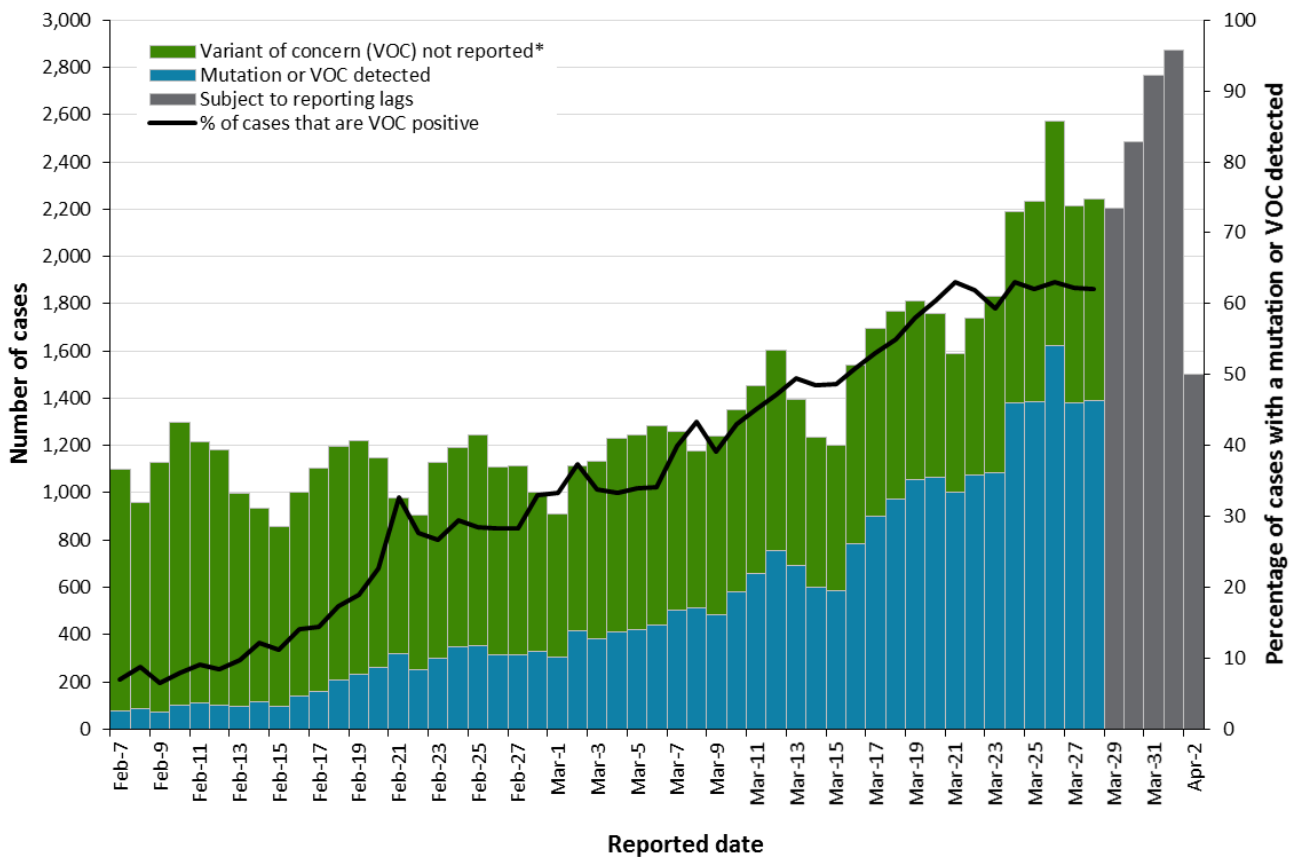
Note: Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset date 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 ≤ 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 2, 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

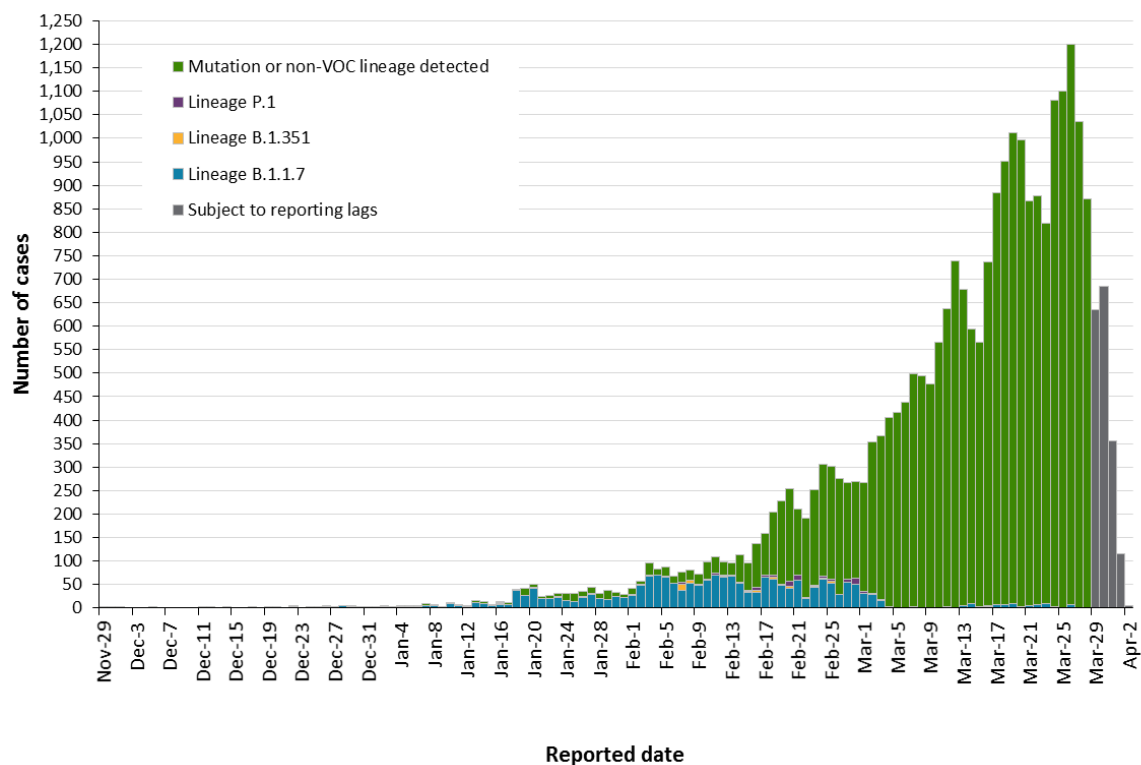
Variant	Change in cases April 1, 2021	Change in cases April 2, 2021	Cumulative case count up to April 2, 2021
Lineage B.1.1.7	69	20	2,042
Lineage B.1.351	3	0	70
Lineage P.1	7	-1	102
Mutation or non-VOC lineage detected*	1,150	938	24,459

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 with a lineage or mutation reported in the Investigation Subtype field, excluding variants of concern B.1.1.7, B.1.351, and P.1 lineages. 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

Figure 6. Confirmed COVID-19 cases with a mutation or VOC detected by public health unit reported date: Ontario, November 29, 2020 to April 2, 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. Mutation or non-VOC lineage detected includes all confirmed COVID-19 cases with a lineage or mutation detected reported from the Investigation Subtype field excluding B.1.1.7, B.1.351, and P.1 lineages. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the [data caveats](#) section.

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 2, 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 ≤ 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, March 18 to March 30, 2021

Public Health Unit Name	Mar 18 to Mar 24	Mar 19 to Mar 25	Mar 20 to Mar 26	Mar 21 to Mar 27	Mar 22 to Mar 28	Mar 23 to Mar 29	Mar 24 to Mar 30	% change from Mar 18-Mar 24 to Mar 24-Mar 30
NORTH WEST								
Northwestern Health Unit	49.0	46.8	45.6	38.8	39.9	44.5	43.3	-11.6%
Thunder Bay District Health Unit	122.0	113.4	109.4	112.0	116.0	108.0	105.4	-13.6%
NORTH EAST								
Algoma Public Health	4.4	5.2	3.5	4.4	6.1	4.4	5.2	+18.2%
North Bay Parry Sound District Health Unit	10.8	8.5	2.3	0.8	1.5	2.3	3.9	-63.9%
Porcupine Health Unit	3.6	4.8	4.8	4.8	4.8	7.2	9.6	+166.7%
Public Health Sudbury & Districts	111.0	100.5	97.5	102.5	96.0	96.0	90.9	-18.1%
Timiskaming Health Unit	42.8	42.8	39.8	39.8	33.7	27.5	21.4	-50.0%
EASTERN								
Ottawa Public Health	58.2	64.2	63.8	68.7	74.1	81.3	88.1	+51.4%
Eastern Ontario Health Unit	87.2	88.2	90.1	93.4	100.6	97.7	93.4	+7.1%
Hastings Prince Edward Public Health	5.3	7.7	11.3	17.8	21.4	24.3	31.5	+494.3%
Kingston, Frontenac and Lennox & Addington Public Health	31.0	28.7	24.4	24.9	21.6	23.5	24.0	-22.6%

Public Health Unit Name	Mar 18 to Mar 24	Mar 19 to Mar 25	Mar 20 to Mar 26	Mar 21 to Mar 27	Mar 22 to Mar 28	Mar 23 to Mar 29	Mar 24 to Mar 30	% change from Mar 18-Mar 24 to Mar 24-Mar 30
Leeds, Grenville & Lanark District Health Unit	78.0	76.2	62.4	60.1	61.8	52.5	46.2	-40.8%
Renfrew County and District Health Unit	20.3	23.9	24.9	25.8	24.9	25.8	23.0	+13.3%
CENTRAL EAST								
Durham Region Health Department	92.5	96.4	106.7	122.5	128.3	137.3	139.7	+51.0%
Haliburton, Kawartha, Pine Ridge District Health Unit	11.1	10.1	12.2	12.7	15.3	16.9	20.6	+85.6%
Peel Public Health	147.8	151.0	159.3	159.2	163.1	168.7	174.0	+17.7%
Peterborough Public Health	27.7	30.4	23.7	23.7	25.0	25.7	30.4	+9.7%
Simcoe Muskoka District Health Unit	48.4	49.7	51.0	51.5	55.0	55.2	55.7	+15.1%
York Region Public Health	101.6	107.1	116.6	123.8	135.8	137.3	145.5	+43.2%
TORONTO								
Toronto Public Health	128.1	135.2	146.1	149.1	153.6	158.1	164.2	+28.2%
SOUTH WEST								
Chatham-Kent Public Health	68.7	60.2	66.8	57.4	59.3	57.4	56.4	-17.9%
Grey Bruce Health Unit	23.0	24.1	26.5	24.7	27.7	28.3	34.1	+48.3%
Huron Perth Public Health	5.7	9.3	7.9	10.7	10.7	11.4	12.2	+114.0%
Lambton Public Health	161.9	146.6	151.2	142.0	139.7	133.6	135.9	-16.1%
Middlesex-London Health Unit	41.8	46.3	51.8	58.9	66.6	71.3	84.3	+101.7%

Public Health Unit Name	Mar 18 to Mar 24	Mar 19 to Mar 25	Mar 20 to Mar 26	Mar 21 to Mar 27	Mar 22 to Mar 28	Mar 23 to Mar 29	Mar 24 to Mar 30	% change from Mar 18-Mar 24 to Mar 24-Mar 30
Southwestern Public Health	35.9	38.8	42.1	43.5	45.9	47.3	48.2	+34.3%
Windsor-Essex County Health Unit	39.3	37.2	42.6	45.4	48.5	51.3	58.4	+48.6%
CENTRAL WEST								
Brant County Health Unit	45.7	50.9	45.7	44.5	50.3	58.6	63.8	+39.6%
City of Hamilton Public Health Services	116.7	117.9	120.9	120.2	122.8	131.2	129.5	+11.0%
Haldimand-Norfolk Health Unit	52.6	54.3	60.5	66.6	68.4	57.0	63.1	+20.0%
Halton Region Public Health	54.1	57.2	55.2	57.2	64.9	67.4	74.1	+37.0%
Niagara Region Public Health	53.3	58.0	64.6	67.9	71.5	74.7	78.5	+47.3%
Region of Waterloo Public Health and Emergency Services	40.0	40.0	46.5	50.0	52.9	51.3	51.9	+29.8%
Wellington-Dufferin-Guelph Public Health	38.8	39.1	39.8	39.4	39.4	36.5	41.0	+5.7%
TOTAL ONTARIO	85.4	88.5	93.6	96.7	101.1	104.2	108.6	+27.2%

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 2, 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 mutation or non-VOC lineage detected
Algoma Public Health	0	0	0	4
Brant County Health Unit	2	0	0	104
Chatham-Kent Public Health	4	0	0	66
City of Hamilton Public Health Services	15	0	0	1,069
Durham Region Health Department	78	0	5	1,649
Eastern Ontario Health Unit	0	1	0	296
Grey Bruce Health Unit	0	0	0	36
Haldimand-Norfolk Health Unit	4	0	0	59
Haliburton, Kawartha, Pine Ridge District Health Unit	5	0	0	69
Halton Region Public Health	54	0	1	766
Hastings Prince Edward Public Health	0	0	0	49
Huron Perth Public Health	0	0	0	14
Kingston, Frontenac and Lennox & Addington Public Health	1	0	0	93
Lambton Public Health	0	0	0	135
Leeds, Grenville & Lanark District Health Unit	0	0	0	54

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 mutation or non-VOC lineage detected
Middlesex-London Health Unit	8	0	0	228
Niagara Region Public Health	13	0	0	313
North Bay Parry Sound District Health Unit	6	27	0	21
Northwestern Health Unit	1	0	0	13
Ottawa Public Health	23	6	0	567
Peel Public Health	399	12	19	3,617
Peterborough Public Health	3	0	0	202
Porcupine Health Unit	0	2	0	3
Public Health Sudbury & Districts	5	0	0	414
Region of Waterloo Public Health and Emergency Services	29	0	0	476
Renfrew County and District Health Unit	0	0	0	20
Simcoe Muskoka District Health Unit	390	1	16	843
Southwestern Public Health	5	0	0	73
Thunder Bay District Health Unit	0	0	0	4
Timiskaming Health Unit	0	1	0	17
Toronto Public Health	528	18	46	9,900

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 mutation or non-VOC lineage detected
Wellington-Dufferin-Guelph Public Health	7	0	0	257
Windsor-Essex County Health Unit	6	0	0	93
York Region Public Health	456	2	15	2,935
TOTAL ONTARIO	2,042	70	102	24,459

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.

Mutation or non-VOC lineage detected includes all confirmed COVID-19 cases with a lineage or mutation detected reported in the Investigation subtype field excluding B.1.1.7, B.1.351, and P.1 lineages. 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 16 to March 28, 2021

Public Health Unit Name	March 16 to March 22	March 17 to March 23	March 18 to March 24	March 19 to March 25	March 20 to March 26	March 21 to March 27	March 22 to March 28
Algoma Public Health	0.0	0.0	0.0	0.0	0.0	20.0	42.9
Brant County Health Unit	32.3	30.0	33.8	30.4	36.6	40.6	43.6
Chatham-Kent Public Health	33.7	40.6	41.1	45.3	46.5	45.9	36.5
City of Hamilton Public Health Services	44.4	45.3	48.9	51.3	53.1	54.6	56.4
Durham Region Health Department	70.4	71.3	71.6	74.2	77.4	77.8	78.8
Eastern Ontario Health Unit	62.3	69.2	69.8	68.5	70.7	68.2	69.5
Grey Bruce Health Unit	36.7	38.7	35.9	29.3	31.1	28.6	36.2
Haldimand-Norfolk Health Unit	40.8	43.4	48.3	48.4	50.7	51.3	53.8
Haliburton, Kawartha, Pine Ridge District Health Unit	50.0	50.0	66.7	68.4	65.2	75.0	58.6
Halton Region Public Health	49.8	52.8	55.5	61.9	65.2	67.8	69.2
Hastings Prince Edward Public Health	33.3	28.6	22.2	30.8	47.4	46.7	50.0
Huron Perth Public Health	16.7	10.0	12.5	30.8	36.4	46.7	46.7
Kingston, Frontenac and Lennox & Addington Public Health	38.1	38.3	43.9	47.5	51.9	54.7	54.3
Lambton Public Health	20.5	22.7	24.5	29.2	28.8	31.7	32.2

Public Health Unit Name	March 16 to March 22	March 17 to March 23	March 18 to March 24	March 19 to March 25	March 20 to March 26	March 21 to March 27	March 22 to March 28
Leeds, Grenville & Lanark District Health Unit	11.1	10.3	11.1	13.6	17.6	17.3	18.7
Middlesex-London Health Unit	20.7	24.2	33.5	36.2	37.3	39.8	40.2
Niagara Region Public Health	34.7	32.3	28.6	28.8	23.3	16.8	16.0
North Bay Parry Sound District Health Unit	78.6	78.6	78.6	63.6	33.3	0.0	0.0
Northwestern Health Unit	2.0	2.2	2.3	2.4	5.0	5.9	20.0
Ottawa Public Health	44.3	44.0	44.6	43.4	44.4	43.0	42.5
Peel Public Health	60.1	60.7	61.8	62.2	61.9	62.3	63.1
Peterborough Public Health	85.7	88.4	90.2	86.7	82.9	77.1	73.0
Porcupine Health Unit	0.0	0.0	33.3	75.0	75.0	75.0	75.0
Public Health Sudbury & Districts	59.0	59.1	59.3	62.0	59.8	53.4	50.8
Region of Waterloo Public Health and Emergency Services	38.6	39.5	38.5	41.0	37.9	39.7	39.2
Renfrew County and District Health Unit	15.4	31.3	36.4	50.0	59.3	57.1	66.7
Simcoe Muskoka District Health Unit	68.4	69.2	70.3	71.5	69.3	71.8	69.1
Southwestern Public Health	33.8	34.8	25.0	26.8	21.3	16.3	19.6
Thunder Bay District Health Unit	0.5	1.0	1.1	1.2	1.2	1.2	1.1

Public Health Unit Name	March 16 to March 22	March 17 to March 23	March 18 to March 24	March 19 to March 25	March 20 to March 26	March 21 to March 27	March 22 to March 28
Timiskaming Health Unit	90.0	92.3	92.9	85.7	92.3	92.3	90.9
Toronto Public Health	73.2	74.0	75.1	74.9	74.9	74.4	73.4
Wellington-Dufferin-Guelph Public Health	46.0	48.4	48.8	49.2	51.6	54.5	53.7
Windsor-Essex County Health Unit	8.7	8.4	8.4	8.2	12.7	15.0	17.5
York Region Public Health	66.1	65.1	66.2	67.2	69.1	71.1	70.8
TOTAL ONTARIO	57.5	58.6	60.1	61.2	61.9	62.2	62.1

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

Data Source: CCM.

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For Further Information

For more information, email cd@oahpp.ca.

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