

## Daily Epidemiologic Summary

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

This report includes the most current information available from CCM as of **March 21, 2021**.

Please visit the interactive [Ontario COVID-19 Data Tool](#) to explore recent COVID-19 data by public health unit, age group, sex, and trends over time.

A [weekly summary report](#) is available with additional information to complement the daily report.

This **daily** report provides an epidemiologic summary of recent COVID-19 activity in Ontario. The change in cases is determined by taking the cumulative difference between the current day and the previous day.

## Highlights

- There are a total of 330,573 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
  - An increase of 1,699 confirmed cases (percent change of -5.1%)
  - An increase of 3 deaths (percent change of -83.3%)
  - An increase of 1,175 resolved cases (percent change of -13.2%)

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 March 20, 2021	Change in cases March 21, 2021	Percentage change March 21, 2021 compared to March 20, 2021	Cumulative case count as of March 21, 2021
Total number of cases	1,791	1,699	-5.1%	330,573
Number of deaths	18	3	-83.3%	7,244
Number resolved	1,353	1,175	-13.2%	308,578

**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 March 20, 2021	Change in cases March 21, 2021	Cumulative case count as of March 21, 2021
Gender: Male	935	871	163,175
Gender: Female	853	810	165,560
Ages: 19 and under	378	327	46,113
Ages: 20-39	617	604	121,199
Ages: 40-59	511	493	95,119
Ages: 60-79	238	238	47,087
Ages: 80 and over	45	40	20,976

**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 March 21, 2021: Ontario**

	Change in cases March 20, 2021	Change in cases March 21, 2021	Cumulative case count from August 30, 2020 to March 21, 2021
Ages: 4 to 8	96	70	8,034
Ages: 9 to 13	105	76	10,621
Ages: 14 to 17	83	73	10,820

**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**

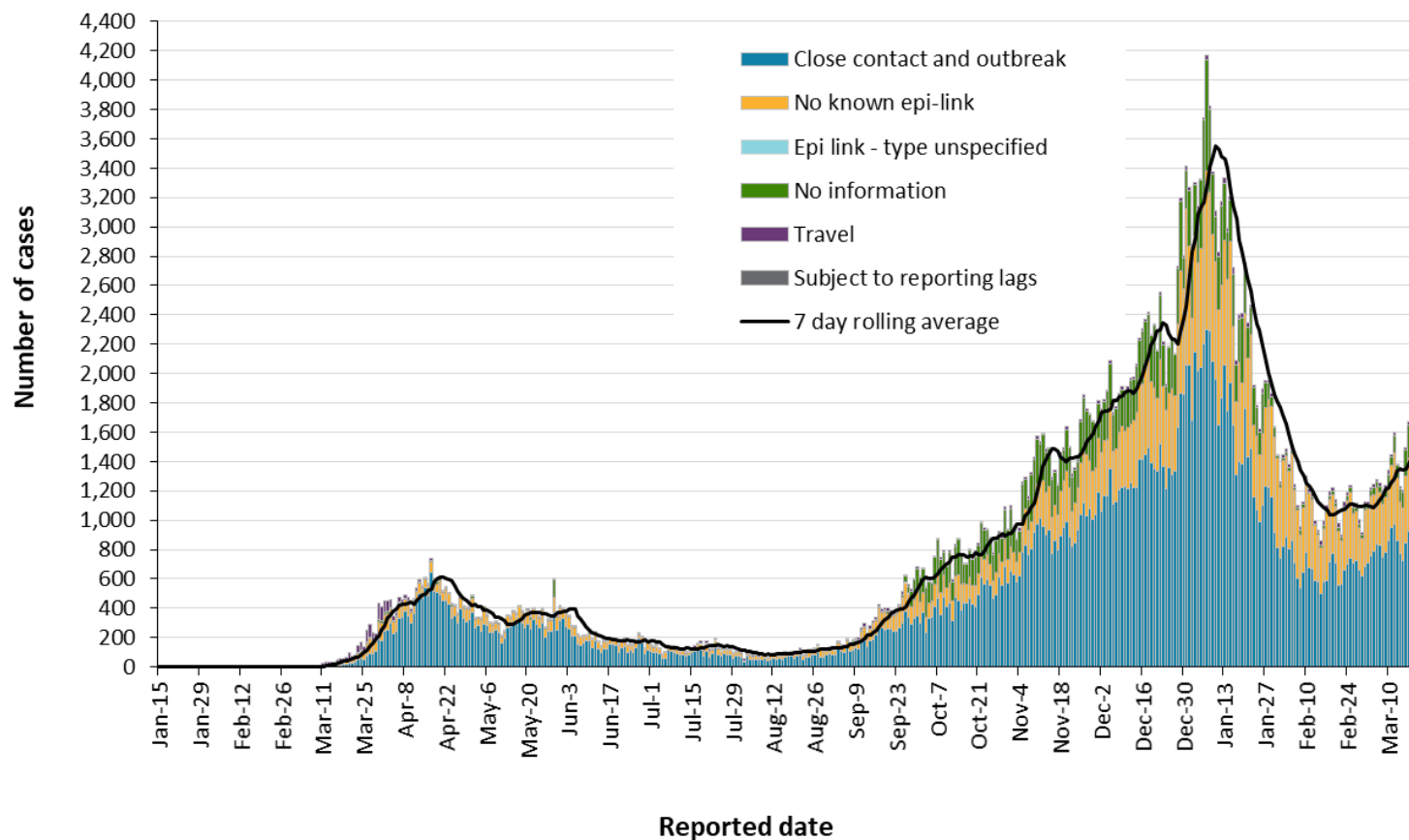
Long-term care home cases	Change in cases March 20, 2021	Change in cases March 21, 2021	Cumulative case count as of March 21, 2021
Residents	5	4	15,009
Health care workers	5	6	6,782
Deaths among residents	2	0	3,891
Deaths among health care workers	0	0	10

**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

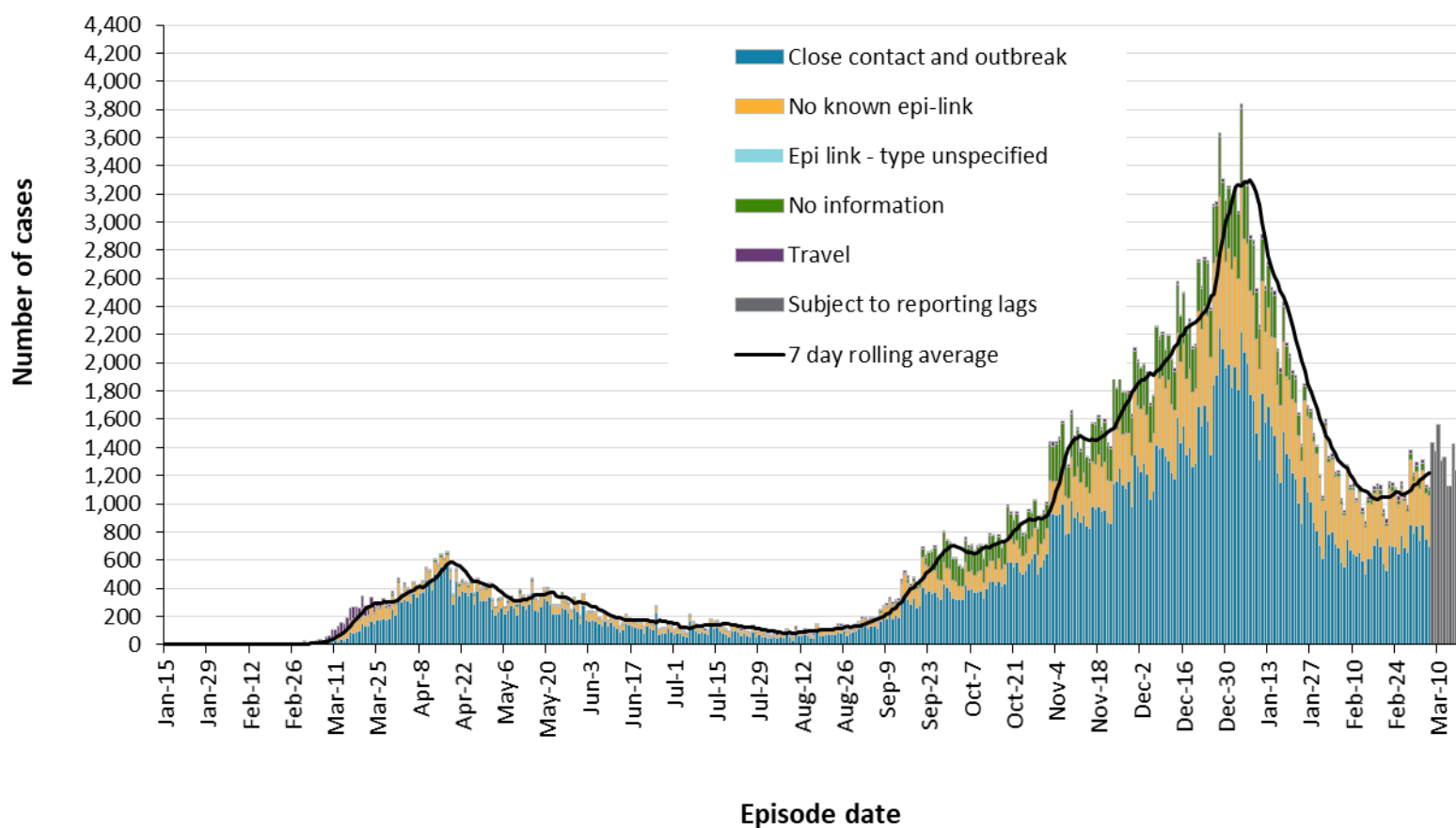
**Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to March 21, 2021**



Data Source: CCM

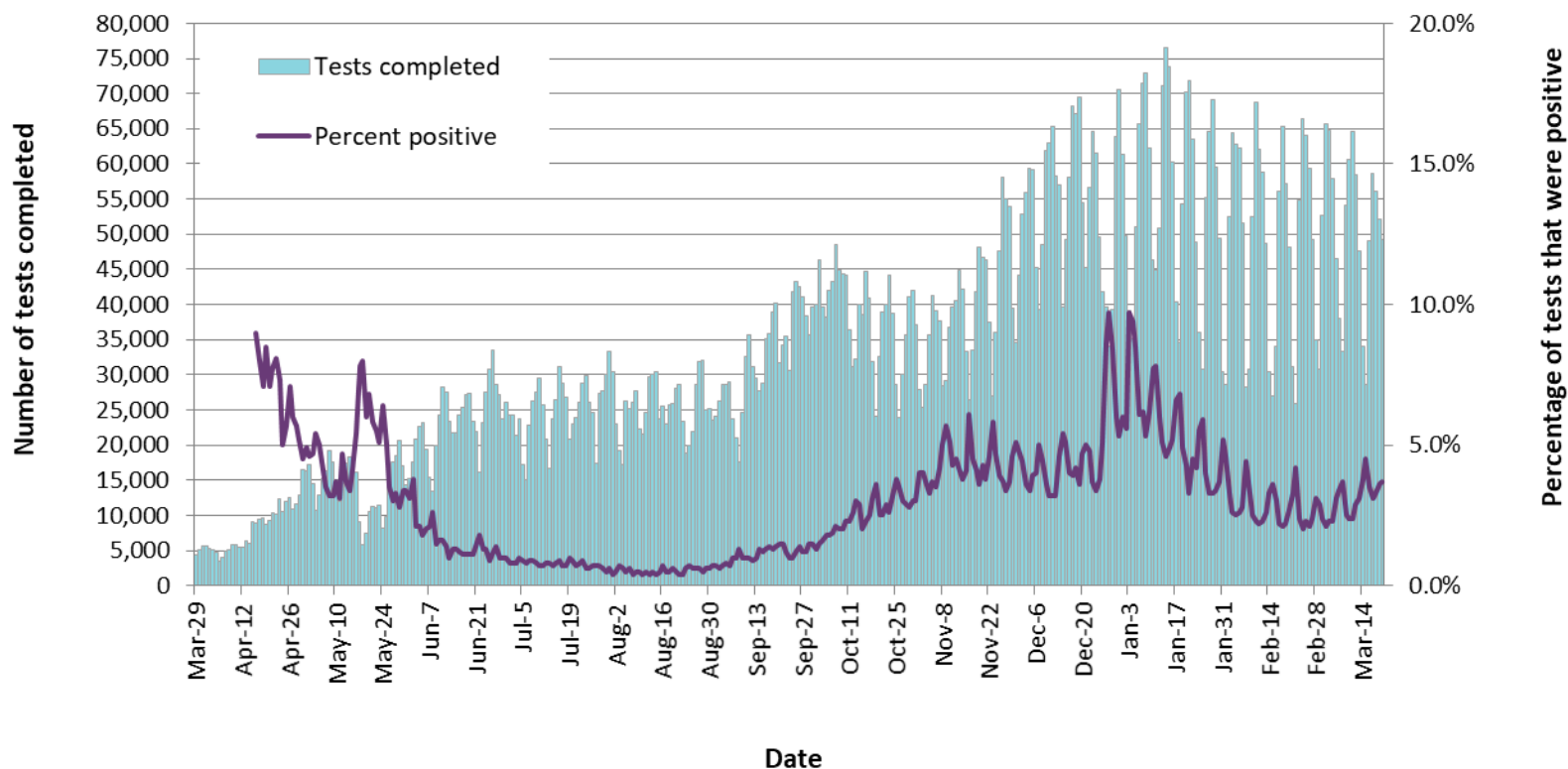
COVID-19 in Ontario: January 15, 2020 to March 21, 2021

**Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to March 21, 2021**



**Note:** Not all cases may have an episode date and those without one are not included in the figure. Episode date is defined and available in the technical notes.  
**Data Source:** CCM

**Figure 3. Number of COVID-19 tests completed and percent positivity: Ontario, March 29, 2020 to March 20, 2021**

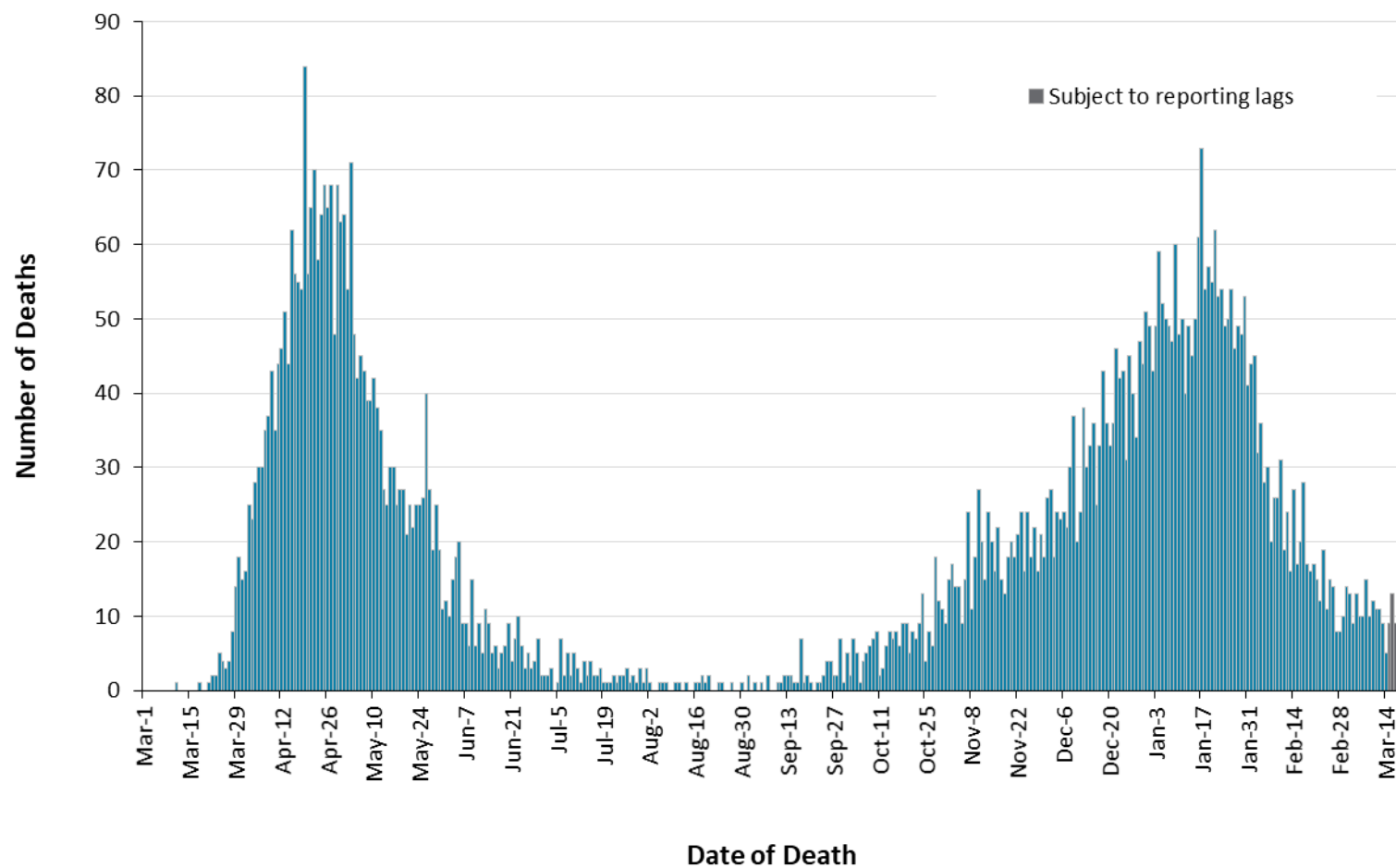


**Note:** The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

**Data Source:** The Provincial COVID-19 Diagnostics Network, data reported by member microbiology laboratories.

## Severity

Figure 4. Confirmed deaths among COVID-19 cases by date of death: Ontario, March 1, 2020 to March 21, 2021



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

**Data Source:** CCM

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



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

	Cumulative case count as of March 21, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	7,244	2.2%
Deaths reported in ages: 19 and under	2	< 0.1%
Deaths reported in ages: 20-39	32	< 0.1%
Deaths reported in ages: 40-59	302	0.3%
Deaths reported in ages: 60-79	2,023	4.3%
Deaths reported in ages: 80 and over	4,884	23.3%
Ever in ICU	2,907	0.9%
Ever hospitalized	16,352	4.9%

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

**Data Source:** CCM

## Geography

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

Public Health Unit Name	Change in cases March 20, 2021	Change in cases March 21, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	7	13	640	730.0
Thunder Bay District Health Unit	27	16	2,624	1,749.8
<b>TOTAL NORTH WEST</b>	34	29	3,264	1,373.5
Algoma Public Health	0	1	221	193.1
North Bay Parry Sound District Health Unit	8	2	285	219.6
Porcupine Health Unit	0	0	346	414.7
Public Health Sudbury & Districts	31	34	1,193	599.4
Timiskaming Health Unit	2	1	113	345.7
<b>TOTAL NORTH EAST</b>	41	38	2,158	385.8
Ottawa Public Health	90	85	16,164	1,532.6
Eastern Ontario Health Unit	18	39	2,993	1,434.0
Hastings Prince Edward Public Health	1	0	440	261.1
Kingston, Frontenac and Lennox & Addington Public Health	12	13	836	393.0
Leeds, Grenville & Lanark District Health Unit	31	12	1,121	647.3
Renfrew County and District Health Unit	0	4	403	371.0
<b>TOTAL EASTERN</b>	152	153	21,957	1,139.8

Public Health Unit Name	Change in cases March 20, 2021	Change in cases March 21, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	106	79	12,955	1,818.5
Haliburton, Kawartha, Pine Ridge District Health Unit	4	2	1,110	587.5
Peel Public Health	350	318	66,245	4,125.0
Peterborough Public Health	9	1	813	549.4
Simcoe Muskoka District Health Unit	40	64	7,337	1,223.7
York Region Public Health	177	155	31,420	2,563.2
<b>TOTAL CENTRAL EAST</b>	686	619	119,880	2,675.5
Toronto Public Health	495	500	102,768	3,293.5
<b>TOTAL TORONTO</b>	495	500	102,768	3,293.5
Chatham-Kent Public Health	14	10	1,523	1,432.5
Grey Bruce Health Unit	4	8	731	430.3
Huron Perth Public Health	3	1	1,417	1,013.9
Lambton Public Health	30	42	2,620	2,000.5
Middlesex-London Health Unit	37	11	6,609	1,302.2
Southwestern Public Health	14	11	2,703	1,278.0
Windsor-Essex County Health Unit	36	16	13,570	3,194.2
<b>TOTAL SOUTH WEST</b>	138	99	29,173	1,725.4
Brant County Health Unit	14	15	2,083	1,342.1
City of Hamilton Public Health Services	89	114	11,933	2,015.2

Public Health Unit Name	Change in cases March 20, 2021	Change in cases March 21, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	2	6	1,507	1,321.0
Halton Region Public Health	52	57	10,038	1,621.4
Niagara Region Public Health	42	24	9,207	1,948.6
Region of Waterloo Public Health and Emergency Services	25	31	11,515	1,970.5
Wellington-Dufferin-Guelph Public Health	21	14	5,090	1,631.9
<b>TOTAL CENTRAL WEST</b>	<b>245</b>	<b>261</b>	<b>51,373</b>	<b>1,803.0</b>
<b>TOTAL ONTARIO</b>	<b>1,791</b>	<b>1,699</b>	<b>330,573</b>	<b>2,223.9</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 March 20, 2021	Change in outbreaks March 21, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	6	2	67	1,351
Retirement homes	1	2	39	801
Hospitals	2	1	35	447

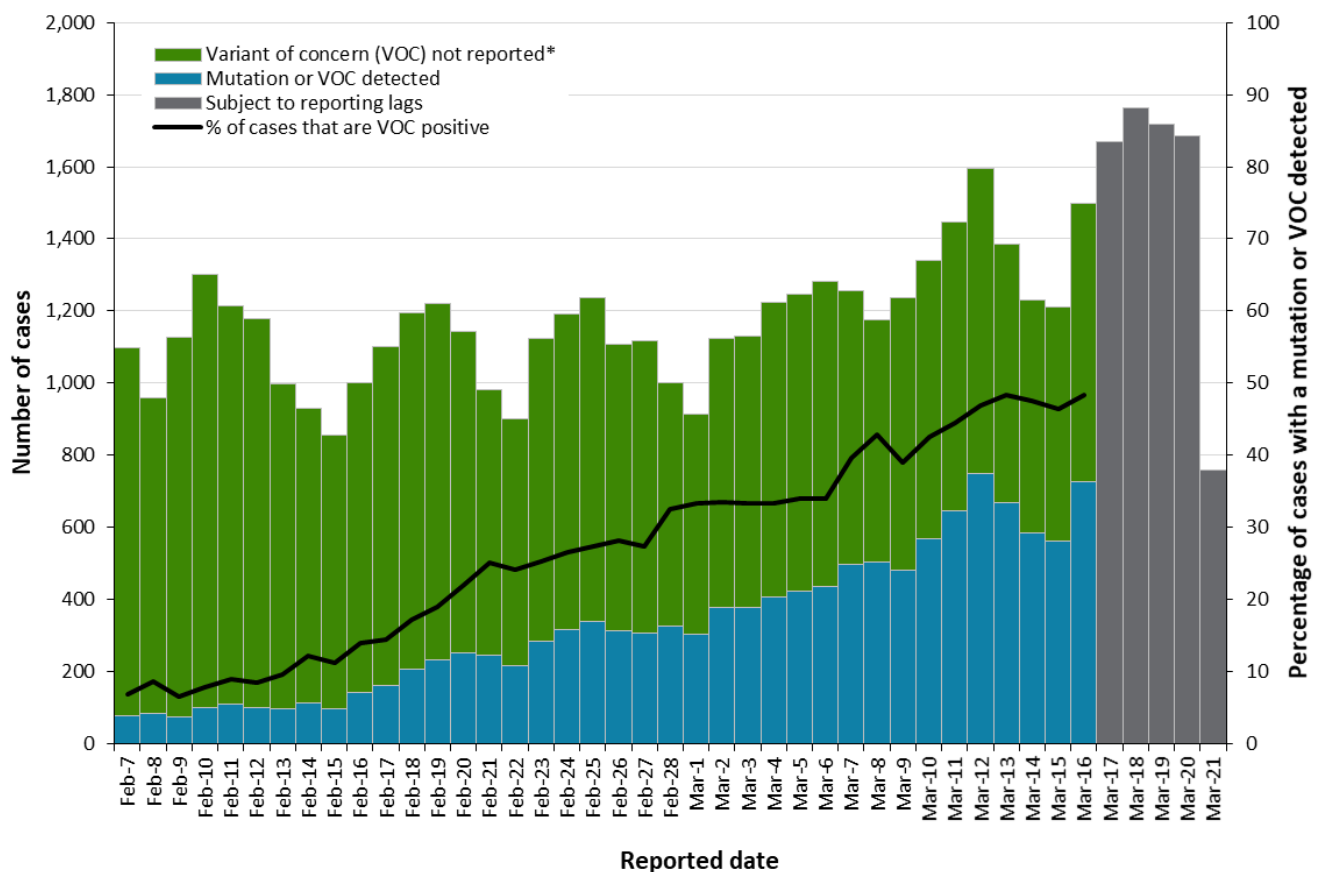
**Note:** Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset 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 March 21, 2021**



**Note:** Data used to calculate the number of cases tested for mutations common to VOCs or lineages using genomic analyses are obtained using information from the Laboratory object in CCM in addition to the data from the Investigation Subtype field. Therefore, comparisons to counts using only information from the Investigation Subtype field may not align. The percent of cases due to a VOC may be higher than described in this report. 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**

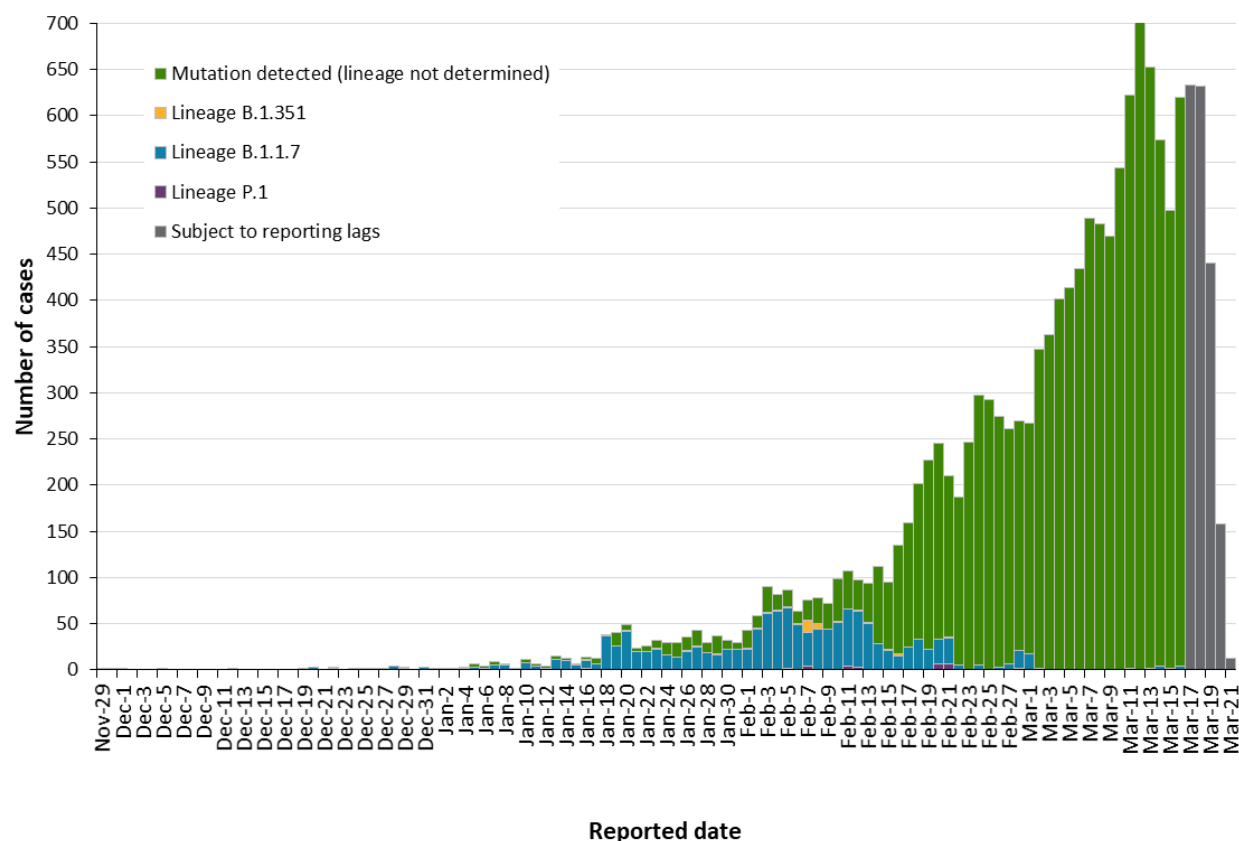
Variant	Change in cases March 20, 2021	Change in cases March 21, 2021	Cumulative case count up to March 21, 2021
Lineage B.1.1.7	57	53	1,340
Lineage B.1.351	0	1	48
Lineage P.1	1	0	36
Mutation detected (lineage not determined)*	729	597	13,228

**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.

\*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 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 March 21, 2021**



**Note:** Reported date is based on the date the case was reported, not the date that the VOC or mutation was identified. Further details on testing for variants of concern can be found in the [technical notes](#). Interpret the VOC and mutation trends with caution due to the varying time required to complete testing and/or genomic analysis following the initial positive test for SARS-CoV-2. Data for calculating the change in cases and the cumulative case count uses data from the Investigation Subtype field only. Data for cases with a B.1.1.7, B.1.351, and P.1 lineage detected are determined using the Investigation Subtype field only. Mutation detected (lineage not determined) 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.

**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 **March 21, 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](#) are included in the report counts from CCM. This includes persons with:
  - laboratory confirmation by a validated NAAT assay
  - a validated point-of-care (POC) assay deemed acceptable to provide a final result
  - a validated laboratory-based serological assay SARS-CoV-2
- 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>
- The laboratory detection of a variant of concern is a multi-step process. Samples that test positive for SARS-CoV-2 and have a cycle threshold (Ct) value  $\leq 35$  can be tested for mutations common to variants of concern. If positive for the mutation of interest these samples may then undergo genomic analyses to identify the VOC. VOC lineages may still be confirmed using genomic analysis despite specific S gene mutation(s) being documented as 'unable to complete' due to poor sequence quality at the genome position.
- VOC testing data are analyzed for cases with a reported date on or after February 07, 2021. VOC testing data are based on CCM information reported within the laboratory object for select Logical Observation Identifiers Names and Codes (LOINC) and supplemented with information from the Investigation Subtype field. A confirmed Case Investigation is assigned a VOC test value (e.g., VOC test detected, VOC test not detected) based on the following hierarchy:
  - If multiple laboratory results are identified, a VOC test value is assigned based on the following hierarchy: Detected > Not Detected > Unable to complete
  - If a laboratory result is 'Not Detected' or 'Unable to complete', but data on the Investigation Subtype field is listed as a lineage or mutation common to a VOC, then the VOC test value is set to 'Detected'
- If a VOC is identified through genomic analysis cases initially classified as a mutation may be updated and moved to the appropriate lineage (B.1.1.7, B.1.351 and P.1)
- LOINC codes are a set of internationally used result description codes. In the absence of a standard LOINC, Ontario Health can create local result codes, which are identified with an 'XON' prefix. LOINC codes incorporate details of the result value (e.g. test method, target detected - such as IgG, DNA, isolate etc.) and are unique to each result.
- VOC testing data in this report are assigned on a per case basis. Multiple laboratory results may be associated to a single case investigation, but for analysis purposes are only counted once.
  - The percent of cases that test VOC positive is calculated by taking the number of VOC test positive, divided by the total number of confirmed COVID-19 cases for a given reported date.
- The VOC percent positive may be higher than described in this report. While all confirmed COVID-19 cases are included in the denominator, not all cases were able to be tested for VOCs. As testing algorithms change, the VOC percent positivity may not be reflective of the exact number of COVID-19 cases due to VOCs
- Only CCM case investigations with a CONFIRMED classification have their laboratory records with VOC testing information included in the percent positivity calculations

## Appendix A

**Table A1. Weekly rates of confirmed COVID-19 cases per 100,000 population over recent rolling 7-day periods, by reported date and public health unit: Ontario, March 6 to March 18, 2021**

Public Health Unit Name	Mar 6 to Mar 12	Mar 7 to Mar 13	Mar 8 to Mar 14	Mar 9 to Mar 15	Mar 10 to Mar 16	Mar 11 to Mar 17	Mar 12 to Mar 18	% change from Mar 6-Mar 12 to Mar 12-Mar 18
<b>NORTH WEST</b>								
Northwestern Health Unit	78.7	74.1	75.3	76.4	75.3	70.7	70.7	-10.2%
Thunder Bay District Health Unit	248.1	238.1	251.4	242.7	233.4	233.4	201.4	-18.8%
<b>NORTH EAST</b>								
Algoma Public Health	2.6	2.6	6.1	10.5	14.0	15.7	14.0	+438.5%
North Bay Parry Sound District Health Unit	1.5	3.1	2.3	3.1	3.1	3.1	5.4	+260.0%
Porcupine Health Unit	2.4	2.4	2.4	2.4	1.2	1.2	2.4	0.0%
Public Health Sudbury & Districts	90.9	99.5	100.5	101.5	109.0	103.5	98.0	+7.8%
Timiskaming Health Unit	15.3	6.1	3.1	3.1	6.1	6.1	15.3	0.0%
<b>EASTERN</b>								
Ottawa Public Health	43.3	44.4	45.3	47.3	48.5	48.8	48.7	+12.5%
Eastern Ontario Health Unit	43.6	43.1	42.6	42.2	42.6	45.0	50.8	+16.5%
Hastings Prince Edward Public Health	7.1	7.7	7.1	6.5	4.2	4.2	3.0	-57.7%
Kingston, Frontenac and Lennox & Addington Public Health	9.9	10.3	13.2	15.5	19.3	23.5	26.8	+170.7%

Public Health Unit Name	Mar 6 to Mar 12	Mar 7 to Mar 13	Mar 8 to Mar 14	Mar 9 to Mar 15	Mar 10 to Mar 16	Mar 11 to Mar 17	Mar 12 to Mar 18	% change from Mar 6-Mar 12 to Mar 12-Mar 18
Leeds, Grenville & Lanark District Health Unit	30.6	39.8	42.2	45.0	54.9	57.7	60.6	+98.0%
Renfrew County and District Health Unit	23.0	18.4	14.7	13.8	12.9	9.2	8.3	-63.9%
<b>CENTRAL EAST</b>								
Durham Region Health Department	43.9	44.5	40.7	39.9	42.7	48.1	56.8	+29.4%
Haliburton, Kawartha, Pine Ridge District Health Unit	13.8	15.3	14.3	13.8	13.2	15.3	14.8	+7.2%
Peel Public Health	105.1	105.0	106.7	105.3	111.4	116.6	119.6	+13.8%
Peterborough Public Health	41.2	33.8	32.4	29.7	27.7	30.4	28.4	-31.1%
Simcoe Muskoka District Health Unit	43.4	49.5	44.7	43.4	43.7	44.4	43.4	0.0%
York Region Public Health	73.3	74.1	74.2	74.7	75.2	82.7	84.8	+15.7%
<b>TORONTO</b>								
Toronto Public Health	86.2	88.8	87.6	86.9	87.7	90.0	96.0	+11.4%
<b>SOUTH WEST</b>								
Chatham-Kent Public Health	65.8	61.1	55.5	62.1	63.0	71.5	72.4	+10.0%
Grey Bruce Health Unit	4.7	4.7	4.7	5.3	5.9	5.9	8.8	+87.2%
Huron Perth Public Health	16.5	17.2	16.5	16.5	18.6	13.6	12.2	-26.1%
Lambton Public Health	122.9	120.6	125.2	132.9	148.1	147.4	154.2	+25.5%
Middlesex-London Health Unit	26.2	27.8	25.4	28.2	27.6	27.2	29.4	+12.2%

Public Health Unit Name	Mar 6 to Mar 12	Mar 7 to Mar 13	Mar 8 to Mar 14	Mar 9 to Mar 15	Mar 10 to Mar 16	Mar 11 to Mar 17	Mar 12 to Mar 18	% change from Mar 6-Mar 12 to Mar 12-Mar 18
Southwestern Public Health	22.7	22.2	26.0	29.8	28.4	28.8	28.4	+25.1%
Windsor-Essex County Health Unit	55.3	48.0	49.2	49.0	46.6	45.0	43.8	-20.8%
<b>CENTRAL WEST</b>								
Brant County Health Unit	63.1	63.8	70.9	72.8	71.5	70.2	59.9	-5.1%
City of Hamilton Public Health Services	73.3	76.8	77.5	79.2	85.6	89.8	96.8	+32.1%
Haldimand-Norfolk Health Unit	34.2	37.7	35.9	40.3	39.4	35.1	41.2	+20.5%
Halton Region Public Health	46.8	46.2	46.8	42.5	42.3	44.1	44.9	-4.1%
Niagara Region Public Health	37.7	39.2	40.6	47.2	50.2	49.1	49.9	+32.4%
Region of Waterloo Public Health and Emergency Services	49.1	47.4	43.1	43.5	44.7	45.7	41.6	-15.3%
Wellington-Dufferin-Guelph Public Health	31.1	23.4	24.4	26.0	30.1	32.4	32.1	+3.2%
<b>TOTAL ONTARIO</b>	<b>62.8</b>	<b>63.5</b>	<b>63.3</b>	<b>63.5</b>	<b>65.3</b>	<b>67.5</b>	<b>69.6</b>	<b>+10.8%</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 March 21, 2021**

Public Health Unit Name	Cumulative count for Lineage B.1.1.7	Cumulative count for Lineage B.1.351	Cumulative count for Lineage P.1	Cumulative count for mutation detected (lineage not determined)
Algoma Public Health	0	0	0	0
Brant County Health Unit	0	0	0	39
Chatham-Kent Public Health	1	0	0	13
City of Hamilton Public Health Services	10	0	0	464
Durham Region Health Department	66	0	2	654
Eastern Ontario Health Unit	0	0	0	78
Grey Bruce Health Unit	0	0	0	7
Haldimand-Norfolk Health Unit	3	3	0	23
Haliburton, Kawartha, Pine Ridge District Health Unit	2	0	0	39
Halton Region Public Health	26	0	0	311
Hastings Prince Edward Public Health	0	0	0	12
Huron Perth Public Health	0	0	0	4
Kingston, Frontenac and Lennox & Addington Public Health	1	0	0	41
Lambton Public Health	0	0	0	59
Leeds, Grenville & Lanark District Health Unit	0	0	0	21



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 detected (lineage not determined)
Middlesex-London Health Unit	4	0	0	47
Niagara Region Public Health	7	0	0	202
North Bay Parry Sound District Health Unit	2	21	0	13
Northwestern Health Unit	1	0	0	4
Ottawa Public Health	19	2	0	333
Peel Public Health	294	11	2	2,282
Peterborough Public Health	1	0	0	156
Porcupine Health Unit	0	2	0	1
Public Health Sudbury & Districts	3	0	0	259
Region of Waterloo Public Health and Emergency Services	22	0	0	284
Renfrew County and District Health Unit	0	0	0	0
Simcoe Muskoka District Health Unit	287	1	8	674
Southwestern Public Health	2	0	0	32
Thunder Bay District Health Unit	0	0	0	2
Timiskaming Health Unit	0	1	0	1
Toronto Public Health	294	6	19	5,423

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 detected (lineage not determined)
Wellington-Dufferin-Guelph Public Health	5	0	0	132
Windsor-Essex County Health Unit	3	0	0	48
York Region Public Health	287	1	5	1,570
<b>TOTAL ONTARIO</b>	<b>1,340</b>	<b>48</b>	<b>36</b>	<b>13,228</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. Mutation 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.

**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 4 to March 16, 2021**

Public Health Unit Name	March 4 to March 10	March 5 to March 11	March 6 to March 12	March 7 to March 13	March 8 to March 14	March 9 to March 15	March 10 to March 16
Algoma Public Health	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brant County Health Unit	15.9	14.7	18.4	20.2	20.0	17.7	21.6
Chatham-Kent Public Health	8.6	7.4	7.1	6.2	1.7	1.5	1.5
City of Hamilton Public Health Services	32.5	35.1	35.5	33.4	34.0	34.3	36.9
Durham Region Health Department	52.1	50.2	52.7	54.6	58.3	59.2	61.5
Eastern Ontario Health Unit	28.7	30.7	31.9	35.6	37.1	38.6	43.8
Grey Bruce Health Unit	15.4	22.2	25.0	37.5	37.5	33.3	30.0
Haldimand-Norfolk Health Unit	26.3	34.3	38.5	48.8	51.2	54.3	55.6
Haliburton, Kawartha, Pine Ridge District Health Unit	32.1	34.4	46.2	51.7	48.1	50.0	56.0
Halton Region Public Health	33.3	33.2	34.5	35.3	37.2	39.9	39.3
Hastings Prince Edward Public Health	22.2	25.0	16.7	23.1	25.0	27.3	28.6
Huron Perth Public Health	4.2	4.3	4.3	8.3	8.7	8.7	11.5
Kingston, Frontenac and Lennox & Addington Public Health	47.6	57.1	61.9	63.6	67.9	69.7	63.4
Lambton Public Health	12.2	14.4	16.8	19.0	18.3	19.0	18.6

Public Health Unit Name	March 4 to March 10	March 5 to March 11	March 6 to March 12	March 7 to March 13	March 8 to March 14	March 9 to March 15	March 10 to March 16
Leeds, Grenville & Lanark District Health Unit	7.0	9.8	13.2	14.5	11.0	14.1	13.7
Middlesex-London Health Unit	5.1	7.1	11.3	11.3	12.4	14.0	13.6
Niagara Region Public Health	38.0	36.3	38.2	37.8	40.1	38.1	35.0
North Bay Parry Sound District Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Northwestern Health Unit	5.4	5.1	4.3	4.6	4.5	1.5	0.0
Ottawa Public Health	12.7	14.6	16.6	17.1	18.4	19.8	25.6
Peel Public Health	44.8	46.8	49.1	51.1	52.0	53.3	51.1
Peterborough Public Health	85.5	88.9	86.9	88.0	87.5	86.4	80.5
Porcupine Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public Health Sudbury & Districts	54.6	56.0	56.9	55.1	55.5	55.4	58.5
Region of Waterloo Public Health and Emergency Services	19.6	21.2	24.0	28.2	27.4	27.2	28.7
Renfrew County and District Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Simcoe Muskoka District Health Unit	52.8	55.9	58.1	57.6	57.8	57.3	58.8
Southwestern Public Health	14.0	22.0	29.2	29.8	32.7	31.7	31.7
Thunder Bay District Health Unit	0.0	0.3	0.3	0.3	0.3	0.5	0.6

Public Health Unit Name	March 4 to March 10	March 5 to March 11	March 6 to March 12	March 7 to March 13	March 8 to March 14	March 9 to March 15	March 10 to March 16
Timiskaming Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Toronto Public Health	51.0	52.7	54.5	56.9	59.1	60.1	62.2
Wellington-Dufferin- Guelph Public Health	36.6	38.7	38.1	39.7	42.1	38.3	36.2
Windsor-Essex County Health Unit	2.1	2.2	3.0	2.9	2.9	3.8	5.1
York Region Public Health	43.1	47.2	48.8	52.0	53.4	53.5	57.8
<b>TOTAL ONTARIO</b>	<b>37.9</b>	<b>39.6</b>	<b>41.6</b>	<b>43.6</b>	<b>44.6</b>	<b>45.1</b>	<b>46.4</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

## Disclaimer

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## For Further Information

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## Public Health Ontario

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