

Daily Epidemiologic Summary

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

This report includes the most current information available from CCM as of **March 16, 2021**.

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

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

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

Highlights

- There are a total of 321,956 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
 - An increase of 1,508 confirmed cases (percent change of +40.4%)
 - An increase of 14 deaths (percent change of +27.3%)
 - An increase of 1,488 resolved cases (percent change of +37.1%)

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 15, 2021	Change in cases March 16, 2021	Percentage change March 16, 2021 compared to March 15, 2021	Cumulative case count as of March 16, 2021
Total number of cases	1,074	1,508	+40.4%	321,956
Number of deaths	11	14	+27.3%	7,187
Number resolved	1,085	1,488	+37.1%	302,257

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 15, 2021	Change in cases March 16, 2021	Cumulative case count as of March 16, 2021
Gender: Male	517	771	158,684
Gender: Female	545	728	161,492
Ages: 19 and under	214	285	44,361
Ages: 20-39	417	575	118,089
Ages: 40-59	297	404	92,693
Ages: 60-79	118	198	45,964
Ages: 80 and over	26	48	20,775

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 16, 2021: Ontario

	Change in cases March 15, 2021	Change in cases March 16, 2021	Cumulative case count from August 30, 2020 to March 16, 2021
Ages: 4 to 8	40	57	7,635
Ages: 9 to 13	61	69	10,179
Ages: 14 to 17	47	66	10,436

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

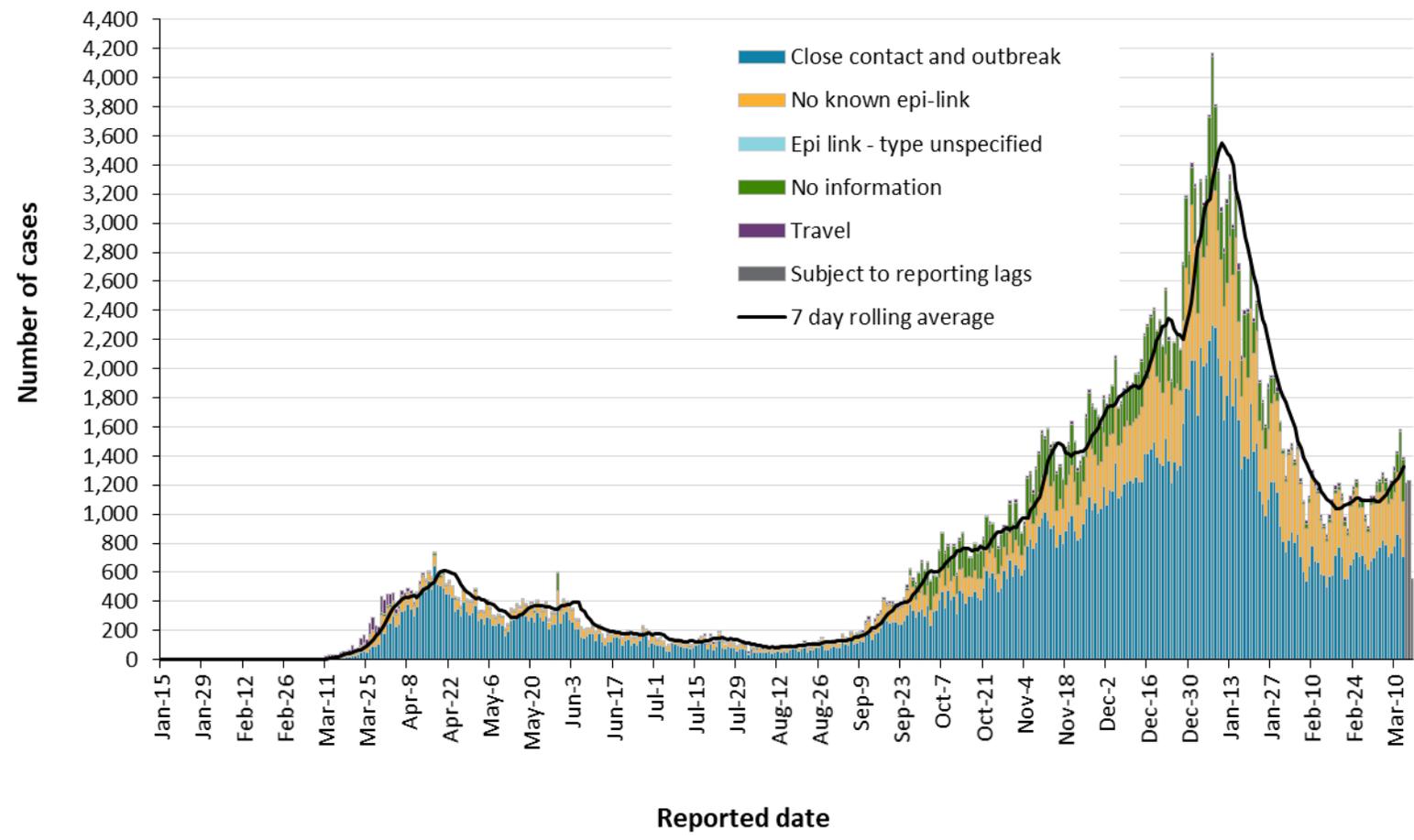
Long-term care home cases	Change in cases March 15, 2021	Change in cases March 16, 2021	Cumulative case count as of March 16, 2021
Residents	3	1	14,988
Health care workers	6	11	6,757
Deaths among residents	1	5	3,887
Deaths among health care workers	0	0	10

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

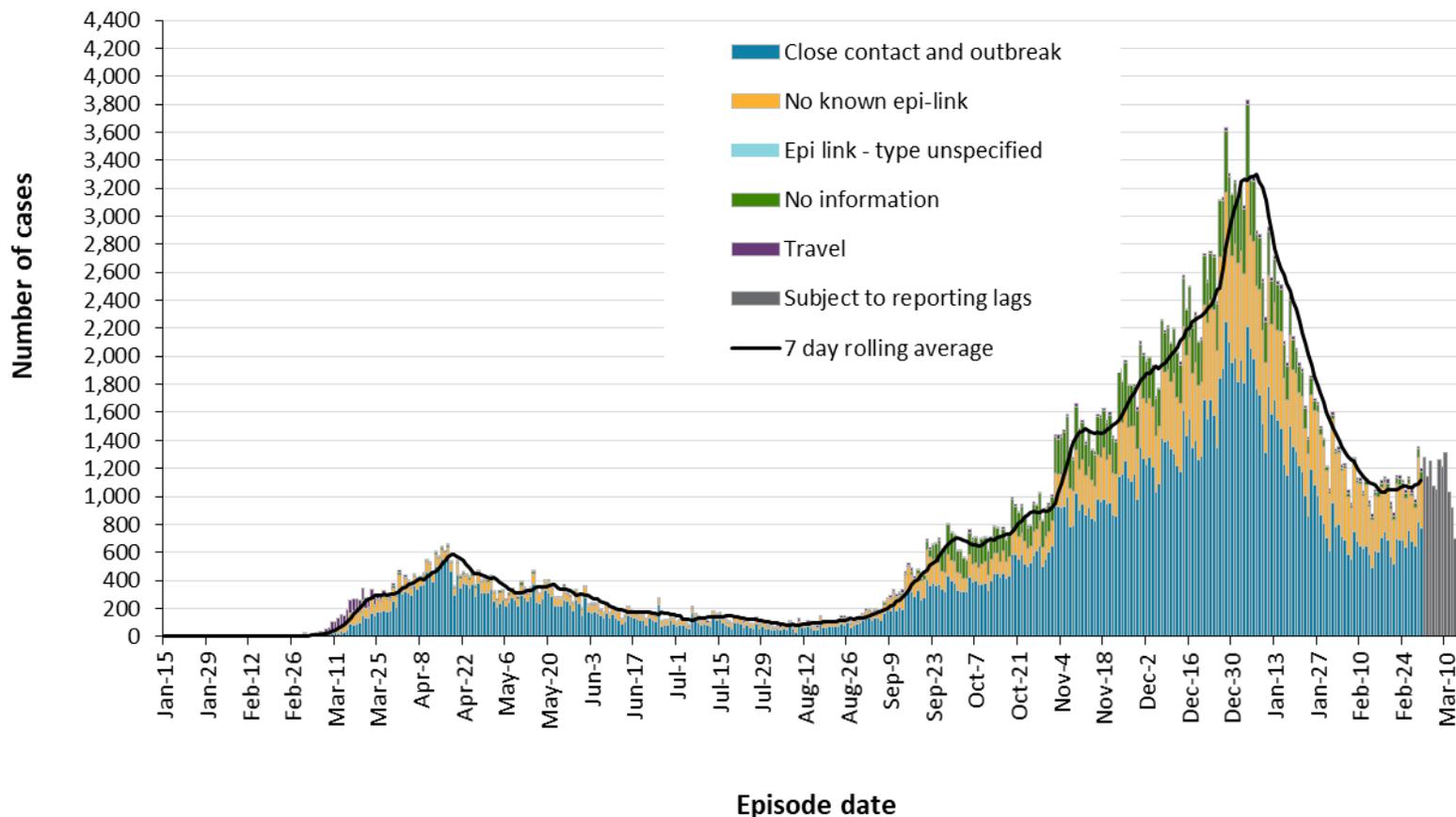
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to March 16, 2021



Data Source: CCM

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

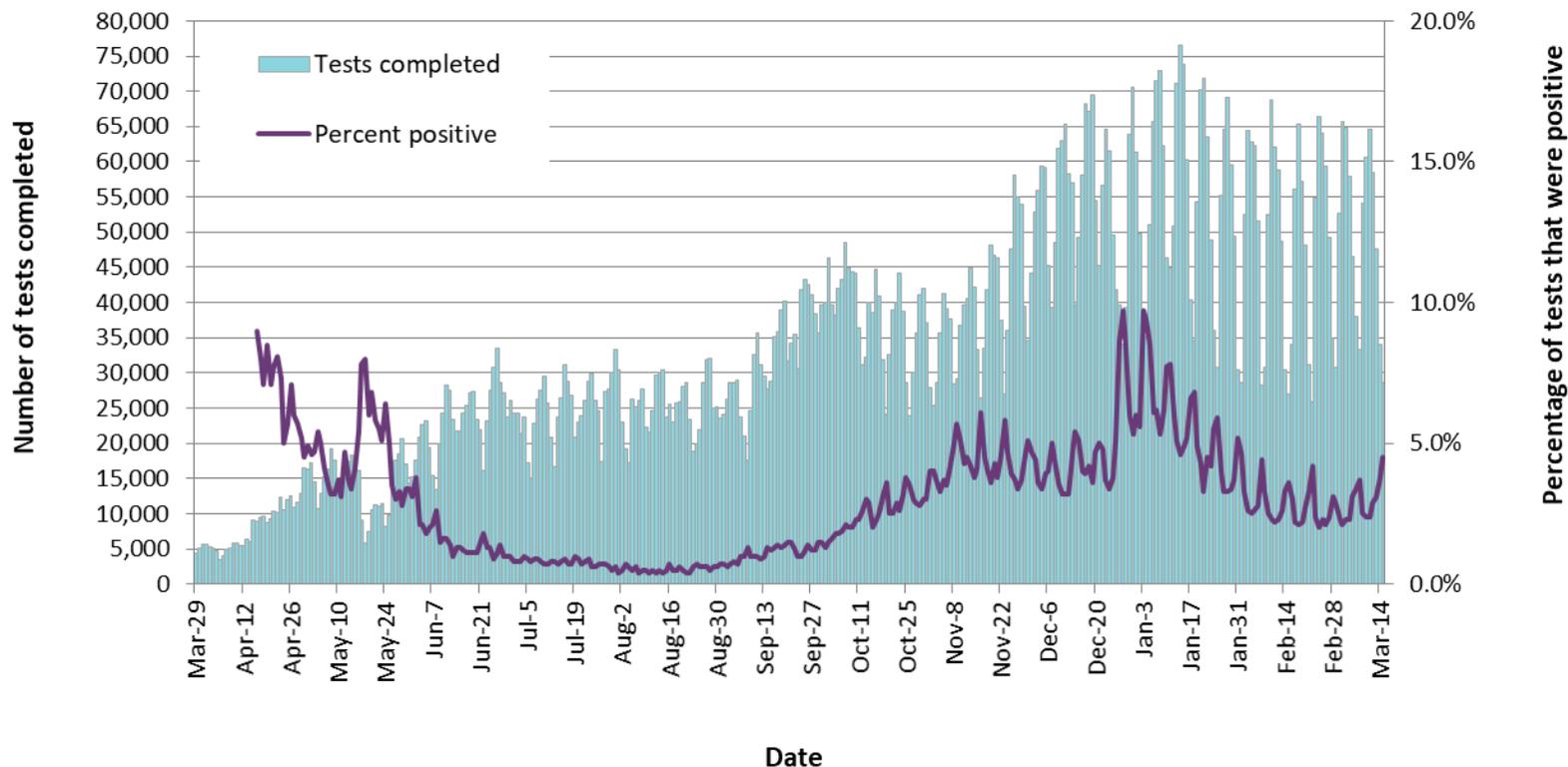
Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to March 16, 2021



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

Data Source: CCM

Figure 3. Number of COVID-19 tests completed and percent positivity: Ontario, March 29, 2020 to March 15, 2021

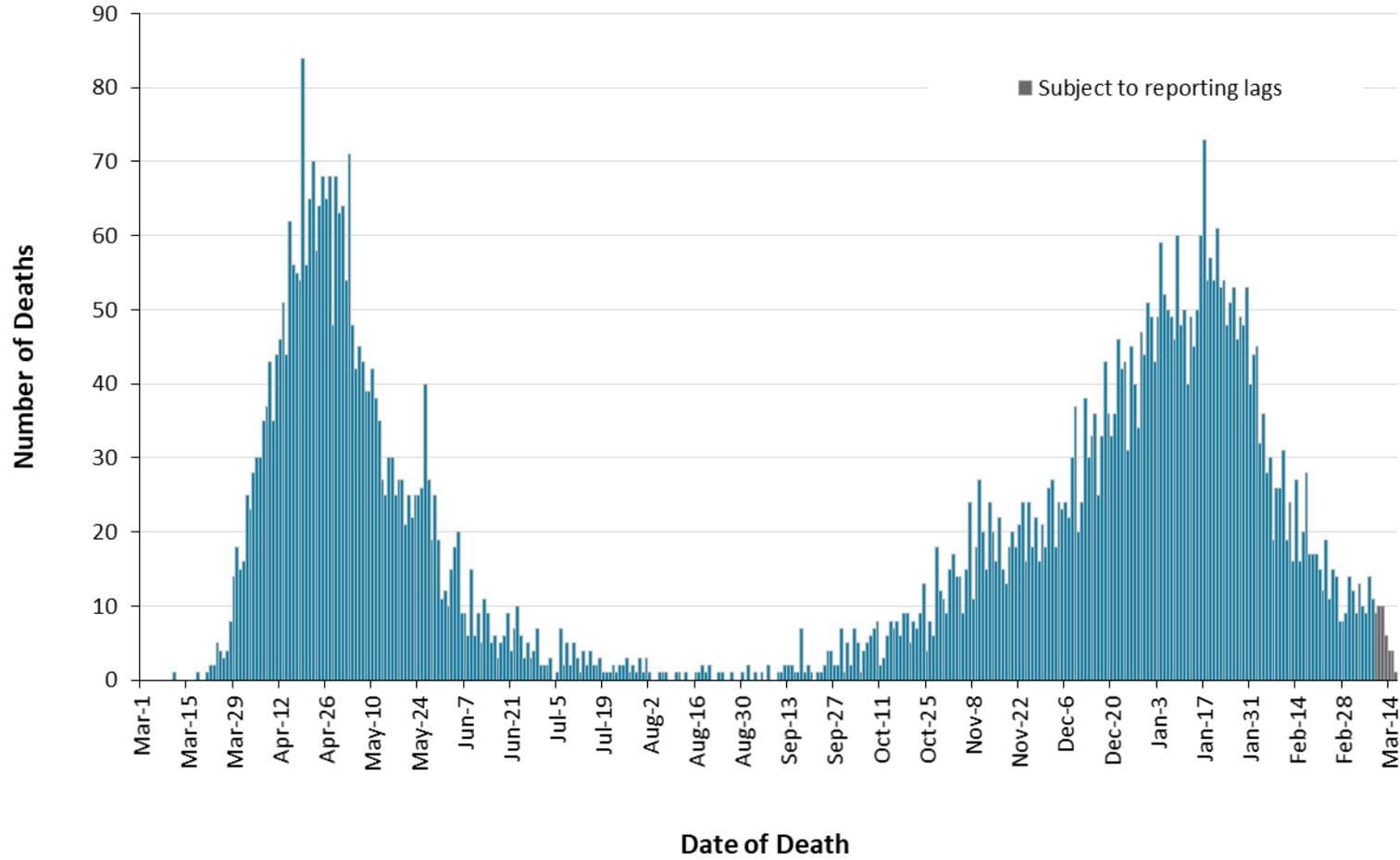


Note: The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

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

Severity

Figure 4. Confirmed deaths among COVID-19 cases by date of death: Ontario, March 1, 2020 to March 16, 2021



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

Data Source: CCM

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

	Cumulative case count as of March 16, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	7,187	2.2%
Deaths reported in ages: 19 and under	2	<0.1%
Deaths reported in ages: 20-39	31	<0.1%
Deaths reported in ages: 40-59	296	0.3%
Deaths reported in ages: 60-79	1,999	4.3%
Deaths reported in ages: 80 and over	4,858	23.4%
Ever in ICU	2,856	0.9%
Ever hospitalized	16,060	5.0%

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 15, 2021	Change in cases March 16, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	3	4	583	665.0
Thunder Bay District Health Unit	29	63	2,467	1,645.1
TOTAL NORTH WEST	32	67	3,050	1,283.5
Algoma Public Health	-1	4	212	185.3
North Bay Parry Sound District Health Unit	1	0	271	208.9
Porcupine Health Unit	0	-1	343	411.1
Public Health Sudbury & Districts	9	18	1,031	518.0
Timiskaming Health Unit	0	0	106	324.3
TOTAL NORTH EAST	9	21	1,963	350.9
Ottawa Public Health	66	69	15,733	1,491.8
Eastern Ontario Health Unit	10	4	2,865	1,372.7
Hastings Prince Edward Public Health	0	0	436	258.8
Kingston, Frontenac and Lennox & Addington Public Health	7	8	766	360.1
Leeds, Grenville & Lanark District Health Unit	7	25	1,018	587.9
Renfrew County and District Health Unit	2	2	394	362.7
TOTAL EASTERN	92	108	21,212	1,101.1

Public Health Unit Name	Change in cases March 15, 2021	Change in cases March 16, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	27	42	12,512	1,756.3
Haliburton, Kawartha, Pine Ridge District Health Unit	5	4	1,093	578.5
Peel Public Health	199	253	64,652	4,025.8
Peterborough Public Health	1	10	778	525.8
Simcoe Muskoka District Health Unit	15	74	7,134	1,189.8
York Region Public Health	101	107	30,581	2,494.8
TOTAL CENTRAL EAST	348	490	116,750	2,605.6
Toronto Public Health	313	542	100,298	3,214.3
TOTAL TORONTO	313	542	100,298	3,214.3
Chatham-Kent Public Health	9	6	1,447	1,361.0
Grey Bruce Health Unit	2	1	708	416.8
Huron Perth Public Health	1	2	1,406	1,006.0
Lambton Public Health	31	7	2,430	1,855.5
Middlesex-London Health Unit	16	23	6,487	1,278.2
Southwestern Public Health	12	6	2,652	1,253.9
Windsor-Essex County Health Unit	35	23	13,429	3,161.0
TOTAL SOUTH WEST	106	68	28,559	1,689.1
Brant County Health Unit	21	10	2,027	1,306.0
City of Hamilton Public Health Services	66	36	11,410	1,926.8

Public Health Unit Name	Change in cases March 15, 2021	Change in cases March 16, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	1	12	1,480	1,297.3
Halton Region Public Health	27	32	9,798	1,582.7
Niagara Region Public Health	21	66	9,046	1,914.6
Region of Waterloo Public Health and Emergency Services	31	45	11,363	1,944.5
Wellington-Dufferin-Guelph Public Health	7	11	5,000	1,603.0
TOTAL CENTRAL WEST	174	212	50,124	1,759.2
TOTAL ONTARIO	1,074	1,508	321,956	2,165.9

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 15, 2021	Change in outbreaks March 16, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	1	3	69	1,332
Retirement homes	0	0	46	791
Hospitals	0	3	29	437

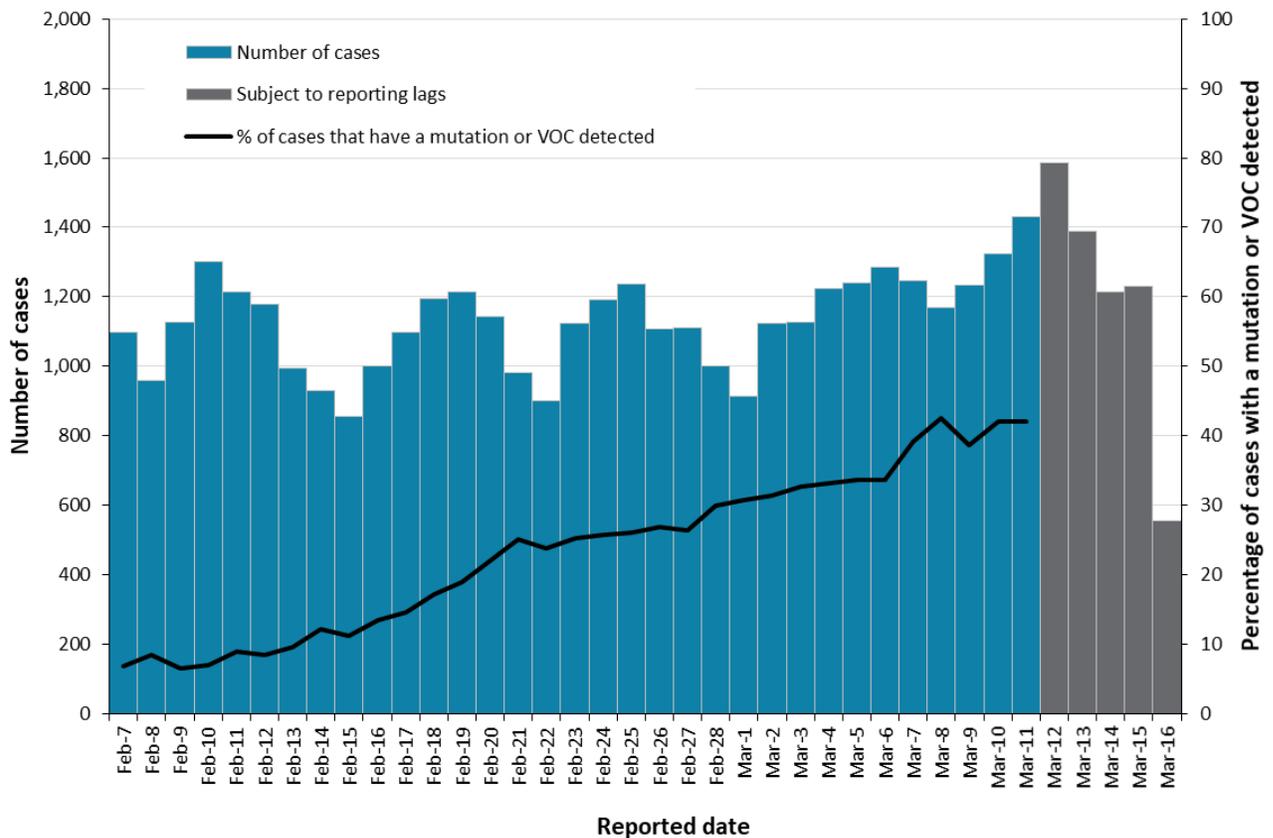
Note: Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset date 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 07, 2021 to March 16, 2021



Note: Data used to calculate the number of cases tested for mutations common to VOCs or lineages using genomic analyses are obtained using information from the Laboratory object in CCM in addition to the data from the Investigation Subtype field. Therefore, comparisons to counts using only information from the Investigation Subtype field may not align. The percent of cases due to a VOC may be higher than described in this report. While all confirmed COVID-19 cases are included in the denominator, not all cases were able to be tested for VOCs.

Data Source: CCM

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

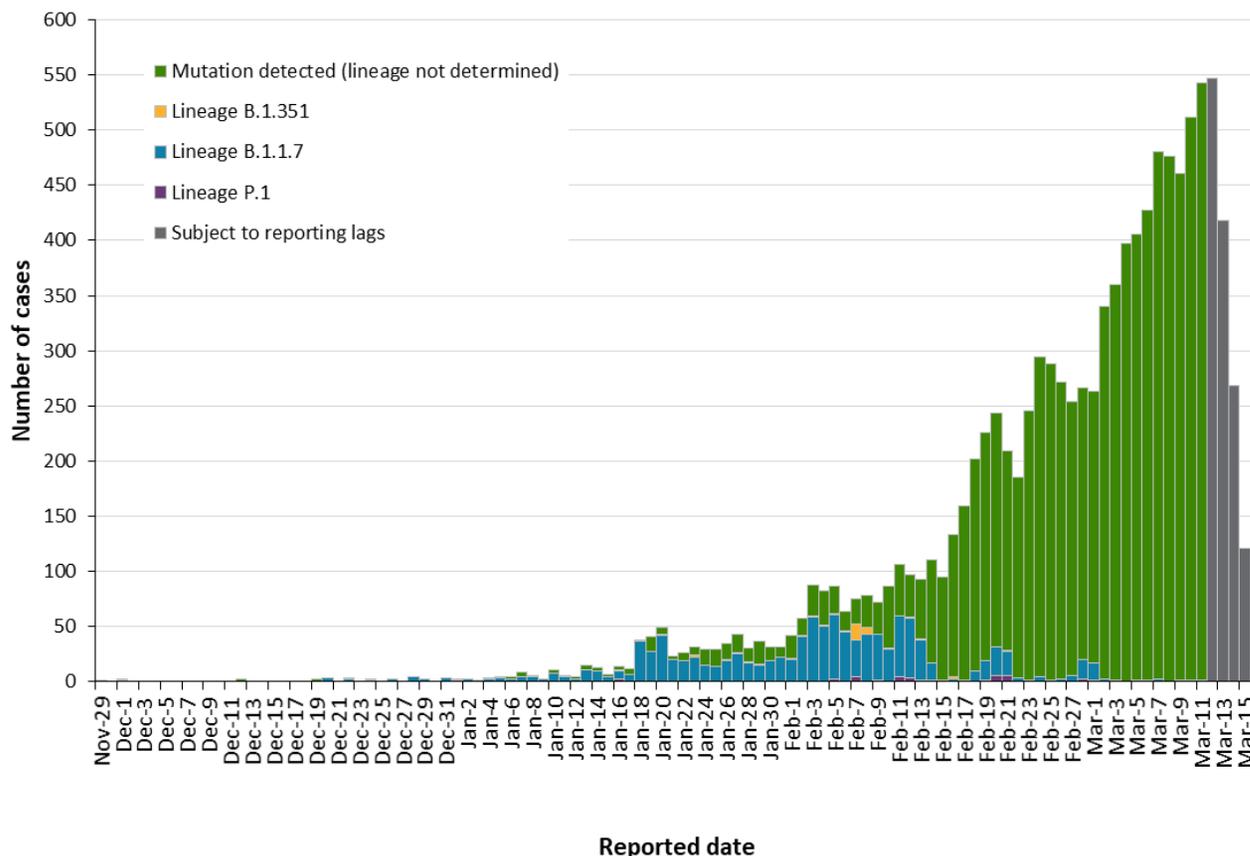
Variant	Change in cases March 15, 2021	Change in cases March 16, 2021	Cumulative case count up to March 16, 2021
Lineage B.1.1.7	25	3	1,134
Lineage B.1.351	2	1	47
Lineage P.1	0	0	34
Mutation detected (lineage not determined)*	501	521	9,652

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 16, 2021



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

Table 8. Summary of confirmed COVID-19 cases with a mutation or VOC detected by age group and gender: Ontario

	Lineage B.1.1.7	Lineage B.1.351	Lineage P.1	Mutation detected (lineage not determined)	Cumulative case count as of March 16, 2021
Gender: Male	552	25	21	4,989	5,587
Gender: Female	580	22	13	4,550	5,165
Ages: 19 and under	154	4	4	1,760	1,922
Ages: 20-39	425	18	15	3,671	4,129
Ages: 40-59	324	14	11	2,807	3,156
Ages: 60-79	165	9	4	1,204	1,382
Ages: 80 and over	66	2	0	208	276

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 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 in the Investigation Subtype field excluding B.1.1.7, B.1.351, and P.1 lineages.

Data Source: CCM

Table 9. Summary of confirmed COVID-19 cases with a mutation or VOC detected by likely source of acquisition: Ontario

	Lineage B.1.1.7	%	Lineage B.1.351	%	Lineage P.1	%	Mutation detected (lineage not determined)	%	Cumulative case count up to March 16, 2021	Cumulative percentage
Travel	56	4.9%	8	17.0%	1	2.9%	258	2.7%	323	3.0%
Outbreak-associated or close contact of a confirmed case	832	73.4%	35	74.5%	22	64.7%	6,267	64.9%	7,156	65.9%
Epidemiological link – type unspecified	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
No known epidemiological link	237	20.9%	3	6.4%	11	32.4%	2344	24.3%	2595	23.9%
Information missing or unknown	9	0.8%	1	2.1%	0	0.0%	783	8.1%	793	7.3%
Total	1,134		47		34		9,652		10,867	

Note: Information for how cases are grouped within each category is available in the technical notes. 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 in 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 16, 2021 at 1 p.m.**
- CCM is a dynamic disease reporting system, which allows ongoing updates to data previously entered. As a result, data extracted from CCM represent a snapshot at the time of extraction and may differ from previous or subsequent reports.
- Ontario population projection data for 2020 were sourced from Ministry, IntelliHEALTH Ontario. Data were extracted on November 26, 2019.
- COVID-19 test data were based on information from The Provincial COVID-19 Diagnostics Network, reported by member microbiology laboratories.

Data Caveats

- The data only represent cases reported to public health units and recorded in CCM. As a result, all counts will be subject to varying degrees of underreporting due to a variety of factors, such as disease awareness and medical care seeking behaviours, which may depend on severity of illness, clinical practice, changes in laboratory testing, and reporting behaviours.
- Lags in CCM data entry due to weekend staffing may result in lower case counts than would otherwise be recorded.
- Only cases meeting the confirmed case classification as listed in the [MOH Case Definition – Coronavirus Disease \(COVID-19\) document](#) 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 ≤ 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 1 to 13, 2021

Public Health Unit Name	Mar 01 to Mar 07	Mar 02 to Mar 08	Mar 03 to Mar 09	Mar 04 to Mar 10	Mar 05 to Mar 11	Mar 06 to Mar 12	Mar 07 to Mar 13	% change from Mar 01-Mar 07 to Mar 07-Mar 13
NORTH WEST								
Northwestern Health Unit	53.6	57.0	59.3	62.7	63.9	71.9	67.3	+25.6%
Thunder Bay District Health Unit	238.1	264.7	276.7	262.1	260.7	245.4	234.7	-1.4%
NORTH EAST								
Algoma Public Health	0.9	0.9	0.9	0.9	1.7	2.6	2.6	+188.9%
North Bay Parry Sound District Health Unit	4.6	3.9	1.5	1.5	1.5	1.5	3.1	-32.6%
Porcupine Health Unit	3.6	3.6	2.4	1.2	2.4	2.4	2.4	-33.3%
Public Health Sudbury & Districts	80.9	73.9	70.3	76.4	91.4	90.9	99.5	+23.0%
Timiskaming Health Unit	36.7	36.7	33.7	18.4	15.3	15.3	6.1	-83.4%
EASTERN								
Ottawa Public Health	37.5	36.1	36.6	37.9	39.0	43.2	44.6	+18.9%
Eastern Ontario Health Unit	38.8	36.9	42.2	40.2	40.7	42.2	41.2	+6.2%
Hastings Prince Edward Public Health	6.5	5.9	6.5	5.3	7.1	7.1	7.7	+18.5%
Kingston, Frontenac and Lennox & Addington Public Health	10.8	9.4	5.6	9.9	9.4	9.4	9.9	-8.3%

Public Health Unit Name	Mar 01 to Mar 07	Mar 02 to Mar 08	Mar 03 to Mar 09	Mar 04 to Mar 10	Mar 05 to Mar 11	Mar 06 to Mar 12	Mar 07 to Mar 13	% change from Mar 01-Mar 07 to Mar 07-Mar 13
Leeds, Grenville & Lanark District Health Unit	32.9	35.8	30.0	32.3	35.2	30.6	39.8	+21.0%
Renfrew County and District Health Unit	23.9	22.1	18.4	22.1	24.9	23.0	18.4	-23.0%
CENTRAL EAST								
Durham Region Health Department	45.1	44.9	44.2	43.8	43.5	44.1	44.6	-1.1%
Haliburton, Kawartha, Pine Ridge District Health Unit	14.3	15.3	15.9	14.8	16.9	13.8	15.3	+7.0%
Peel Public Health	87.7	92.1	93.7	96.2	99.2	104.9	105.1	+19.8%
Peterborough Public Health	46.6	47.3	47.3	46.6	42.6	41.2	33.8	-27.5%
Simcoe Muskoka District Health Unit	38.9	39.4	40.5	42.0	46.4	43.4	49.4	+27.0%
York Region Public Health	58.4	59.0	62.0	63.1	66.3	72.9	73.6	+26.0%
TORONTO								
Toronto Public Health	73.5	77.7	78.9	81.3	80.6	85.4	87.8	+19.5%
SOUTH WEST								
Chatham-Kent Public Health	27.3	32.9	38.6	51.7	61.1	63.0	59.3	+117.2%
Grey Bruce Health Unit	5.3	5.9	5.9	7.7	5.3	4.7	4.7	-11.3%
Huron Perth Public Health	19.3	17.9	14.3	17.2	16.5	16.5	17.2	-10.9%
Lambton Public Health	108.4	109.2	109.2	111.5	110.0	121.4	118.4	+9.2%
Middlesex-London Health Unit	25.4	24.8	24.2	27.0	27.6	26.0	27.4	+7.9%

Public Health Unit Name	Mar 01 to Mar 07	Mar 02 to Mar 08	Mar 03 to Mar 09	Mar 04 to Mar 10	Mar 05 to Mar 11	Mar 06 to Mar 12	Mar 07 to Mar 13	% change from Mar 01-Mar 07 to Mar 07-Mar 13
Southwestern Public Health	21.3	19.9	20.3	20.3	19.4	22.7	22.2	+4.2%
Windsor-Essex County Health Unit	43.3	44.5	49.2	55.8	53.9	55.6	48.3	+11.5%
CENTRAL WEST								
Brant County Health Unit	51.5	47.0	51.5	52.8	61.2	63.1	63.8	+23.9%
City of Hamilton Public Health Services	61.0	64.5	65.5	68.2	72.3	73.8	77.2	+26.6%
Haldimand-Norfolk Health Unit	35.9	31.6	31.6	31.6	28.9	31.6	34.2	-4.7%
Halton Region Public Health	41.7	47.5	46.5	43.6	46.2	46.8	46.0	+10.3%
Niagara Region Public Health	34.3	34.7	36.0	36.0	37.7	37.5	39.2	+14.3%
Region of Waterloo Public Health and Emergency Services	54.6	51.5	50.0	48.9	52.5	48.9	47.6	-12.8%
Wellington-Dufferin-Guelph Public Health	40.7	40.4	34.6	32.1	29.5	30.5	22.8	-44.0%
TOTAL ONTARIO	54.9	56.6	57.4	58.7	60.1	62.4	63.1	+14.9%

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 16, 2021

Public Health Unit Name	Cumulative count for Lineage B.1.1.7	Cumulative count for Lineage B.1.351	Cumulative count for Lineage P.1	Cumulative count for mutation detected (lineage not determined)
Algoma Public Health	0	0	0	0
Brant County Health Unit	0	0	0	31
Chatham-Kent Public Health	1	0	0	0
City of Hamilton Public Health Services	6	0	0	270
Durham Region Health Department	63	0	2	436
Eastern Ontario Health Unit	0	0	0	40
Grey Bruce Health Unit	0	0	0	2
Haldimand-Norfolk Health Unit	3	3	0	10
Haliburton, Kawartha, Pine Ridge District Health Unit	2	0	0	33
Halton Region Public Health	21	0	0	241
Hastings Prince Edward Public Health	0	0	0	10
Huron Perth Public Health	0	0	0	4
Kingston, Frontenac and Lennox & Addington Public Health	1	0	0	19
Lambton Public Health	0	0	0	33
Leeds, Grenville & Lanark District Health Unit	0	0	0	5

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	35
Niagara Region Public Health	4	0	0	123
North Bay Parry Sound District Health Unit	2	21	0	13
Northwestern Health Unit	1	0	0	3
Ottawa Public Health	14	2	0	188
Peel Public Health	215	10	2	1,804
Peterborough Public Health	1	0	0	125
Porcupine Health Unit	0	2	0	1
Public Health Sudbury & Districts	3	0	0	200
Region of Waterloo Public Health and Emergency Services	17	0	0	211
Renfrew County and District Health Unit	0	0	0	0
Simcoe Muskoka District Health Unit	250	1	7	593
Southwestern Public Health	2	0	0	18
Thunder Bay District Health Unit	0	0	0	1
Timiskaming Health Unit	0	1	0	0
Toronto Public Health	272	6	18	3,903

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	4	0	0	99
Windsor-Essex County Health Unit	3	0	0	39
York Region Public Health	245	1	5	1,162
TOTAL ONTARIO	1,134	47	34	9,652

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, February 27 to March 11, 2021

Public Health Unit Name	February 27 to March 5	February 28 to March 6	March 1 to March 7	March 2 to March 8	March 3 to March 9	March 4 to March 10	March 5 to March 11
Algoma Public Health	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brant County Health Unit	5.2	7.0	8.8	12.3	10.0	15.9	14.7
Chatham-Kent Public Health	8.3	5.6	3.4	2.9	0.0	1.8	1.5
City of Hamilton Public Health Services	21.5	26.7	29.4	31.7	33.2	32.4	35.0
Durham Region Health Department	42.3	46.2	46.7	49.7	49.8	51.6	49.4
Eastern Ontario Health Unit	20.3	21.5	27.2	28.6	29.5	29.8	30.6
Grey Bruce Health Unit	0.0	0.0	0.0	0.0	0.0	15.4	22.2
Haldimand-Norfolk Health Unit	4.8	10.5	14.6	13.9	16.7	27.8	36.4
Haliburton, Kawartha, Pine Ridge District Health Unit	8.7	7.7	18.5	24.1	23.3	32.1	34.4
Halton Region Public Health	24.4	27.9	29.5	28.9	31.3	33.3	33.2
Hastings Prince Edward Public Health	36.8	37.5	36.4	40.0	18.2	22.2	16.7
Huron Perth Public Health	3.4	6.7	7.4	8.0	10.0	4.2	4.3
Kingston, Frontenac and Lennox & Addington Public Health	10.0	9.5	8.7	5.0	8.3	47.6	55.0

Public Health Unit Name	February 27 to March 5	February 28 to March 6	March 1 to March 7	March 2 to March 8	March 3 to March 9	March 4 to March 10	March 5 to March 11
Lambton Public Health	3.2	4.5	4.9	4.9	7.7	12.3	14.6
Leeds, Grenville & Lanark District Health Unit	3.4	1.7	5.3	4.8	5.8	5.4	8.2
Middlesex-London Health Unit	9.2	8.3	7.8	7.1	4.9	4.4	6.4
Niagara Region Public Health	25.5	28.6	27.8	30.5	35.3	36.5	30.9
North Bay Parry Sound District Health Unit	60.0	60.0	50.0	40.0	0.0	0.0	0.0
Northwestern Health Unit	0.0	0.0	0.0	4.0	5.8	5.5	5.4
Ottawa Public Health	10.4	11.3	12.4	12.6	12.7	12.8	14.6
Peel Public Health	36.4	36.9	38.3	40.8	43.3	44.3	45.2
Peterborough Public Health	86.1	84.6	87.0	87.1	85.7	85.5	88.9
Porcupine Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public Health Sudbury & Districts	39.3	42.2	44.7	48.3	48.6	53.9	55.5
Region of Waterloo Public Health and Emergency Services	13.2	11.8	15.0	17.6	17.8	18.5	19.9
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	52.3	53.4	53.6	50.8	51.4	52.0	54.7
Southwestern Public Health	2.1	8.9	11.1	11.9	11.6	14.0	22.0

Public Health Unit Name	February 27 to March 5	February 28 to March 6	March 1 to March 7	March 2 to March 8	March 3 to March 9	March 4 to March 10	March 5 to March 11
Thunder Bay District Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Timiskaming Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Toronto Public Health	47.2	47.1	47.4	48.5	49.7	50.8	52.5
Wellington-Dufferin-Guelph Public Health	19.2	20.8	22.8	27.0	31.5	37.0	39.1
Windsor-Essex County Health Unit	7.1	4.3	4.3	4.8	3.3	2.1	2.2
York Region Public Health	35.0	35.3	38.7	40.8	40.0	42.9	47.0
TOTAL ONTARIO	31.2	32.3	33.7	35.2	36.2	37.6	38.9

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

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario's government, public health organizations and health care providers. PHO's work is guided by the current best available evidence at the time of publication.

The application and use of this document is the responsibility of the user. PHO assumes no liability resulting from any such application or use.

This document may be reproduced without permission for non-commercial purposes only and provided that appropriate credit is given to PHO. No changes and/or modifications may be made to this document without express written permission from PHO.

Citation

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

For Further Information

For more information, email cd@oahpp.ca.

Public Health Ontario

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

For more information about PHO, visit publichealthontario.ca.

