Public Health Ontario | Santé publique Ontario

Daily Epidemiologic Summary

COVID-19 in Ontario: January 15, 2020 to March 10, 2021

This report includes the most current information available from CCM as of **March 10, 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 313,520 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
    - An increase of 1,092 confirmed cases (percent change of -17%)
    - An increase of 10 deaths (percent change of -37.5%)
    - An increase of 1,110 resolved cases (percent change of -8.4%)

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 09, 2021	Change in cases March 10, 2021	Percentage change March 10, 2021 compared to March 09, 2021	Cumulative case count as of March 10, 2021
Total number of cases	1,316	1,092	-17.0%	313,520
Number of deaths	16	10	-37.5%	7,109
Number resolved	1,212	1,110	-8.4%	295,128

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 09, 2021	Change in cases March 10, 2021	Cumulative case count as of March 10, 2021
Gender: Male	668	559	154,414
Gender: Female	639	513	157,398
Ages: 19 and under	267	186	42,643
Ages: 20-39	478	425	114,979
Ages: 40-59	363	322	90,391
Ages: 60-79	179	131	44,910
Ages: 80 and over	31	26	20,526

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 10, 2021: Ontario

	Change in cases March 09, 2021	Change in cases March 10, 2021	Cumulative case count from August 30, 2020 to March 10, 2021
Ages: 4 to 8	62	39	7,269
Ages: 9 to 13	73	59	9,731
Ages: 14 to 17	63	43	10,041

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

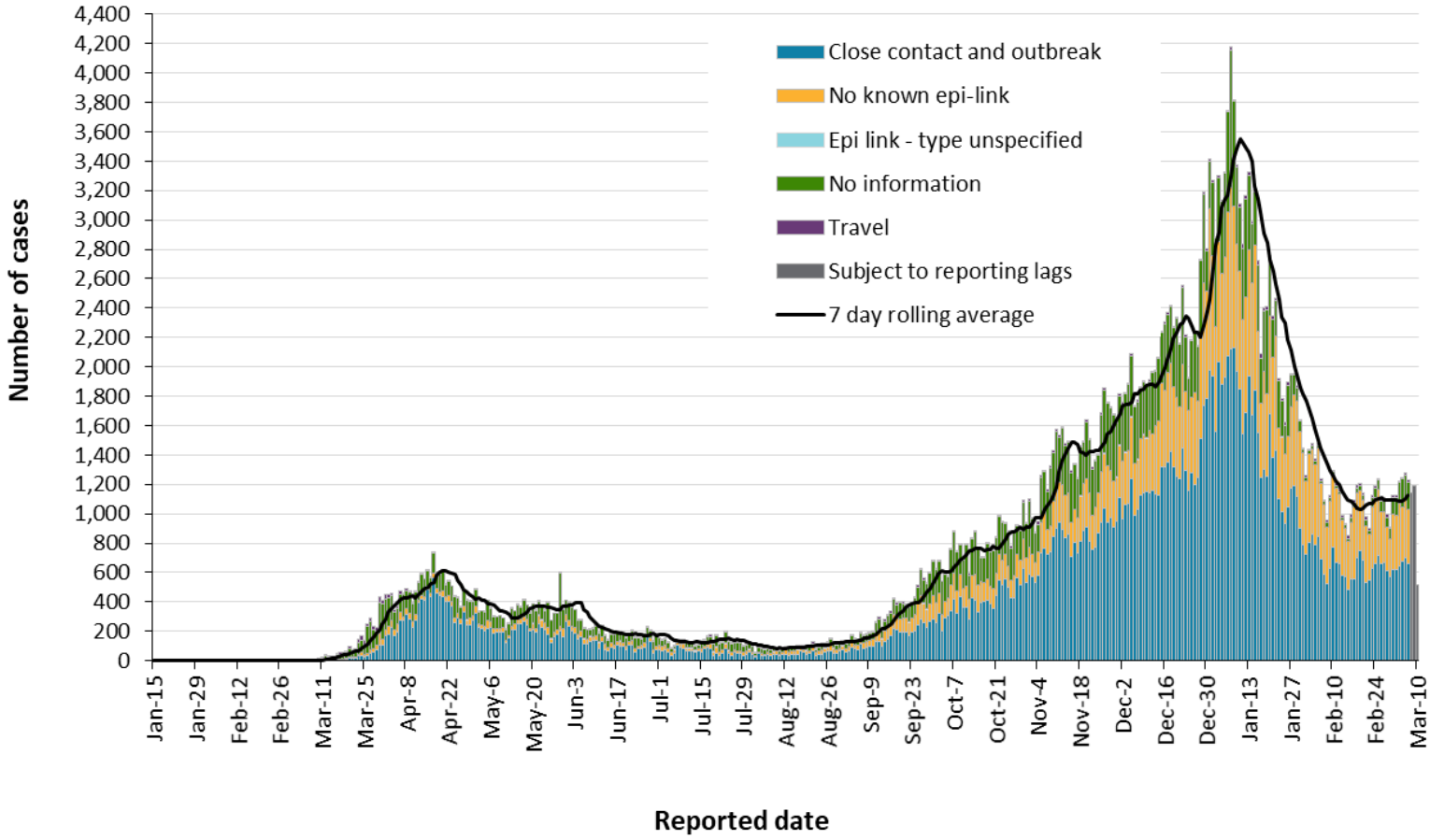
Long-term care home cases	Change in cases March 09, 2021	Change in cases March 10, 2021	Cumulative case count as of March 10, 2021
Residents	-2	-2	14,976
Health care workers	1	3	6,703
Deaths among residents	0	1	3,877
Deaths among health care workers	0	0	10

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

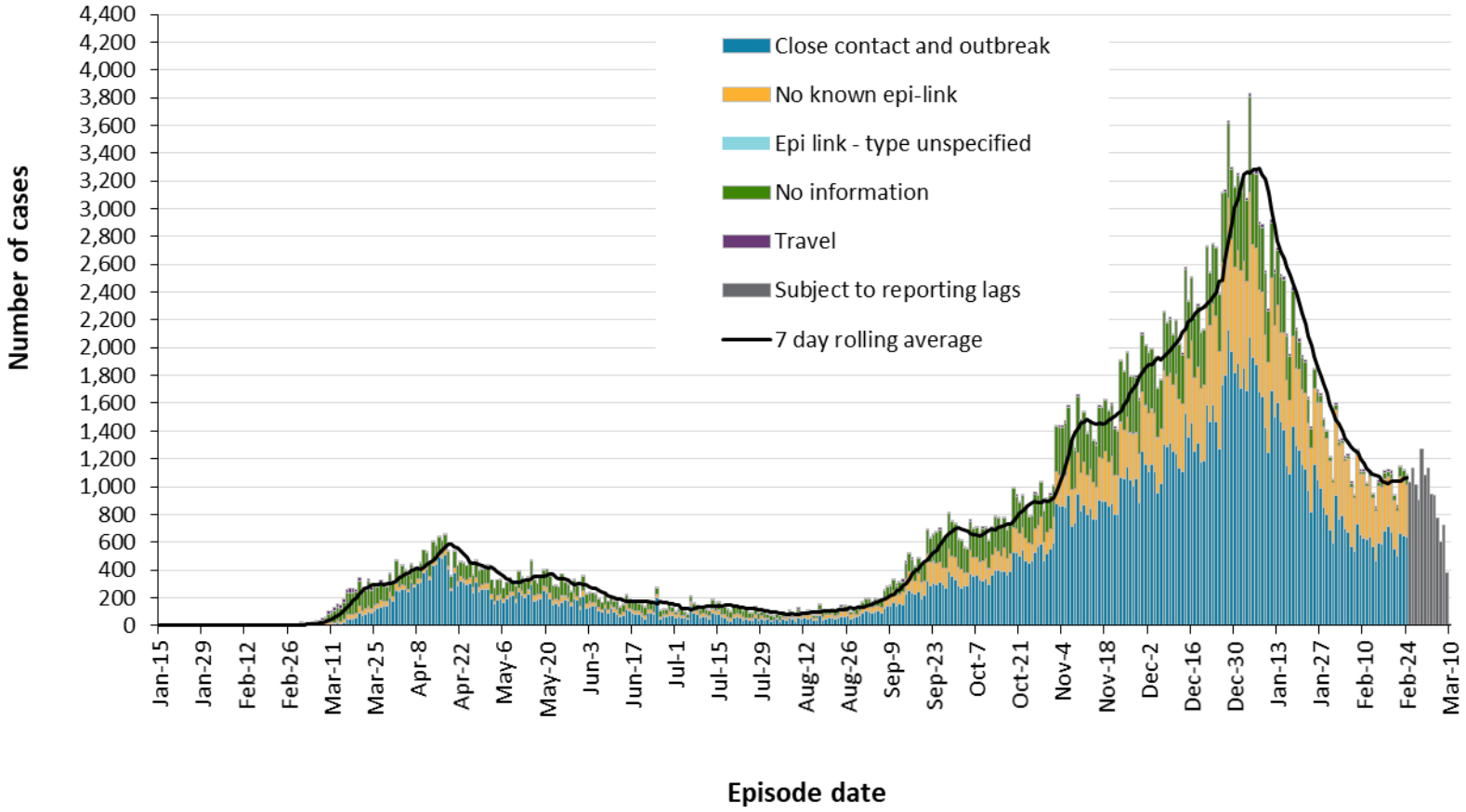
Time

Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to March 10, 2021



Data Source: CCM

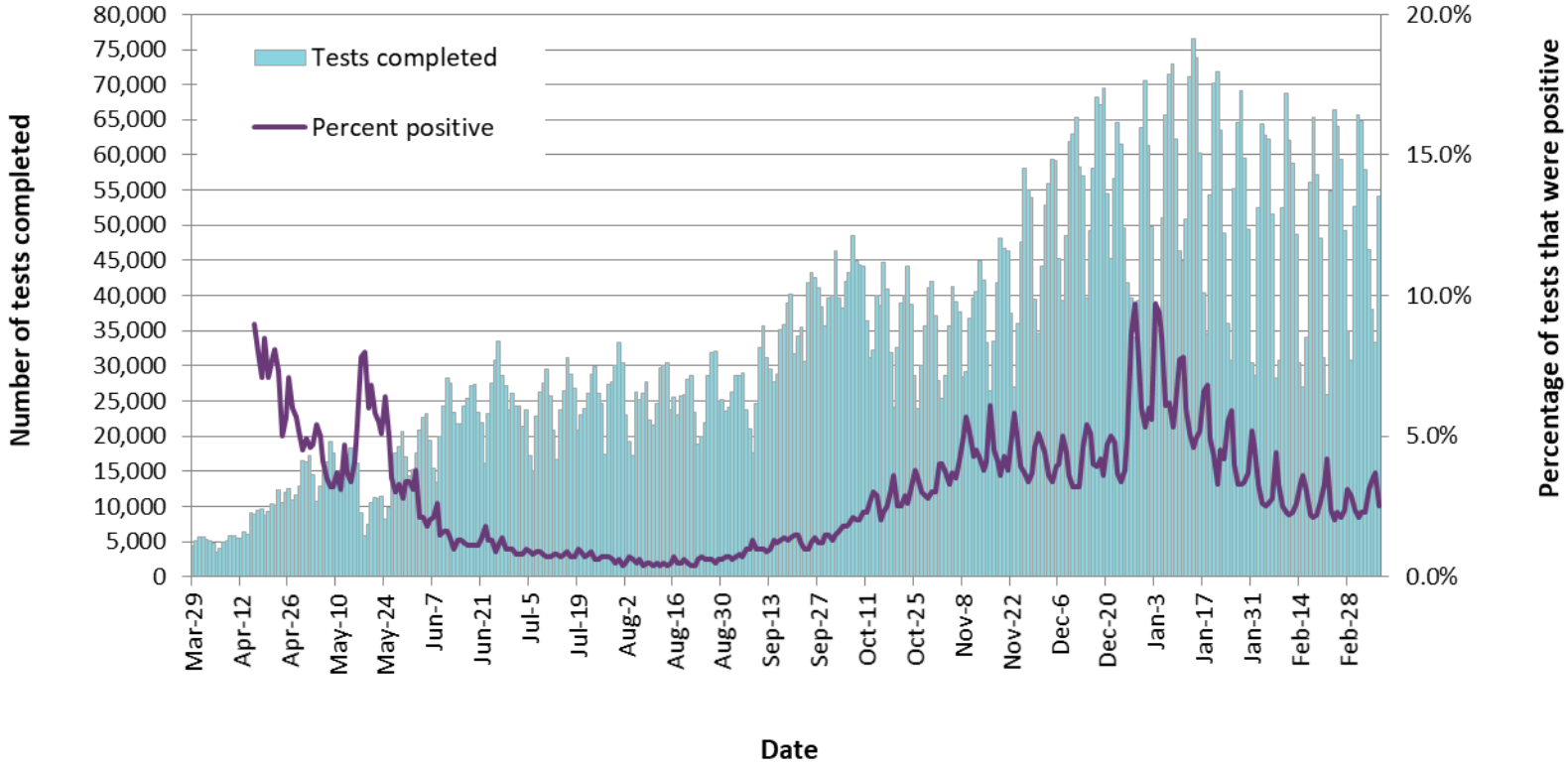
Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to March 10, 2021



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 09, 2021

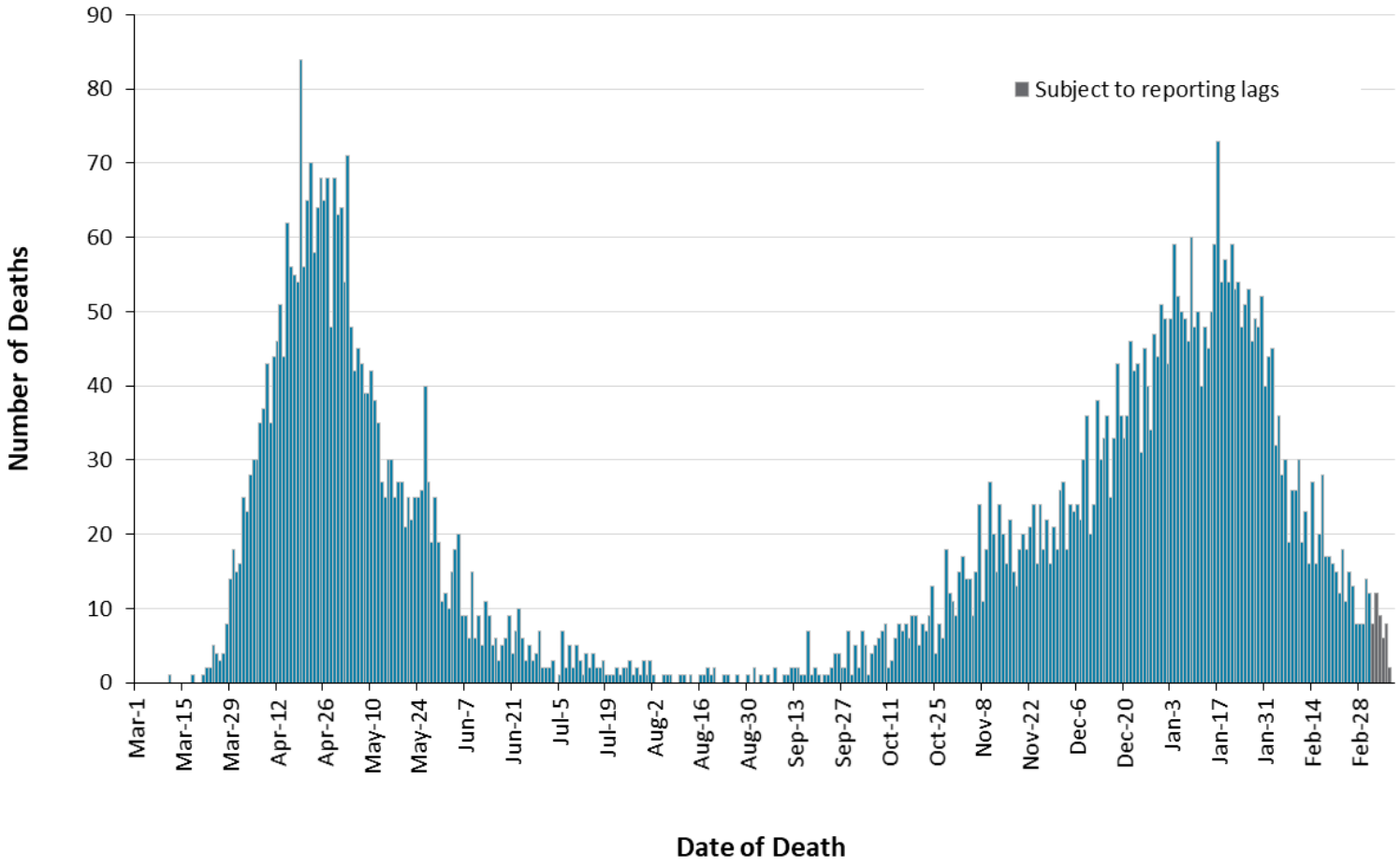


Note: The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

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 10, 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 10, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	7,109	2.3%
Deaths reported in ages: 19 and under	2	<0.1%
Deaths reported in ages: 20-39	29	<0.1%
Deaths reported in ages: 40-59	293	0.3%
Deaths reported in ages: 60-79	1,966	4.4%
Deaths reported in ages: 80 and over	4,818	23.5%
Ever in ICU	2,812	0.9%
Ever hospitalized	15,747	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 09, 2021	Change in cases March 10, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	8	4	535	610.2
Thunder Bay District Health Unit	67	48	2,156	1,437.7
TOTAL NORTH WEST	75	52	2,691	1,132.4
Algoma Public Health	0	0	200	174.8
North Bay Parry Sound District Health Unit	-2	0	267	205.8
Porcupine Health Unit	1	0	343	411.1
Public Health Sudbury & Districts	13	11	839	421.6
Timiskaming Health Unit	0	0	105	321.2
TOTAL NORTH EAST	12	11	1,754	313.6
Ottawa Public Health	59	64	15,293	1,450.0
Eastern Ontario Health Unit	11	18	2,802	1,342.5
Hastings Prince Edward Public Health	3	2	430	255.2
Kingston, Frontenac and Lennox & Addington Public Health	1	1	733	344.6
Leeds, Grenville & Lanark District Health Unit	11	8	939	542.2
Renfrew County and District Health Unit	1	2	377	347.0
TOTAL EASTERN	86	95	20,574	1,068.0

Public Health Unit Name	Change in cases March 09, 2021	Change in cases March 10, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	48	36	12,262	1,721.2
Haliburton, Kawartha, Pine Ridge District Health Unit	4	5	1,065	563.7
Peel Public Health	244	199	63,178	3,934.0
Peterborough Public Health	16	8	742	501.4
Simcoe Muskoka District Health Unit	31	43	6,876	1,146.8
York Region Public Health	149	79	29,784	2,429.8
TOTAL CENTRAL EAST	492	370	113,907	2,542.2
Toronto Public Health	428	293	97,779	3,133.6
TOTAL TORONTO	428	293	97,779	3,133.6
Chatham-Kent Public Health	9	10	1,396	1,313.1
Grey Bruce Health Unit	1	5	705	415.0
Huron Perth Public Health	1	6	1,390	994.6
Lambton Public Health	1	33	2,291	1,749.3
Middlesex-London Health Unit	2	26	6,360	1,253.1
Southwestern Public Health	7	6	2,590	1,224.6
Windsor-Essex County Health Unit	23	39	13,254	3,119.8
TOTAL SOUTH WEST	44	125	27,986	1,655.2
Brant County Health Unit	14	7	1,921	1,237.7
City of Hamilton Public Health Services	59	38	10,999	1,857.4

Public Health Unit Name	Change in cases March 09, 2021	Change in cases March 10, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	6	2	1,442	1,264.0
Halton Region Public Health	48	33	9,574	1,546.5
Niagara Region Public Health	19	26	8,831	1,869.1
Region of Waterloo Public Health and Emergency Services	25	37	11,134	1,905.3
Wellington-Dufferin-Guelph Public Health	8	3	4,928	1,580.0
TOTAL CENTRAL WEST	179	146	48,829	1,713.7
TOTAL ONTARIO	**1,316**	**1,092**	**313,520**	**2,109.2**

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 March 09, 2021	Change in outbreaks March 10, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	0	7	75	1,314
Retirement homes	2	2	53	779
Hospitals	1	1	20	424

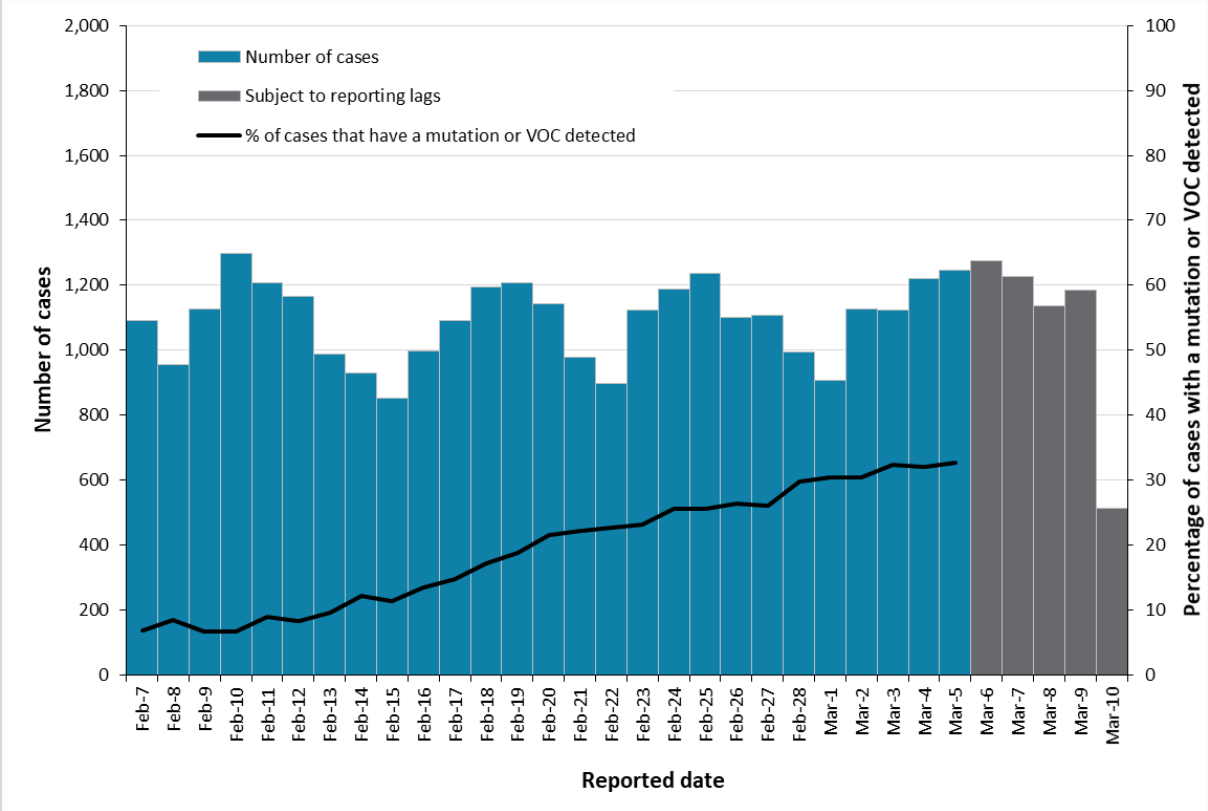
Note: Ongoing outbreaks include all outbreaks that are ‘Open’ in CCM without a ‘Declared Over Date’ recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset date 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 10, 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

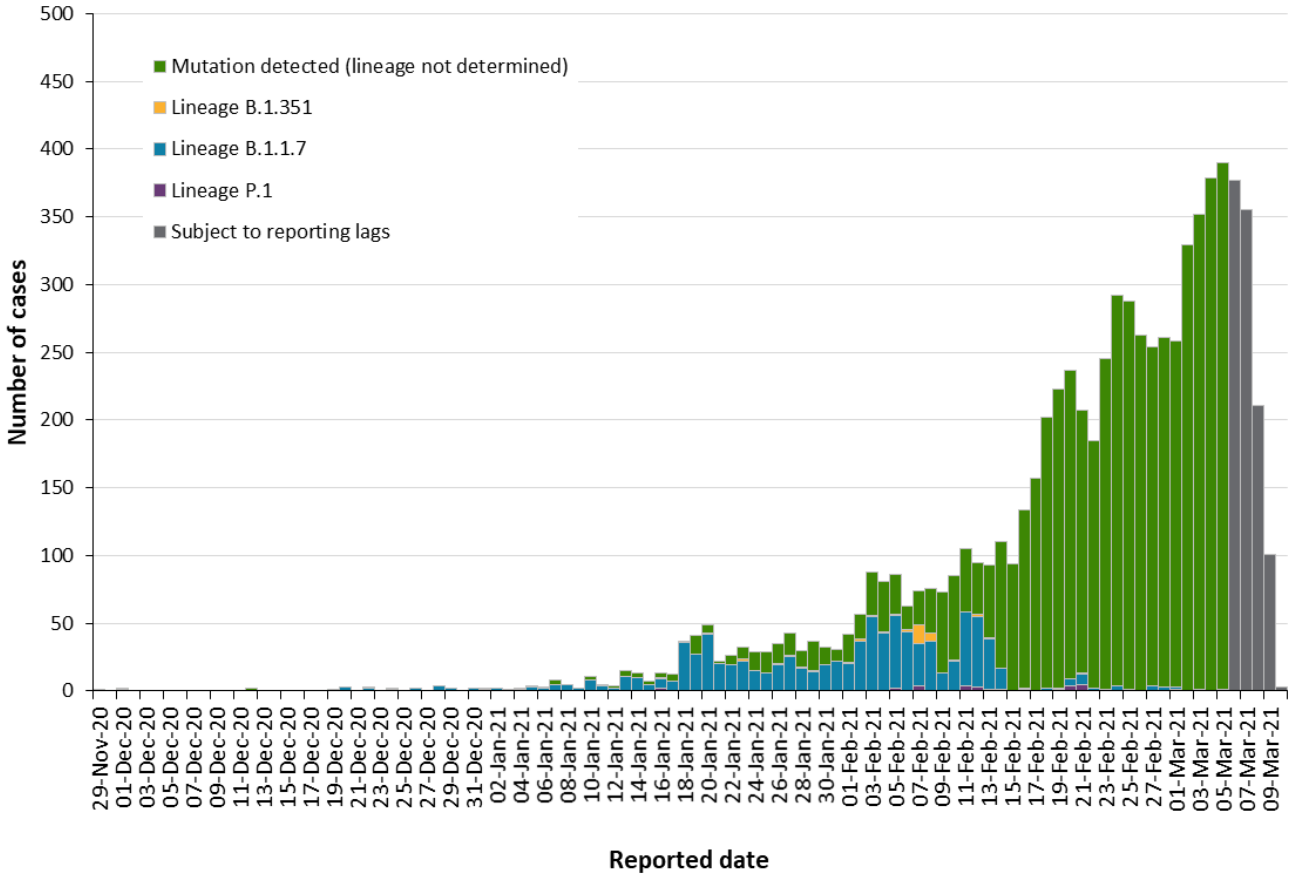
Variant	Change in cases March 09, 2021	Change in cases March 10, 2021	Cumulative case count up to March 10, 2021
Lineage B.1.1.7	13	35	956
Lineage B.1.351	0	2	41
Lineage P.1	0	11	28
Mutation detected (lineage not determined)*	NA	468	6,513

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 10, 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 10, 2021
Gender: Male	469	21	19	3,345	3,854
Gender: Female	485	20	9	3,094	3,608
Ages: 19 and under	128	2	3	1,134	1,267
Ages: 20-39	358	17	11	2,521	2,907
Ages: 40-59	260	12	10	1,881	2,163
Ages: 60-79	145	9	4	833	991
Ages: 80 and over	65	1	0	144	210

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 10, 2021	Cumulative percentage
Travel	50	5.2%	8	19.5%	1	3.6%	187	2.9%	246	3.3%
Outbreak-associated or close contact of a confirmed case	703	73.5%	30	73.2%	17	60.7%	4,273	65.6%	5,023	66.6%
Epidemiological link – type unspecified	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
No known epidemiological link	196	20.5%	3	7.3%	10	35.7%	1,558	23.9%	1,767	23.4%
Information missing or unknown	7	0.7%	0	0.0%	0	0.0%	495	7.6%	502	6.7%
Total	**956**		**41**		**28**		**6,513**		**7,538**	

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 10, 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, February 23 to Mar 07, 2021

Public Health Unit Name	Feb 23 to Mar 01	Feb 24 to Mar 02	Feb 25 to Mar 03	Feb 26 to Mar 04	Feb 27 to Mar 05	Feb 28 to Mar 06	Mar 01 to Mar 07	% change from Feb 23-Mar 01 to Mar 01-Mar 07
NORTH WEST								
Northwestern Health Unit	52.5	52.5	59.3	65.0	53.6	52.5	53.6	+2.1%
Thunder Bay District Health Unit	194.7	180.7	200.7	209.4	248.1	246.7	236.7	+21.6%
NORTH EAST								
Algoma Public Health	3.5	3.5	2.6	3.5	3.5	0.9	0.9	-74.3%
North Bay Parry Sound District Health Unit	3.1	4.6	4.6	4.6	3.9	3.9	4.6	+48.4%
Porcupine Health Unit	12.0	14.4	14.4	7.2	4.8	4.8	3.6	-70.0%
Public Health Sudbury & Districts	45.7	51.3	57.3	65.3	73.4	75.4	80.4	+75.9%
Timiskaming Health Unit	6.1	6.1	21.4	24.5	21.4	33.7	36.7	+501.6%
EASTERN								
Ottawa Public Health	36.2	37.9	38.6	40.4	40.8	38.5	38.1	+5.2%
Eastern Ontario Health Unit	32.6	28.7	31.6	32.6	33.1	38.3	39.3	+20.6%
Hastings Prince Edward Public Health	16.0	14.2	13.7	12.5	11.3	9.5	6.5	-59.4%
Kingston, Frontenac and Lennox & Addington Public Health	4.7	7.5	8.0	8.5	9.4	9.9	10.8	+129.8%

Public Health Unit Name	Feb 23 to Mar 01	Feb 24 to Mar 02	Feb 25 to Mar 03	Feb 26 to Mar 04	Feb 27 to Mar 05	Feb 28 to Mar 06	Mar 01 to Mar 07	% change from Feb 23-Mar 01 to Mar 01-Mar 07
Leeds, Grenville & Lanark District Health Unit	11.5	21.4	21.9	28.3	33.5	33.5	32.9	+186.1%
Renfrew County and District Health Unit	28.5	31.3	24.9	23.0	21.2	21.2	23.0	-19.3%
CENTRAL EAST								
Durham Region Health Department	32.3	32.6	34.1	34.4	34.8	38.6	44.9	+39.0%
Haliburton, Kawartha, Pine Ridge District Health Unit	12.7	10.6	13.2	9.0	10.6	12.2	12.7	N/A
Peel Public Health	90.2	89.1	87.1	85.2	86.2	87.1	88.3	-2.1%
Peterborough Public Health	30.4	37.8	40.5	47.3	48.7	52.7	46.6	+53.3%
Simcoe Muskoka District Health Unit	37.0	36.5	35.7	33.9	36.9	34.2	38.4	+3.8%
York Region Public Health	54.5	52.0	50.3	50.0	52.5	56.6	57.6	+5.7%
TORONTO								
Toronto Public Health	69.1	68.2	66.3	67.0	67.1	70.3	72.9	+5.5%
SOUTH WEST								
Chatham-Kent Public Health	6.6	7.5	9.4	7.5	10.3	16.0	25.4	+284.8%
Grey Bruce Health Unit	3.5	2.4	1.2	3.5	4.7	4.7	5.3	+51.4%
Huron Perth Public Health	24.3	27.2	25.0	22.9	20.8	21.5	19.3	-20.6%
Lambton Public Health	60.3	73.3	90.1	100.0	96.2	101.6	108.4	+79.8%
Middlesex-London Health Unit	16.2	19.5	20.5	21.7	26.0	23.4	25.2	+55.6%

Public Health Unit Name	Feb 23 to Mar 01	Feb 24 to Mar 02	Feb 25 to Mar 03	Feb 26 to Mar 04	Feb 27 to Mar 05	Feb 28 to Mar 06	Mar 01 to Mar 07	% change from Feb 23-Mar 01 to Mar 01-Mar 07
Southwestern Public Health	36.9	37.4	33.1	35.9	19.4	18.4	18.4	-50.1%
Windsor-Essex County Health Unit	47.1	41.2	37.4	39.3	43.3	43.8	43.5	-7.6%
CENTRAL WEST								
Brant County Health Unit	107.6	101.2	90.8	73.5	61.9	54.8	50.9	-52.7%
City of Hamilton Public Health Services	55.7	56.9	55.2	54.5	55.9	57.1	61.3	+10.1%
Haldimand-Norfolk Health Unit	33.3	35.1	36.8	35.9	36.8	33.3	35.9	+7.8%
Halton Region Public Health	38.3	39.3	42.3	42.5	42.6	42.0	42.2	+10.2%
Niagara Region Public Health	26.2	27.3	30.3	30.3	33.4	34.3	34.3	+30.9%
Region of Waterloo Public Health and Emergency Services	61.3	64.3	58.4	50.0	51.7	50.1	53.0	-13.5%
Wellington-Dufferin-Guelph Public Health	44.2	47.8	47.4	43.6	38.2	41.4	42.0	-5.0%
TOTAL ONTARIO	**51.5**	**51.6**	**51.1**	**51.0**	**52.0**	**53.1**	**54.7**	**+6.2%**

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 March 10, 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	11
Chatham-Kent Public Health	1	0	0	0
City of Hamilton Public Health Services	4	0	0	170
Durham Region Health Department	42	0	2	305
Eastern Ontario Health Unit	0	0	0	23
Grey Bruce Health Unit	0	0	0	0
Haldimand-Norfolk Health Unit	2	0	0	5
Haliburton, Kawartha, Pine Ridge District Health Unit	2	0	0	16
Halton Region Public Health	21	0	0	159
Hastings Prince Edward Public Health	0	0	0	8
Huron Perth Public Health	0	0	0	2
Kingston, Frontenac and Lennox & Addington Public Health	1	0	0	5
Lambton Public Health	0	0	0	4
Leeds, Grenville & Lanark District Health Unit	0	0	0	3

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	22
Niagara Region Public Health	4	0	0	87
North Bay Parry Sound District Health Unit	2	20	0	13
Northwestern Health Unit	1	0	0	0
Ottawa Public Health	9	2	0	119
Peel Public Health	180	10	2	1,295
Peterborough Public Health	1	0	0	89
Porcupine Health Unit	0	2	0	1
Public Health Sudbury & Districts	3	0	0	93
Region of Waterloo Public Health and Emergency Services	15	0	0	166
Renfrew County and District Health Unit	0	0	0	0
Simcoe Muskoka District Health Unit	232	1	7	485
Southwestern Public Health	2	0	0	7
Thunder Bay District Health Unit	0	0	0	0
Timiskaming Health Unit	0	1	0	0
Toronto Public Health	241	4	13	2,531

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	74
Windsor-Essex County Health Unit	1	0	0	34
York Region Public Health	184	1	4	786
TOTAL ONTARIO	**956**	**41**	**28**	**6,513**

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 21 to March 05, 2021

Public Health Unit Name	Feb 21 to Feb 27	Feb 22 to Feb 28	Feb 23 to Mar 01	Feb 24 to Mar 02	Feb 25 to Mar 03	Feb 26 to Mar 04	Feb 27 to Mar 05
Algoma Public Health	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brant County Health Unit	2.0	2.0	2.4	3.2	3.5	4.4	4.2
Chatham-Kent Public Health	0.0	0.0	0.0	12.5	10.0	12.5	9.1
City of Hamilton Public Health Services	11.7	12.8	13.3	15.1	17.4	18.6	21.1
Durham Region Health Department	27.7	29.3	32.2	33.6	36.2	43.7	41.9
Eastern Ontario Health Unit	5.5	4.8	5.9	8.3	13.6	20.6	20.3
Grey Bruce Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Haldimand-Norfolk Health Unit	20.0	20.0	15.8	12.5	11.9	2.4	4.8
Haliburton, Kawartha, Pine Ridge District Health Unit	24.0	20.8	20.8	10.0	8.0	5.9	5.0
Halton Region Public Health	13.8	15.9	16.5	18.5	19.8	20.9	24.2
Hastings Prince Edward Public Health	10.0	15.4	14.8	29.2	26.1	28.6	36.8
Huron Perth Public Health	0.0	0.0	0.0	0.0	2.9	3.1	3.4
Kingston, Frontenac and Lennox & Addington Public Health	20.0	14.3	20.0	12.5	11.8	11.1	10.0
Lambton Public Health	0.0	2.6	2.5	2.1	3.4	3.1	3.2
Leeds, Grenville & Lanark District Health Unit	9.1	5.9	5.0	2.7	2.6	2.0	3.4

Public Health Unit Name	Feb 21 to Feb 27	Feb 22 to Feb 28	Feb 23 to Mar 01	Feb 24 to Mar 02	Feb 25 to Mar 03	Feb 26 to Mar 04	Feb 27 to Mar 05
Middlesex-London Health Unit	12.6	11.8	9.8	9.1	9.6	9.1	9.1
Niagara Region Public Health	22.9	24.6	20.2	18.6	20.3	23.8	25.9
North Bay Parry Sound District Health Unit	33.3	33.3	50.0	50.0	50.0	50.0	60.0
Northwestern Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ottawa Public Health	9.1	9.7	9.7	8.5	9.8	10.3	9.8
Peel Public Health	30.9	32.3	32.5	32.8	34.0	34.9	35.5
Peterborough Public Health	39.3	55.8	64.4	75.0	81.7	81.4	86.1
Porcupine Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public Health Sudbury & Districts	28.6	28.8	24.2	26.5	28.9	30.8	37.7
Region of Waterloo Public Health and Emergency Services	12.1	13.1	13.1	13.3	12.0	13.7	13.6
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	50.4	50.9	53.6	59.8	59.3	53.2	52.5
Southwestern Public Health	1.3	1.3	1.3	2.5	2.9	1.3	2.4
Thunder Bay District Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Timiskaming Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Toronto Public Health	34.5	37.1	39.1	41.0	43.4	45.0	46.2

Public Health Unit Name	Feb 21 to Feb 27	Feb 22 to Feb 28	Feb 23 to Mar 01	Feb 24 to Mar 02	Feb 25 to Mar 03	Feb 26 to Mar 04	Feb 27 to Mar 05
Wellington-Dufferin-Guelph Public Health	21.5	22.9	20.3	20.8	16.2	19.1	19.3
Windsor-Essex County Health Unit	7.0	5.7	6.5	8.6	9.4	7.8	7.1
York Region Public Health	29.0	27.5	29.9	31.6	31.5	31.5	34.8
TOTAL ONTARIO	**24.6**	**25.6**	**26.5**	**27.6**	**28.6**	**29.6**	**30.6**

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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Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Epidemiologic summary: COVID-19 in Ontario – January 15, 2020 to March 10, 2021. Toronto, ON: Queen's Printer for Ontario; 2021.

For Further Information

For more information, email cd@oahpp.ca.

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