Public Health Ontario | Santé publique Ontario

DAILY EPIDEMIOLOGICAL SUMMARY

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

This report includes the most current information available from CCM as of **June 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 538,651 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
    - An increase of 574 confirmed cases (percent change of -2.7%)
    - An increase of 4 deaths (percent change of -63.6%)
    - An increase of 850 resolved cases (percent change of -9.5%)

In this document, the term 'change in cases' refers to cases publicly reported by the province for a given day. Data corrections or updates can result in case records being removed and or updated from past reports and may result in subset totals for updated case counts (i.e., age group, gender) differing from the overall updated case counts.

The term public health unit reported date in this document refers to the date local public health units were first notified of the case.

Case Characteristics

Table 1a. Summary of recent confirmed cases of COVID-19: Ontario

	Change in cases June 9, 2021	Change in cases June 10, 2021	Percentage change June 10, 2021 compared to June 9, 2021	Cumulative case count as of June 10, 2021
Total number of cases	590	574	-2.7%	538,651
Number of deaths	11	4	-63.6%	8,935
Number resolved	939	850	-9.5%	523,532

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 June 9, 2021	Change in cases June 10, 2021	Cumulative case count as of June 10, 2021
Gender: Male	255	265	268,334
Gender: Female	311	280	266,540
Ages: 19 and under	122	143	86,165
Ages: 20-39	257	232	201,794
Ages: 40-59	132	128	154,027
Ages: 60-79	72	59	71,677
Ages: 80 and over	8	13	24,888

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 June 10, 2021: Ontario

	Change in cases June 9, 2021	Change in cases June 10, 2021	Cumulative case count from August 30, 2020 to June 10, 2021
Ages: 4 to 8	24	27	15,843
Ages: 9 to 13	26	35	19,971
Ages: 14 to 17	30	29	20,334

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

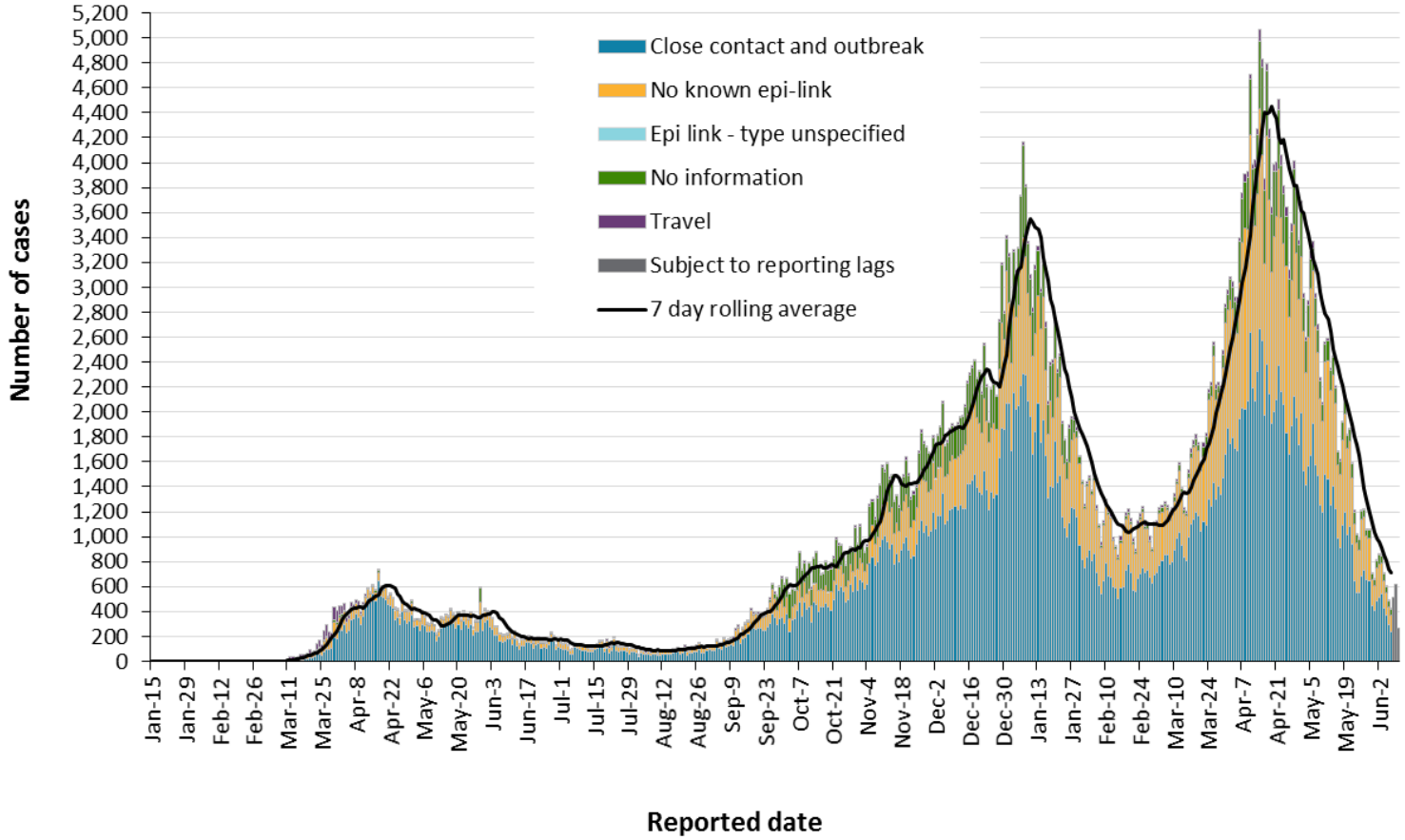
Table 3. Summary of recent confirmed cases of COVID-19 in long-term care homes: Ontario

Long-term care home cases	Change in cases June 9, 2021	Change in cases June 10, 2021	Cumulative case count as of June 10, 2021
Residents	2	1	15,322
Health care workers	0	1	7,116
Deaths among residents	0	-1	3,961
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

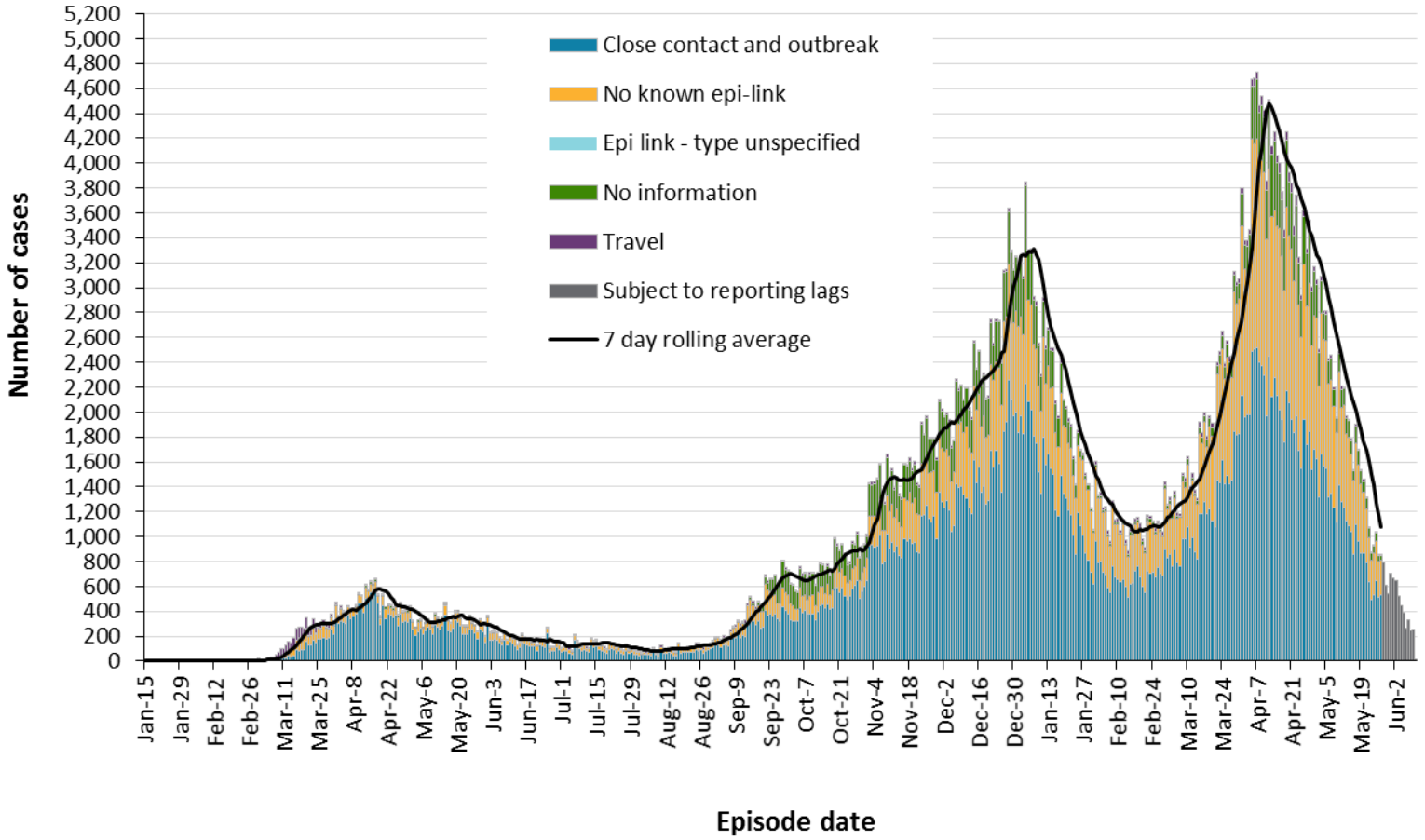
Time

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



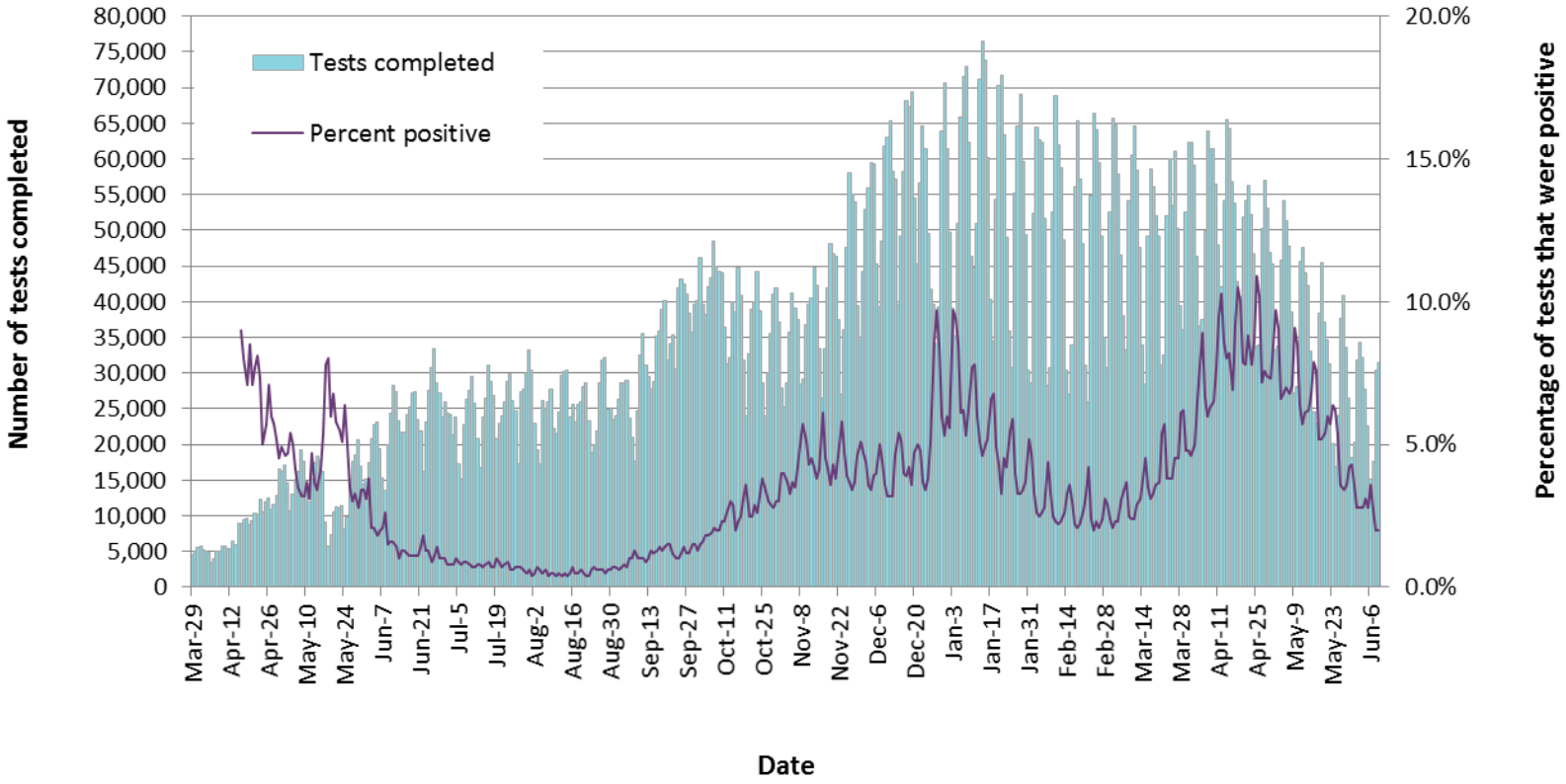
Data Source: CCM

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

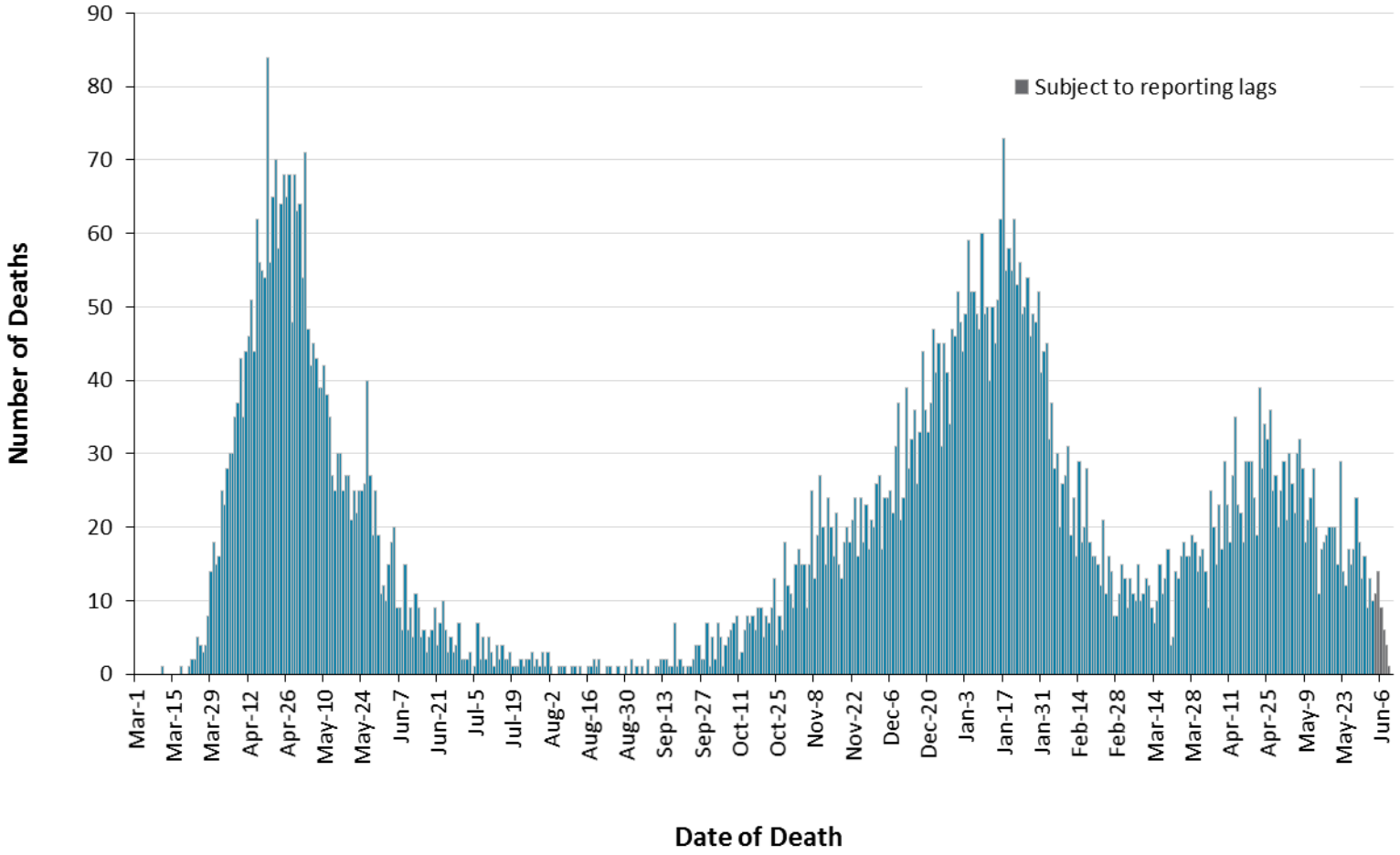
Figure 3. Number of COVID-19 tests completed and percent positivity: Ontario, March 29, 2020 to June 9, 2021



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 June 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 June 10, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	8,935	1.7%
Deaths reported in ages: 19 and under	4	< 0.1%
Deaths reported in ages: 20-39	73	< 0.1%
Deaths reported in ages: 40-59	536	0.3%
Deaths reported in ages: 60-79	2,799	3.9%
Deaths reported in ages: 80 and over	5,522	22.2%
Ever in ICU	5,164	1.0%
Ever hospitalized	27,106	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 June 9, 2021	Change in cases June 10, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	1	3	1,071	1,221.6
Thunder Bay District Health Unit	5	14	3,316	2,211.3
TOTAL NORTH WEST	6	17	4,387	1,846.1
Algoma Public Health	0	2	398	347.8
North Bay Parry Sound District Health Unit	9	3	471	363.0
Porcupine Health Unit	18	51	1,739	2,084.1
Public Health Sudbury & Districts	1	2	2,093	1,051.6
Timiskaming Health Unit	-2	2	207	633.2
TOTAL NORTH EAST	26	60	4,908	877.5
Ottawa Public Health	25	22	27,362	2,594.4
Eastern Ontario Health Unit	2	0	4,615	2,211.2
Hastings Prince Edward Public Health	1	1	1,123	666.5
Kingston, Frontenac and Lennox & Addington Public Health	0	2	1,535	721.6
Leeds, Grenville & Lanark District Health Unit	3	1	1,738	1,003.6
Renfrew County and District Health Unit	1	3	730	672.0
TOTAL EASTERN	32	29	37,103	1,926.0

Public Health Unit Name	Change in cases June 9, 2021	Change in cases June 10, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	21	26	24,965	3,504.3
Haliburton, Kawartha, Pine Ridge District Health Unit	3	4	2,121	1,122.6
Peel Public Health	130	84	108,671	6,766.8
Peterborough Public Health	9	1	1,536	1,038.0
Simcoe Muskoka District Health Unit	16	10	12,236	2,040.7
York Region Public Health	32	28	52,303	4,266.9
TOTAL CENTRAL EAST	211	153	201,832	4,504.5
Toronto Public Health	114	109	163,751	5,247.8
TOTAL TORONTO	114	109	163,751	5,247.8
Chatham-Kent Public Health	0	1	1,871	1,759.8
Grey Bruce Health Unit	8	5	1,331	783.5
Huron Perth Public Health	2	5	1,878	1,343.8
Lambton Public Health	2	5	3,536	2,700.0
Middlesex-London Health Unit	23	10	12,418	2,446.8
Southwestern Public Health	1	3	3,822	1,807.1
Windsor-Essex County Health Unit	5	16	16,721	3,935.9
TOTAL SOUTH WEST	41	45	41,577	2,459.1
Brant County Health Unit	9	4	3,797	2,446.5
City of Hamilton Public Health Services	38	31	20,955	3,538.7

Public Health Unit Name	Change in cases June 9, 2021	Change in cases June 10, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	3	4	2,649	2,322.0
Halton Region Public Health	17	30	17,198	2,778.0
Niagara Region Public Health	26	11	16,000	3,386.4
Region of Waterloo Public Health and Emergency Services	61	79	16,428	2,811.3
Wellington-Dufferin-Guelph Public Health	6	2	8,066	2,586.0
TOTAL CENTRAL WEST	160	161	85,093	2,986.5
TOTAL ONTARIO	**590**	**574**	**538,651**	**3,623.8**

Notes: Health units with data corrections or updates could result in records being removed from totals, leading to negative or zero 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

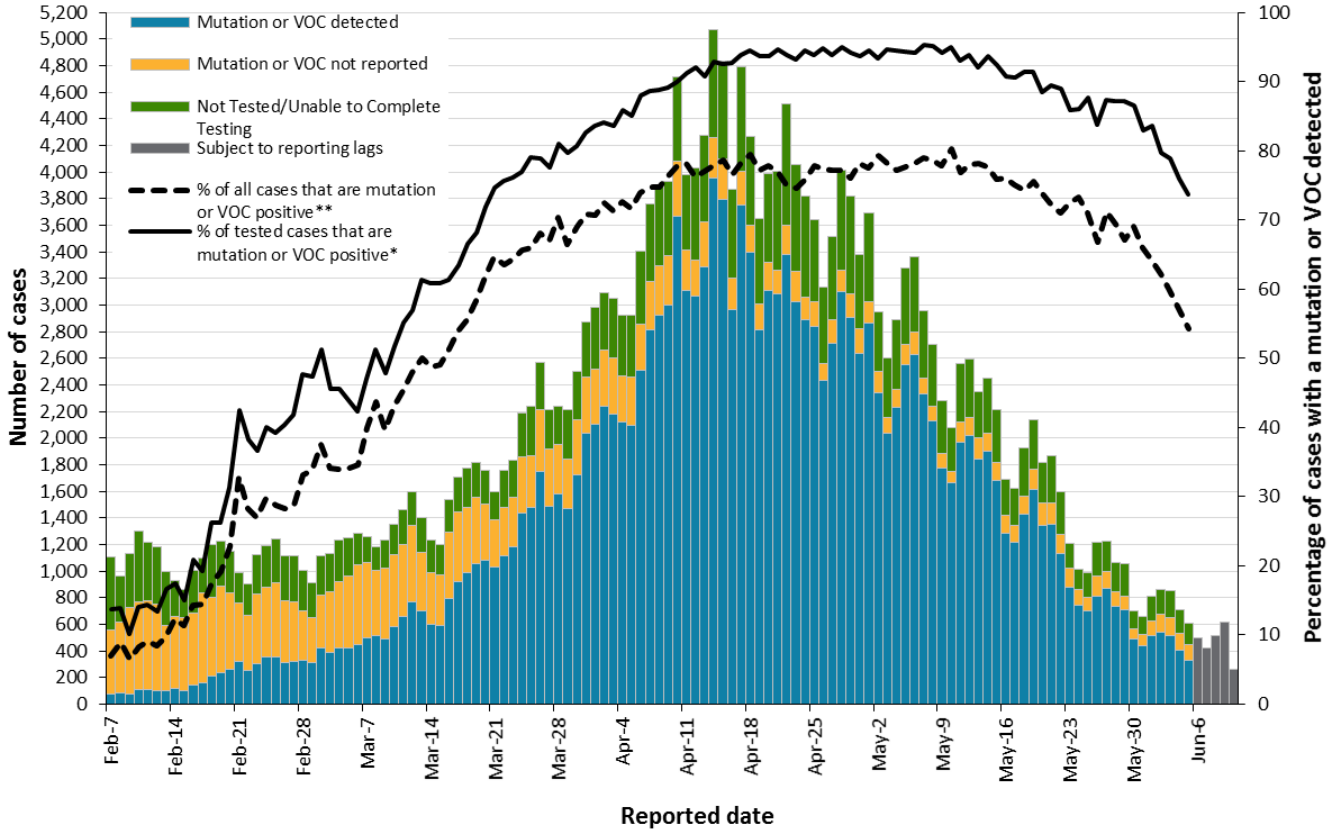
Institution type	Change in outbreaks June 9, 2021	Change in outbreaks June 10, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	1	0	14	1,481
Retirement homes	0	0	5	872
Hospitals	0	1	6	566

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 with a Ct value of ≤ 30, these samples may then undergo genomic analyses to identify the VOC lineage. 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 June 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.
*The denominator includes only confirmed COVID-19 cases that were able to be tested for VOCs (e.g. those identified as 'Detected' or 'Not Detected'.
**The denominator includes all confirmed COVID-19 cases, including those that were unable to be tested for VOCs (e.g. those identified as 'Detected', 'Not Detected' and 'Not Tested/Unable to Complete Testing'.
Data Source: CCM

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

	Change in cases June 9, 2021	Change in cases June 10, 2021	Cumulative case count up to June 10, 2021
Variant of Concern			
Lineage B.1.1.7*	1,509	1,190	137,307
Lineage B.1.351	3	0	1,128
Lineage P.1	25	1	4,099
Mutations			
N501Y and E484K	-29	-8	5,301
N501Y (E484K unknown)**	-1,008	-561	16,237
E484K (N501Y negative)	21	20	5,656
E484K (N501Y unknown)	0	1	483

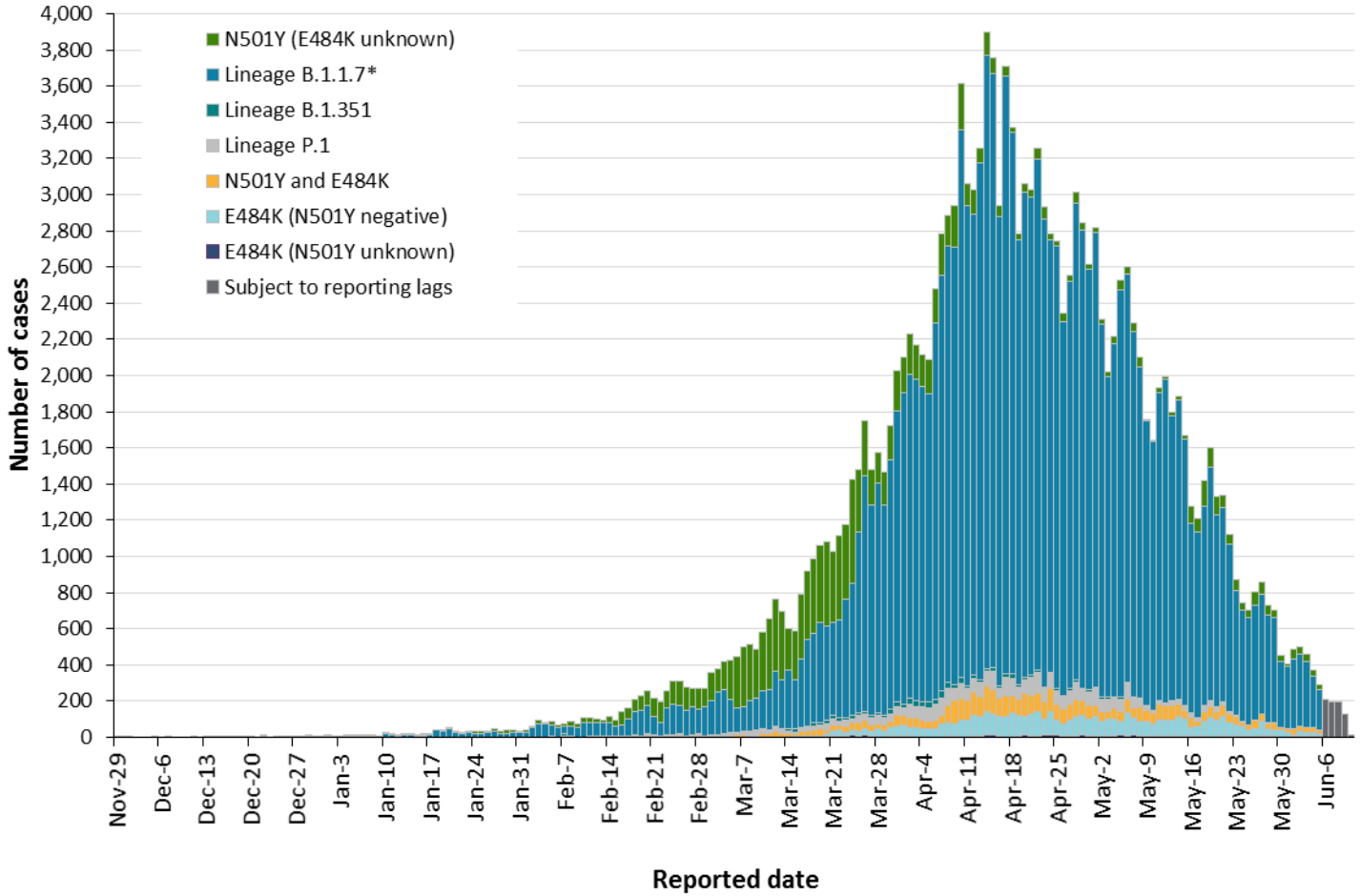
Note: Interpret the VOC and mutation trends with caution due to the varying time required to complete VOC testing and/or genomic analysis following the initial positive test for SARS-CoV-2. Due to the nature of the genomic analysis, test results may be completed in batches. Data corrections or updates can result in case records being removed and/or updated and may result in totals differing from past publicly reported case counts. Data for calculating the change in cases and the cumulative case counts uses data from the Investigation Subtype field only. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the data caveats section.

*Includes all confirmed COVID-19 cases where lineage B.1.1.7 was identified by genomic analysis and those presumed to be B.1.1.7 based on positive N501Y and negative E484K mutation in the Investigation Subtype field

**The category 'N501Y (E484K unknown)' mainly consists of results from before the introduction of the E484K test. Counts will shift from this category into a VOC lineage category as E484K tests or genomic analysis are completed.

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 June 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 or any of the mutations listed above are determined using the Investigation Subtype field only. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the data caveats section.
*Includes all confirmed COVID-19 cases where lineage B.1.1.7 was identified by genomic analysis and those presumed to be B.1.1.7 based on positive N501Y and negative E484K mutation. As of March 22, 2021, positive specimens with a Ct ≤ 35 are tested for both the N501Y and E484K mutation, with all E484K positive specimens with a Ct ≤ 30 forwarded for further genomic analysis. If found to be positive for the N501Y mutation only, no further genomic analysis are performed as these are presumed to be B.1.1.7. As of May 26, 2021, cases where an E484K mutation is detected will no longer be reflexed for sequencing as VOC testing labs switched to a representative sampling method where only a proportion of all positives with a Ct ≤ 30 are forwarded for further genomic analysis. This proportion was initially set at 10% and will be adjusted periodically based on case volumes.
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 **June 10, 2021 at 1 p.m**. for cases reported from February 1, 2021 onwards and as of **June 7, 2021 at 9 a.m.** for cases reported up to January 31, 2021.

- VOC data for this report were based on information successfully extracted from CCM for all PHUs by PHO as of **June 10, 2021 at 1 p.m.** for cases reported from April 1, 2021 onwards and as of **June 7, 2021 at 9 a.m.** for cases reported up to March 31, 2021.

- 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

- 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 represents an estimate of disease onset. This date is calculated based on the earliest 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 or hospitalization/ICU was reported as 'Yes' at the time of data extraction. It includes cases that have been discharged from hospital as well as cases that are currently hospitalized. Emergency room visits are not included in the number of reported hospitalizations.

- ICU admission includes all cases for which an ICU admission date was reported at the time of data extraction. It is a subset of the count of hospitalized cases. It includes cases that have been treated or that are currently being treated in an ICU.

- Orientation of case counts by geography is based on the diagnosing health unit (DHU). DHU refers to the case's public health unit of residence at the time of illness onset and not necessarily the location of exposure. Cases for which the DHU was reported as MOH-PHO (to signify a case that is not a resident of Ontario) have been excluded from the analyses.

- Likely source of acquisition is determined by examining the epidemiologic link and epidemiologic link status fields in CCM. If no epidemiologic link is identified in those fields the risk factor fields are examined to determine whether a case travelled, was associated with a confirmed outbreak, was a contact of a case, had no known epidemiological link (sporadic community transmission) or was reported to have an unknown source/no information was reported. Some cases may have no information reported if the case is untraceable, was lost to follow-up or referred to FNIHB. Cases with multiple risk factors were assigned to a single likely acquisition source group which was determined hierarchically in the following order:

    - For cases with an episode date *on or after* April 1, 2020: Outbreak-associated > close contact of a confirmed case > travel > no known epidemiological link > information missing or unknown

    - For cases with an episode date *before* April 1, 2020: Travel > outbreak-associated > close contact of a confirmed case > no known epidemiological link > information missing or unknown

- Deaths are determined by using the outcome field in CCM. Any case marked 'Fatal' is included in the deaths data. The CCM field Type of Death is not used to further categorize the data.

    - The date of death is determined using the outcome date field for cases marked as 'Fatal' in the outcome field.

- COVID-19 cases from CCM for which the Classification and/or Disposition was reported as ENTERED IN ERROR, DOES NOT MEET DEFINITION, IGNORE, DUPLICATE or any variation on these values have been excluded. The provincial case count for COVID-19 may include some duplicate records, if these records were not identified and resolved.

- Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset date of first case, or if missing the outbreak reported date, or else if that is also missing, then the outbreak created date.

- 'Long-term care home residents' includes cases that reported 'Yes' to the risk factor 'Resident of a long-term care home'; or 'Yes' to the risk factor 'Resident of nursing home or other chronic care facility' and reported to be part of an outbreak assigned as a long-term care home (via the Outbreak number or case comments field); or were reported to be part of an outbreak assigned as a long-term care home (via the outbreak number or case comments field) with an age over 70 years and did not report 'No' to the risk factors 'Resident of long-term care home' or 'Resident of nursing home or other chronic care facility'. 'Long-term care home residents' excludes cases that reported 'Yes' to any of the health care worker occupational risk factors.

- The 'health care workers' variable includes cases that reported 'Yes' to any of the occupation of health care worker, doctor, nurse, dentist, dental hygienist, midwife, other medical technicians, personal support worker, respiratory therapist, first responder.

- 'Health care workers associated with long-term care outbreaks' includes 'health care workers' reported to be part of an outbreak assigned as a long-term care home (via the outbreak number or case comments field). Excludes cases that reported 'Yes' to risk factors 'Resident of long-term care home' or 'Resident of nursing home or other chronic care facility' and 'Yes' to the calculated 'health care workers' variable.

- Percent change is calculated by taking the difference between the current period (i.e., daily count or sum of the daily count over a 7-day period) and previous period (i.e., daily count or sum of the daily count over a 7-day period), divided by the previous period.

- PANGO lineage B.1.1.7: This lineage was first detected in England in September, 2020. Early evidence suggests that the N501Y mutation may increase SARS-CoV-2 transmissibility. The PANGO lineage B.1.1.7 is assigned to genome sequences with at least 5 of the 17 defining B.1.1.7 SNPs.

- PANGO lineage B.1.351 (also known as 501Y.V2): This lineage was first detected October, 2020 in South Africa and has several mutations of concern, including spike (S) gene: N501Y, K417N, and E484K. Early evidence suggests that these mutations may increase SARS-CoV-2 transmissibility and decrease vaccine efficacy. The PANGO lineage B.1.351 will be assigned to genome sequences at least 5 of the 9 defining B.1.351 SNPs.

- PANGO lineage P.1 (also known as 501Y.V3): This lineage was first detected January, 2021 in Brazil and has several mutations of concern, including spike (S) gene N501Y, K417T, and E484K. Early evidence suggests that these mutations may increase SARS-CoV-2 transmissibility and decrease vaccine efficacy. The PANGO lineage P.1 is assigned to genome sequences with more than 10 of the 17 defining P.1 SNPs.

- Public Health Ontario conducts testing and genomic analyses for SARS-CoV-2 positive specimens using the criteria outlined here: https://www.publichealthontario.ca/en/laboratory-services/test-information-index/covid-19-voc

- Changes to the VOC testing algorithm may occur over time and trends should be interpreted with caution. Since February 3, 2021 all PCR positive SARS-Co-V-2 specimens with Ct values ≤ 35 are tested for a N501Y mutation. As of March 22, 2021, positive specimens with a Ct ≤ 35 are tested for both the N501Y and E484K mutation, with all E484K positive specimens with a Ct ≤ 30 forwarded for further genomic analysis. If found to be positive for the N501Y mutation only, no further genomic analysis are performed as these are presumed to be B.1.1.7. As of May 26, 2021, cases where a E484K mutation is detected will no longer be reflexed for sequencing as VOC testing labs switched to a representative sampling method where only a proportion of all positives with a Ct ≤ 30 are forwarded for further genomic analysis. This proportion was initially set at 10% and will be adjusted periodically based on case volumes.

- 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 with a Ct value of ≤30, these samples may then undergo genomic analyses to identify the VOC lineage. 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, May 26 to June 7, 2021

Public Health Unit Name	May 26 to June 1	May 27 to June 2	May 28 to June 3	May 29 to June 4	May 30 to June 5	May 31 to June 6	June 1 to June 7	% change from May 26 – June 1 to June 1 - June 7
NORTH WEST								
Northwestern Health Unit	3.4	3.4	3.4	3.4	1.1	1.1	2.3	-32.4%
Thunder Bay District Health Unit	46.7	53.3	50.0	47.3	38.0	40.0	31.3	-33.0%
NORTH EAST								
Algoma Public Health	2.6	1.7	1.7	1.7	1.7	1.7	1.7	-34.6%
North Bay Parry Sound District Health Unit	9.2	8.5	6.9	6.2	6.2	6.2	4.6	-50.0%
Porcupine Health Unit	256.5	310.4	338.0	309.2	293.6	316.4	341.6	+33.2%
Public Health Sudbury & Districts	10.0	9.5	7.5	7.0	7.5	7.5	7.0	-30.0%
Timiskaming Health Unit	3.1	0.0	0.0	0.0	3.1	3.1	3.1	0.0%
EASTERN								
Ottawa Public Health	35.7	32.8	31.5	29.2	28.6	26.5	24.4	-31.7%
Eastern Ontario Health Unit	15.3	11.0	10.1	5.7	4.8	4.3	2.9	-81%
Hastings Prince Edward Public Health	7.1	4.7	2.4	1.8	1.2	0.6	0.0	-100.0%
Kingston, Frontenac and Lennox & Addington Public Health	2.8	4.7	5.6	5.2	4.7	4.7	4.2	+50.0%

Public Health Unit Name	May 26 to June 1	May 27 to June 2	May 28 to June 3	May 29 to June 4	May 30 to June 5	May 31 to June 6	June 1 to June 7	% change from May 26 – June 1 to June 1 - June 7
Leeds, Grenville & Lanark District Health Unit	3.5	1.7	0.0	0.6	0.6	0.6	1.2	-65.7%
Renfrew County and District Health Unit	18.4	19.3	15.6	8.3	8.3	6.4	9.2	-50.0%
CENTRAL EAST								
Durham Region Health Department	53.1	56.1	49.7	47.4	41.7	40.3	37.2	-29.9%
Haliburton, Kawartha, Pine Ridge District Health Unit	37.0	39.2	28.1	28.1	22.8	22.8	23.3	-37.0%
Peel Public Health	82.4	73.0	69.0	65.2	60.3	56.5	53.6	-35.0%
Peterborough Public Health	19.6	18.9	18.9	18.2	18.2	18.9	18.2	-7.1%
Simcoe Muskoka District Health Unit	31.7	29.4	28.4	26.4	25.4	24.0	23.2	-26.8%
York Region Public Health	42.3	42.7	37.3	35.1	29.9	27.3	25.0	-40.9%
TORONTO								
Toronto Public Health	51.7	47.6	44.7	42.1	37.1	35.7	33.3	-35.6%
SOUTH WEST								
Chatham-Kent Public Health	9.4	11.3	12.2	14.1	13.2	8.5	9.4	0.0%
Grey Bruce Health Unit	4.7	4.1	11.2	11.8	13.5	11.2	10.6	+125.5%
Huron Perth Public Health	35.8	30.8	22.2	17.9	16.5	15.0	16.5	-53.9%
Lambton Public Health	28.3	26.0	31.3	27.5	28.3	28.3	27.5	-2.8%
Middlesex-London Health Unit	39.8	33.1	31.1	28.0	27.0	24.0	19.5	-51.0%

Public Health Unit Name	May 26 to June 1	May 27 to June 2	May 28 to June 3	May 29 to June 4	May 30 to June 5	May 31 to June 6	June 1 to June 7	% change from May 26 – June 1 to June 1 - June 7
Southwestern Public Health	19.9	19.9	17.5	12.8	10.4	9.0	9.5	-52.3%
Windsor-Essex County Health Unit	33.7	33.2	30.4	30.1	30.1	28.5	25.2	-25.2%
CENTRAL WEST								
Brant County Health Unit	54.1	50.9	52.2	44.5	46.4	43.2	43.2	-20.1%
City of Hamilton Public Health Services	71.6	69.2	66.2	64.7	60.3	55.4	51.8	-27.7%
Haldimand-Norfolk Health Unit	23.7	25.4	19.3	14.9	14.9	18.4	19.3	-18.6%
Halton Region Public Health	34.6	30.7	28.8	24.9	25.5	25.2	25.2	-27.2%
Niagara Region Public Health	40.6	38.5	35.8	40.0	36.8	37.2	40.0	-1.5%
Region of Waterloo Public Health and Emergency Services	47.7	45.5	50.0	48.3	47.4	50.1	50.0	+4.8%
Wellington-Dufferin-Guelph Public Health	37.5	41.7	35.3	32.7	28.9	28.9	27.9	-25.6%
TOTAL ONTARIO	**45.3**	**42.9**	**40.4**	**38.0**	**35.0**	**33.6**	**32.0**	**-29.4%**

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 June 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 mutations**
Algoma Public Health	65	0	12	28
Brant County Health Unit	650	2	81	491
Chatham-Kent Public Health	106	5	13	115
City of Hamilton Public Health Services	4,901	52	81	2,067
Durham Region Health Department	9,358	49	186	1,282
Eastern Ontario Health Unit	637	41	17	277
Grey Bruce Health Unit	300	0	5	56
Haldimand-Norfolk Health Unit	360	3	17	397
Haliburton, Kawartha, Pine Ridge District Health Unit	428	0	18	312
Halton Region Public Health	5,030	23	140	618
Hastings Prince Edward Public Health	67	0	5	415
Huron Perth Public Health	153	0	4	142
Kingston, Frontenac and Lennox & Addington Public Health	433	2	35	126
Lambton Public Health	405	0	17	131
Leeds, Grenville & Lanark District Health Unit	281	18	0	39
Middlesex-London Health Unit	3,123	2	82	336
Niagara Region Public Health	4,140	3	12	1,079

Public Health Unit Name	Cumulative count for Lineage B.1.1.7*	Cumulative count for Lineage B.1.351	Cumulative count for Lineage P.1	Cumulative count for mutations**
North Bay Parry Sound District Health Unit	113	28	1	15
Northwestern Health Unit	51	0	1	16
Ottawa Public Health	5,982	322	29	586
Peel Public Health	28,933	132	1,358	3,818
Peterborough Public Health	532	4	7	163
Porcupine Health Unit	855	2	0	7
Public Health Sudbury & Districts	574	9	5	346
Region of Waterloo Public Health and Emergency Services	3,012	7	60	308
Renfrew County and District Health Unit	206	6	3	19
Simcoe Muskoka District Health Unit	3,566	26	151	860
Southwestern Public Health	630	2	10	173
Thunder Bay District Health Unit	97	0	1	68
Timiskaming Health Unit	80	1	0	0
Toronto Public Health	42,683	307	1,247	10,332
Wellington-Dufferin-Guelph Public Health	2,058	1	57	193
Windsor-Essex County Health Unit	1,762	5	13	138
York Region Public Health	15,736	76	431	2,724
TOTAL ONTARIO	**137,307**	**1,128**	**4,099**	**27,677**

Note: Interpret the VOC and mutation trends with caution due to the varying time required to complete VOC testing and/or genomic analysis following the initial positive test for SARS-CoV-2. Due to the nature of the genomic analysis, test results may be completed in batches. Data corrections or updates can result in case records being removed and/or updated and may result in totals differing from past publicly reported case counts. Data for calculating the change in cases and the cumulative case count uses data from the Investigation Subtype field only. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the data caveats section.

*Includes all confirmed COVID-19 cases where lineage B.1.1.7 was identified by genomic analysis and those presumed to be B.1.1.7 based on positive N501Y and negative E484K mutation.

**Mutations includes all confirmed COVID-19 cases with the following mutations detected, reported from the Investigation Subtype field: N501Y and E484K, N501Y (E484K unknown), E484K (N501Y negative), E484K (N501Y unknown).

If a VOC is identified through genomic analysis, the change in cases and/or cumulative case counts for mutations will fluctuate as the case is moved to one of the listed lineages.

Data Source: CCM

Table A3. Weekly percent positivity for cases positive for mutations or VOCs over recent rolling 7-day periods using all confirmed cases as the denominator, by reported date and public health unit: Ontario, May 24 to June 5, 2021

Public Health Unit Name	May 24 to May 30	May 25 to May 31	May 26 to June 1	May 27 to June 2	May 28 to June 3	May 29 to June 4	May 30 to June 5
Algoma Public Health	83.3	75.0	33.3	50.0	50.0	50.0	50.0
Brant County Health Unit	83.9	85.9	86.9	88.6	90.1	88.4	81.9
Chatham-Kent Public Health	60.0	60.0	60.0	66.7	61.5	66.7	85.7
City of Hamilton Public Health Services	71.2	70.8	69.6	70.0	66.8	64.5	62.7
Durham Region Health Department	85.4	85.2	84.4	84.8	84.2	81.7	80.1
Eastern Ontario Health Unit	70.6	69.4	75.0	73.9	71.4	50.0	40.0
Grey Bruce Health Unit	100.0	88.9	87.5	85.7	31.6	30.0	26.1
Haldimand-Norfolk Health Unit	51.2	57.1	55.6	58.6	63.6	70.6	76.5
Haliburton, Kawartha, Pine Ridge District Health Unit	77.0	79.1	75.7	67.6	62.3	56.6	41.9
Halton Region Public Health	74.9	70.4	68.2	64.7	61.2	51.3	48.7
Hastings Prince Edward Public Health	87.5	81.0	66.7	62.5	50.0	66.7	50.0
Huron Perth Public Health	75.0	75.0	70.0	67.4	58.1	56.0	56.5
Kingston, Frontenac and Lennox & Addington Public Health	60.0	57.1	66.7	80.0	75.0	72.7	80.0
Lambton Public Health	71.0	69.7	62.2	52.9	56.1	50.0	56.8

Public Health Unit Name	May 24 to May 30	May 25 to May 31	May 26 to June 1	May 27 to June 2	May 28 to June 3	May 29 to June 4	May 30 to June 5
Leeds, Grenville & Lanark District Health Unit	37.5	42.9	33.3	33.3	0.0	0.0	0.0
Middlesex-London Health Unit	79.5	82.5	80.7	78.0	74.7	73.2	70.1
Niagara Region Public Health	73.1	73.9	76.6	77.5	75.1	72.5	70.1
North Bay Parry Sound District Health Unit	25.0	40.0	25.0	27.3	33.3	37.5	37.5
Northwestern Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ottawa Public Health	58.7	58.7	57.3	56.1	53.0	48.7	45.0
Peel Public Health	59.3	58.1	57.9	59.1	58.7	58.2	59.5
Peterborough Public Health	85.4	85.4	82.8	75.0	78.6	77.8	81.5
Porcupine Health Unit	56.3	57.0	54.7	52.9	55.0	53.1	52.7
Public Health Sudbury & Districts	94.7	90.9	85.0	84.2	80.0	71.4	66.7
Region of Waterloo Public Health and Emergency Services	62.5	61.8	61.6	58.3	51.7	45.7	44.8
Renfrew County and District Health Unit	54.2	54.2	65.0	61.9	58.8	66.7	55.6
Simcoe Muskoka District Health Unit	68.8	69.7	67.4	73.9	73.5	75.9	73.0
Southwestern Public Health	90.6	90.9	90.5	83.3	81.1	70.4	72.7
Thunder Bay District Health Unit	67.3	63.8	64.3	66.3	62.7	64.8	63.2
Timiskaming Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Public Health Unit Name	May 24 to May 30	May 25 to May 31	May 26 to June 1	May 27 to June 2	May 28 to June 3	May 29 to June 4	May 30 to June 5
Toronto Public Health	72.6	71.0	70.1	68.6	67.9	68.3	66.3
Wellington-Dufferin-Guelph Public Health	78.0	75.8	73.5	70.8	70.9	64.7	61.1
Windsor-Essex County Health Unit	77.1	76.5	76.2	74.5	70.5	71.9	64.8
York Region Public Health	76.3	74.2	73.4	71.9	70.2	66.3	63.2
TOTAL ONTARIO	**69.6**	**68.8**	**67.9**	**67.3**	**65.5**	**63.7**	**61.9**

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

Table A4. Weekly percent positivity for cases positive for mutations or VOCs over recent rolling 7-day periods using cases tested for mutations or VOCs as the denominator, by reported date and public health unit: Ontario, May 24 to June 5, 2021

Public Health Unit Name	May 24 to May 30	May 25 to May 31	May 26 to June 1	May 27 to June 2	May 28 to June 3	May 29 to June 4	May 30 to June 5
Algoma Public Health	83.3	75.0	50.0	100.0	100.0	100.0	100.0
Brant County Health Unit	97.3	98.6	97.3	97.2	97.3	96.8	95.2
Chatham-Kent Public Health	100.0	100.0	100.0	100.0	100.0	100.0	100.0
City of Hamilton Public Health Services	86.9	85.6	86.3	85.4	83.2	81.3	77.5
Durham Region Health Department	94.8	95.0	94.9	94.7	95.5	93.9	93.3
Eastern Ontario Health Unit	92.3	92.6	92.3	94.4	93.8	100.0	100.0
Grey Bruce Health Unit	100.0	100.0	100.0	100.0	85.7	75.0	60.0
Haldimand-Norfolk Health Unit	72.4	88.9	88.2	89.5	100.0	100.0	100.0
Haliburton, Kawartha, Pine Ridge District Health Unit	93.4	100.0	98.1	87.7	80.5	71.4	54.5
Halton Region Public Health	91.5	89.7	86.4	84.2	79.0	70.5	67.0
Hastings Prince Edward Public Health	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Huron Perth Public Health	86.8	86.8	87.5	93.5	94.7	93.3	92.9
Kingston, Frontenac and Lennox & Addington Public Health	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Lambton Public Health	100.0	100.0	92.0	90.0	92.0	90.0	91.3

Public Health Unit Name	May 24 to May 30	May 25 to May 31	May 26 to June 1	May 27 to June 2	May 28 to June 3	May 29 to June 4	May 30 to June 5
Leeds, Grenville & Lanark District Health Unit	100.0	100.0	100.0	100.0	0.0	0.0	0.0
Middlesex-London Health Unit	95.4	96.8	97.0	95.6	95.9	96.3	97.0
Niagara Region Public Health	94.5	98.0	98.7	98.6	99.2	99.3	98.4
North Bay Parry Sound District Health Unit	66.7	80.0	60.0	60.0	75.0	75.0	75.0
Northwestern Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ottawa Public Health	98.0	97.9	97.7	97.5	97.2	98.0	97.1
Peel Public Health	76.9	76.6	76.9	77.9	77.9	77.6	76.8
Peterborough Public Health	100.0	100.0	100.0	87.5	84.6	84.0	84.6
Porcupine Health Unit	75.2	73.8	73.1	71.4	74.5	75.3	77.7
Public Health Sudbury & Districts	94.7	95.2	89.5	88.9	85.7	76.9	76.9
Region of Waterloo Public Health and Emergency Services	75.9	75.5	75.8	72.1	64.3	58.1	55.9
Renfrew County and District Health Unit	92.9	92.9	100.0	100.0	100.0	100.0	100.0
Simcoe Muskoka District Health Unit	86.1	87.3	85.9	90.3	89.3	87.0	82.8
Southwestern Public Health	98.0	100.0	100.0	100.0	100.0	100.0	100.0
Thunder Bay District Health Unit	97.4	97.8	97.8	98.1	97.9	97.9	97.3
Timiskaming Health Unit	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Public Health Unit Name	May 24 to May 30	May 25 to May 31	May 26 to June 1	May 27 to June 2	May 28 to June 3	May 29 to June 4	May 30 to June 5
Toronto Public Health	86.0	85.2	84.3	83.9	82.4	81.8	79.8
Wellington-Dufferin-Guelph Public Health	84.4	82.0	79.6	78.0	78.0	72.5	71.4
Windsor-Essex County Health Unit	94.1	91.4	90.8	89.0	86.7	88.5	87.4
York Region Public Health	89.9	88.3	88.2	87.3	86.3	81.9	78.1
TOTAL ONTARIO	**86.5**	**86.2**	**85.7**	**85.2**	**83.9**	**82.3**	**80.3**

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.
Percent positivity is based on the sum of the daily cases that test positive divided by the number of cases that were tested for mutations common to VOCs or lineages (e.g. those identified as 'Detected' or 'Not Detected') during the date ranges specified in each column.
Data Source: CCM

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