Public Health Ontario | Santé publique Ontario

DAILY EPIDEMIOLOGICAL SUMMARY

COVID-19 in Ontario: January 15, 2020 to September 30, 2021

This report includes the most current information available from CCM as of **September 30, 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 586,817 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
    - An increase of 668 confirmed cases (percent change of +3.2%)
    - An increase of 8* deaths (percent change of +100.0%)
    - An increase of 635 resolved cases (percent change of -6.6%)

* This number only includes deaths that have occurred in the last month. In addition, there were 3 deaths that occurred more than one month ago added to the cumulative count based on data cleaning.

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 September 29, 2021	Change in cases September 30, 2021	Percentage change September 30, 2021 compared to September 29, 2021	Cumulative case count as of September 30, 2021
Total number of cases	647	668	+3.2%	586,817
Number of deaths	4*	8*	+100.0%	9,743**
Number resolved	680	635	-6.6%	572,105

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.
* This number only includes deaths that have occurred in the last month.
** In addition, there were 3 deaths that occurred more than one month ago added to the cumulative count based on data cleaning.
Data Source: CCM

Table 1b. Summary of recent confirmed cases of COVID-19 by age group and gender: Ontario

	Change in cases September 29, 2021	Change in cases September 30, 2021	Cumulative case count as of September 30, 2021
Gender: Male	288	329	292,248
Gender: Female	344	337	290,415
Ages: 0-4	41	35	16,502
Ages: 5-11	96	88	29,790
Ages: 12-19	57	61	52,394
Ages: 20-39	212	236	221,455
Ages: 40-59	167	169	164,739
Ages: 60-79	64	71	76,002
Ages: 80 and over	7	13	25,826

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

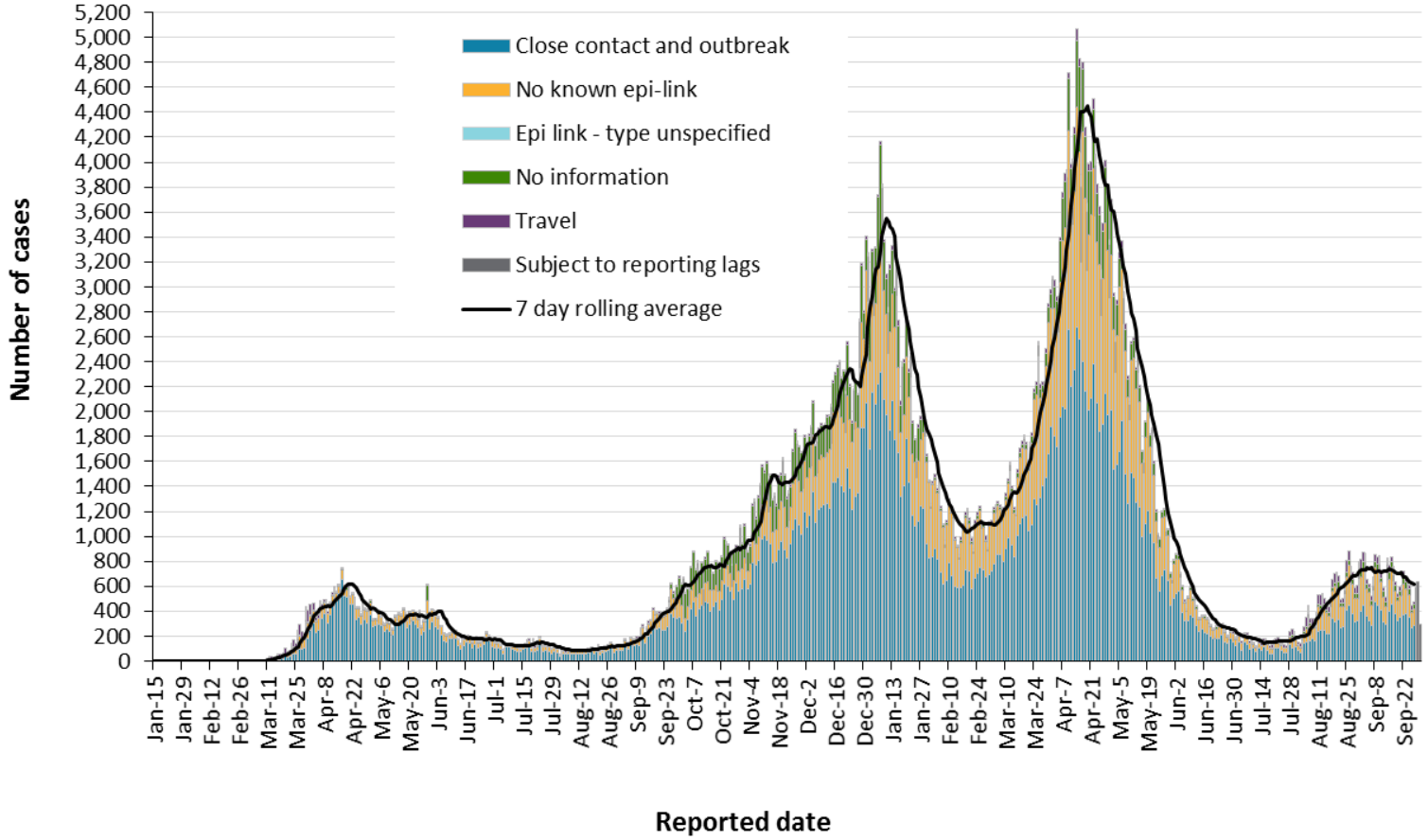
Table 2. Summary of recent confirmed cases of COVID-19 in long-term care homes: Ontario

Long-term care home cases	Change in cases September 29, 2021	Change in cases September 30, 2021	Cumulative case count as of September 30, 2021
Residents	2	3	15,598
Health care workers	2	6	7,355
Deaths among residents	0	1	4,012
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

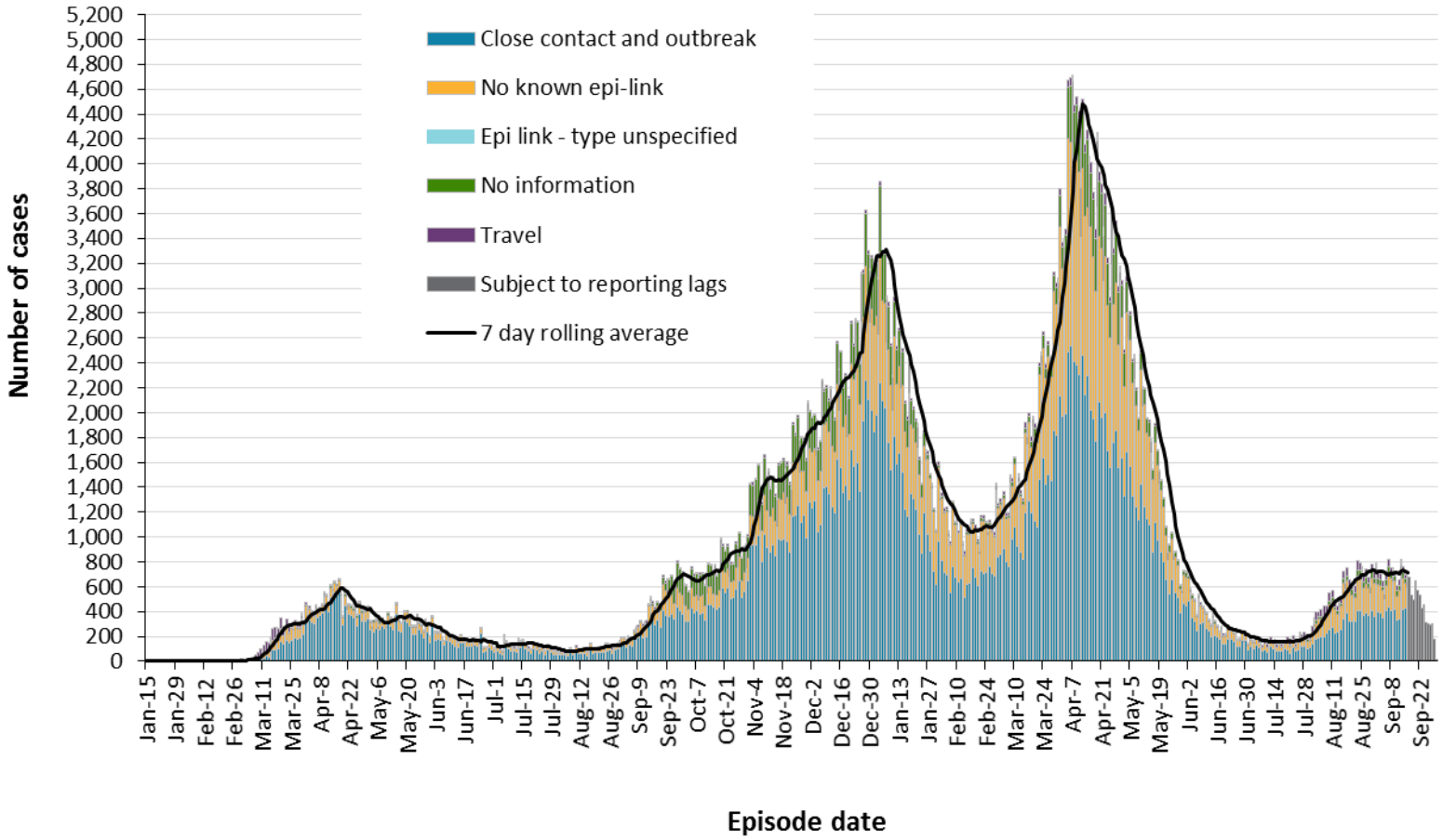
Time

Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to September 30, 2021



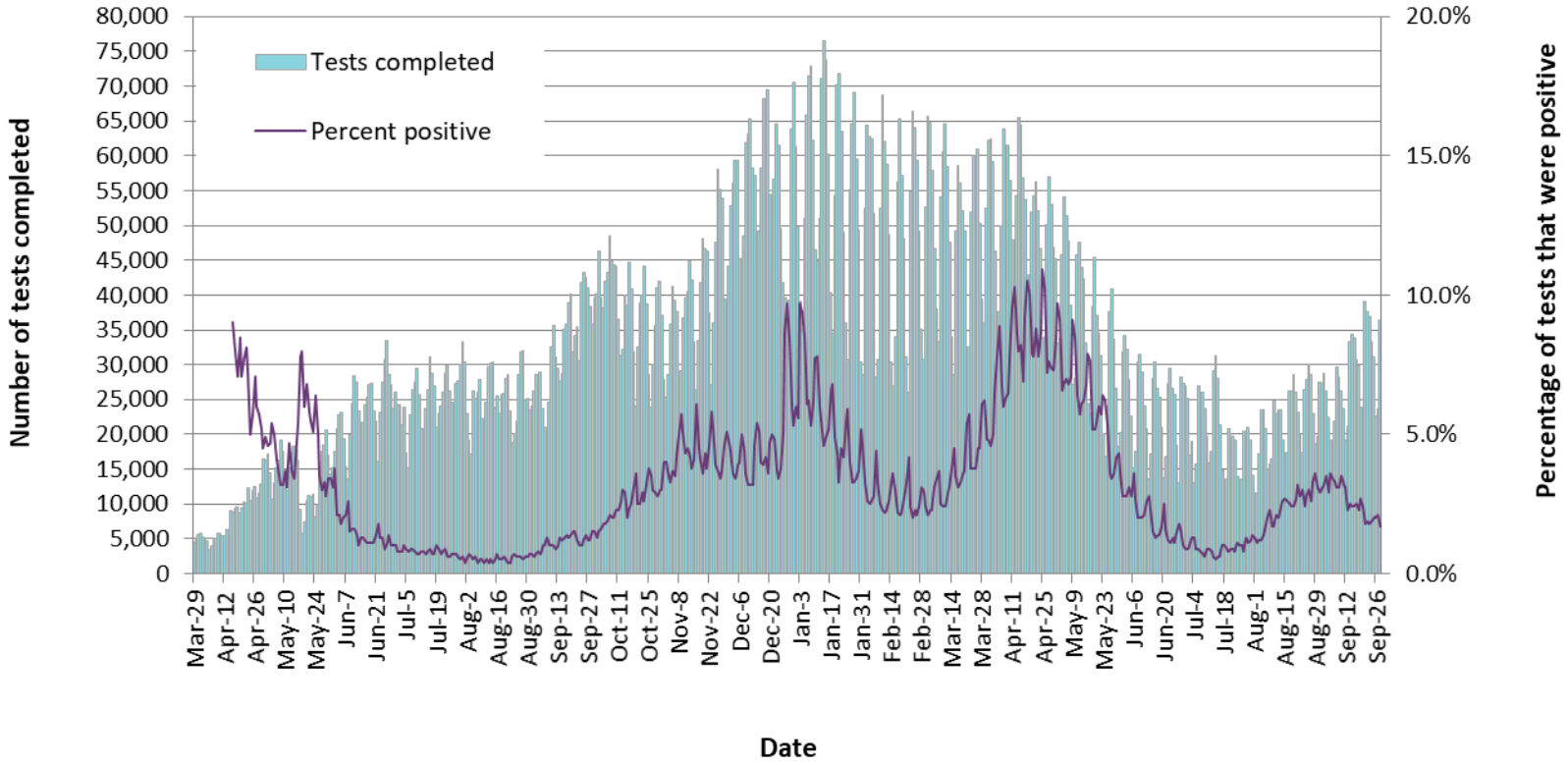
Data Source: CCM

Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to September 30, 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

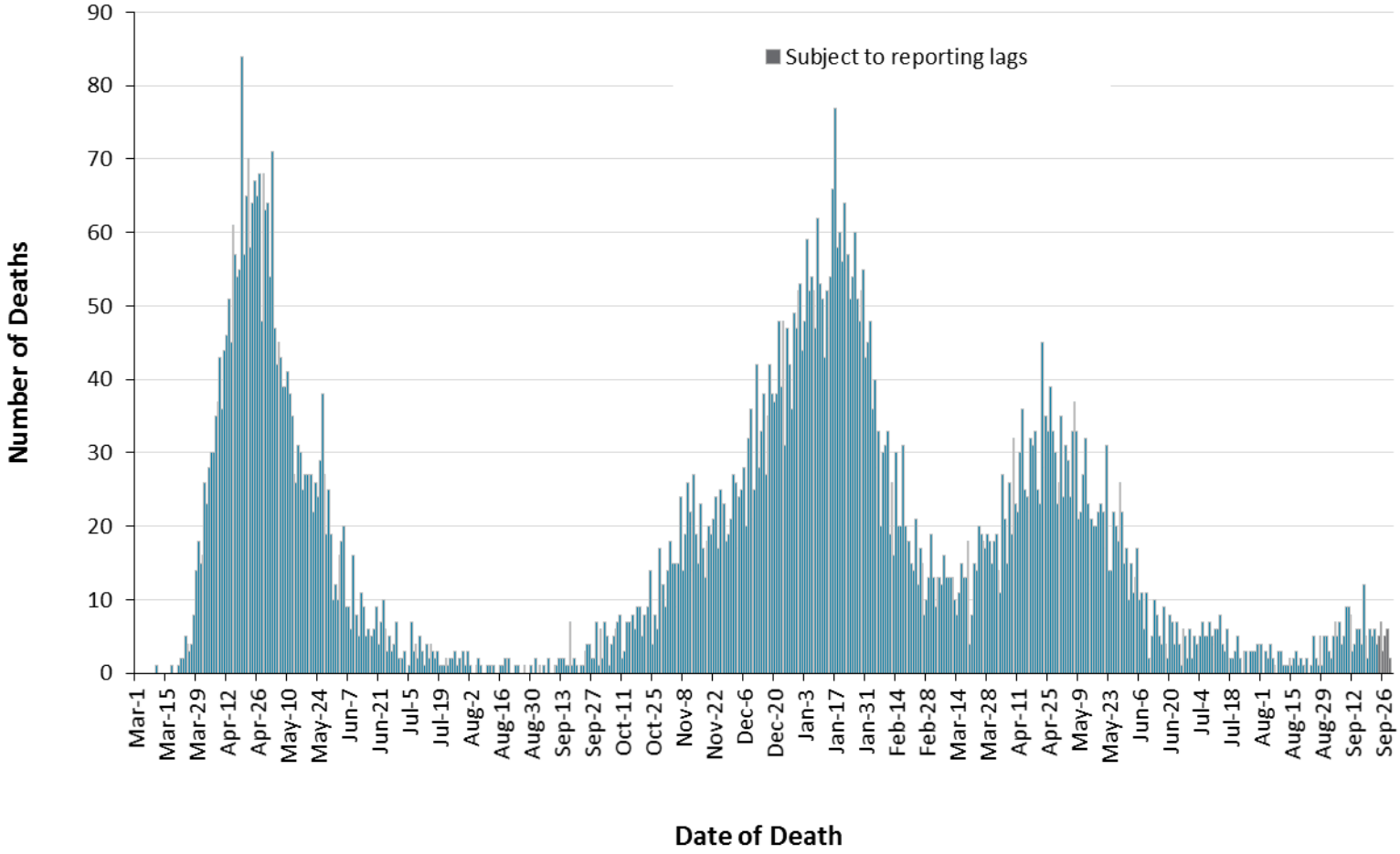
Figure 3. Number of COVID-19 tests completed and percent positivity: Ontario, March 29, 2020 to September 28, 2021*



Note: The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.
* The daily number of tests completed and percent positivity were not released on September 30, 2021; therefore, information is not available for September 29, 2021.
Data Source: The Provincial COVID-19 Diagnostics Network, data reported by member microbiology laboratories.

Severity

Figure 4. Confirmed deaths among COVID-19 cases by date of death: Ontario, March 1, 2020 to September 30, 2021



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

Table 3. Confirmed cases of COVID-19 by severity: Ontario

	Cumulative case count as of September 30, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	9,743	1.7%
Deaths reported in ages: 19 and under	6	<0.1%
Deaths reported in ages: 20-39	97	<0.1%
Deaths reported in ages: 40-59	668	0.4%
Deaths reported in ages: 60-79	3,171	4.2%
Deaths reported in ages: 80 and over	5,800	22.5%
Ever in ICU	5,847	1.0%
Ever hospitalized	29,917	5.1%

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. Percentage of deaths reported for each age group is calculated using all cases in the age group as the denominator.
Data Source: CCM

Geography

Table 4. Summary of recent confirmed cases of COVID-19 by public health unit and region: Ontario

Public Health Unit Name	Change in cases September 29, 2021	Change in cases September 30, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	1	2	1,164	1,433.8
Thunder Bay District Health Unit	1	0	3,394	2,152.1
TOTAL NORTH WEST	2	2	4,558	1,908.0
Algoma Public Health	0	1	470	398.8
North Bay Parry Sound District Health Unit	5	1	749	579.2
Porcupine Health Unit	0	2	2,209	2,598.8
Public Health Sudbury & Districts	5	2	2,409	1,173.7
Timiskaming Health Unit	0	0	219	646.3
TOTAL NORTH EAST	10	6	6,056	1,060.1
Ottawa Public Health	55	55	29,866	2,863.1
Eastern Ontario Health Unit	35	31	5,239	2,427.0
Hastings Prince Edward Public Health	5	2	1,399	809.5
Kingston, Frontenac and Lennox & Addington Public Health	12	12	1,744	833.5
Leeds, Grenville & Lanark District Health Unit	1	7	1,880	1,044.8
Renfrew County and District Health Unit	0	6	802	739.3
TOTAL EASTERN	108	113	40,930	2,121.3

Public Health Unit Name	Change in cases September 29, 2021	Change in cases September 30, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	43	40	27,042	3,801.1
Haliburton, Kawartha, Pine Ridge District Health Unit	2	1	2,448	1,283.5
Peel Public Health	85	65	114,364	7,313.9
Peterborough Public Health	4	4	1,823	1,230.8
Simcoe Muskoka District Health Unit	15	13	13,597	2,249.3
York Region Public Health	40	55	56,450	4,703.1
TOTAL CENTRAL EAST	189	178	215,724	4,882.1
Toronto Public Health	94	110	173,663	5,811.2
TOTAL TORONTO	94	110	173,663	5,811.2
Chatham-Kent Public Health	20	25	2,476	2,322.3
Grey Bruce Health Unit	1	2	2,259	1,282.4
Huron Perth Public Health	5	10	2,212	1,512.6
Lambton Public Health	8	20	3,883	2,920.2
Middlesex-London Health Unit	21	26	14,003	2,742.4
Southwestern Public Health	14	7	4,293	1,961.1
Windsor-Essex County Health Unit	40	43	19,745	4,581.8
TOTAL SOUTH WEST	109	133	48,871	2,837.3
Brant County Health Unit	1	7	4,452	2,899.2
City of Hamilton Public Health Services	42	42	24,507	4,212.8

Public Health Unit Name	Change in cases September 29, 2021	Change in cases September 30, 2021	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	2	7	2,894	2,411.5
Halton Region Public Health	17	17	18,822	3,082.7
Niagara Region Public Health	43	32	17,611	3,655.8
Region of Waterloo Public Health and Emergency Services	15	15	19,650	3,246.7
Wellington-Dufferin-Guelph Public Health	15	6	9,079	2,910.0
TOTAL CENTRAL WEST	135	126	97,015	3,386.4
TOTAL ONTARIO	**647**	**668**	**586,817**	**3,982.7**

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 5. 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 September 29, 2021	Change in outbreaks September 30, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	2	2	19	1,523
Retirement homes	0	0	5	892
Hospitals	0	0	3	593

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. For more information about whole genome sequencing, please see the SARS CoV-2 Whole Genome Sequencing in Ontario report.

Table 6. Summary of confirmed COVID-19 cases with a mutation or VOC detected: Ontario

	Change in cases September 29, 2021	Change in cases September 30, 2021	Cumulative case count up to September 30, 2021
Variant of Concern			
Lineage B.1.1.7 (Alpha)*	5	1	146,471
Lineage B.1.351 (Beta)**	0	0	1,503
Lineage P.1 (Gamma) ***	0	2	5,230
Lineage B.1.617.2 (Delta)†	13	40	18,622
Mutations			
N501Y and E484K	0	1	4,458
N501Y (E484K unknown)‡	0	-1	12,318
E484K (N501Y negative)	1	2	5,930
E484K (N501Y unknown)	0	-1	424
Mutation not detected§	292	162	28,669

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.

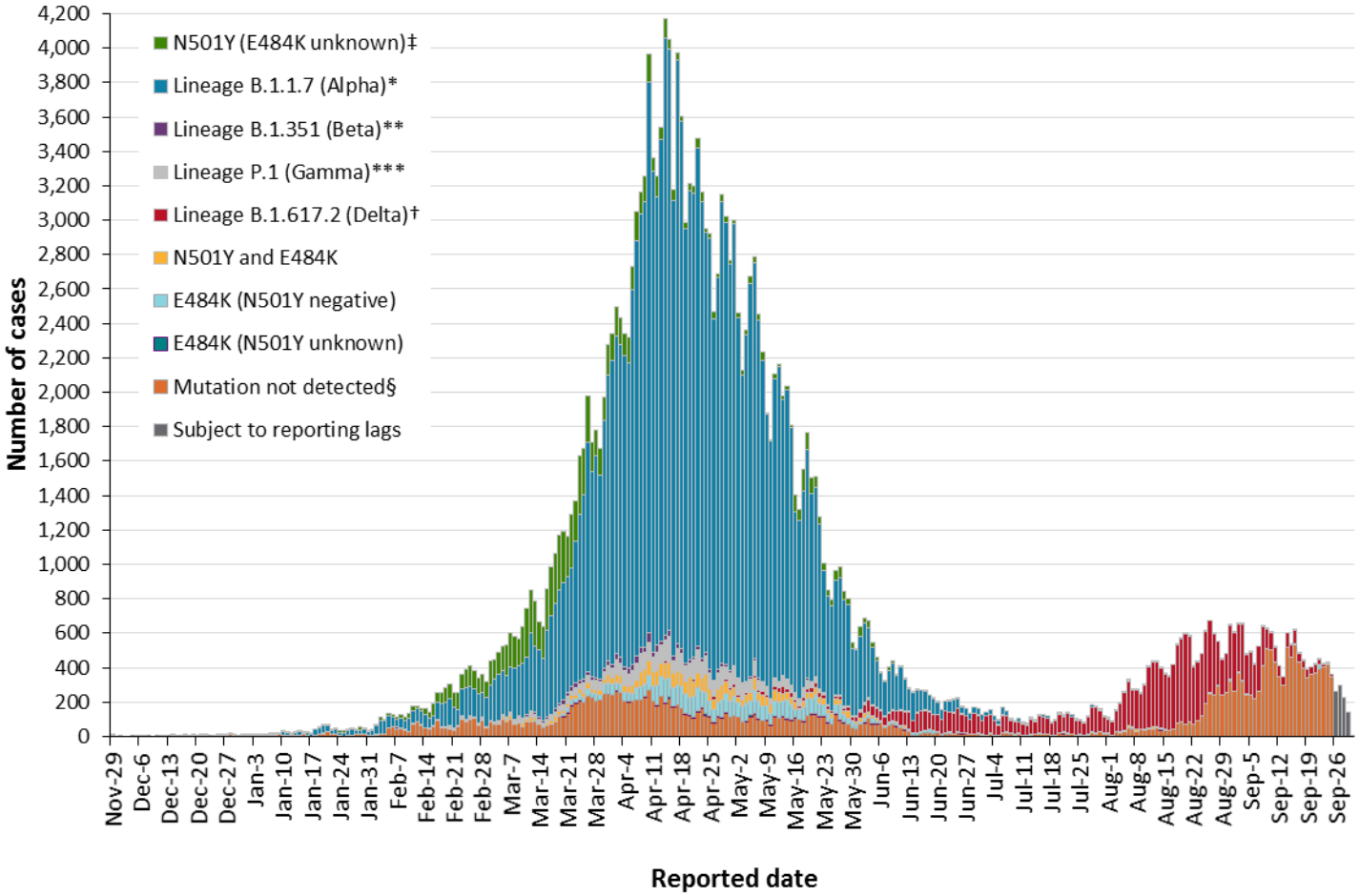
*Includes all confirmed COVID-19 cases where lineage B.1.1.7 was identified by genomic analysis and those presumed to be B.1.1.7 based on positive N501Y and negative E484K mutation in the Investigation Subtype field

**Includes B.1.351 cases identified by genomic analysis and those presumed to be B.1.351 based on 'Mutation K417N+ and N501Y+ and E484K+' in the Investigation Subtype field

***Includes P.1 cases identified by genomic analysis and those presumed to be P.1 based on 'Mutation K417T+ and N501Y+ and E484K+' in the Investigation Subtype field

†Includes B.1.617.2 and AY.3 cases identified by genomic analysis. Mutations common to B.1.617.2 are not included in the current VOC mutation test.
‡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.
§Includes cases identified as 'Mutation not detected' or 'Mutation N501Y- and E484K-' in the Investigation Subtype field only.
Data Source: CCM

Figure 5. Confirmed COVID-19 cases with a mutation or VOC detected by public health unit reported date: Ontario, November 29, 2020 to September 30, 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, P.1 and B.1.617.2 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. 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.

*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

**Includes B.1.351 cases identified by genomic analysis and those presumed to be B.1.351 based on 'Mutation K417N+ and N501Y+ and E484K+' in the Investigation Subtype field

***Includes P.1 cases identified by genomic analysis and those presumed to be P.1 based on 'Mutation K417T+ and N501Y+ and E484K+' in the Investigation Subtype field

†Includes B.1.617.2 and AY.3 cases identified by genomic analysis. Mutations common to B.1.617.2 are not included in the current VOC mutation test.

‡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.

§Includes cases identified as 'Mutation not detected' or 'Mutation N501Y- and E484K-' in the Investigation Subtype field only.

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 **September 30, 2021 at 1 p.m**. for cases reported from February 1, 2021 onwards and as of **September 30, 2021 at 9 a.m.** for cases reported up to January 31, 2021.

- VOC testing data for this report were based on information successfully extracted from CCM within the laboratory object for select Logical Observation Identifiers Names and Codes (LOINC) for cases reported between February 07, 2021 and August 17, 2021, for all PHUs by PHO as of **September 29, 2021 at 1 p.m.** VOC testing data for cases reported between February 07, 2021 and August 17, 2021 are supplemented with information from the Investigation lineage and Investigation mutation field. For cases reported as of August 18, 2021, VOC test value is assigned based on information solely from the Investigation lineage and Investigation mutation fields for all PHUs.

- 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 estimate data were sourced from Statistics Canada. Population estimates 2001-2020: Table 1 annual population estimates by age and sex for July 1, 2001 to 2020, health regions, Ontario [unpublished data table]. Ottawa, ON: Government of Canada; 2021 [received April 22, 2021].

- 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.

- Data cleaning for older cases is incorporated on Mondays and may impact the case count published on Tuesdays

- 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 permanent health unit. This is equivalent to the diagnosing health unit (DHU) in iPHIS. 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.
    - If the date of death is missing the outcome date field is used as a proxy 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.
- 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
- Lineage nomenclature is dynamic. PANGO lineage naming and assignment may change as more samples are sequenced and analyzed.
- Variant status may be updated based on scientific evidence. Variants designated as a VOC in Canada is available on the Public Health Agency of Canada's SARS-CoV-2 Variants webpage.
- 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 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.

- 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 lineage and Investigation mutation 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'

    - For cases reported post CCM release 14 (August 17, 2021), VOC test value is assigned based on information solely from the Investigation lineage and Investigation mutation fields

- 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, P.1 and B.1.617.2)

- 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.

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, September 15 to September 27, 2021

Public Health Unit Name	Sept 15 to Sept 21	Sept 16 to Sept 22	Sept 17 to Sept 23	Sept 18 to Sept 24	Sept 19 to Sept 25	Sept 20 to Sept 26	Sept 21 to Sept 27	% change from Sept 15 – Sept 21 to Sept 21 – Sept 27
NORTH WEST								
Northwestern Health Unit	13.5	16.0	17.2	16.0	14.8	13.5	13.5	0.0%
Thunder Bay District Health Unit	1.3	1.3	1.3	1.9	1.9	2.5	2.5	+92.3%
NORTH EAST								
Algoma Public Health	10.2	10.2	9.3	5.9	5.1	5.1	5.1	-50.0%
North Bay Parry Sound District Health Unit	7.7	6.2	7.0	5.4	6.2	6.2	6.2	-19.5%
Porcupine Health Unit	12.9	15.3	16.5	15.3	15.3	15.3	15.3	+18.6%
Public Health Sudbury & Districts	20.0	18.0	12.2	10.7	13.6	16.6	15.1	-24.5%
Timiskaming Health Unit	17.7	26.6	26.6	23.6	23.6	23.6	23.6	+33.3%
EASTERN								
Ottawa Public Health	39.6	40.1	38.3	35.1	36.8	34.6	31.7	-19.9%
Eastern Ontario Health Unit	58.4	66.7	74.1	73.2	79.2	82.0	76.9	+31.7%
Hastings Prince Edward Public Health	17.9	20.3	19.1	17.4	13.3	15.0	19.1	+6.7%
Kingston, Frontenac and Lennox & Addington Public Health	11.5	13.4	13.9	13.4	12.9	13.4	11.0	-4.3%

Public Health Unit Name	Sept 15 to Sept 21	Sept 16 to Sept 22	Sept 17 to Sept 23	Sept 18 to Sept 24	Sept 19 to Sept 25	Sept 20 to Sept 26	Sept 21 to Sept 27	% change from Sept 15 – Sept 21 to Sept 21 – Sept 27
Leeds, Grenville & Lanark District Health Unit	7.2	6.1	7.2	9.4	8.9	8.9	8.9	+23.6%
Renfrew County and District Health Unit	2.8	0.9	0.9	0.9	3.7	4.6	7.4	+164.3%
CENTRAL EAST								
Durham Region Health Department	29.2	30.1	27.7	27.6	26.6	27.4	27.1	-7.2%
Haliburton, Kawartha, Pine Ridge District Health Unit	11.5	12.1	12.6	15.7	14.2	14.7	15.2	+32.2%
Peel Public Health	36.3	35.4	33.4	32.3	32.5	29.0	27.0	-25.6%
Peterborough Public Health	16.9	16.9	14.2	19.6	18.2	18.9	16.9	0.0%
Simcoe Muskoka District Health Unit	21.8	19.9	19.9	20.0	17.5	18.9	17.4	-20.2%
York Region Public Health	37.2	35.1	34.6	32.4	30.4	28.1	27.3	-26.6%
TORONTO								
Toronto Public Health	31.0	31.3	29.5	28.5	27.8	27.3	26.8	-13.5%
SOUTH WEST								
Chatham-Kent Public Health	95.7	92.9	92.9	79.7	75.0	76.9	86.3	-9.8%
Grey Bruce Health Unit	9.1	4.0	3.4	4.5	5.1	5.1	5.1	-44.0%
Huron Perth Public Health	21.2	22.6	21.9	26.7	27.4	25.3	25.3	+19.3%
Lambton Public Health	39.9	44.4	44.4	48.1	48.1	46.6	48.1	+20.6%
Middlesex-London Health Unit	32.7	28.8	26.0	26.2	25.5	24.7	24.7	-24.5%

Public Health Unit Name	Sept 15 to Sept 21	Sept 16 to Sept 22	Sept 17 to Sept 23	Sept 18 to Sept 24	Sept 19 to Sept 25	Sept 20 to Sept 26	Sept 21 to Sept 27	% change from Sept 15 – Sept 21 to Sept 21 – Sept 27
Southwestern Public Health	26.0	19.6	16.0	13.2	12.8	12.8	15.1	-41.9%
Windsor-Essex County Health Unit	66.1	64.7	63.1	59.4	61.0	65.4	59.4	-10.1%
CENTRAL WEST								
Brant County Health Unit	46.9	46.2	42.3	42.3	51.4	51.4	54.1	+15.4%
City of Hamilton Public Health Services	44.2	46.4	47.1	50.9	51.7	53.1	53.8	+21.7%
Haldimand-Norfolk Health Unit	25.0	22.5	18.3	17.5	15.8	15.8	15.0	-40.0%
Halton Region Public Health	26.0	26.0	27.4	29.2	29.3	27.5	27.0	+3.8%
Niagara Region Public Health	37.4	40.3	40.3	39.6	35.7	34.9	35.9	-4.0%
Region of Waterloo Public Health and Emergency Services	28.1	25.4	25.9	24.9	25.4	24.3	24.5	-12.8%
Wellington-Dufferin-Guelph Public Health	43.3	43.9	35.9	34.6	37.8	34.0	29.8	-31.2%
TOTAL ONTARIO	**32.2**	**31.9**	**30.7**	**30.0**	**29.8**	**29.1**	**28.3**	**-12.1%**

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 September 30, 2021

Public Health Unit Name	Cumulative count for Lineage B.1.1.7 (Alpha)*	Cumulative count for Lineage B.1.351 (Beta)**	Cumulative count for Lineage P.1 (Gamma)***	Cumulative count for Lineage B.1.617.2 (Delta)†	Cumulative count for mutations‡
Algoma Public Health	68	0	14	24	26
Brant County Health Unit	670	2	97	274	507
Chatham-Kent Public Health	131	5	16	187	107
City of Hamilton Public Health Services	5,065	66	105	1,580	2,093
Durham Region Health Department	9,523	66	270	720	1,213
Eastern Ontario Health Unit	665	46	21	102	268
Grey Bruce Health Unit	310	0	6	602	55
Haldimand-Norfolk Health Unit	369	3	23	98	408
Haliburton, Kawartha, Pine Ridge District Health Unit	443	0	23	145	309
Halton Region Public Health	5,091	30	169	645	619
Hastings Prince Edward Public Health	111	0	18	98	393
Huron Perth Public Health	279	0	12	138	28
Kingston, Frontenac and Lennox & Addington Public Health	458	2	35	61	132
Lambton Public Health	438	0	18	104	127
Leeds, Grenville & Lanark District Health Unit	294	19	0	44	44
Middlesex-London Health Unit	3,384	2	124	736	186

Public Health Unit Name	Cumulative count for Lineage B.1.1.7 (Alpha)*	Cumulative count for Lineage B.1.351 (Beta)**	Cumulative count for Lineage P.1 (Gamma)***	Cumulative count for Lineage B.1.617.2 (Delta)†	Cumulative count for mutations‡
Niagara Region Public Health	4,285	4	20	186	1,103
North Bay Parry Sound District Health Unit	235	28	3	73	13
Northwestern Health Unit	60	0	1	20	16
Ottawa Public Health	6,852	515	55	546	471
Peel Public Health	31,187	163	1,774	2,517	2,855
Peterborough Public Health	630	4	8	101	161
Porcupine Health Unit	1,108	2	0	68	8
Public Health Sudbury & Districts	689	13	10	57	268
Region of Waterloo Public Health and Emergency Services	3,132	21	99	1,829	254
Renfrew County and District Health Unit	232	8	7	11	12
Simcoe Muskoka District Health Unit	4,002	36	173	588	686
Southwestern Public Health	689	3	21	179	160
Thunder Bay District Health Unit	104	1	2	21	74
Timiskaming Health Unit	84	1	0	2	0
Toronto Public Health	46,069	375	1,524	3,832	7,478
Wellington-Dufferin-Guelph Public Health	2,085	1	81	411	177
Windsor-Essex County Health Unit	1,855	8	19	1,090	138

Public Health Unit Name	Cumulative count for Lineage B.1.1.7 (Alpha)*	Cumulative count for Lineage B.1.351 (Beta)**	Cumulative count for Lineage P.1 (Gamma)***	Cumulative count for Lineage B.1.617.2 (Delta)†	Cumulative count for mutations‡
York Region Public Health	15,874	79	482	1,533	2,741
TOTAL ONTARIO	**146,471**	**1,503**	**5,230**	**18,622**	**23,130**

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.

**Includes B.1.351 cases identified by genomic analysis and those presumed to be B.1.351 based on 'Mutation K417N+ and N501Y+ and E484K+' in the Investigation Subtype field

***Includes P.1 cases identified by genomic analysis and those presumed to be P.1 based on 'Mutation K417T+ and N501Y+ and E484K+' in the Investigation Subtype field

†Includes B.1.617.2 and AY.3 cases identified by genomic analysis. Mutations common to B.1.617.2 are not included in the current VOC mutation test.

‡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

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Epidemiologic summary: COVID-19 in Ontario – January 15, 2020 to September 30, 2021. Toronto, ON: Queen's Printer for Ontario; 2021.

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.

For Further Information

For more information, 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.

Ontario