

## Daily Epidemiologic Summary

# COVID-19 in Ontario: January 15, 2020 to December 31, 2020

This report includes the most current information available from CCM and other case management systems (CCM plus) as of **December 31, 2020**.

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 184,635 confirmed cases\* of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
  - An increase of 2,476 confirmed cases (percent change of -25.6%)
  - An increase of 51 deaths (percent change of -8.9%)
  - An increase of 2,460 resolved cases (percent change of +11.2%)

\* Due to a data issue, cases reported on December 31 for Toronto Public Health are under-reported. This issue also affects overall case counts for Ontario.

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 December 30	Change in cases December 31	Percentage change December 31 compared to December 30	Cumulative case count as of December 31
Total number of cases	3,328	2,476*	-25.6%	184,635
Number of deaths	56	51	-8.9%	4,581
Number resolved	2,213	2,460	+11.2%	158,472

**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 plus

\* Due to a data issue, cases reported on December 31 for Toronto Public Health are under-reported in this table. This issue also affects overall case counts for Ontario.

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

	Change in cases December 30	Change in cases December 31	Cumulative case count as of December 31
Gender: Male	1,591	1,211	90,406
Gender: Female	1,719	1,243	93,061
Ages: 19 and under	465	326	23,888
Ages: 20-39	1,123	865	67,121
Ages: 40-59	1,037	757	53,248
Ages: 60-79	502	378	26,698
Ages: 80 and over	200	142	13,635

**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 plus

**Table 2. Summary of recent confirmed cases of COVID-19 in school aged children by age group, August 30 to December 31, 2020: Ontario**

	Change in cases December 30	Change in cases December 31	Cumulative case count from August 30 to December 31
Ages: 4 to 8	67	56	3,831
Ages: 9 to 13	123	78	5,394
Ages: 14 to 17	136	103	5,315

**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 plus

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

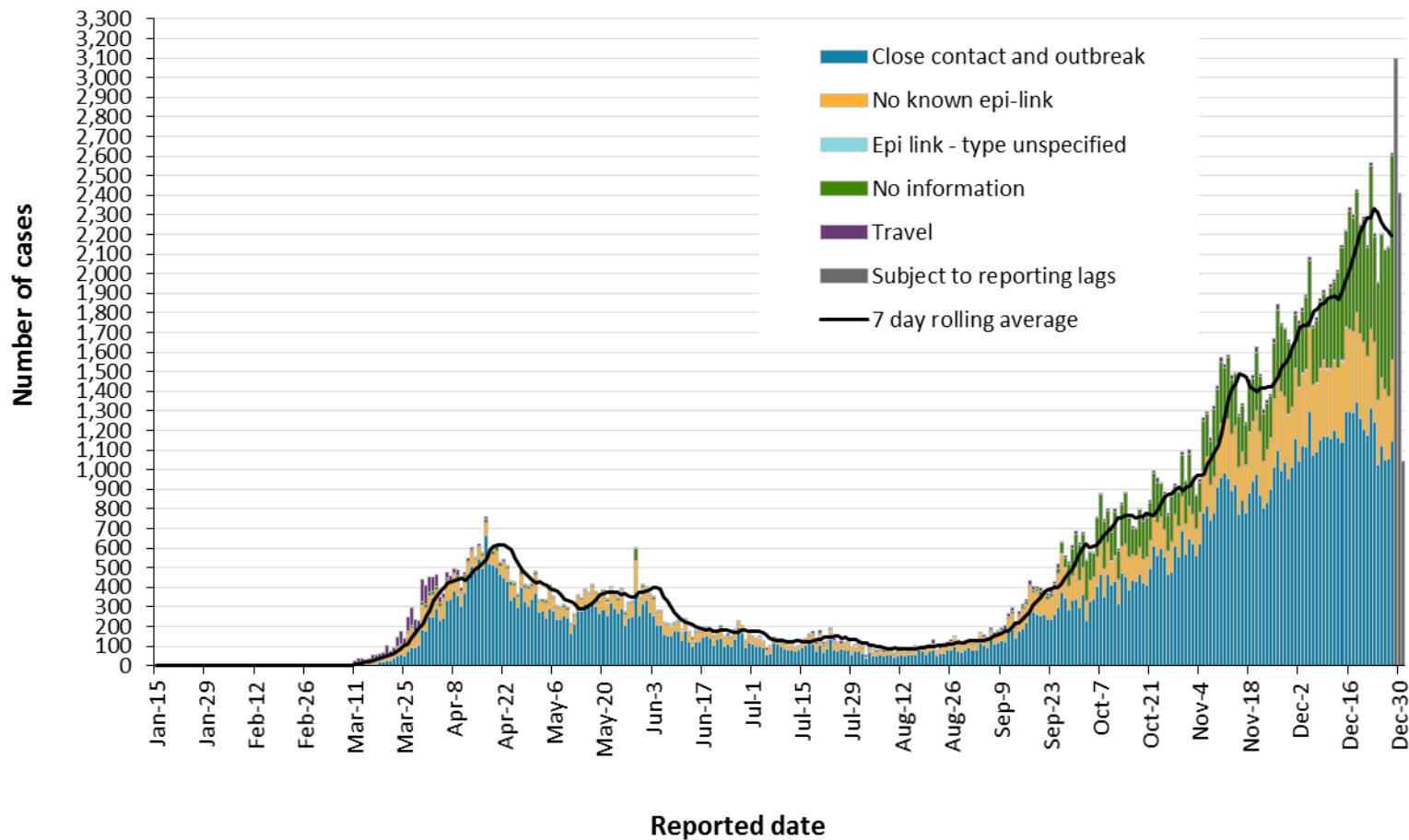
Long-term care home cases	Change in cases December 30	Change in cases December 31	Cumulative case count as of December 31
Residents	197	116	11,143
Health care workers	24	49	4,329
Deaths among residents	39	23	2,800
Deaths among health care workers	0	0	8

**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 plus

# Time

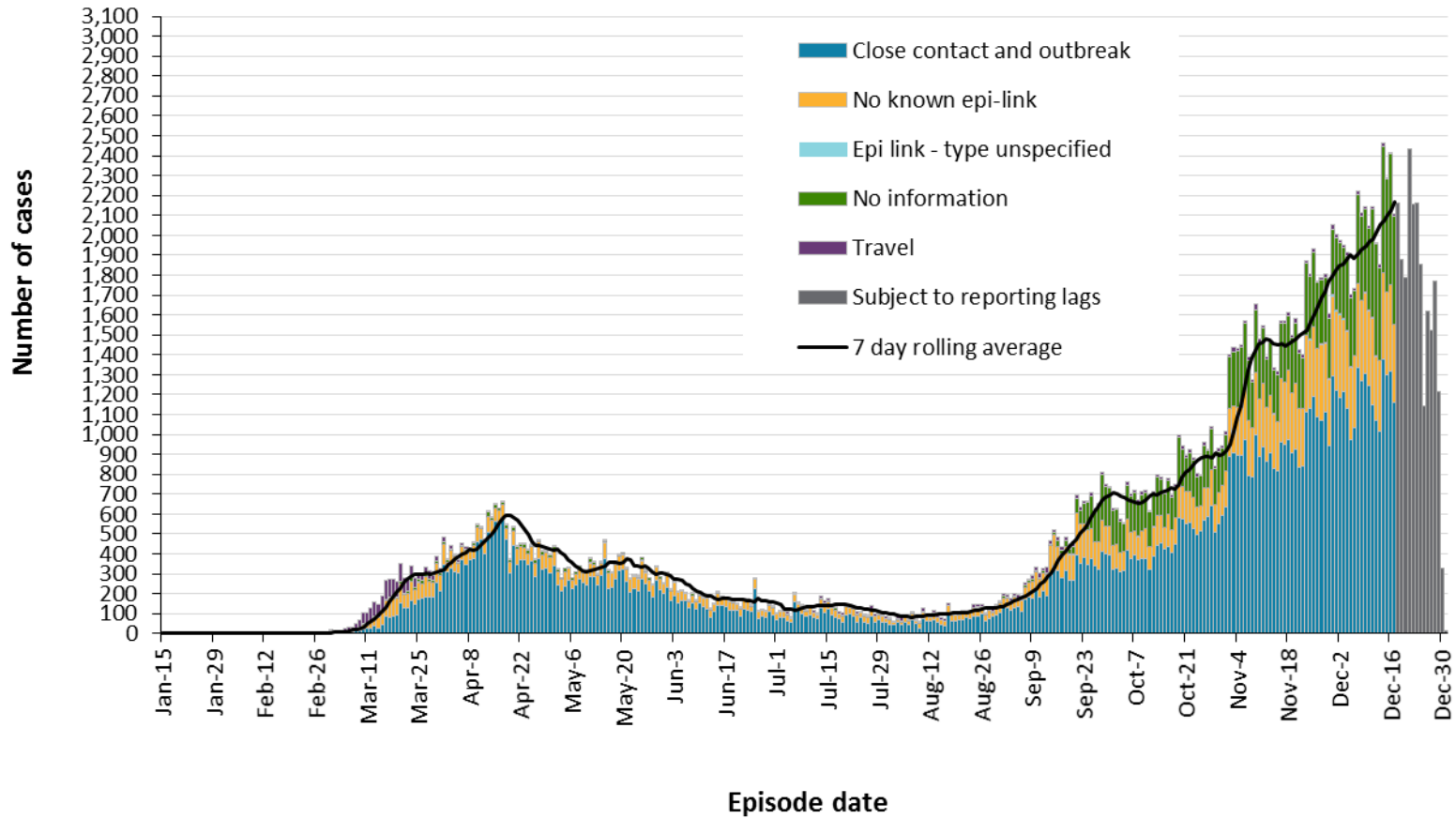
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to December 31, 2020



Data Source: CCM plus

COVID-19 in Ontario: January 15, 2020 to December 31, 2020

**Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to December 31, 2020**

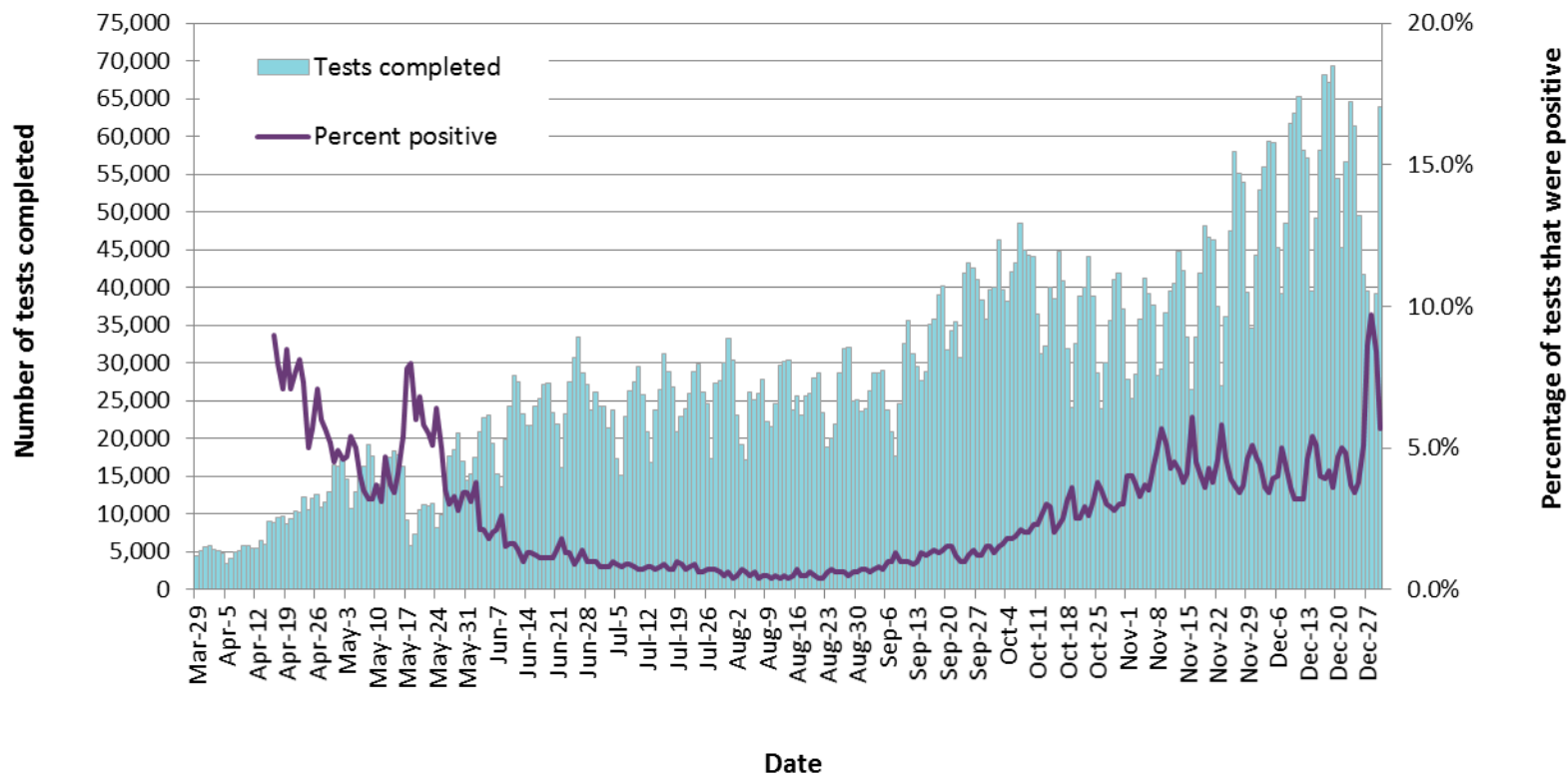


**Note:** Not all cases may have an episode date and those without one are not included in the figure. Episode date is defined and available in the technical notes.

**Data Source:** CCM plus

COVID-19 in Ontario: January 15, 2020 to December 31, 2020

**Figure 3. Number of COVID-19 tests completed and percent positivity: Ontario, March 29, 2020 to December 30, 2020**

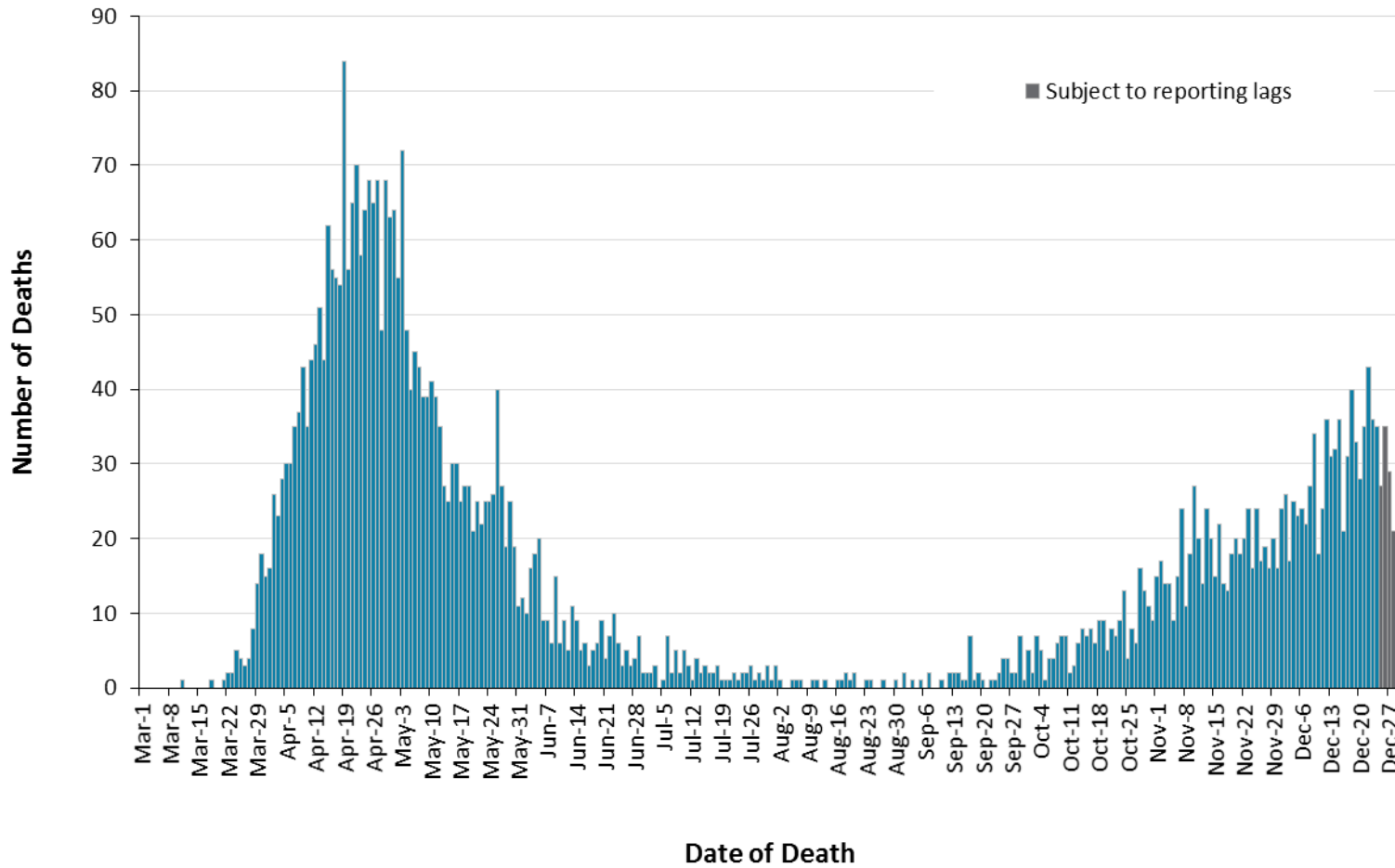


**Note:** The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

**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 December 31, 2020



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

**Data Source:** CCM plus



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

	Cumulative case count as of December 31	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	4,581	2.5%
Deaths reported in ages: 19 and under	1	< 0.1%
Deaths reported in ages: 20-39	18	< 0.1%
Deaths reported in ages: 40-59	176	0.3%
Deaths reported in ages: 60-79	1,215	4.6%
Deaths reported in ages: 80 and over	3,170	23.2%
Ever in ICU	1,932	1.0%
Ever hospitalized	9,795	5.3%

**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 plus

## 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 December 30	Change in cases December 31	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	0	4	167	190.5
Thunder Bay District Health Unit	1	4	584	389.4
<b>TOTAL NORTH WEST</b>	1	8	751	316.0
Algoma Public Health	0	1	66	57.7
North Bay Parry Sound District Health Unit	0	4	130	100.2
Porcupine Health Unit	1	2	131	157.0
Public Health Sudbury & Districts	8	3	277	139.2
Timiskaming Health Unit	5	2	72	220.3
<b>TOTAL NORTH EAST</b>	14	12	676	120.9
Ottawa Public Health	194	93	10,160	963.3
Eastern Ontario Health Unit	58	25	1,419	679.9
Hastings Prince Edward Public Health	6	2	279	165.6
Kingston, Frontenac and Lennox & Addington Public Health	13	5	539	253.4
Leeds, Grenville & Lanark District Health Unit	10	5	682	393.8
Renfrew County and District Health Unit	6	1	239	220.0
<b>TOTAL EASTERN</b>	287	131	13,318	691.3

Public Health Unit Name	Change in cases December 30	Change in cases December 31	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	114	149	7,404	1,039.3
Haliburton, Kawartha, Pine Ridge District Health Unit	9	8	524	277.3
Peel Public Health	431	480	39,784	2,477.3
Peterborough Public Health	8	13	344	232.5
Simcoe Muskoka District Health Unit	83	53	3,641	607.2
York Region Public Health	418	300	17,634	1,438.6
<b>TOTAL CENTRAL EAST</b>	1,063	1,003	69,331	1,547.3
Toronto Public Health	888	499*	59,173	1,896.4
<b>TOTAL TORONTO</b>	888	499	59,173	1,896.4
Chatham-Kent Public Health	12	21	706	664.1
Grey Bruce Health Unit	3	7	454	267.2
Huron Perth Public Health	19	8	689	493.0
Lambton Public Health	25	37	786	600.2
Middlesex-London Health Unit	112	52	3,276	645.5
Southwestern Public Health	79	71	1,379	652.0
Windsor-Essex County Health Unit	257	175	7,727	1,818.8
<b>TOTAL SOUTH WEST</b>	507	371	15,017	888.2
Brant County Health Unit	26	22	1,000	644.3
City of Hamilton Public Health Services	156	111	6,129	1,035.0

Public Health Unit Name	Change in cases December 30	Change in cases December 31	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	12	29	903	791.5
Halton Region Public Health	79	78	5,728	925.2
Niagara Region Public Health	110	101	4,038	854.6
Region of Waterloo Public Health and Emergency Services	127	51	5,918	1,012.7
Wellington-Dufferin-Guelph Public Health	58	60	2,653	850.6
<b>TOTAL CENTRAL WEST</b>	568	452	26,369	925.5
<b>TOTAL ONTARIO</b>	<b>3,328</b>	<b>2,476</b>	<b>184,635</b>	<b>1,242.1</b>

**Notes:** Health units with data corrections or updates could result in records being removed from totals resulting in negative counts.

**Data Source:** CCM plus

\* Due to a data issue, cases reported on December 31 for Toronto Public Health are under-reported in this table. This issue also affects overall case counts for Ontario.

## 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 December 30	Change in outbreaks December 31	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	6	10	212	923
Retirement homes	2	10	117	490
Hospitals	5	1	52	242

**Note:** Ongoing outbreaks include all outbreaks that are 'Open' in CCM plus 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/iPHIS 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 plus

# Technical Notes

## Data Sources

- The data for this report were based on:
  - Information extracted from the Ontario Ministry of Health (Ministry) integrated Public Health Information System (iPHIS) database for Toronto Public Health as of **December 31, 2020 at 1 p.m.**
  - Information successfully uploaded to the Ministry from Local Systems: Toronto Public Health (Coronavirus Rapid Entry System) CORES as of **December 31, 2020 at 2 p.m.**
  - Information successfully extracted from the Public Health Case and Contact Management Solution (CCM) for all other PHUs by PHO as of **December 31, 2020 at 1 p.m.**
- CCM and CCM plus (which includes CCM, iPHIS, and CORES) are dynamic disease reporting systems, which allow ongoing updates to data previously entered. As a result, data extracted from CCM and the Local Systems 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 plus. 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 plus 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 [COVID-19 case definition](#) are included in the report counts from CCM plus. This includes persons with a positive detection of serum/plasma immunoglobulin G (IgG) antibodies to SARS-CoV-2, which was added to the confirmed case definition on August 6, 2020.
- 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 (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 and local systems. 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 plus. 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 plus 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 includes cases that are counted once across all systems from which the case data are obtained. Duplicate records may exist if these records were not identified and resolved prior to data upload to the Ministry.
- Ongoing outbreaks include all outbreaks that are 'Open' in CCM plus 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/iPHIS 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.



## 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, December 16, 2020 to December 28, 2020**

Public Health Unit Name	Dec 16 to Dec 22	Dec 17 to Dec 23	Dec 18 to Dec 24	Dec 19 to Dec 25	Dec 20 to Dec 26	Dec 21 to Dec 27	Dec 22 to Dec 28	% change from Dec 16-22 to Dec 22-28
<b>NORTH WEST</b>								
Northwestern Health Unit	11.4	11.4	19.4	19.4	22.8	24.0	19.4	+70.2%
Thunder Bay District Health Unit	58.0	58.0	50.7	46.7	38.7	40.0	36.7	-36.7%
<b>NORTH EAST</b>								
Algoma Public Health	0.9	1.7	1.7	1.7	2.6	2.6	2.6	+188.9%
North Bay Parry Sound District Health Unit	13.9	11.6	13.1	10.0	10.0	8.5	9.2	-33.8%
Porcupine Health Unit	10.8	10.8	9.6	9.6	7.2	8.4	3.6	-66.7%
Public Health Sudbury & Districts	5.5	6.0	5.5	6.5	6.5	6.0	7.0	+27.3%
Timiskaming Health Unit	55.1	61.2	70.4	79.5	76.5	76.5	67.3	+22.1%
<b>EASTERN</b>								
Ottawa Public Health	30.2	29.8	31.7	37.1	34.5	38.4	40.1	+32.8%

Public Health Unit Name	Dec 16 to Dec 22	Dec 17 to Dec 23	Dec 18 to Dec 24	Dec 19 to Dec 25	Dec 20 to Dec 26	Dec 21 to Dec 27	Dec 22 to Dec 28	% change from Dec 16-22 to Dec 22-28
Eastern Ontario Health Unit	47.4	50.3	53.7	51.3	48.9	53.7	57.5	+21.3%
Hastings Prince Edward Public Health	15.4	16.6	14.8	11.3	9.5	9.5	8.9	-42.2%
Kingston, Frontenac and Lennox & Addington Public Health	28.7	27.3	27.3	22.1	24.4	21.2	22.6	-21.3%
Leeds, Grenville & Lanark District Health Unit	17.9	13.9	12.1	9.8	9.8	11.5	13.9	-22.3%
Renfrew County and District Health Unit	16.6	13.8	10.1	12.0	9.2	11.0	11.0	-33.7%
<b>CENTRAL EAST</b>								
Durham Region Health Department	96.9	96.6	92.2	89.4	87.9	84.1	85.1	-12.2%
Haliburton, Kawartha, Pine Ridge District Health Unit	24.3	25.9	26.5	25.4	22.8	21.2	20.6	-15.2%
Peel Public Health	191.2	194.8	190.8	182.5	176.7	173.5	173.3	-9.4%

Public Health Unit Name	Dec 16 to Dec 22	Dec 17 to Dec 23	Dec 18 to Dec 24	Dec 19 to Dec 25	Dec 20 to Dec 26	Dec 21 to Dec 27	Dec 22 to Dec 28	% change from Dec 16-22 to Dec 22-28
Peterborough Public Health	19.6	18.9	21.6	31.8	30.4	33.8	31.1	+58.7%
Simcoe Muskoka District Health Unit	63.5	59.7	58.0	58.5	57.5	56.9	61.0	-3.9%
York Region Public Health	128.1	129.8	130.9	129.6	121.7	114.5	125.6	-2.0%
<b>TORONTO</b>								
Toronto Public Health	149.8	145.2	141.1	141.5	146.2	142.0	147.1	-1.8%
<b>SOUTH WEST</b>								
Chatham-Kent Public Health	40.4	37.6	35.7	45.1	46.1	52.7	64.0	+58.4%
Grey Bruce Health Unit	20.6	22.4	20.6	21.2	20.6	19.4	17.7	-14.1%
Huron Perth Public Health	52.9	52.2	63.0	65.1	76.6	74.4	73.7	+39.3%
Lambton Public Health	82.5	77.1	77.1	81.7	104.6	115.3	125.2	+51.8%
Middlesex-London Health Unit	100.5	99.3	93.2	88.3	91.4	92.2	94.0	-6.5%
Southwestern Public Health	104.0	97.9	97.9	105.4	102.1	109.2	102.6	-1.3%
Windsor-Essex County Health Unit	291.6	277.1	258.5	271.6	272.1	270.0	269.8	-7.5%

Public Health Unit Name	Dec 16 to Dec 22	Dec 17 to Dec 23	Dec 18 to Dec 24	Dec 19 to Dec 25	Dec 20 to Dec 26	Dec 21 to Dec 27	Dec 22 to Dec 28	% change from Dec 16-22 to Dec 22-28
<b>CENTRAL WEST</b>								
Brant County Health Unit	62.5	63.1	51.5	50.3	50.3	51.5	60.6	-3.0%
City of Hamilton Public Health Services	126.5	123.1	108.2	108.9	106.6	114.8	123.1	-2.7%
Haldimand-Norfolk Health Unit	62.2	71.0	76.3	72.8	57.0	60.5	53.5	-14.0%
Halton Region Public Health	84.8	83.3	87.9	83.7	86.4	86.4	94.7	+11.7%
Niagara Region Public Health	118.5	125.1	131.9	114.3	109.8	117.9	121.9	+2.9%
Region of Waterloo Public Health and Emergency Services	106.4	110.7	109.2	104.4	97.0	91.4	88.0	-17.3%
Wellington-Dufferin-Guelph Public Health	97.1	103.6	105.5	93.6	95.2	98.4	102.9	+6.0%
<b>TOTAL ONTARIO</b>	<b>109.8</b>	<b>109</b>	<b>106.7</b>	<b>105.2</b>	<b>104.3</b>	<b>103.3</b>	<b>106.4</b>	<b>-3.1%</b>

**Note:** Rates are based on the sum of the daily case counts during the date ranges specified in each column.

**Data Source:** CCM plus

## 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.

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## For Further Information

For more information, email [cd@oahpp.ca](mailto:cd@oahpp.ca).

## Public Health Ontario

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