

Daily Epidemiologic Summary

COVID-19 in Ontario: January 15, 2020 to December 24, 2020

This report includes the most current information available from CCM and other case management systems (CCM plus) as of **December 24, 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 167,269 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
 - An increase of 2,159 confirmed cases (percent change of -11.8%)
 - An increase of 43 deaths (percent change of -12.2%)
 - An increase of 2,237 resolved cases (percent change of +11.1%)

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

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

Case Characteristics

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

	Change in cases December 23	Change in cases December 24	Percentage change December 24 compared to December 23	Cumulative case count as of December 24
Total number of cases	2,447	2,159	-11.8%	167,269
Number of deaths	49	43	-12.2%	4,321
Number resolved	2,013	2,237	+11.1%	143,260

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

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

	Change in cases December 23	Change in cases December 24	Cumulative case count as of December 24
Gender: Male	1,170	1,039	82,019
Gender: Female	1,244	1,092	84,198
Ages: 19 and under	310	283	21,542
Ages: 20-39	869	764	61,109
Ages: 40-59	723	668	47,997
Ages: 60-79	394	314	24,023
Ages: 80 and over	150	128	12,558

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 24, 2020: Ontario

	Change in cases December 23	Change in cases December 24	Cumulative case count from August 30 to December 24
Ages: 4 to 8	52	53	3,460
Ages: 9 to 13	83	78	4,800
Ages: 14 to 17	85	60	4,663

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

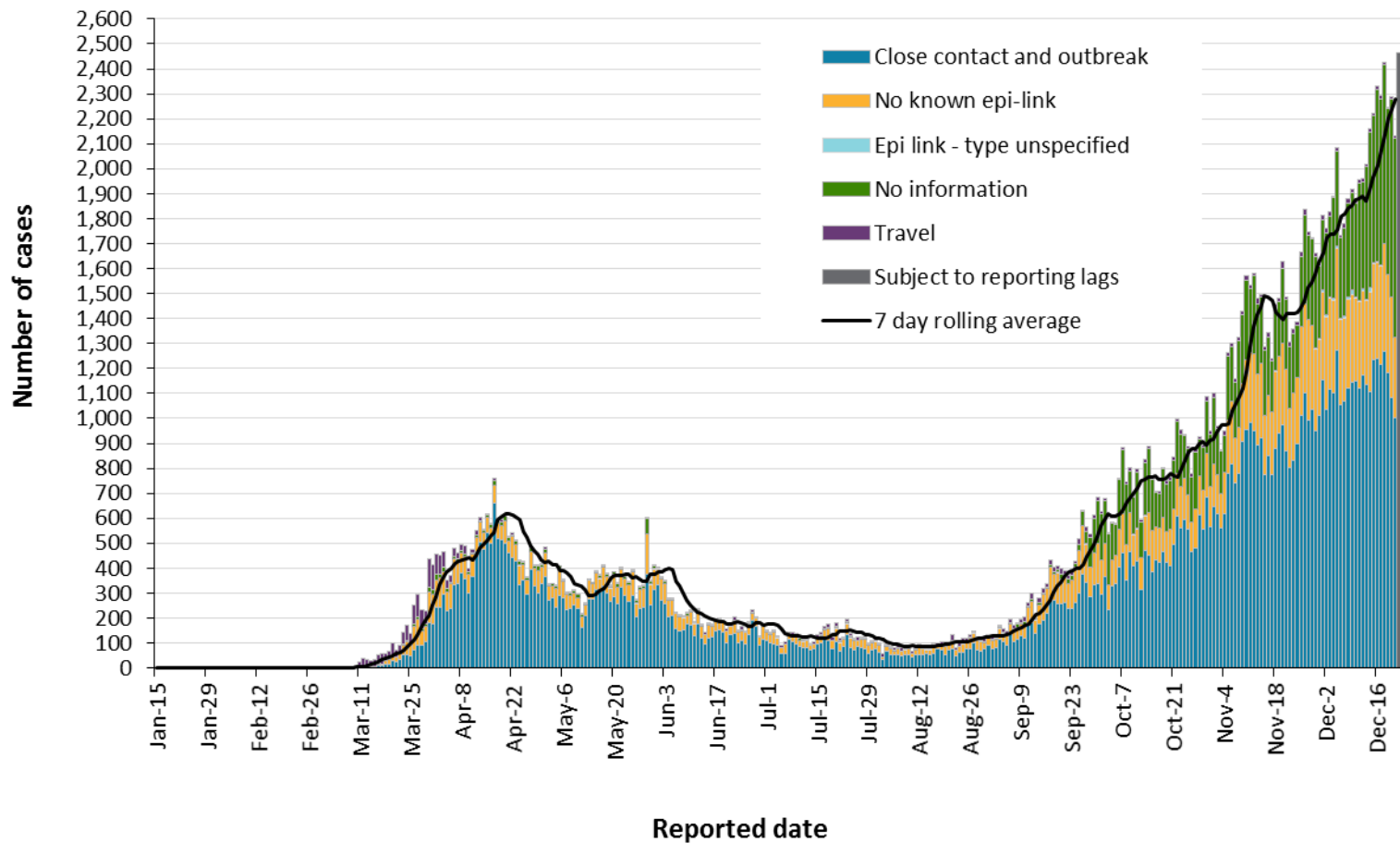
Long-term care home cases	Change in cases December 23	Change in cases December 24	Cumulative case count as of December 24
Residents	109	97	10,412
Health care workers	72	48	4,116
Deaths among residents	35	22	2,665
Deaths among health care workers	0	0	8

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

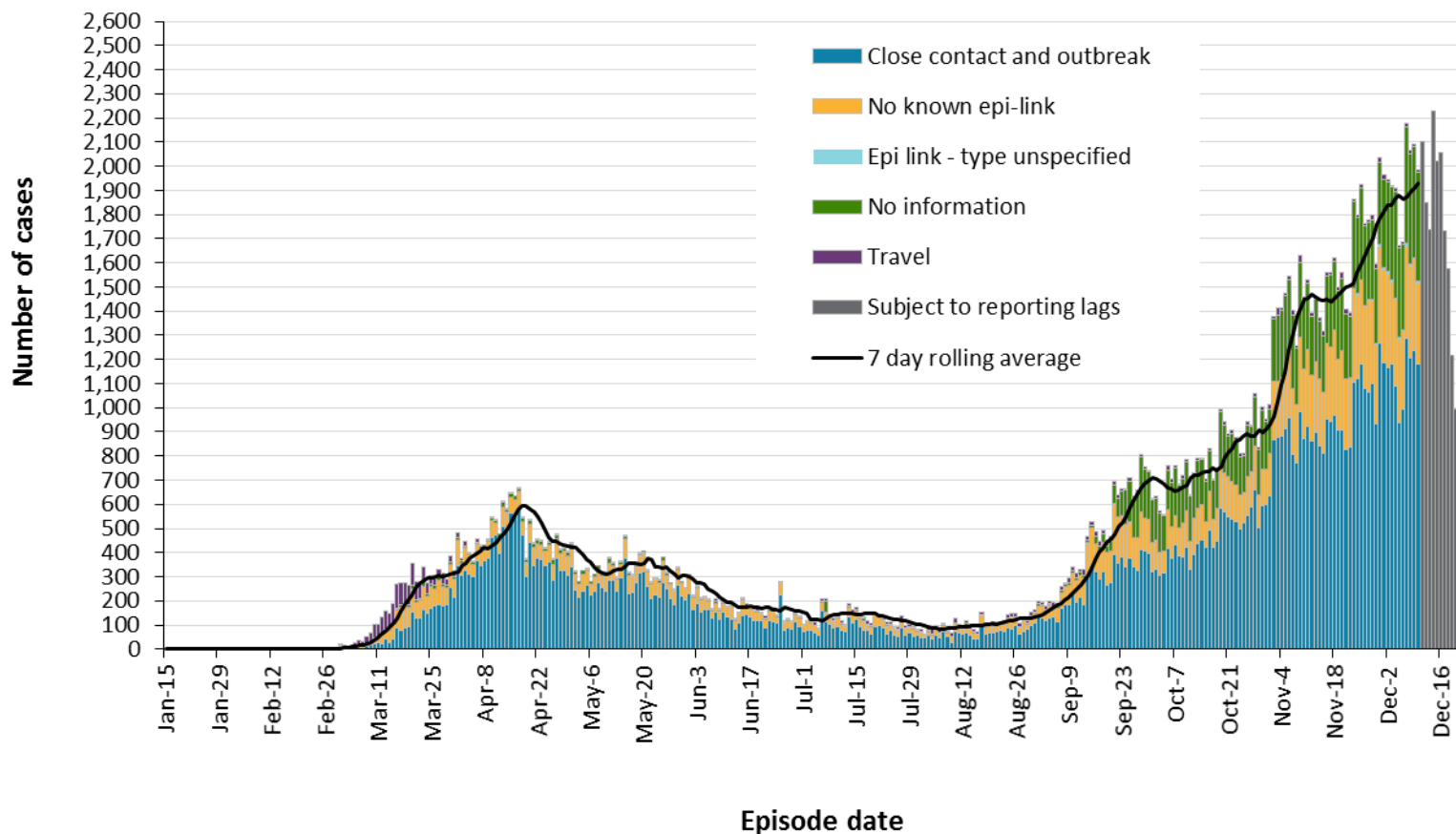
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to December 24, 2020



Data Source: CCM plus

COVID-19 in Ontario: January 15, 2020 to December 24, 2020

Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to December 24, 2020

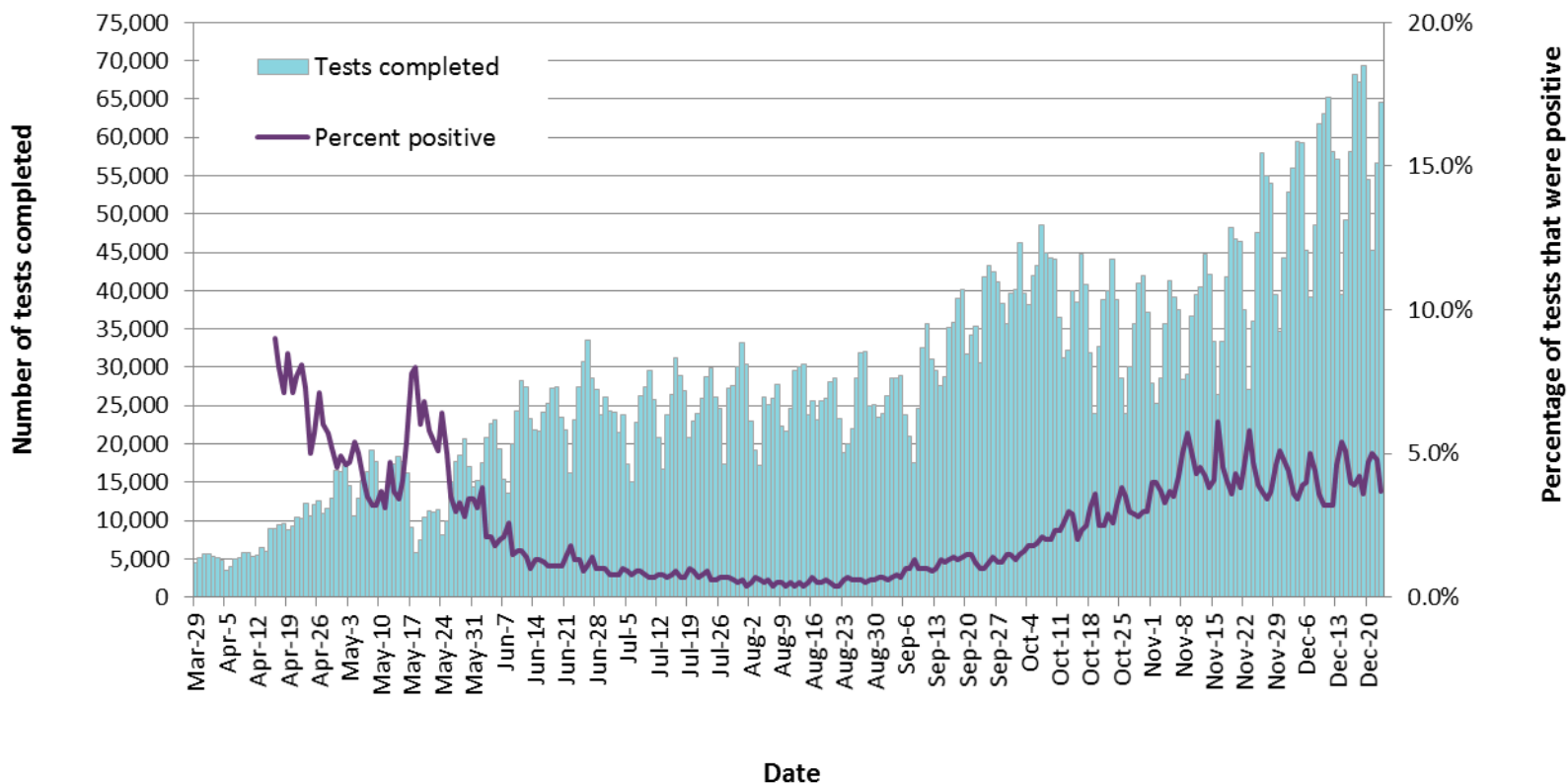


Note: Not all cases may have an episode date and those without one are not included in the figure. Episode date is defined and available in the technical notes.

Data Source: CCM plus

COVID-19 in Ontario: January 15, 2020 to December 24, 2020

Figure 3. Number of COVID-19 tests completed and percent positivity: Ontario, March 29, 2020 to December 23, 2020

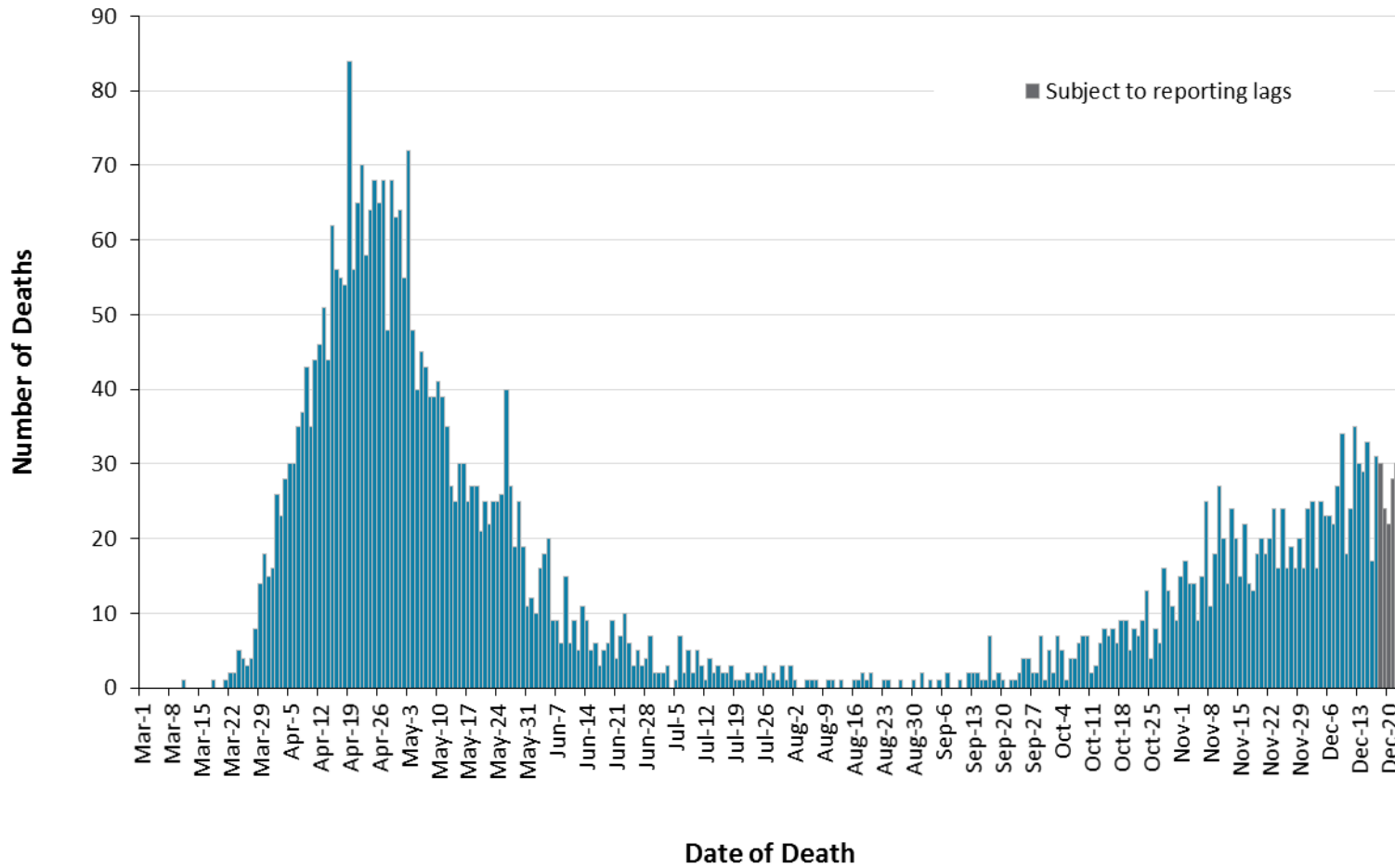


Note: The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

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 24, 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 24	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	4,321	2.6%
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	170	0.4%
Deaths reported in ages: 60-79	1,144	4.8%
Deaths reported in ages: 80 and over	2,987	23.8%
Ever in ICU	1,826	1.1%
Ever hospitalized	9,189	5.5%

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 23	Change in cases December 24	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	1	2	148	168.8
Thunder Bay District Health Unit	20	10	554	369.4
TOTAL NORTH WEST	21	12	702	295.4
Algoma Public Health	0	1	64	55.9
North Bay Parry Sound District Health Unit	1	4	116	89.4
Porcupine Health Unit	2	0	127	152.2
Public Health Sudbury & Districts	5	0	259	130.1
Timiskaming Health Unit	4	3	51	156.0
TOTAL NORTH EAST	12	8	617	110.3
Ottawa Public Health	77	54	9,576	908.0
Eastern Ontario Health Unit	30	17	1,255	601.3
Hastings Prince Edward Public Health	3	2	261	154.9
Kingston, Frontenac and Lennox & Addington Public Health	7	7	492	231.3
Leeds, Grenville & Lanark District Health Unit	5	5	645	372.5
Renfrew County and District Health Unit	1	1	222	204.4
TOTAL EASTERN	123	86	12,451	646.3

Public Health Unit Name	Change in cases December 23	Change in cases December 24	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	92	93	6,678	937.4
Haliburton, Kawartha, Pine Ridge District Health Unit	8	7	478	253.0
Peel Public Health	502	385	36,786	2,290.6
Peterborough Public Health	9	4	289	195.3
Simcoe Muskoka District Health Unit	38	51	3,257	543.2
York Region Public Health	263	213	15,739	1,284.0
TOTAL CENTRAL EAST	912	753	63,227	1,411.1
Toronto Public Health	646	616	54,368	1,742.4
TOTAL TORONTO	646	616	54,368	1,742.4
Chatham-Kent Public Health	6	9	608	571.9
Grey Bruce Health Unit	8	11	430	253.1
Huron Perth Public Health	8	16	583	417.2
Lambton Public Health	20	2	576	439.8
Middlesex-London Health Unit	67	44	2,748	541.5
Southwestern Public Health	30	31	1,074	507.8
Windsor-Essex County Health Unit	173	135	6,555	1,543.0
TOTAL SOUTH WEST	312	248	12,574	743.7
Brant County Health Unit	16	3	872	561.8
City of Hamilton Public Health Services	101	77	5,339	901.6

Public Health Unit Name	Change in cases December 23	Change in cases December 24	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	11	9	821	719.7
Halton Region Public Health	55	96	5,139	830.1
Niagara Region Public Health	93	78	3,401	719.8
Region of Waterloo Public Health and Emergency Services	82	105	5,413	926.3
Wellington-Dufferin-Guelph Public Health	63	68	2,345	751.8
TOTAL CENTRAL WEST	421	436	23,330	818.8
TOTAL ONTARIO	2,447	2,159	167,269	1,125.3

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

Data Source: CCM plus

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 23	Change in outbreaks December 24	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	7	4	174	869
Retirement homes	4	3	103	451
Hospitals	2	4	53	229

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 24, 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 24, 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 24, 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 9, 2020 to December 21, 2020

Public Health Unit Name	Dec 9 to Dec 15	Dec 10 to Dec 16	Dec 11 to Dec 17	Dec 12 to Dec 18	Dec 13 to Dec 19	Dec 14 to Dec 20	Dec 15 to Dec 21	% change from Dec 9-15 to Dec 15-21
NORTH WEST								
Northwestern Health Unit	3.4	3.4	3.4	5.7	5.7	5.7	10.3	+202.9%
Thunder Bay District Health Unit	36.7	32.0	37.3	40.0	44.7	44.0	48.7	+32.7%
NORTH EAST								
Algoma Public Health	0.9	0.9	0.0	0.0	0.0	0.0	0.0	-100.0%
North Bay Parry Sound District Health Unit	4.6	9.2	10.8	12.3	12.3	12.3	12.3	+167.4%
Porcupine Health Unit	2.4	2.4	3.6	3.6	4.8	3.6	8.4	+250.0%
Public Health Sudbury & Districts	3.5	3.5	4.5	4.0	4.0	4.0	5.0	+42.9%
Timiskaming Health Unit	12.2	15.3	15.3	27.5	33.7	36.7	45.9	+276.2%
EASTERN								
Ottawa Public Health	29.2	30.2	31.0	28.1	27.5	26.9	27.0	-7.5%
Eastern Ontario Health Unit	55.1	58.9	55.6	50.8	44.1	40.7	40.7	-26.1%

Public Health Unit Name	Dec 9 to Dec 15	Dec 10 to Dec 16	Dec 11 to Dec 17	Dec 12 to Dec 18	Dec 13 to Dec 19	Dec 14 to Dec 20	Dec 15 to Dec 21	% change from Dec 9-15 to Dec 15-21
Hastings Prince Edward Public Health	26.1	22.0	14.2	16.0	14.8	16.6	14.8	-43.3%
Kingston, Frontenac and Lennox & Addington Public Health	44.2	43.7	40.9	37.6	35.7	35.7	32.4	-26.7%
Leeds, Grenville & Lanark District Health Unit	33.5	31.8	26.6	24.8	21.4	20.8	19.6	-41.5%
Renfrew County and District Health Unit	29.5	17.5	18.4	15.6	15.6	13.8	16.6	-43.7%
CENTRAL EAST								
Durham Region Health Department	83.8	87.5	89.4	92.2	89.1	93.6	97.7	+16.6%
Haliburton, Kawartha, Pine Ridge District Health Unit	34.4	30.2	28.1	25.4	24.3	23.8	24.3	-29.4%
Peel Public Health	198.1	194.4	194.6	194.7	201.3	208.5	194.9	-1.6%
Peterborough Public Health	14.2	15.5	14.9	16.2	15.5	15.5	18.9	+33.1%
Simcoe Muskoka	47.0	52.4	55.5	57.0	59.5	60.9	62.4	+32.8%

Public Health Unit Name	Dec 9 to Dec 15	Dec 10 to Dec 16	Dec 11 to Dec 17	Dec 12 to Dec 18	Dec 13 to Dec 19	Dec 14 to Dec 20	Dec 15 to Dec 21	% change from Dec 9-15 to Dec 15-21
District Health Unit								
York Region Public Health	103.4	101.5	104.1	115.4	120.7	119.4	124.1	+20.0%
TORONTO								
Toronto Public Health	135.2	142.2	145.2	148.0	147.1	149.8	144.9	+7.2%
SOUTH WEST								
Chatham-Kent Public Health	24.5	25.4	31.0	25.4	32.0	31.0	32.9	+34.3%
Grey Bruce Health Unit	17.1	15.9	15.9	15.9	17.7	17.1	18.2	+6.4%
Huron Perth Public Health	55.8	60.1	59.4	53.7	51.5	54.4	58.7	+5.2%
Lambton Public Health	19.9	24.4	35.9	41.2	55.7	57.3	64.9	+226.1%
Middlesex-London Health Unit	50.6	54.8	62.1	70.3	76.3	83.7	89.1	+76.1%
Southwestern Public Health	74.2	79.9	80.4	81.3	78.0	77.1	93.6	+26.1%
Windsor-Essex County Health Unit	190.2	213.3	242.9	250.2	266.9	273.5	285.1	+49.9%
CENTRAL WEST								
Brant County Health Unit	72.2	70.9	77.3	75.4	69.6	59.3	59.3	-17.9%

Public Health Unit Name	Dec 9 to Dec 15	Dec 10 to Dec 16	Dec 11 to Dec 17	Dec 12 to Dec 18	Dec 13 to Dec 19	Dec 14 to Dec 20	Dec 15 to Dec 21	% change from Dec 9-15 to Dec 15-21
City of Hamilton Public Health Services	110.1	115.3	126.1	127.2	122.1	120.2	123.4	+12.1%
Haldimand-Norfolk Health Unit	45.6	44.7	41.2	47.3	60.5	60.5	63.1	+38.4%
Halton Region Public Health	68.3	71.9	74.5	77.5	84.0	85.4	86.7	+26.9%
Niagara Region Public Health	74.9	76.4	79.2	101.6	107.3	109.6	112.6	+50.3%
Region of Waterloo Public Health and Emergency Services	84.7	87.1	87.1	92.2	98.2	98.7	106.1	+25.3%
Wellington-Dufferin-Guelph Public Health	89.1	94.9	94.3	100.7	93.3	91.4	95.2	+6.8%
TOTAL ONTARIO	94.9	97.7	100.5	103.7	105.6	107.4	107.2	+13.0%

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

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For Further Information

For more information, email cd@oahpp.ca.

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