

Daily Epidemiologic Summary

COVID-19 in Ontario: January 15, 2020 to December 27, 2020

This report includes the most current information available from CCM and other case management systems (CCM plus) as of **December 27, 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 173,355 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
 - An increase of 1,939 confirmed cases (percent change of -3.3%)
 - An increase of 37 deaths (percent change of +105.6%)
 - An increase of 2,151 resolved cases (percent change of +7.3%)

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 26	Change in cases December 27	Percentage change December 27 compared to December 26	Cumulative case count as of December 27
Total number of cases	2,005	1,939	-3.3%	173,355
Number of deaths	18	37	+105.6%	4,414
Number resolved	2,005	2,151	+7.3%	149,329

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 26	Change in cases December 27	Cumulative case count as of December 27
Gender: Male	979	917	84,921
Gender: Female	1,013	1,008	87,335
Ages: 19 and under	277	281	22,370
Ages: 20-39	701	691	63,239
Ages: 40-59	590	571	49,791
Ages: 60-79	285	271	24,937
Ages: 80 and over	150	131	12,980

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 27, 2020: Ontario

	Change in cases December 26	Change in cases December 27	Cumulative case count from August 30 to December 27
Ages: 4 to 8	43	45	3,597
Ages: 9 to 13	72	62	4,995
Ages: 14 to 17	80	75	4,882

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

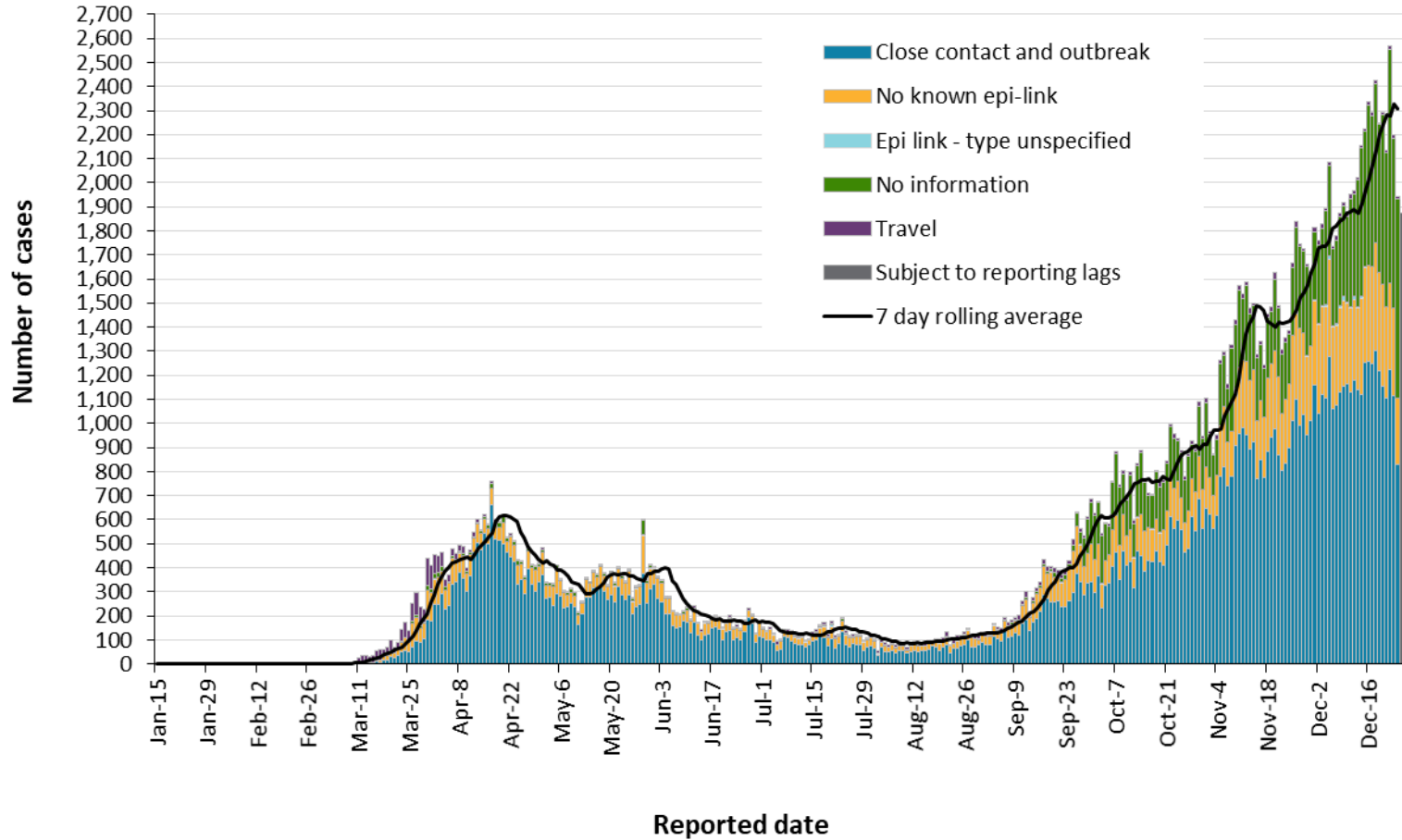
Long-term care home cases	Change in cases December 26	Change in cases December 27	Cumulative case count as of December 27
Residents	85	70	10,647
Health care workers	25	35	4,195
Deaths among residents	14	12	2,708
Deaths among health care workers	0	0	8

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

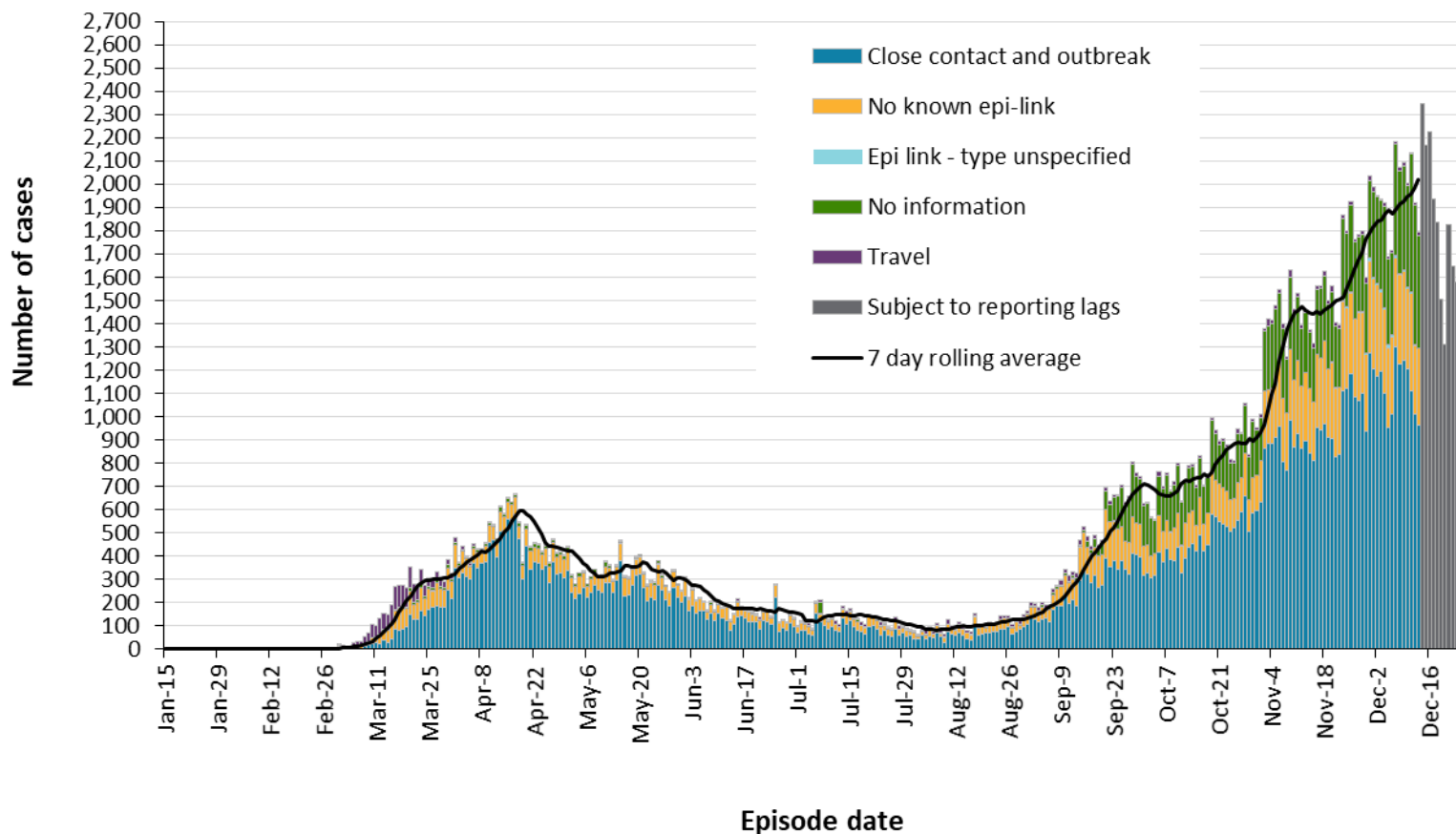
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to December 27, 2020



Data Source: CCM plus

COVID-19 in Ontario: January 15, 2020 to December 27, 2020

Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to December 27, 2020

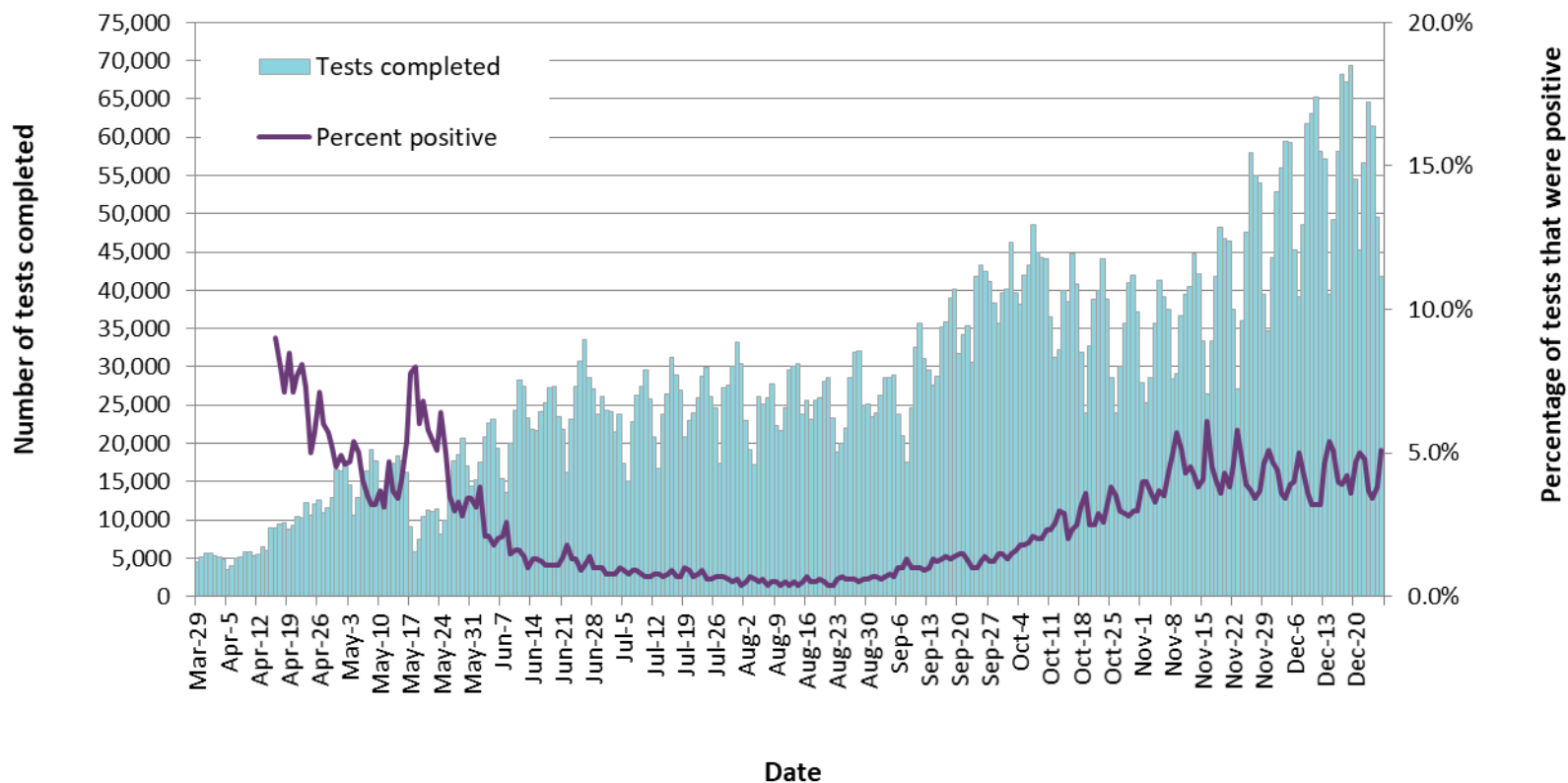


Note: Not all cases may have an episode date and those without one are not included in the figure. Episode date is defined and available in the technical notes.

Data Source: CCM plus

COVID-19 in Ontario: January 15, 2020 to December 27, 2020

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

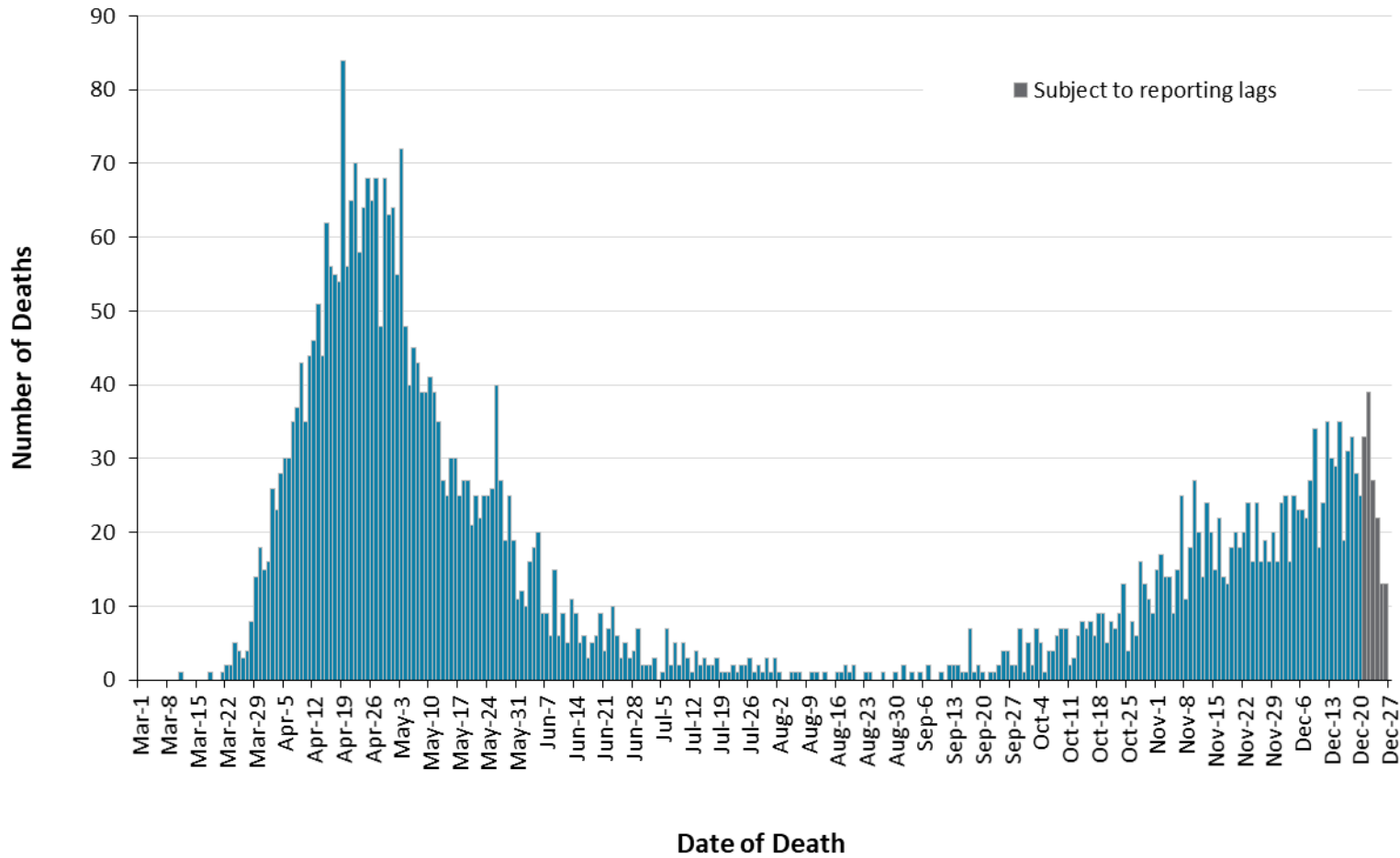


Note: The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

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 27, 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 27	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	4,414	2.5%
Deaths reported in ages: 19 and under	1	<0.1%
Deaths reported in ages: 20-39	19	<0.1%
Deaths reported in ages: 40-59	173	0.3%
Deaths reported in ages: 60-79	1,169	4.7%
Deaths reported in ages: 80 and over	3,051	23.5%
Ever in ICU	1,868	1.1%
Ever hospitalized	9,455	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 26	Change in cases December 27	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	5	3	161	183.6
Thunder Bay District Health Unit	4	3	565	376.8
TOTAL NORTH WEST	9	6	726	305.5
Algoma Public Health	1	0	65	56.8
North Bay Parry Sound District Health Unit	0	-4	120	92.5
Porcupine Health Unit	0	0	127	152.2
Public Health Sudbury & Districts	4	-2	263	132.1
Timiskaming Health Unit	5	3	64	195.8
TOTAL NORTH EAST	10	-3	639	114.2
Ottawa Public Health	49	41	9,740	923.5
Eastern Ontario Health Unit	18	13	1,304	624.8
Hastings Prince Edward Public Health	0	6	267	158.5
Kingston, Frontenac and Lennox & Addington Public Health	0	9	514	241.6
Leeds, Grenville & Lanark District Health Unit	2	1	650	375.4
Renfrew County and District Health Unit	1	0	228	209.9
TOTAL EASTERN	70	70	12,703	659.4

Public Health Unit Name	Change in cases December 26	Change in cases December 27	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	71	59	6,875	965.0
Haliburton, Kawartha, Pine Ridge District Health Unit	9	5	498	263.6
Peel Public Health	331	475	37,936	2362.2
Peterborough Public Health	14	9	320	216.2
Simcoe Muskoka District Health Unit	41	56	3,406	568.1
York Region Public Health	207	158	16,366	1335.1
TOTAL CENTRAL EAST	673	762	65,401	1459.6
Toronto Public Health	572	412	55,893	1791.2
TOTAL TORONTO	572	412	55,893	1791.2
Chatham-Kent Public Health	6	9	633	595.4
Grey Bruce Health Unit	8	1	440	259.0
Huron Perth Public Health	20	6	637	455.8
Lambton Public Health	37	35	668	510.1
Middlesex-London Health Unit	53	108	2,959	583.0
Southwestern Public Health	28	32	1,158	547.5
Windsor-Essex County Health Unit	140	178	7,004	1648.7
TOTAL SOUTH WEST	292	369	13,499	798.4
Brant County Health Unit	11	16	916	590.2
City of Hamilton Public Health Services	74	100	5,649	954.0

Public Health Unit Name	Change in cases December 26	Change in cases December 27	Cumulative case count	Cumulative rate per 100,000 population
Haldimand-Norfolk Health Unit	8	7	848	743.3
Halton Region Public Health	80	67	5,379	868.9
Niagara Region Public Health	83	53	3,630	768.3
Region of Waterloo Public Health and Emergency Services	89	45	5,614	960.7
Wellington-Dufferin-Guelph Public Health	34	35	2,458	788.1
TOTAL CENTRAL WEST	379	323	24,494	859.7
TOTAL ONTARIO	2,005	1,939	173,355	1166.2

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 26	Change in outbreaks December 27	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	8	11	195	898
Retirement homes	3	9	104	466
Hospitals	2	1	54	234

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 27, 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 27, 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 27, 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 12, 2020 to December 24, 2020

Public Health Unit Name	Dec 12 to Dec 18	Dec 13 to Dec 19	Dec 14 to Dec 20	Dec 15 to Dec 21	Dec 16 to Dec 22	Dec 17 to Dec 23	Dec 18 to Dec 24	% change from Dec 12-18 to Dec 18-24
NORTH WEST								
Northwestern Health Unit	5.7	5.7	5.7	10.3	11.4	11.4	20.5	+259.6%
Thunder Bay District Health Unit	40.0	44.7	44.0	48.7	58.0	58.0	50.0	+25.0%
NORTH EAST								
Algoma Public Health	0.0	0.0	0.0	0.0	0.9	1.7	1.7	N/A
North Bay Parry Sound District Health Unit	12.3	12.3	12.3	12.3	13.1	10.8	12.3	0.0%
Porcupine Health Unit	3.6	4.8	3.6	8.4	10.8	10.8	9.6	+166.7%
Public Health Sudbury & Districts	4.0	4.0	4.0	5.0	5.5	6.0	5.5	+37.5%
Timiskaming Health Unit	27.5	33.7	36.7	45.9	55.1	61.2	70.4	+156.0%
EASTERN								
Ottawa Public Health	27.9	27.0	26.6	27.0	30.2	29.5	31.6	+13.3%

Public Health Unit Name	Dec 12 to Dec 18	Dec 13 to Dec 19	Dec 14 to Dec 20	Dec 15 to Dec 21	Dec 16 to Dec 22	Dec 17 to Dec 23	Dec 18 to Dec 24	% change from Dec 12-18 to Dec 18-24
Eastern Ontario Health Unit	52.2	45.5	41.7	41.7	46.5	49.4	53.2	+1.9%
Hastings Prince Edward Public Health	16.0	14.8	16.6	14.8	15.4	16.6	14.8	-7.5%
Kingston, Frontenac and Lennox & Addington Public Health	37.6	35.7	35.7	32.4	28.7	27.3	27.3	-27.4%
Leeds, Grenville & Lanark District Health Unit	24.8	21.4	20.8	19.6	17.9	13.9	12.1	-51.2%
Renfrew County and District Health Unit	15.6	15.6	13.8	16.6	16.6	13.8	10.1	-35.3%
CENTRAL EAST								
Durham Region Health Department	92.1	88.9	93.2	96.9	96.6	96.3	91.9	-0.2%
Haliburton, Kawartha, Pine Ridge District Health Unit	25.4	24.3	23.8	24.9	23.8	25.9	27.0	+6.3%
Peel Public Health	194.8	201.4	208.7	195.1	190.9	194.2	190.2	-2.4%

Public Health Unit Name	Dec 12 to Dec 18	Dec 13 to Dec 19	Dec 14 to Dec 20	Dec 15 to Dec 21	Dec 16 to Dec 22	Dec 17 to Dec 23	Dec 18 to Dec 24	% change from Dec 12-18 to Dec 18-24
Peterborough Public Health	16.9	16.2	16.2	19.6	20.3	20.3	22.3	+32.0%
Simcoe Muskoka District Health Unit	57.0	59.5	60.9	62.4	63.4	59.5	57.9	+1.6%
York Region Public Health	115.4	120.7	119.4	124.2	128.0	129.5	130.6	+13.2%
TORONTO								
Toronto Public Health	148.0	147.2	150.0	145.3	150.1	145.4	141.2	-4.6%
SOUTH WEST								
Chatham-Kent Public Health	26.3	32.9	32.0	32.9	38.6	35.7	32.9	+25.1%
Grey Bruce Health Unit	15.9	17.7	17.1	18.8	21.2	23.0	21.2	+33.3%
Huron Perth Public Health	53.7	51.5	54.4	58.7	52.2	50.8	61.5	+14.5%
Lambton Public Health	41.2	55.7	57.3	64.9	82.5	77.1	77.1	+87.1%
Middlesex-London Health Unit	70.3	76.3	83.7	88.9	100.3	99.1	92.8	+32.0%
Southwestern Public Health	81.3	78.0	77.1	95.0	103.5	96.5	96.5	+18.7%
Windsor-Essex County Health Unit	251.2	268.3	274.9	286.5	289.1	274.2	252.8	+0.6%

Public Health Unit Name	Dec 12 to Dec 18	Dec 13 to Dec 19	Dec 14 to Dec 20	Dec 15 to Dec 21	Dec 16 to Dec 22	Dec 17 to Dec 23	Dec 18 to Dec 24	% change from Dec 12-18 to Dec 18-24
CENTRAL WEST								
Brant County Health Unit	75.4	69.6	59.3	59.3	61.2	61.9	50.9	-32.5%
City of Hamilton Public Health Services	126.8	121.6	119.7	121.8	126.5	123.6	108.9	-14.1%
Haldimand-Norfolk Health Unit	46.5	59.6	59.6	62.2	61.4	70.1	74.5	+60.2%
Halton Region Public Health	77.5	84.0	85.6	86.9	84.8	83.5	88.4	+14.1%
Niagara Region Public Health	101.8	107.5	109.6	112.8	118.7	125.3	132.1	+29.8%
Region of Waterloo Public Health and Emergency Services	92.2	98.2	98.7	106.3	106.4	110.7	109.4	+18.7%
Wellington-Dufferin-Guelph Public Health	101.0	93.6	91.4	95.5	96.5	102.9	105.2	+4.2%
TOTAL ONTARIO	103.7	105.6	107.5	107.3	109.7	108.7	106.4	+2.6%

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.

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.

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Epidemiologic summary: COVID-19 in Ontario – January 15, 2020 to December 27, 2020. Toronto, ON: Queen's Printer for Ontario; 2020.

For Further Information

For more information, email 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.

