

## DAILY EPIDEMIOLOGICAL SUMMARY

# COVID-19 in Ontario: January 15, 2020 to April 1, 2022

---

Due to changes in the Ministry of Health's [updated guidance on testing and case, contact and outbreak management](#), case counts in this report are an underestimate of the true number of individuals with COVID-19 in Ontario. In addition, data for hospitalizations, intensive care unit (ICU) admission and deaths in the most recent reporting period should be interpreted with caution due to data entry and reporting lags.

---

## Introduction

This report includes the most current information available from CCM as of **April 1, 2022**.

A [weekly summary report](#) is available with additional information to complement the daily report.

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

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, sex) 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.

## Highlights

- There are a total of 1,169,361 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
  - An increase of 3,233 confirmed cases (percent change of -8.1%)
  - An increase of 7\* deaths (percent change of -22.2%)
  - An increase of 1,913 resolved cases (percent change of -12.0%)

\*This number only includes deaths that have occurred in the last month. In addition, there were 2 deaths that were reported more than one month ago added to the cumulative total based on data cleaning.

## Case Characteristics

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

	Change in cases March 31, 2022	Change in cases April 1, 2022	Percentage change April 1, 2022 compared to March 31, 2022	Cumulative case count as of April 1, 2022
Total number of cases	3,519	3,233	-8.1%	1,169,361
Number of deaths	9	7	-22.2%	12,460*
Number resolved	2,173	1,913	-12.0%	1,133,514

**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. The number of deaths presented in the change in cases column for each day only includes deaths that occurred in the last 30 days.

\* 2 deaths were added to the cumulative total based on data cleaning.

**Data Source:** CCM

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

	Change in cases March 31, 2022	Change in cases April 1, 2022	Cumulative case count as of April 1, 2022
Sex: Male	1,394	1,278	552,056
Sex: Female	2,089	1,896	610,228
Ages: 0-4	92	106	34,874
Ages: 5-11	151	160	69,961
Ages: 12-19	205	193	100,052
Ages: 20-39	1,445	1,216	447,599
Ages: 40-59	1,013	976	325,306
Ages: 60-79	429	410	140,486
Ages: 80 and over	184	168	50,686

**Note:** Not all cases have an age or sex 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, sex) 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**

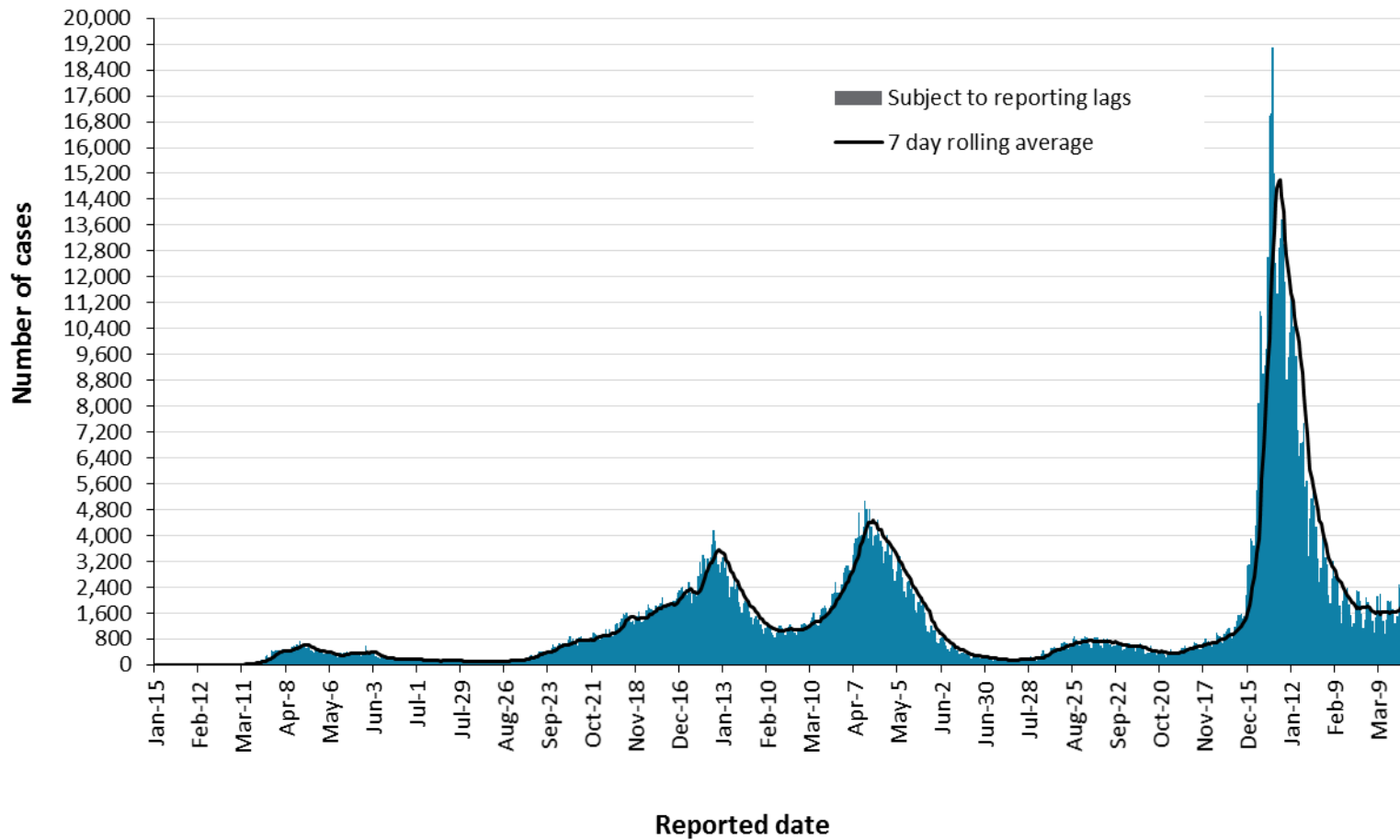
Long-term care home cases	Change in cases March 31, 2022	Change in cases April 1, 2022	Cumulative case count as of April 1, 2022
Residents	80	85	26,019
Health care workers	27	13	11,901
Deaths among residents	2	2	4,419
Deaths among health care workers	0	0	10

**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

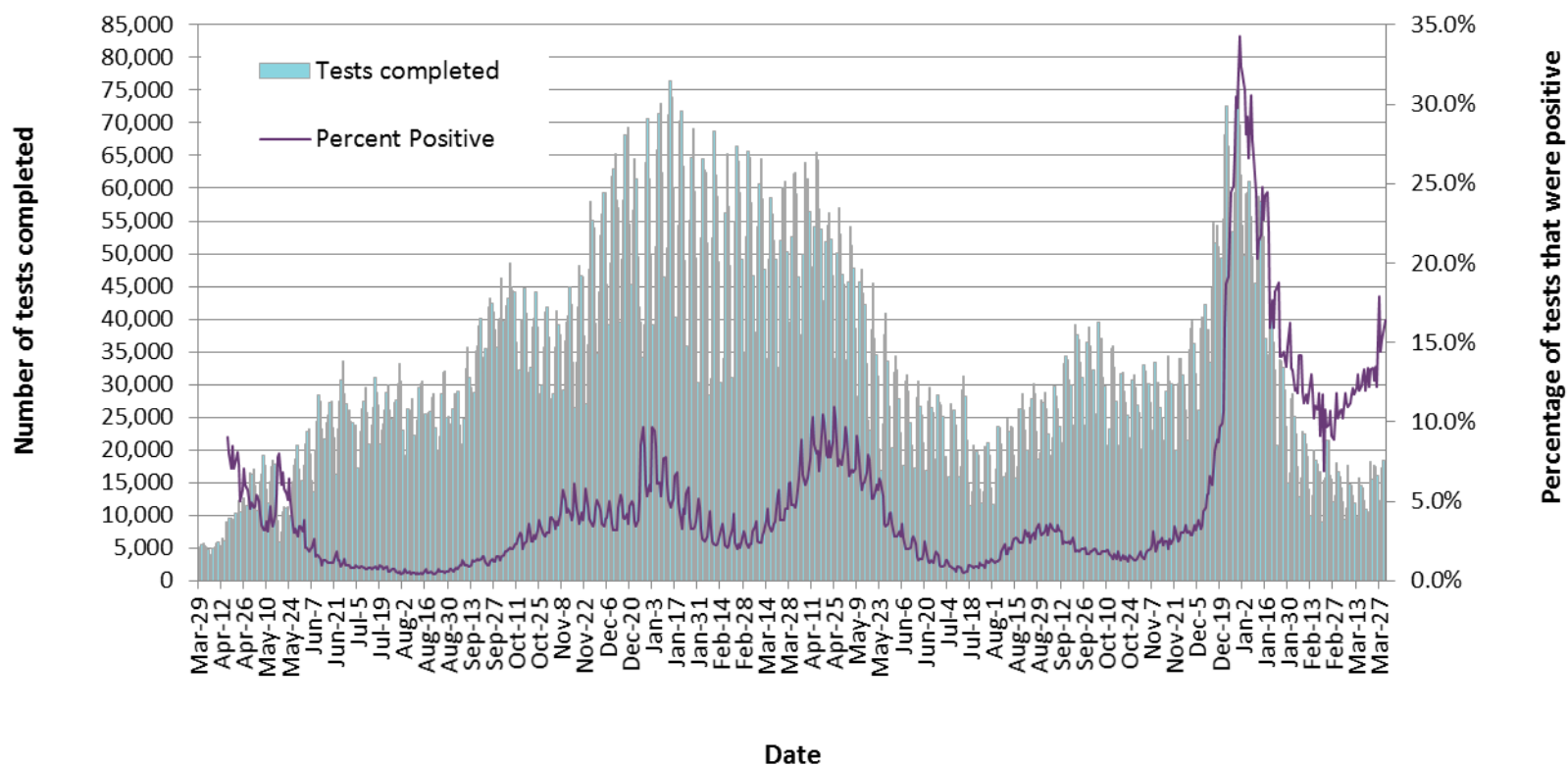
Figure 1. Confirmed cases of COVID-19 by public health unit reported date: Ontario, January 15, 2020 to April 1, 2022



**Note:** Changes in testing eligibility went into effect on December 31, 2021, limiting access to testing and resulting in a change in the population being tested.

**Data Source:** CCM

**Figure 2. Number of COVID-19 tests completed and percent positivity: Ontario, March 30, 2020 to March 31, 2022**

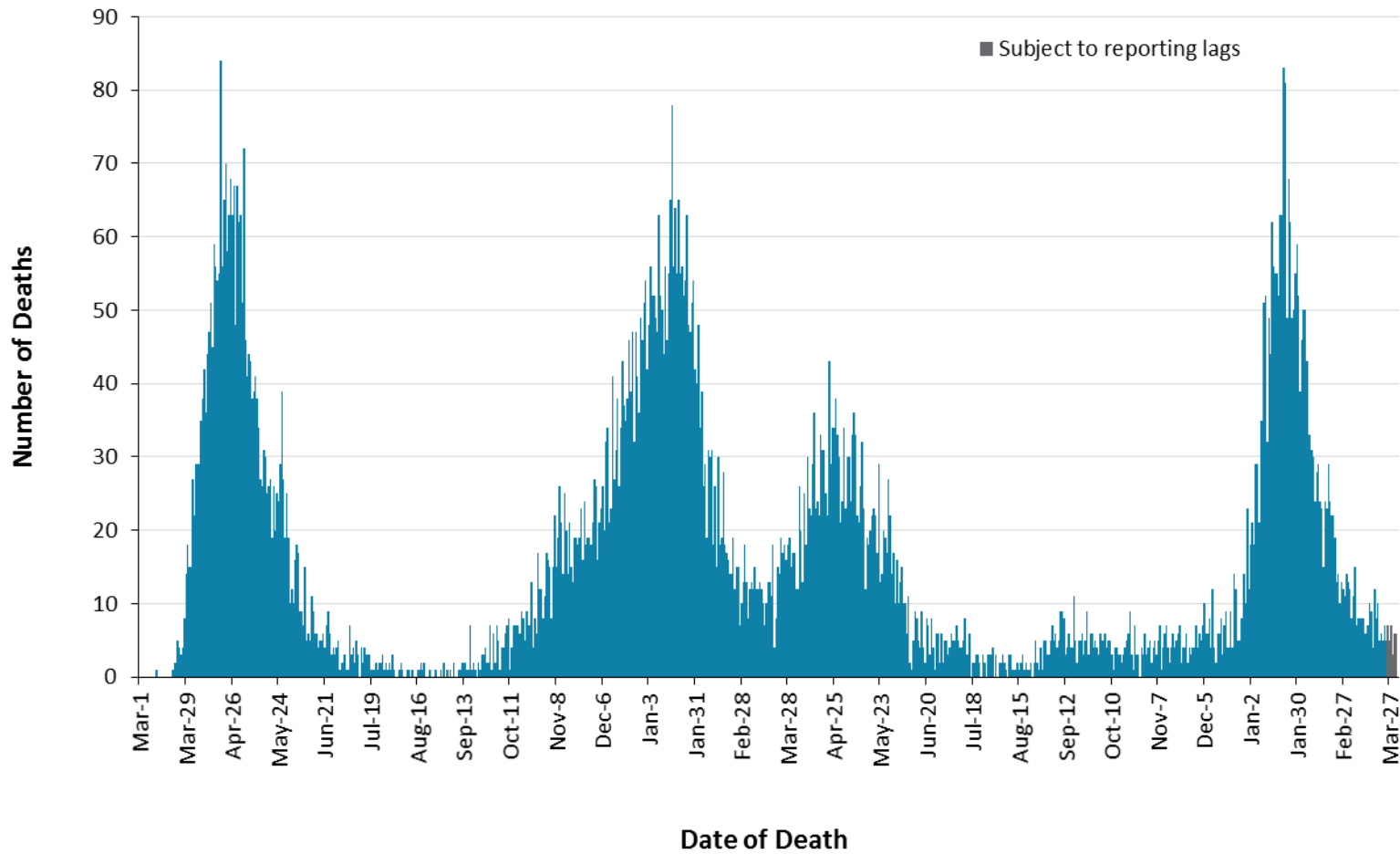


**Note:** The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive. Changes in testing eligibility went into effect on December 31, 2021, limiting access to testing and resulting in a change in the population being tested.

**Data Source:** The Provincial COVID-19 Diagnostics Network, data reported by member microbiology laboratories.

# Severity

Figure 3. Confirmed deaths among COVID-19 cases by date of death: Ontario, March 1, 2020 to April 1, 2022



**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 April 1, 2022	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	12,460	1.1%
Deaths reported in ages: 19 and under	15	<0.1%
Deaths reported in ages: 20-39	130	<0.1%
Deaths reported in ages: 40-59	884	0.3%
Deaths reported in ages: 60-79	4,193	3.0%
Deaths reported in ages: 80 and over	7,237	14.3%
Ever in ICU	7,992	0.7%
Ever hospitalized	43,818	3.7%

**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 March 31, 2022	Change in cases April 1, 2022	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	85	44	6,722	8,279.9
Thunder Bay District Health Unit	39	26	9,853	6,247.7
<b>TOTAL NORTH WEST</b>	124	70	16,575	6,938.3
Algoma Public Health	50	49	6,724	5,706.0
North Bay Parry Sound District Health Unit	32	29	4,571	3,535.0
Porcupine Health Unit	13	60	6,319	7,434.1
Public Health Sudbury & Districts	71	54	12,752	6,212.7
Timiskaming Health Unit	13	18	1,404	4,143.4
<b>TOTAL NORTH EAST</b>	179	210	31,770	5,561.1
Ottawa Public Health	248	192	66,524	6,377.3
Eastern Ontario Health Unit	57	30	14,338	6,642.3
Hastings Prince Edward Public Health	61	62	8,061	4,664.1
Kingston, Frontenac and Lennox & Addington Public Health	113	144	12,849	6,141.1
Leeds, Grenville & Lanark District Health Unit	40	41	7,437	4,132.9
Renfrew County and District Health Unit	20	24	3,815	3,517.0
<b>TOTAL EASTERN</b>	539	493	113,024	5,857.8



Public Health Unit Name	Change in cases March 31, 2022	Change in cases April 1, 2022	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	151	150	56,140	7,891.2
Haliburton, Kawartha, Pine Ridge District Health Unit	21	24	7,721	4,048.2
Peel Public Health	249	210	176,207	11,269.0
Peterborough Public Health	32	17	6,192	4,180.5
Simcoe Muskoka District Health Unit	181	172	38,941	6,441.7
York Region Public Health	165	177	102,160	8,511.5
<b>TOTAL CENTRAL EAST</b>	799	750	387,361	8,766.4
Toronto Public Health	724	741	291,308	9,747.9
<b>TOTAL TORONTO</b>	724	741	291,308	9,747.9
Chatham-Kent Public Health	22	25	7,330	6,874.9
Grey Bruce Health Unit	56	30	7,140	4,053.4
Huron Perth Public Health	33	18	6,295	4,304.5
Lambton Public Health	70	40	10,432	7,845.3
Middlesex-London Health Unit	148	116	34,172	6,692.4
Southwestern Public Health	54	52	12,061	5,509.6
Windsor-Essex County Health Unit	102	94	39,545	9,176.3
<b>TOTAL SOUTH WEST</b>	485	375	116,975	6,791.2
Brant County Health Unit	35	40	10,452	6,806.5
City of Hamilton Public Health Services	186	143	51,257	8,811.3
Haldimand-Norfolk Health Unit	48	24	7,552	6,292.9

Public Health Unit Name	Change in cases March 31, 2022	Change in cases April 1, 2022	Cumulative case count	Cumulative rate per 100,000 population
Halton Region Public Health	112	104	44,618	7,307.5
Niagara Region Public Health	119	128	36,323	7,540.2
Region of Waterloo Public Health and Emergency Services	90	104	42,388	7,003.6
Wellington-Dufferin-Guelph Public Health	79	51	19,758	6,332.8
<b>TOTAL CENTRAL WEST</b>	<b>669</b>	<b>594</b>	<b>212,348</b>	<b>7,412.3</b>
<b>TOTAL ONTARIO</b>	<b>3,519</b>	<b>3,233</b>	<b>1,169,361</b>	<b>7,936.5</b>

**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 March 31, 2022	Change in outbreaks April 1, 2022	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	8	8	92	2,280
Retirement homes	5	5	61	1,559
Hospitals	7	6	40	1,219

**Note:** Ongoing outbreaks are those that are reported in CCM as 'Open' and without a 'Declared Over Date' recorded. 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

# 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 **April 1, 2022 at 1 p.m.** for cases reported from May 1, 2021 onwards and as of **March 31, 2022 at 9 a.m.** for cases reported up to April 30, 2021.
- CCM is a dynamic disease reporting system, which allows ongoing updates to data previously entered. As a result, data extracted from CCM represent a snapshot at the time of extraction and may differ from previous or subsequent reports.
- Ontario population 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

- Due to changes in the availability of testing, driven by increasing COVID-19 cases related to the Omicron variant, case counts in this report are an underestimate of the true number of individuals with COVID-19 in Ontario. As such, data should be interpreted with caution.
- 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 Thursdays and may impact the case count published on Tuesdays and Fridays.
- 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.

- For surveillance purposes, a COVID-19 death is defined as a death resulting from a clinically compatible illness unless there is a clear alternative cause of death that cannot be related to COVID-19 (e.g., trauma, medically assisted death). There should be no period of complete recovery from COVID-19 between illness and reported death.
- Deaths are determined by using the Outcome and Type of Death fields in CCM. COVID-19 deaths are counted where the Outcome value is 'Fatal' and the Type of Death value is not 'DOPHS was unrelated to cause of death'.
  - COVID-19 deaths are placed in time using the 'Date of Death' field in CCM. If the date of death is missing, the outcome date field is used as a proxy.
- Resolved cases are determined only for COVID-19 cases that are not considered COVID-19 deaths. The following cases are classified as resolved:
  - Cases that are reported as 'recovered' in CCM based on local public health unit assessment
  - Cases that are not hospitalized and are 14 days past their symptom onset date or specimen collection date (where symptom onset date is not known)
  - 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
  - Cases that died with a Type of Death = "DOPHS was unrelated to cause of death". These are considered resolved for the purpose of COVID-19 surveillance and reporting
- Hospitalization includes all cases hospitalized (or that had their hospital stay extended) because of COVID-19. It includes cases that have been discharged from hospital as well as cases that are currently hospitalized. Includes Intensive Care Unit (ICU) cases but not emergency room visits. Hospitalizations were identified by a reported hospital admission date or reported 'Yes' for hospitalization/ICU
- 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.
- Male/Female information presented in this report are sourced from the Sex field in CCM and are intended to represent sex assigned at birth. On October 14, 2021 changes were made in CCM to enable reporting on the Sex field where these data are supplemented by archived Male/Female information previously entered in the Gender 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 are those that are reported in CCM as 'Open' and without a 'Declared Over Date' recorded. Closed outbreaks are 'Closed' or have a 'Declared Over Date' recorded in CCM or where the outbreak start date (determined by the onset date of first case, or if missing the reported date, or if missing the created date) is more than 5 months from the current date, even for outbreaks where the outbreak status value selected in CCM is 'OPEN'.
- '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, March 17, 2022 to March 29, 2022**

Public Health Unit Name	Mar 17 to Mar 23	Mar 18 to Mar 24	Mar 19 to Mar 25	Mar 20 to Mar 26	Mar 21 to Mar 27	Mar 22 to Mar 28	Mar 23 to Mar 29	% change from Mar 17 – Mar 23 to Mar 23 – Mar 29
<b>NORTH WEST</b>								
Northwestern Health Unit	491.5	439.7	458.2	443.4	434.8	459.4	410.2	-16.5%
Thunder Bay District Health Unit	133.2	131.3	125.6	123.6	107.8	121.1	118.6	-11.0%
<b>NORTH EAST</b>								
Algoma Public Health	303.0	326.7	316.5	313.1	303.0	306.3	285.1	-5.9%
North Bay Parry Sound District Health Unit	96.7	98.2	105.2	108.3	110.6	111.4	107.5	+11.2%
Porcupine Health Unit	154.1	155.3	150.6	170.6	158.8	143.5	163.5	+6.1%
Public Health Sudbury & Districts	134.5	140.8	149.1	155.4	160.8	171.5	151.5	+12.6%
Timiskaming Health Unit	171.2	188.9	188.9	191.8	177.1	191.8	218.4	+27.6%
<b>EASTERN</b>								
Ottawa Public Health	56.6	63.7	66.9	70.5	75.0	77.8	82.6	+45.9%
Eastern Ontario Health Unit	57.0	75.5	83.9	83.4	85.2	85.7	86.6	+51.9%
Hastings Prince Edward Public Health	158.5	147.0	160.3	159.1	166.6	174.7	177.6	+12.1%

Public Health Unit Name	Mar 17 to Mar 23	Mar 18 to Mar 24	Mar 19 to Mar 25	Mar 20 to Mar 26	Mar 21 to Mar 27	Mar 22 to Mar 28	Mar 23 to Mar 29	% change from Mar 17 – Mar 23 to Mar 23 – Mar 29
Kingston, Frontenac and Lennox & Addington Public Health	244.2	259.5	255.2	277.7	278.2	299.7	287.2	+17.6%
Leeds, Grenville & Lanark District Health Unit	70.6	76.7	80.6	88.9	89.5	91.7	91.7	+29.9%
Renfrew County and District Health Unit	72.8	85.7	88.5	93.1	97.7	111.5	109.7	+50.7%
<b>CENTRAL EAST</b>								
Durham Region Health Department	73.8	77.7	78.2	78.6	89.0	89.0	98.8	+33.9%
Haliburton, Kawartha, Pine Ridge District Health Unit	73.9	79.7	80.7	80.2	80.7	86.5	89.7	+21.4%
Peel Public Health	37.3	39.4	43.0	45.7	46.4	46.9	46.9	+25.7%
Peterborough Public Health	85.7	89.1	95.2	87.8	95.9	92.5	98.6	+15.1%
Simcoe Muskoka District Health Unit	116.1	112.3	119.4	119.4	127.0	131.5	138.0	+18.9%
York Region Public Health	63.7	68.1	73.3	77.8	80.1	81.8	80.3	+26.1%
<b>TORONTO</b>								
Toronto Public Health	77	81.4	88.9	90.1	93.9	96.4	98.9	+28.4%
<b>SOUTH WEST</b>								
Chatham-Kent Public Health	80.7	86.3	91.9	95.7	106.9	109.7	108.8	+34.8%

Public Health Unit Name	Mar 17 to Mar 23	Mar 18 to Mar 24	Mar 19 to Mar 25	Mar 20 to Mar 26	Mar 21 to Mar 27	Mar 22 to Mar 28	Mar 23 to Mar 29	% change from Mar 17 – Mar 23 to Mar 23 – Mar 29
Grey Bruce Health Unit	105	99.9	93.7	102.2	99.3	95.4	91.4	-13.0%
Huron Perth Public Health	119.0	110.8	112.8	114.9	114.9	116.9	101.9	-14.4%
Lambton Public Health	93.3	106.8	115.1	127.1	145.9	142.1	145.9	+56.4%
Middlesex-London Health Unit	103.0	105.4	109.7	110.8	111.4	119.3	113.6	+10.3%
Southwestern Public Health	88.2	94.1	92.3	97.8	92.7	102.8	106.0	+20.2%
Windsor-Essex County Health Unit	115.6	117.6	120.7	122.8	129.0	122.8	130.4	+12.8%
<b>CENTRAL WEST</b>								
Brant County Health Unit	95.1	93.8	97.0	95.1	92.5	90.5	84.7	-10.9%
City of Hamilton Public Health Services	109.2	125.1	129.8	139.6	137.9	140.1	138.4	+26.7%
Haldimand-Norfolk Health Unit	74.2	77.5	80.0	89.2	88.3	103.3	88.3	+19.0%
Halton Region Public Health	79.8	86.0	93.7	95.6	98.6	100.2	103.5	+29.7%
Niagara Region Public Health	87.0	87.8	92.2	91.8	89.9	91.3	98.6	+13.3%
Region of Waterloo Public Health and Emergency Services	69.1	68.2	77.8	80.3	80.8	85.6	86.4	+25.0%
Wellington-Dufferin-Guelph Public Health	89.4	95.5	100.3	106.1	106.4	110.9	121.5	+35.9%
<b>TOTAL ONTARIO</b>	<b>85.9</b>	<b>89.9</b>	<b>94.7</b>	<b>97.5</b>	<b>100.0</b>	<b>102.8</b>	<b>103.9</b>	<b>+21.0%</b>



**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. Number of confirmed COVID-19 cases with a fatal outcome by date of death in the last 30 days: Ontario**

Date of Death	Number of deaths
March 3, 2022	12
March 4, 2022	8
March 5, 2022	11
March 6, 2022	15
March 7, 2022	7
March 8, 2022	8
March 9, 2022	8
March 10, 2022	8
March 11, 2022	8
March 12, 2022	6
March 13, 2022	6
March 14, 2022	7
March 15, 2022	10
March 16, 2022	9
March 17, 2022	4
March 18, 2022	12
March 19, 2022	8
March 20, 2022	10
March 21, 2022	5
March 22, 2022	6
March 23, 2022	5
March 24, 2022	7

Date of Death	Number of deaths
March 25, 2022	5
March 26, 2022	7*
March 27, 2022	5*
March 28, 2022	7*
March 29, 2022	3*
March 30, 2022	6*
March 31, 2022	6*
April 1, 2022	0*

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

\*Subject to reporting lags

**Data Source:** CCM

## Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Epidemiologic summary: COVID-19 in Ontario – January 15, 2020 to April 1, 2022. Toronto, ON: Queen’s Printer for Ontario; 2022.

## 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](mailto: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](http://publichealthontario.ca).



©Queen’s Printer for Ontario, 2022