

DAILY EPIDEMIOLOGICAL SUMMARY

COVID-19 in Ontario: January 15, 2020 to March 4, 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 **March 4, 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 1,111,423 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
 - An increase of 1,930 confirmed cases (percent change of -7.4%)
 - An increase of 18* deaths (percent change of -30.8%)
 - An increase of 1,937 resolved cases (percent change of -6.8%)

* This number only includes deaths that have occurred in the last month. In addition, there were 6 deaths that occurred more than one month ago and were added to the cumulative count based on data cleaning.

Case Characteristics

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

	Change in cases March 3, 2022	Change in cases March 4, 2022	Percentage change March 4, 2022 compared to March 3, 2022	Cumulative case count as of March 4, 2022
Total number of cases	2,085	1,930	-7.4%	1,111,423
Number of deaths	26	18	-30.8%	12,549*
Number resolved	2,079	1,937	-6.8%	1,082,001

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.

* There were 6 deaths that occurred more than one month ago and were added to the cumulative count based on data cleaning.

Data Source: CCM

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

	Change in cases March 3, 2022	Change in cases March 4, 2022	Cumulative case count as of March 4, 2022
Sex: Male	882	807	528,711
Sex: Female	1,155	1,070	576,356
Ages: 0-4	58	53	33,167
Ages: 5-11	130	118	66,873
Ages: 12-19	265	227	95,563
Ages: 20-39	703	700	425,255
Ages: 40-59	597	542	308,389
Ages: 60-79	234	183	133,843
Ages: 80 and over	97	103	47,961

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

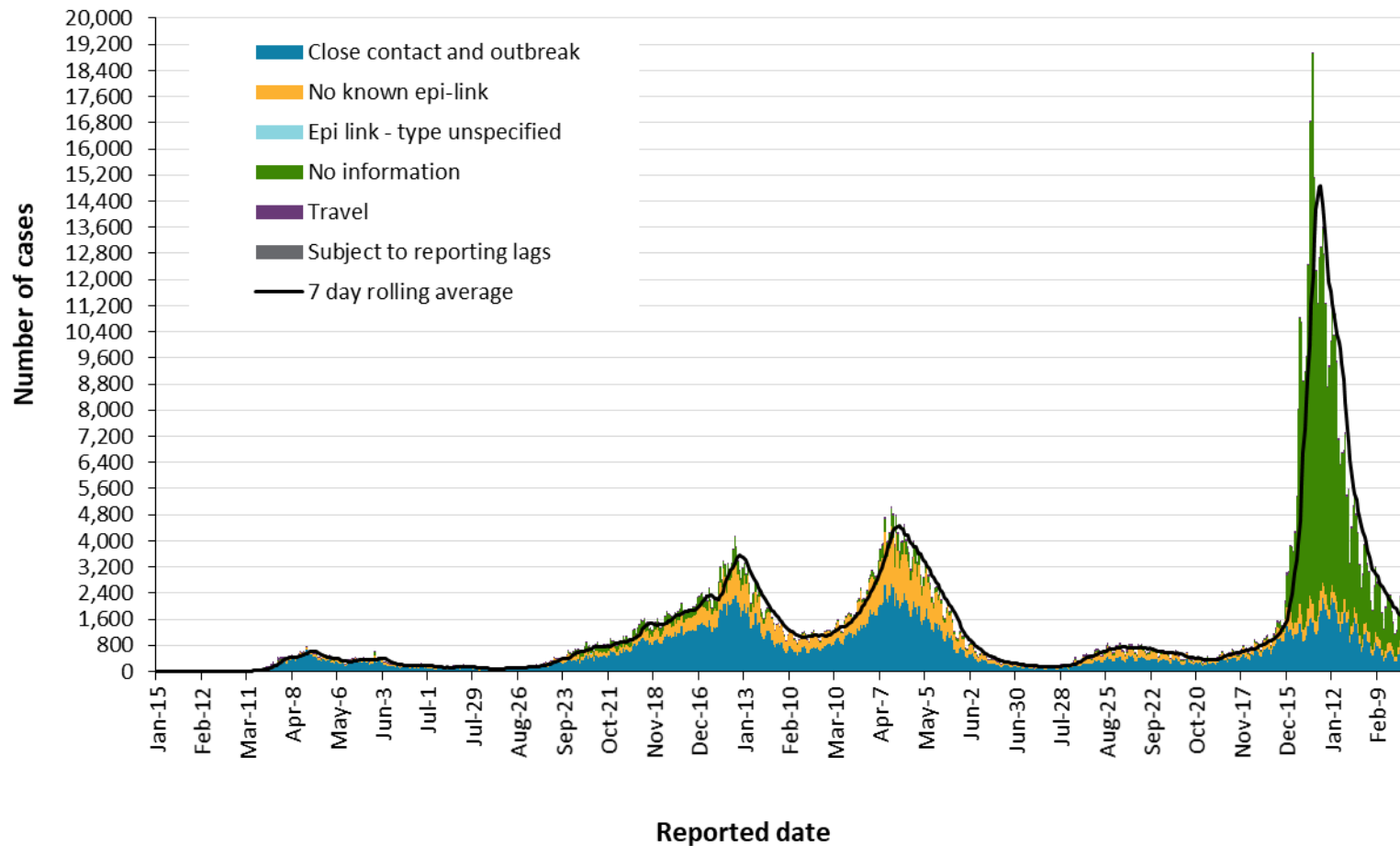
Long-term care home cases	Change in cases March 3, 2022	Change in cases March 4, 2022	Cumulative case count as of March 4, 2022
Residents	52	64	24,839
Health care workers	41	11	11,502
Deaths among residents	6	4	4,495
Deaths among health care workers	0	0	10

Note: Information on how long-term care home residents and health care workers are identified is available in the [technical notes](#). Also, the change in cases in these categories may represent existing case records that have been updated.

Data Source: CCM

Time

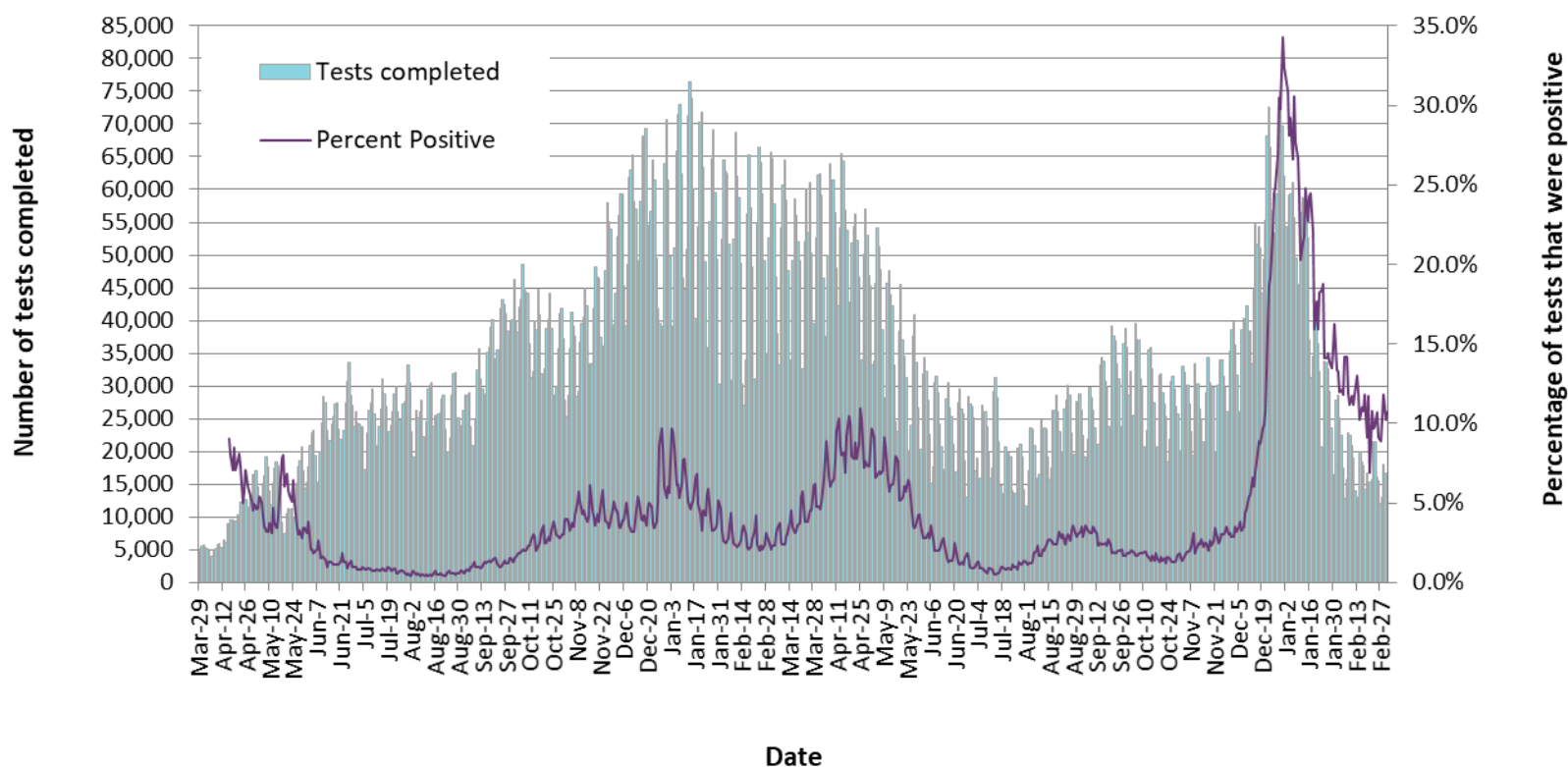
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to March 4, 2022



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 39, 2020 to March 3, 2022

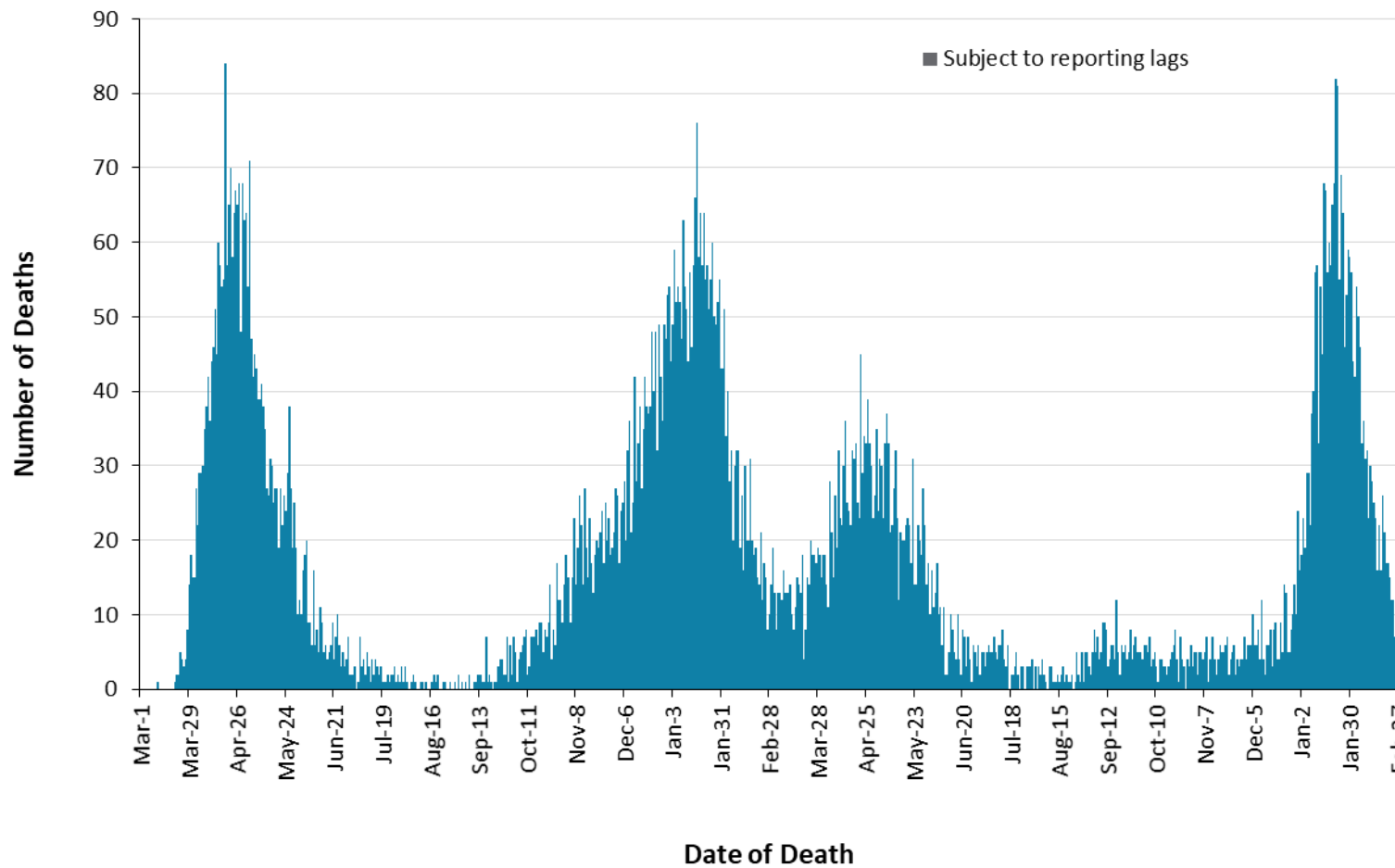


Note: The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive. Changes 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 3, 2020 to March 4, 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 March 4, 2022	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	12,549	1.1%
Deaths reported in ages: 19 and under	14	<0.1%
Deaths reported in ages: 20-39	142	<0.1%
Deaths reported in ages: 40-59	903	0.3%
Deaths reported in ages: 60-79	4,183	3.1%
Deaths reported in ages: 80 and over	7,305	15.2%
Ever in ICU	7,803	0.7%
Ever hospitalized	42,192	3.8%

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 3, 2022	Change in cases March 4, 2022	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	66	90	5,173	6,371.9
Thunder Bay District Health Unit	51	39	8,929	5,661.8
TOTAL NORTH WEST	117	129	14,102	5,903.1
Algoma Public Health	56	32	5,363	4,551.1
North Bay Parry Sound District Health Unit	62	22	3,966	3,067.1
Porcupine Health Unit	19	48	5,635	6,629.4
Public Health Sudbury & Districts	72	46	11,419	5,563.3
Timiskaming Health Unit	3	13	1,173	3,461.7
TOTAL NORTH EAST	212	161	27,556	4,823.5
Ottawa Public Health	145	127	63,251	6,063.6
Eastern Ontario Health Unit	34	15	13,719	6,355.5
Hastings Prince Edward Public Health	17	28	7,024	4,064.1
Kingston, Frontenac and Lennox & Addington Public Health	80	67	10,571	5,052.3
Leeds, Grenville & Lanark District Health Unit	27	20	6,837	3,799.5
Renfrew County and District Health Unit	24	12	3,412	3,145.5
TOTAL EASTERN	327	269	104,814	5,432.3

Public Health Unit Name	Change in cases March 3, 2022	Change in cases March 4, 2022	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	98	89	53,464	7,515.0
Haliburton, Kawartha, Pine Ridge District Health Unit	22	15	7,168	3,758.2
Peel Public Health	115	110	172,506	11,032.3
Peterborough Public Health	16	23	5,683	3,836.8
Simcoe Muskoka District Health Unit	198	118	36,089	5,969.9
York Region Public Health	72	96	98,553	8,211.0
TOTAL CENTRAL EAST	521	451	373,463	8,451.9
Toronto Public Health	316	368	279,819	9,363.5
TOTAL TORONTO	316	368	279,819	9,363.5
Chatham-Kent Public Health	12	19	6,955	6,523.2
Grey Bruce Health Unit	28	30	6,375	3,619.1
Huron Perth Public Health	12	18	5,757	3,936.6
Lambton Public Health	20	22	9,811	7,378.2
Middlesex-London Health Unit	63	56	32,010	6,269.0
Southwestern Public Health	25	27	11,272	5,149.2
Windsor-Essex County Health Unit	113	66	37,523	8,707.1
TOTAL SOUTH WEST	273	238	109,703	6,369.0
Brant County Health Unit	11	10	9,929	6,466.0
City of Hamilton Public Health Services	63	59	48,648	8,362.8
Haldimand-Norfolk Health Unit	23	17	7,109	5,923.8

Public Health Unit Name	Change in cases March 3, 2022	Change in cases March 4, 2022	Cumulative case count	Cumulative rate per 100,000 population
Halton Region Public Health	70	63	42,581	6,973.9
Niagara Region Public Health	55	81	34,393	7,139.5
Region of Waterloo Public Health and Emergency Services	55	57	40,713	6,726.8
Wellington-Dufferin-Guelph Public Health	42	27	18,593	5,959.4
TOTAL CENTRAL WEST	319	314	201,966	7,049.9
TOTAL ONTARIO	2,085	1,930	1,111,423	7,543.2

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 3, 2022	Change in outbreaks March 4, 2022	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	5	3	69	2,160
Retirement homes	2	3	49	1,460
Hospitals	2	3	33	1,146

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 **March 4, 2022 at 1 p.m.** for cases reported from May 1, 2021 onwards and as of **March 3, 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.

- 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 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
- 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.
- Likely source of acquisition is determined by examining the epidemiologic link and epidemiologic link status fields in CCM. If no epidemiologic link is identified in those fields the risk factor fields are examined to determine whether a case travelled, was associated with a confirmed outbreak, was a contact of a case, had no known epidemiological link (sporadic community transmission) or was reported to have an unknown source/no information was reported. Some cases may have no information reported if the case is untraceable, was lost to follow-up or referred to FNIHB. Cases with multiple risk factors were assigned to a single likely acquisition source group which was determined hierarchically in the following order:
 - For cases with an episode date *on or after* April 1, 2020: Outbreak-associated > close contact of a confirmed case > travel > no known epidemiological link > information missing or unknown
 - For cases with an episode date *before* April 1, 2020: Travel > outbreak-associated > close contact of a confirmed case > no known epidemiological link > information missing or unknown
 - Case episode date represents an estimate of disease onset. This date is calculated based on the earliest date of symptom onset, specimen collection/test date, or the date reported to the public health unit

- Deaths are determined by using the outcome field in CCM. Any case marked 'Fatal' is included in the deaths data. The CCM field Type of Death is not used to further categorize the data.
 - If the date of death is missing the outcome date field is used as a proxy for cases marked as 'Fatal' in the outcome field.
- COVID-19 cases from CCM for which the Classification and/or Disposition was reported as ENTERED IN ERROR, DOES NOT MEET DEFINITION, IGNORE, DUPLICATE or any variation on these values have been excluded. The provincial case count for COVID-19 may include some duplicate records, if these records were not identified and resolved.
- Ongoing outbreaks 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, February 17, 2022 to March 1, 2022

Public Health Unit Name	Feb 17 to Feb 23	Feb 18 to Feb 24	Feb 19 to Feb 25	Feb 20 to Feb 26	Feb 21 to Feb 27	Feb 22 to Feb 28	Feb 23 to Mar 1	% change from Feb 17 – Feb 23 to Feb 23 – Mar 1
NORTH WEST								
Northwestern Health Unit	513.6	490.2	496.4	477.9	471.8	526.0	485.3	-5.5%
Thunder Bay District Health Unit	310.1	278.4	263.8	237.2	223.2	245.4	228.3	-26.4%
NORTH EAST								
Algoma Public Health	319.9	306.3	301.3	310.6	299.6	314.8	319.1	-0.3%
North Bay Parry Sound District Health Unit	204.9	202.6	202.6	199.5	189.5	215.0	194.9	-4.9%
Porcupine Health Unit	376.5	382.4	357.6	342.4	349.4	328.2	314.1	-16.6%
Public Health Sudbury & Districts	226.5	239.7	258.7	263.1	260.2	249.0	239.7	+5.8%
Timiskaming Health Unit	59.0	67.9	59.0	67.9	70.8	79.7	82.6	+40.0%
EASTERN								
Ottawa Public Health	85.4	81.7	83.1	83.6	78.8	78.8	79.1	-7.4%
Eastern Ontario Health Unit	79.7	81.1	79.7	79.2	79.2	79.2	85.7	+7.5%
Hastings Prince Edward Public Health	153.9	151.6	151.0	153.9	143.5	153.3	145.8	-5.3%

Public Health Unit Name	Feb 17 to Feb 23	Feb 18 to Feb 24	Feb 19 to Feb 25	Feb 20 to Feb 26	Feb 21 to Feb 27	Feb 22 to Feb 28	Feb 23 to Mar 1	% change from Feb 17 – Feb 23 to Feb 23 – Mar 1
Kingston, Frontenac and Lennox & Addington Public Health	197.9	208.9	218.4	225.1	246.1	258.1	271.5	+37.2%
Leeds, Grenville & Lanark District Health Unit	127.3	120.6	115.0	105.6	98.9	96.1	88.9	-30.2%
Renfrew County and District Health Unit	81.1	77.4	77.4	80.2	82.0	83.9	88.5	+9.1%
CENTRAL EAST								
Durham Region Health Department	75.1	75.6	74.5	76.7	78.7	79.3	83.6	+11.3%
Haliburton, Kawartha, Pine Ridge District Health Unit	88.1	84.4	78.6	73.4	76.0	71.3	75.0	-14.9%
Peel Public Health	44.5	39.7	39.8	39.6	37.1	36.4	34.9	-21.6%
Peterborough Public Health	107.3	117.5	113.4	114.8	109.4	112.1	105.3	-1.9%
Simcoe Muskoka District Health Unit	89.3	90.2	91.1	94.5	94.3	97.6	103.2	+15.6%
York Region Public Health	47.2	49.4	49.6	52.1	52.4	53.1	56.2	+19.1%
TORONTO								
Toronto Public Health	54.9	54.2	54.5	55.1	55.5	55.5	59.2	+7.8%
SOUTH WEST								
Chatham-Kent Public Health	126.6	113.5	131.3	134.1	145.4	140.7	147.3	+16.4%
Grey Bruce Health Unit	89.1	95.9	95.4	97.1	104.5	107.3	118.1	+32.5%

Public Health Unit Name	Feb 17 to Feb 23	Feb 18 to Feb 24	Feb 19 to Feb 25	Feb 20 to Feb 26	Feb 21 to Feb 27	Feb 22 to Feb 28	Feb 23 to Mar 1	% change from Feb 17 – Feb 23 to Feb 23 – Mar 1
Huron Perth Public Health	66.3	68.4	72.5	67.0	65.6	59.5	68.4	+3.2%
Lambton Public Health	90.2	98.5	112.8	98.5	100.0	101.5	109.8	+21.7%
Middlesex-London Health Unit	80.3	79.7	77.2	78.9	80.5	81.7	82.5	+2.7%
Southwestern Public Health	77.7	82.2	81.3	82.7	80.9	78.1	81.3	+4.6%
Windsor-Essex County Health Unit	119.0	117.4	118.3	119.5	123.2	118.1	126.7	+6.5%
CENTRAL WEST								
Brant County Health Unit	60.6	64.5	72.3	75.5	78.8	83.4	84.7	+39.8%
City of Hamilton Public Health Services	67.2	70.1	70.8	72.9	73.2	74.9	76.2	+13.4%
Haldimand-Norfolk Health Unit	105.0	90.8	105.0	105.8	101.7	97.5	98.3	-6.4%
Halton Region Public Health	50.3	52.1	56.8	60.6	64.9	66.3	69.0	+37.2%
Niagara Region Public Health	99.0	95.3	95.3	94.0	93.2	94.7	103.0	+4.0%
Region of Waterloo Public Health and Emergency Services	62.8	66.8	66.8	65.1	62.5	59.2	58.7	-6.5%
Wellington-Dufferin-Guelph Public Health	68.0	74.0	76.9	79.8	83.0	80.5	87.2	+28.2%
TOTAL ONTARIO	83.5	82.9	83.7	84.1	83.8	84.6	86.5	+3.6%

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
February 3, 2022	54
February 4, 2022	50
February 5, 2022	46
February 6, 2022	33
February 7, 2022	36
February 8, 2022	31
February 9, 2022	32
February 10, 2022	23
February 11, 2022	30
February 12, 2022	28
February 13, 2022	25
February 14, 2022	23
February 15, 2022	16
February 16, 2022	22
February 17, 2022	16
February 18, 2022	26
February 19, 2022	21
February 20, 2022	17
February 21, 2022	17
February 22, 2022	15
February 23, 2022	12
February 24, 2022	12

Date of Death	Number of deaths
February 25, 2022	7
February 26, 2022	12*
February 27, 2022	9*
February 28, 2022	8*
March 1, 2022	12*
March 2, 2022	10*
March 3, 2022	8*
March 4, 2022	2*

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

*Subject to reporting lags

Data Source: CCM

Citation

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