

Epidemiologic Summary

COVID-19 in Ontario: January 15, 2020 to May 3, 2020

This report includes the most current information available from the integrated Public Health Information System (iPHIS) as of **4 p.m. May 3, 2020**, from the Toronto Public Health Coronavirus Rapid Entry System (CORES) and Ottawa Public Health COVID-19 Ottawa Database (COD) as of **2 p.m. May 3, 2020**.

Purpose

- This daily report provides an epidemiologic summary of COVID-19 activity in Ontario to date.

Highlights

- There are 17,923 confirmed cases of COVID-19 in Ontario reported to date. This represents an increase of 370 confirmed cases from the previous report.
 - 41.6% of cases are male, 57.5% are female.
 - 44.2% of cases are 60 years of age and older.
 - Greater Toronto Area public health units account for 60.1% of cases.
 - 12.1% of cases were hospitalized.
- 1,300 deaths have been reported (please note there may be a reporting delay for deaths). This is an increase of 84 deaths from the previous report.
- 212 outbreaks have been reported in long-term care homes. This is an increase of 3 outbreaks from the previous report.
- 626 deaths have been reported among residents/patients in long-term care homes. This is an increase of 36 deaths from the previous report.

Case Characteristics

Table 1. Summary of cases of COVID-19: Ontario, January 15, 2020 to May 3, 2020

| | Number | Percentage |
|--|--------|---------------|
| Number of cases ¹ | 17,923 | N/A |
| Change from previous report | 370 | 2.1% increase |
| Gender: Male | 7,453 | 41.6 |
| Gender: Female | 10,312 | 57.5 |
| Ages: 19 and under | 431 | 2.4 |
| Ages: 20-39 | 4,156 | 23.2 |
| Ages: 40-59 | 5,403 | 30.1 |
| Ages: 60-79 | 3,939 | 22.0 |
| Ages: 80 and over | 3,984 | 22.2 |
| Number of cases in health care workers | 2,761 | 15.4 |

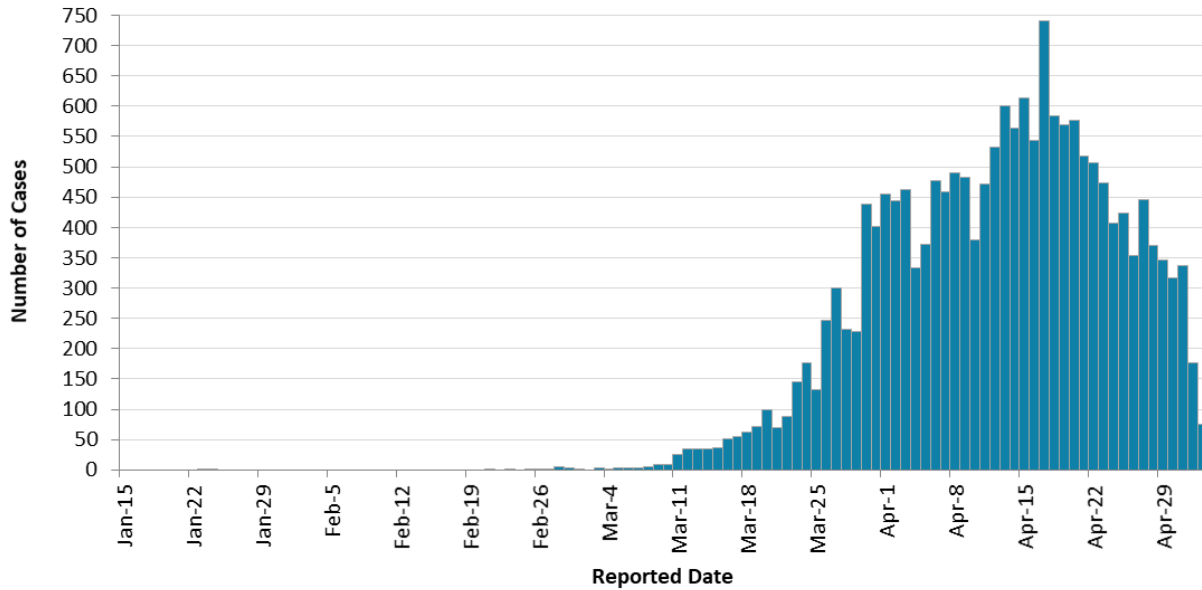
¹ Cases and rates by public health units are provided in [Appendix A](#).

Note: 158 cases did not specify male or female. 10 cases had an unknown age.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database, COVID-19 Ottawa Database (COD).

Time

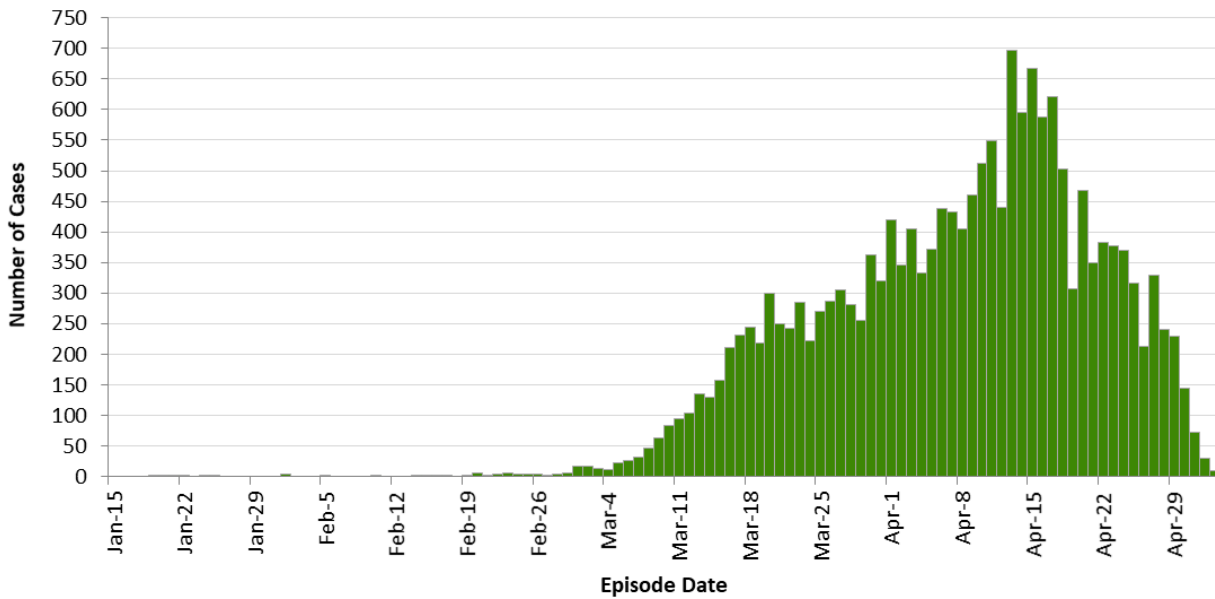
Figure 1. Confirmed cases (n=17,923) of COVID-19 by reported date: Ontario, January 15, 2020 to May 3, 2020¹



¹ Interpret case counts for the most recent days (approximately 3 days) with caution due to reporting lags.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database, COVID-19 Ottawa Database (COD).

Figure 2. Confirmed cases (n=17,916¹) of COVID-19 by an approximation of symptom onset date²: Ontario, January 15, 2020 to May 3, 2020³



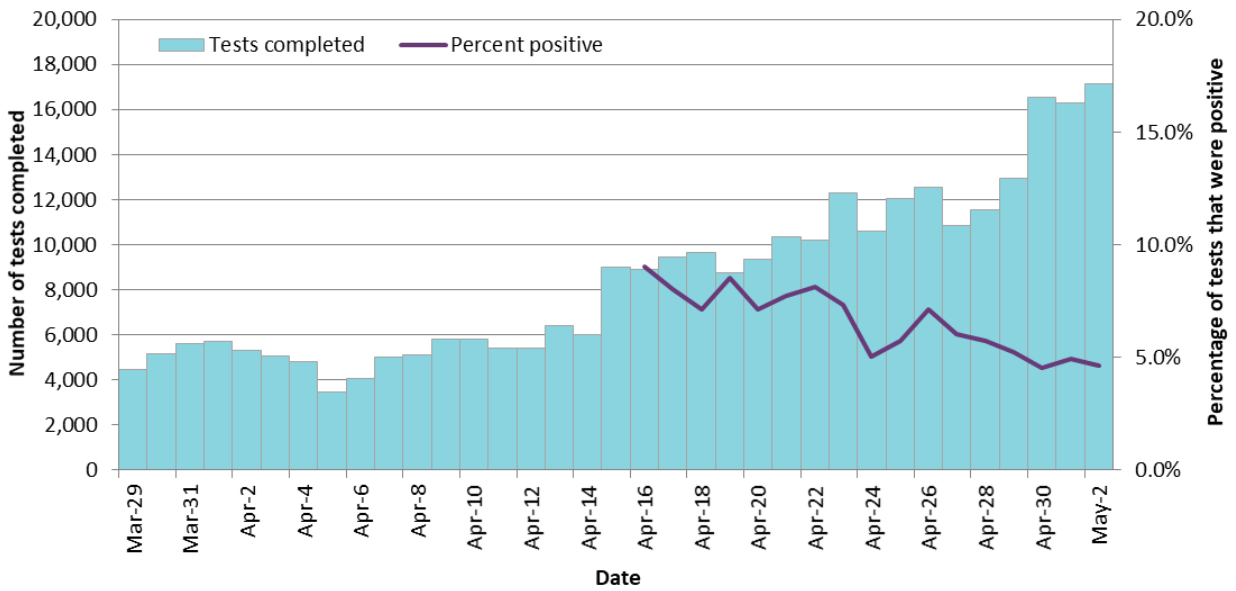
¹ This count excludes 7 cases that did not have an episode date reported.

² This date, referred to as episode date, is intended to approximate symptom onset date. It is calculated based on either the date of symptom onset, specimen collection/test date, or the date reported to public health.

³ Interpret case counts for the most recent days (approximately 14 days) with caution due to reporting lags.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database, COVID-19 Ottawa Database (COD).

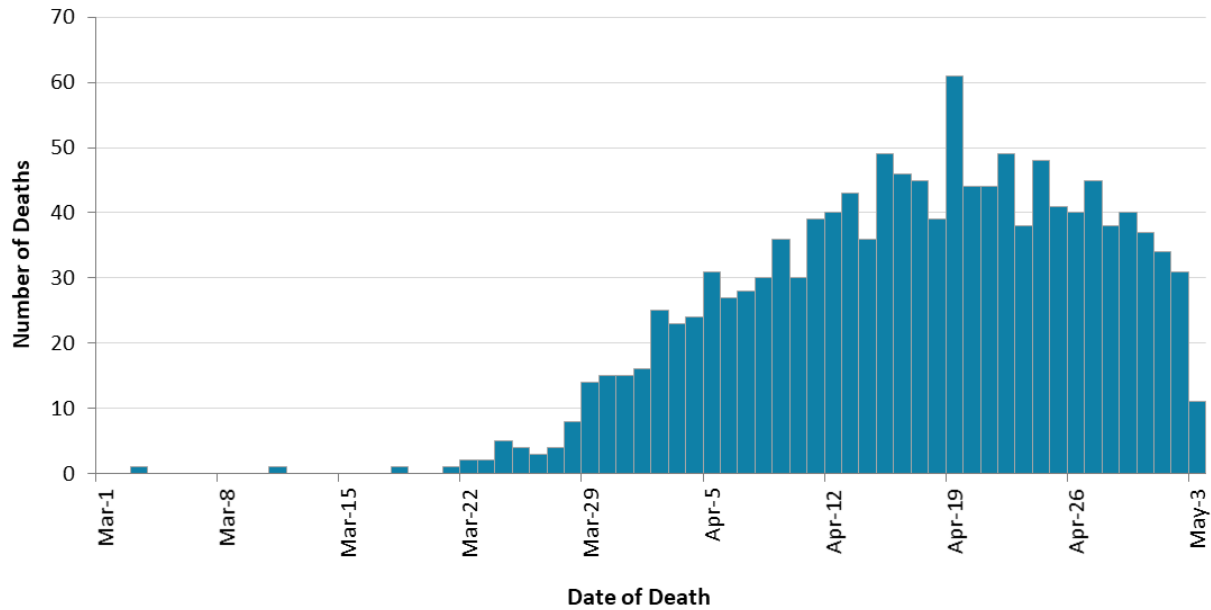
Figure 3. Number of COVID-19 tests completed¹ and percent positivity: Ontario, March 29, 2020 to May 2, 2020



¹The 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.

Figure 4. Confirmed deaths (n=1,284¹) among COVID-19 cases by date of death: Ontario, March 1, 2020 to May 3, 2020²



¹This count excludes 16 cases that did not have a date of death reported.

²Interpret case counts for the most recent days with caution due to reporting lags.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database, COVID-19 Ottawa Database (COD).

Exposure

Table 2. Confirmed cases (n=17,923) of COVID-19 by exposure type: Ontario, January 15, 2020 to May 3, 2020

| | Number | Percentage |
|-----------------------------------|--------|------------|
| Travel ¹ | 1,390 | 7.8 |
| Close contact of a confirmed case | 3,738 | 20.9 |
| Community transmission | 6,480 | 36.2 |
| Information pending | 6,315 | 35.2 |

¹Travel within the 14 days prior to becoming ill.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database, COVID-19 Ottawa Database (COD).

Severity

Table 3. Confirmed cases (n=17,923) of COVID-19 by severity: Ontario, January 15, 2020 to May 3, 2020

| | Number | Percentage |
|---|--------|---------------|
| Cumulative deaths reported (please note there may be a reporting delay for deaths in iPHIS) | 1,300 | 7.3 |
| Change from previous report | 84 | 6.9% increase |
| Deaths reported in ages: 19 and under | 0 | 0 |
| Deaths reported in ages: 20-39 | 7 | 0.2 |
| Deaths reported in ages: 40-59 | 57 | 1.1 |
| Deaths reported in ages: 60-79 | 327 | 8.3 |
| Deaths reported in ages: 80 and over | 909 | 22.8 |
| Cumulative intensive care ¹ | 515 | 2.9 |
| Cumulative hospitalized ¹ | 2,168 | 12.1 |
| Number of resolved ² cases | 12,505 | 69.8 |

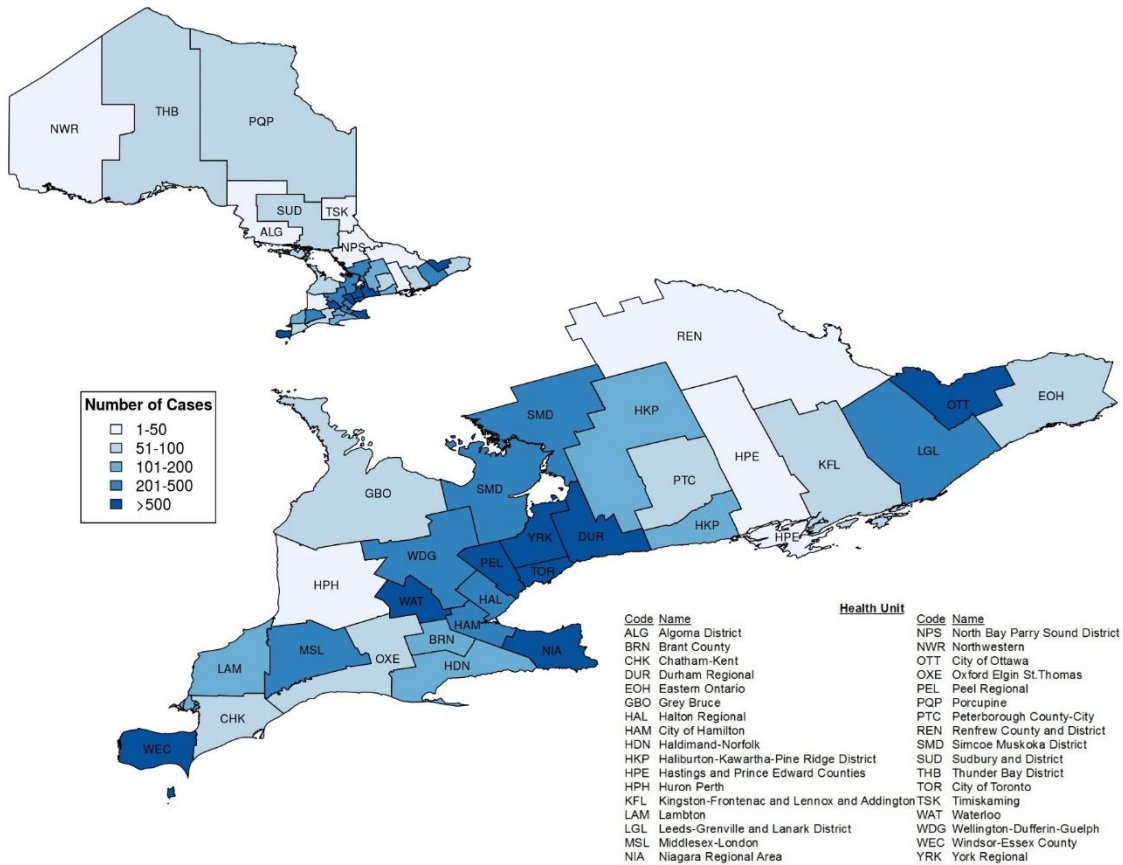
¹ These refer to all hospitalized or ICU admitted cases, not cases that are currently hospitalized or in ICU.

² Cases that are 14 days past symptom onset (if available) or 14 days past the episode date are classified as resolved for non-fatal cases that are not currently listed as hospitalized. Cases are also classified as resolved if the case is reported as “recovered” in iPHIS.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database, COVID-19 Ottawa Database (COD).

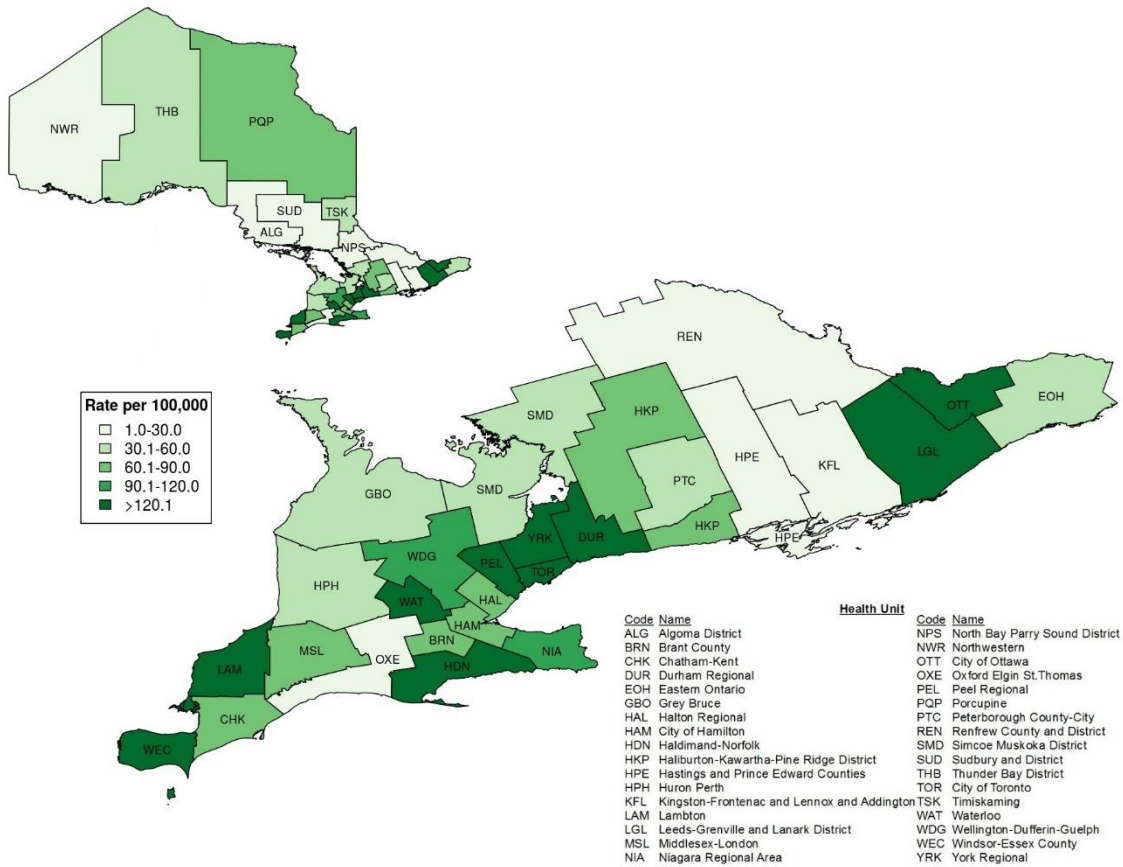
Geography

Figure 5. Confirmed cases (n=17,923) of COVID-19 by public health unit: Ontario, January 15, 2020 to May 3, 2020



Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database, COVID-19 Ottawa Database (COD).

Figure 6. Rate of confirmed cases of COVID-19 by public health unit: Ontario, January 15, 2020 to May 3, 2020



Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database, COVID-19 Ottawa Database (COD).

Outbreaks in Institutions and Public Hospitals

Table 4. Confirmed COVID-19 outbreaks reported in long-term care homes, retirement homes and hospitals and total number of associated cases: Ontario, January 15, 2020 to May 3, 2020

| Indicator | Long-Term Care Homes | Retirement Homes | Hospitals |
|--|----------------------|------------------|-----------|
| Cumulative number of confirmed COVID-19 outbreaks | 212 | 77 | 64 |
| Total number of cases ^{1,2,3} reported as part of the confirmed COVID-19 outbreaks | 3,843 | 719 | 498 |
| Cases reported among residents/patients | 2,564 | 465 | 240 |
| Cases reported among staff | 1,274 | 254 | 251 |
| Total number of deaths ^{1,2,3} reported as part of the confirmed COVID-19 outbreaks | 627 | 88 | 40 |
| Deaths reported among residents/patients | 626 | 88 | 40 |
| Deaths reported among staff | 1 | 0 | 0 |

¹ Includes all outbreak-related cases and deaths reported in aggregate outbreak summary counts, regardless of whether the case was laboratory confirmed (deaths among non-laboratory confirmed cases reported here are not included in Table 3).

² May include cases and deaths other than residents/patients or staff, such as volunteers. As a result, the total number of cases and deaths may be greater than the number of cases and deaths reported in residents or staff.

³ Counts may fluctuate from previous reports due to updates made by health units as additional information about the outbreak is reported.

Data Source: integrated Public Health Information System (iPHIS) database.

Technical Notes

Data Sources

- The data for this report were based on:
 - Information extracted from the Ontario Ministry of Health (MOH) integrated Public Health Information System (iPHIS) database, as of **May 3, 2020 at 4 p.m.**
 - Information successfully uploaded to the Ministry from Local Systems: the Toronto Public Health (Coronavirus Rapid Entry System) CORES and Ottawa Public Health COVID-19 Ottawa Database (COD), as of **May 3, 2020 at 2 p.m.**
- iPHIS, CORES and COD are dynamic disease reporting systems, which allows ongoing updates to data previously entered. As a result, data extracted from iPHIS 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 Ontario Ministry of Health, 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 and recorded in iPHIS and the Local Systems (e.g., CORES, COD). 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 iPHIS and Local Systems data entry due to reduced holiday and 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 iPHIS the Local Systems.
- 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 public health.
- 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.
 - GTA health units include: Durham Region Health Department, Peel Public Health, Toronto Public Health and York Region Public Health
- Exposure type is determined by examining the exposure and risk factor fields from iPHIS to determine whether a case travelled, was a contact of a case or neither. A hierarchy has been

applied as follows: Travel-related > Close contact of a confirmed case > Community transmission > Information pending.

- Exposure type is determined from Local Systems by examining the risk factor fields from Local Systems to determine whether a case travelled, was a contact of a case or neither. A hierarchy has been applied as follows: Travel-related > Close contact of a confirmed case > Community transmission > Information pending
- Deaths are determined by using the outcome field in iPHIS or Local Systems. Any case marked 'Fatal' is included in the deaths data. Deaths are included whether or not COVID-19 was determined to be a contributing or underlying cause of death as indicated in the iPHIS field Type of Death.
 - The date of death is determined using the outcome date field for cases marked as 'Fatal' in the outcome field.
- iPHIS cases for which the Disposition Status was reported as ENTERED IN ERROR, DOES NOT MEET DEFINITION, DUPLICATE-DO NOT USE, or any variation on these values have been excluded.
- To provide a measure of the impact of COVID-19 on long-term care homes and hospitals, the number of outbreaks and the associated cases are reported. To obtain the case and deaths data for these outbreaks, the aggregate counts recorded by public health units in the outbreak's summary counts section of iPHIS is used. This information is presented in table 4.
 - Previously only a select number of persons in institutional outbreaks would be tested for COVID-19, and there could still be circumstances where not all individuals end up being tested (e.g., the person dies before they can be tested).
 - These counts may not be updated as frequently as the information for laboratory-confirmed cases.
 - The information in the aggregate counts can not necessarily be reconciled with the laboratory-confirmed case data.

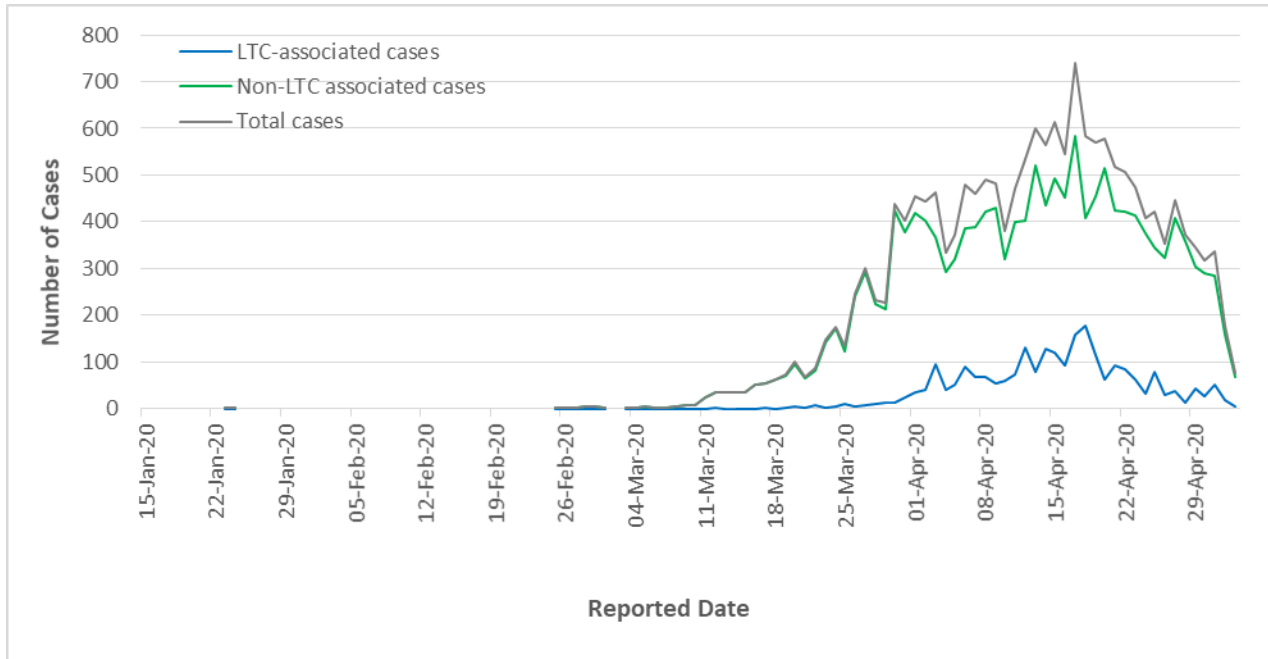
Appendix A

Table 1. Confirmed cases (n=17,923) of COVID-19 by public health unit: Ontario, January 15, 2020 to May 3, 2020

| Public Health Unit Name | Cases | Rate per 100,000 population |
|--|-------|-----------------------------|
| Northwestern Health Unit | 15 | 17.1 |
| Thunder Bay District Health Unit | 76 | 50.7 |
| TOTAL NORTH WEST | 91 | 38.3 |
| Algoma Public Health | 13 | 11.4 |
| North Bay Parry Sound District Health Unit | 16 | 12.3 |
| Porcupine Health Unit | 61 | 73.1 |
| Public Health Sudbury & Districts | 57 | 28.6 |
| Timiskaming Health Unit | 18 | 55.1 |
| TOTAL NORTH EAST | 165 | 29.5 |
| Ottawa Public Health | 1,504 | 142.6 |
| Eastern Ontario Health Unit | 98 | 47.0 |
| Hastings Prince Edward Public Health | 44 | 26.1 |
| Kingston, Frontenac and Lennox & Addington Public Health | 60 | 28.2 |
| Leeds, Grenville & Lanark District Health Unit | 317 | 183.1 |
| Renfrew County and District Health Unit | 16 | 14.7 |
| TOTAL EASTERN | 2,039 | 105.8 |
| Durham Region Health Department | 1,044 | 146.5 |
| Haliburton, Kawartha, Pine Ridge District Health Unit | 162 | 85.7 |
| Peel Public Health | 2,533 | 157.7 |

| Public Health Unit Name | Cases | Rate per 100,000 population |
|--|---------------|-----------------------------|
| Peterborough Public Health | 84 | 56.8 |
| Simcoe Muskoka District Health Unit | 310 | 51.7 |
| York Region Public Health | 1,638 | 133.6 |
| TOTAL CENTRAL EAST | 5,771 | 128.8 |
| Toronto Public Health | 5,555 | 178.0 |
| TOTAL TORONTO | 5,555 | 178.0 |
| Chatham-Kent Public Health | 89 | 83.7 |
| Grey Bruce Health Unit | 79 | 46.5 |
| Huron Perth Public Health | 50 | 35.8 |
| Lambton Public Health | 186 | 142.0 |
| Middlesex-London Health Unit | 431 | 84.9 |
| Southwestern Public Health | 58 | 27.4 |
| Windsor-Essex County Health Unit | 620 | 145.9 |
| TOTAL SOUTH WEST | 1,513 | 89.5 |
| Brant County Health Unit | 104 | 67.0 |
| City of Hamilton Public Health Services | 446 | 75.3 |
| Haldimand-Norfolk Health Unit | 193 | 169.2 |
| Halton Region Public Health | 477 | 77.0 |
| Niagara Region Public Health | 520 | 110.1 |
| Region of Waterloo Public Health and Emergency Services | 743 | 127.1 |
| Wellington-Dufferin-Guelph Public Health | 306 | 98.1 |
| TOTAL CENTRAL WEST | 2,789 | 97.9 |
| TOTAL ONTARIO | 17,923 | 120.6 |

Figure 1. Confirmed cases (n=17,923) of COVID-19 by reported date and association with long-term care homes (LTC)¹: Ontario, January 15, 2020 to Month day, 2020²

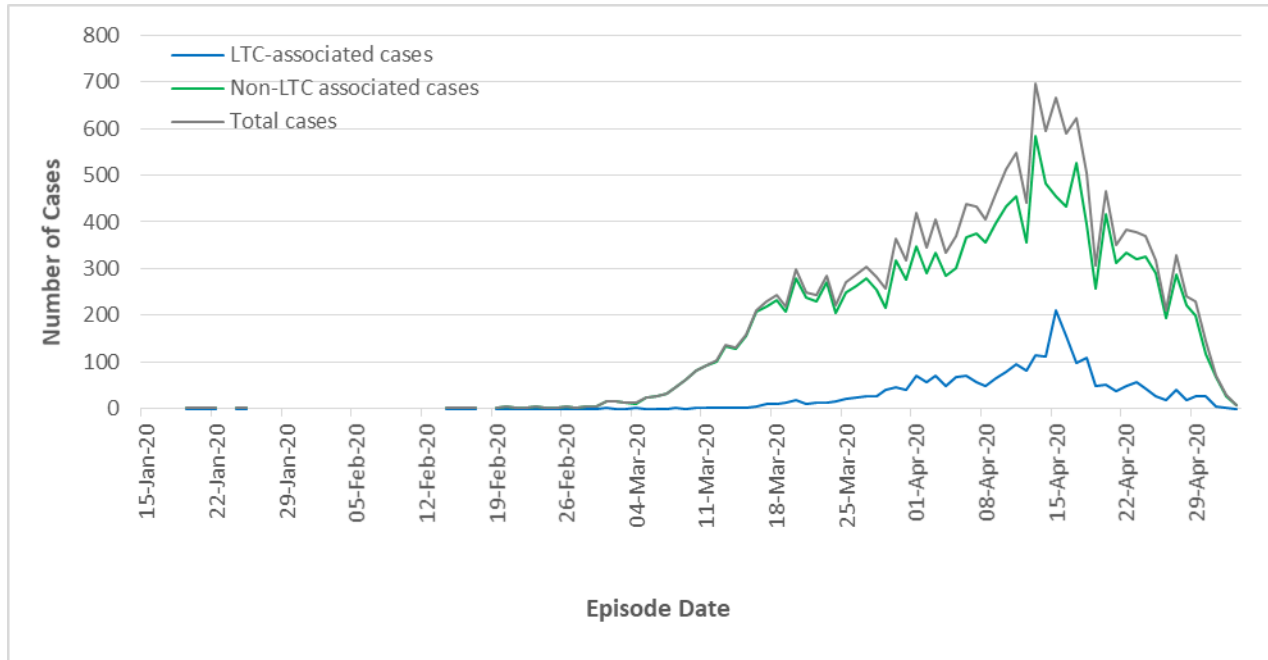


¹ LTC associated cases includes those that reported 'yes' to the risk factor 'Resident of nursing home or other chronic care facility' and non-LTC associated cases includes those who did not report 'yes' to the above risk factor.

² Interpret case counts for the most recent days (approximately 3 days) with caution due to reporting lags.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database, COVID-19 Ottawa Database (COD).

Figure 2. Confirmed cases (n=17,916¹) of COVID-19 by an approximation of symptom onset date² and association with long-term care homes (LTC)³: Ontario, January 15, 2020 to Month day, 2020⁴



¹This count excludes 7 cases that did not have an episode date reported.

² This date, referred to as episode date, is intended to approximate symptom onset date. It is calculated based on either the date of symptom onset, specimen collection/test date, or the date reported to public health.

³ LTC associated cases includes those that reported 'yes' to the risk factor 'Resident of nursing home or other chronic care facility' and non-LTC associated cases includes those who did not report 'yes' to the above risk factor.

⁴ Interpret case counts for the most recent days (approximately 14 days) with caution due to reporting lags.

Data Source: integrated Public Health Information System (iPHIS) database, Coronavirus Rapid Entry System (CORES) database, COVID-19 Ottawa Database (COD).

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For Further Information

For more information, email cd@oahpp.ca.

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