

## Weekly Epidemiologic Summary

# COVID-19 in Ontario: Focus on December 20, 2020 to December 26, 2020

This report includes the most current information available from CCM and other case management systems (CCM plus) as of **December 29, 2020.** 

Please visit the interactive <u>Ontario COVID-19 Data Tool</u> to explore recent COVID-19 data by public health unit, age group, sex, and trends over time.

A <u>daily summary</u> is available and provides an epidemiologic summary of recent COVID-19 activity in Ontario. This weekly report provides an epidemiologic summary of COVID-19 activity in Ontario over time.

## **Highlights**

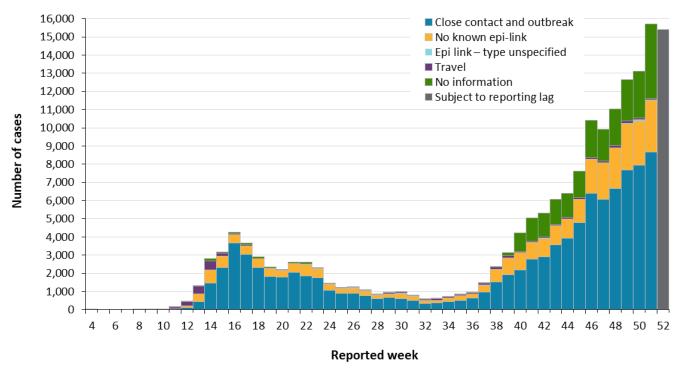
- There are a total of 173,241 confirmed cases of COVID-19 in Ontario with a public health unit reported date up to December 26, 2020.
- For the period with a public health unit reported date between December 20 and 26, 2020 (week 52):
  - A total of 15,420 cases were reported to public health compared to 15,706 cases the previous week (December 13 to 19).
  - The number of deaths exceeded 200 for the first time since the week of May 10 to 16, 2020.
  - This is the first week where all health units in southwestern Ontario, with the exception of Grey Bruce, reported rates exceeding 40 cases per 100,000 population.

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

Data corrections or updates can result in case records being removed and or updated from past reports. Thus comparisons of case counts by public health unit reported date may not align with daily change in cases publicly reported by the province for the same time period, which reflects the difference in cumulative counts between one day and the next.

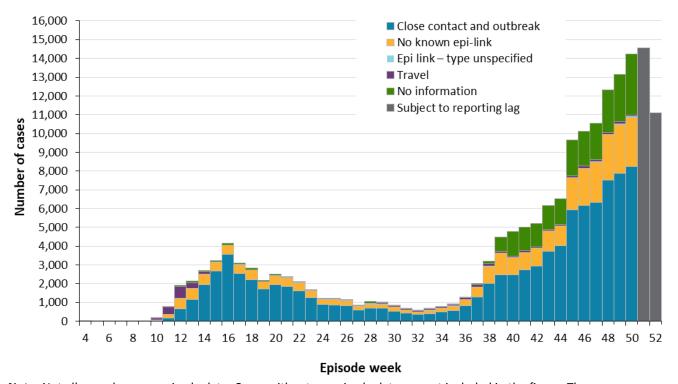
## **Cases Over Time**

Figure 1. Confirmed cases of COVID-19 by likely source of acquisition and public health unit reported week: Ontario



**Note:** Include cases with reported dates ranging from week 4 (January 19 and 25, 2020) to week 52 (December 20 and 26, 2020). See <u>Table 1A</u> in Appendix A for a list of the weeks and corresponding start and end dates.

Figure 2. Confirmed cases of COVID-19 by likely source of acquisition and approximation of symptom onset week: Ontario



**Note:** Not all cases have an episode date. Cases without an episode date are not included in the figure. The definition for how episode date is defined is available in the technical notes. Include cases with episode dates ranging from week 4 (January 19 and 25, 2020) to week 52 (December 20 and 26, 2020). See <u>Table 1A</u> in Appendix A for a list of the weeks and corresponding start and end dates.

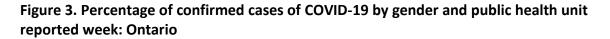
## **Case Characteristics**

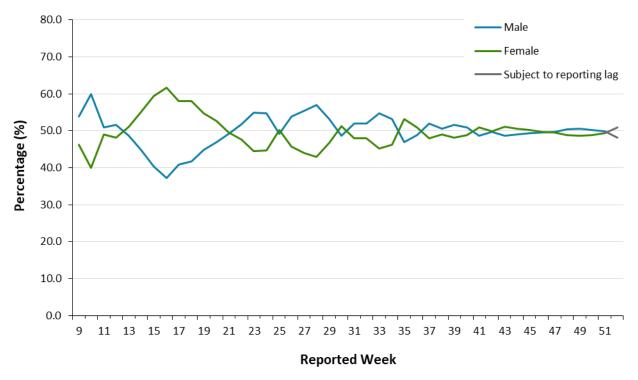
Table 1. Summary of confirmed cases of COVID-19 by public health unit reported date: Ontario

	Reported week 51 (December 13 to 19)	Reported week 52 (December 20 to 26)	Cumulative case count up to December 26	Cumulative rate per 100,000 population
Total number of cases	15,706	15,420	173,241	1,165.5
Gender: Male	7,817	7,428	84,906	1,160.0
Gender: Female	7,762	7,858	87,259	1,156.5
Ages: 19 and under	2,331	2,135	22,343	712.4
Ages: 20-39	5,725	5,464	63,201	1,520.6
Ages: 40-59	4,516	4,548	49,754	1,263.6
Ages: 60-79	2,187	2,306	24,940	844.0
Ages: 80 and over	937	959	12,969	1,909.3
Number resolved	N/A	N/A	153,638	N/A

**Note:** Not all cases have an age or gender reported.

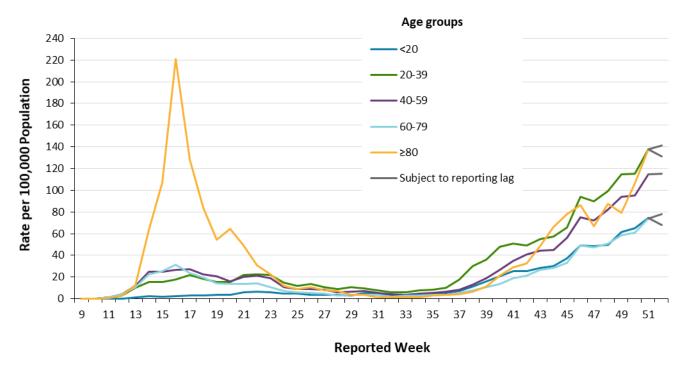
Interpret information for the most recent week with caution due to reporting lags.





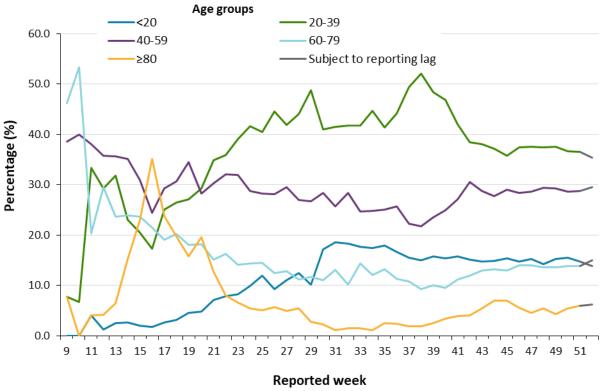
**Note:** Not all cases have a gender reported. The denominator for calculating weekly percentages includes all cases. Only weeks with more than 10 cases by public health unit reporting date are included (starting in week 9). Include cases with reported dates ranging from Week 9 (February 23 and 29, 2020) to week 52 (December 20 and 26, 2020). See <u>Table 1A</u> in Appendix A for a list of the weeks and corresponding start and end dates.

Figure 4a. Rate of confirmed cases of COVID-19 per 100,000 population by age group and public health unit reported week: Ontario



**Note**: Not all cases have an age reported. Only weeks with more than 10 cases by public health unit reporting date are included (starting in week 9). Include cases with reported dates ranging from week 9 (February 23 and 29, 2020) to week 52 (December 20 and 26, 2020). See <u>Table 1A</u> in Appendix A for a list of the weeks and corresponding start and end dates.

Figure 4b. Percentage of confirmed cases of COVID-19 by age group and public health unit reported week: Ontario



**Note**: Only weeks with more than 10 cases by public health unit reporting date are included (starting in week 9). Include cases with reported dates ranging from week 9 (February 23 and 29, 2020) to week 52 (December 20 and 26, 2020). See <u>Table 1A</u> in Appendix A for a list of the weeks and corresponding start and end dates.

### **Deaths**

500 ■ Number of deaths 450 ■ Subject to reporting lag 400 Number of deaths 350 300 250 200 150 100 50 0 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 Death week

Figure 5. Deaths among confirmed cases of COVID-19 by week of death: Ontario

**Note**: Cases without a death date are not included in the figure. Include cases with date of death ranging from week 4 (January 19 and 25, 2020) to week 52 (December 20 and 26, 2020). See <u>Table 1A</u> in Appendix A for a list of the weeks and corresponding start and end dates.

Table 2. Summary of deaths among confirmed cases of COVID-19 by public health unit reported week: Ontario

Deaths	Reported week 51 (December 13 to 19)	Reported week 52 (December 20 to 26)	Cumulative case count up to December 26	Cumulative rate per 100,000 population
Number of deaths	154	51	4,472	30.1
Gender: Male	82	28	2,114	28.9
Gender: Female	70	22	2,320	30.7
Ages: 19 and under	0	0	1	0.0
Ages: 20-39	1	1	18	0.4
Ages: 40-59	7	2	175	4.4
Ages: 60-79	43	12	1,186	40.1
Ages: 80 and over	103	35	3,091	455.1

**Note:** Age and gender may not be reported for all cases. Reported week is the week the case was reported to the public health unit. This is different than the "week of death" presented in Figure 5 which reflects the week the case was reported to have a 'Fatal' outcome.

Interpret information for the most recent week with caution due to reporting lags.

## **Exposure**

Table 3. Confirmed cases of COVID-19 by likely source of acquisition and public health unit reported week: Ontario

	Reported week 51 (December 13 to 19)	Percentage	Reported week 52 (December 20 to 26)	Percentage	Cumulative case count up to December 26	Cumulative percentage
Travel	82	0.5%	77	0.5%	3,957	2.3%
Outbreak-associated or close contact of a confirmed case	8,654	55.1%	7,649	49.6%	106,604	61.5%
Epidemiological link  – type unspecified	21	0.1%	0	0.0%	292	0.2%
No known epidemiological link	2,852	18.2%	2,566	16.6%	33,425	19.3%
Information missing or unknown	4,097	26.1%	5,128	33.3%	28,963	16.7%
Total	15,706		15,420		173,241	

**Note:** Information for how cases are grouped within each category is available in the technical notes. Interpret information for the most recent week with caution due to reporting lags.

 $\textbf{Data Source} \colon \mathsf{CCM} \; \mathsf{plus}.$ 

## Sub-populations of interest

Table 4. Summary of cases of COVID-19 among health care workers: Ontario

Health care workers	Reported week 51 (December 13 to 19)	Reported week 52 (December 20 to 26)	Cumulative case count up to December 26
Number of cases	765	774	12,828
Ever hospitalized	8	7	306
Ever in ICU	1	3	69

Note: Interpret information for the most recent week with caution due to reporting lags.

Data Source: CCM plus

Table 5. Summary of cases of COVID-19 associated with long-term care home outbreaks: Ontario

Long-term care home associated cases	Reported week 51 (December 13 to 19)	Reported week 52 (December 20 to 26)	Cumulative case count up to December 26
Residents	684	636	10,707
Deaths among residents	82	16	2,738
Health care workers	223	205	4,238
Deaths among health care workers	0	0	8

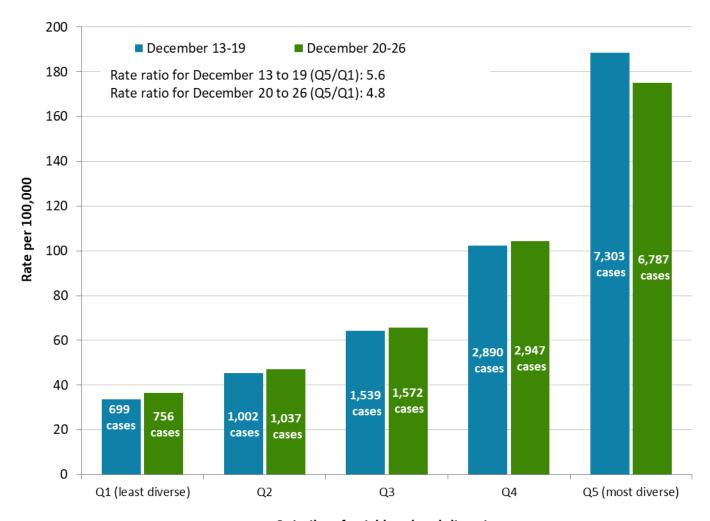
**Note:** Information on how long-term care home residents and health care workers are identified is available in the technical notes. Interpret information for the most recent week with caution due to reporting lags.

Table 6: Summary of cases of COVID-19 among school aged children by age group: Ontario

	Reported week 51 (December 13 to 19)	Reported week 52 (December 20 to 26)	Cumulative case count from August 30 up to December 26
Ages: 4-8	445	372	3,586
Ages: 9-13	591	536	4,994
Ages: 14-17	601	545	4,872

**Note:** Interpret information for the most recent week with caution due to reporting lags. Includes all confirmed cases of COVID-19 for specified ages, regardless of school attendance. Cumulative counts include cases of COVID-19 reported starting week 36 (August 30 to September 5, 2020).

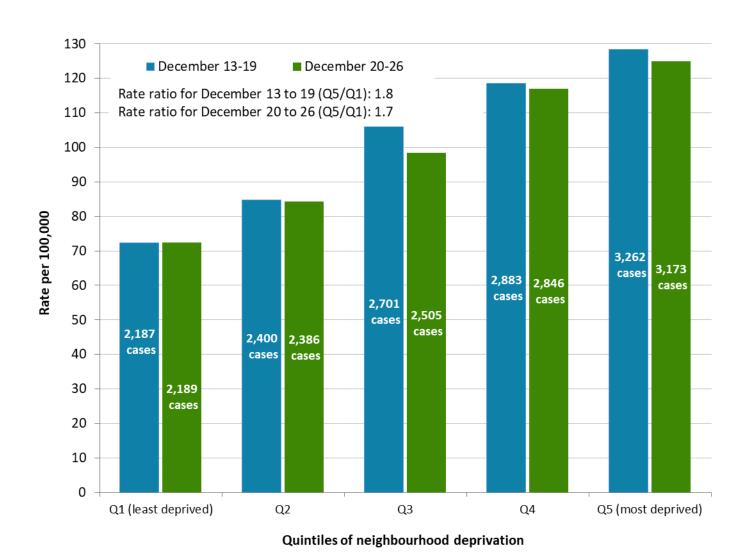
Figure 6. Rate and number of confirmed cases of COVID-19 for each quintile of neighbourhood diversity: Ontario, week 51 (December 13 to 19, 2020) and week 52 (December 20 to 26, 2020).



Quintiles of neighbourhood diversity

**Note:** Neighbourhood diversity is measured using the ethnic concentration dimension of the Ontario Marginalization Index. The ethnic concentration dimension is based on the proportion of non-white and non-Indigenous residents and/or the proportion of immigrants that arrived in Canada within the past five years. **Data Source:** CCM plus, Ontario Marginalization Index

Figure 7. Rate and number of confirmed cases of COVID-19 for each quintile of neighbourhood deprivation: Ontario, week 51 (December 13 to 19, 2020) and week 52 (December 20 to 26, 2020).

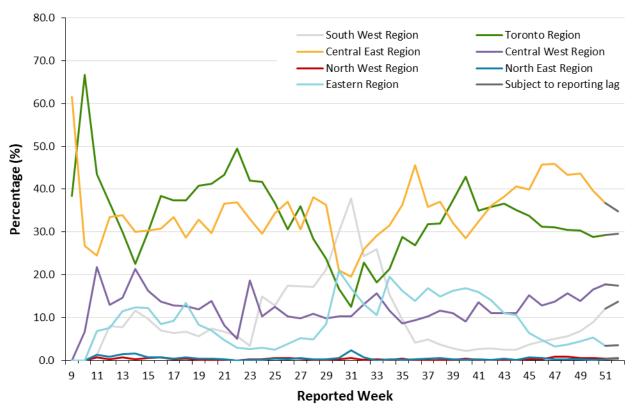


**Note:** Neighbourhood deprivation is measured using the material deprivation dimension of the Ontario Marginalization Index. The material deprivation dimension uses Canadian census data on income, quality of housing, educational attainment and family structure characteristics to assess the ability of individuals and communities to access and attain basic material needs.

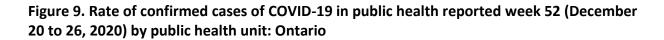
Data Source: CCM plus, Ontario Marginalization Index

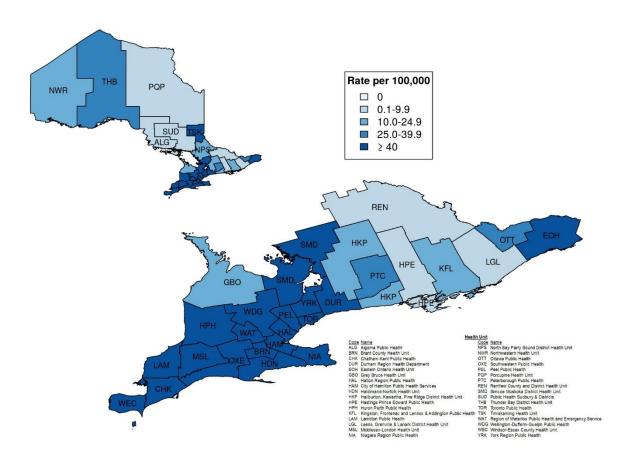
## Geography

Figure 8. Percentage of COVID-19 cases by geographic region and public health unit reported week: Ontario



**Note:** Only weeks with more than 10 cases by public health unit reporting date are included (starting in week 9). Include cases with reported dates ranging from week 9 (February 23 and 29, 2020) to week 52 (December 20 and 26, 2020). Table 2A in Appendix A has a listing of public health units by region.





**Note**: The provincial rate of confirmed cases of COVID-19 reported in week 52 was 103.7 cases per 100,000 population.

## **Outbreaks**

Table 7. Number of public health unit declared COVID-19 outbreaks by setting type: Ontario

Setting Type	Reported week 52 (December 20 to 26)	Number of ongoing outbreaks	Cumulative number of outbreaks reported to December 26
Congregate Care	95	363	1,596
Long-term care homes	55	200	896
Retirement homes	26	111	467
Hospitals	14	52	233
Congregate Living	38	97	461
Correctional facility	0	8	16
Shelter	8	13	86
Group Home/supportive Housing	28	65	302
Short-term accommodations	0	0	7
Congregate other	2	11	50
Education	39	198	718
Child care	6	56	234
School – Elementary*	21	93	339
School – Elementary/secondary*	1	7	23
School – Secondary*	10	38	109
School – Post-secondary*	1	4	13
Other settings	74	321	1,324
Bar/restaurant/nightclub	7	19	122
Medical/health services	5	11	57

Setting Type	Reported week 52 (December 20 to 26)	Number of ongoing outbreaks	Cumulative number of outbreaks reported to December 26
Personal service settings	0	2	11
Recreational fitness	0	9	47
Retail	6	33	136
Other recreation	3	21	70
Workplace - Farm	0	10	49
Workplace - Food processing	0	24	109
Other types of workplaces	27	154	685
Other	17	25	22
Unknown	9	13	16
Total number of outbreaks	246	979	4,099

**Note:** Reported week is based on the outbreak reported date, and if unavailable, the date the public health unit created the outbreak. Ongoing outbreaks includes all outbreaks that are 'Open' in CCM plus without a 'Declared Over Date' recorded 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/iPHIS is 'OPEN'. Interpret information for the most recent week with caution due to reporting lags. Outbreak categories are mutually exclusive. Retail includes settings such as grocery stores, pharmacies, malls, etc. Other types of workplaces include settings such as offices as well as warehousing, shipping and distribution, construction, etc. Other recreation includes settings such as entertainment and event venues, gatherings (e.g., weddings), religious facilities, etc. Medical/health services refer to settings such as doctor's office or clinic, wellness clinics, etc., and excludes categories listed in the congregate care setting group. \*Cumulative counts include COVID-19 school outbreaks reported starting week 36 (August 30 to September 5, 2020). Ongoing re-classification of settings for reported outbreaks can result in outbreak counts that may differ from previously reported counts. **Data Source:** CCM plus

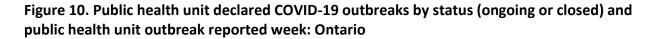
Table 8. Confirmed cases of COVID-19 associated with COVID-19 outbreaks by setting type and public health unit reported week: Ontario

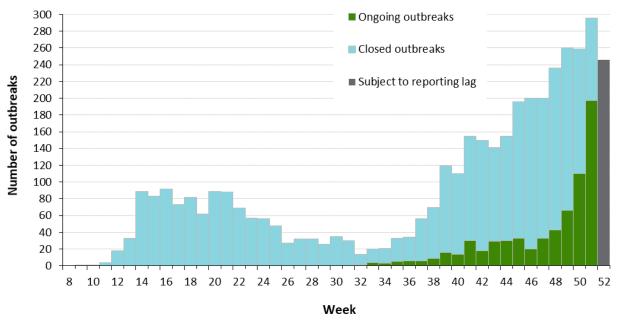
Cases associated with the outbreak setting type	Reported week 51 (December 13 to 19)	Reported week 52 (December 20 to 26)	Cumulative number of cases
Congregate Care	1,496	1,373	22,313
Long-term care homes	951	978	16,266
Retirement homes	350	241	3,706
Hospitals	195	154	2,341
Congregate Living	170	145	2,659
Correctional facility	78	19	259
Shelter	3	10	667
Group Home/supportive Housing	59	104	1,339
Short-term accommodations	0	0	14
Congregate other	30	12	380
Education	200	125	2,372
Child care	24	20	453
School – Elementary*	120	69	1,268
School – Elementary/secondary*	5	7	171
School – Secondary*	44	29	441
School – Post-secondary*	7	0	39
Other settings	724	404	8,754
Bar/restaurant/nightclub	16	7	453
Medical/health services	19	10	193
Personal service settings	0	0	36

Cases associated with the outbreak setting type	Reported week 51 (December 13 to 19)	Reported week 52 (December 20 to 26)	Cumulative number of cases
Recreational fitness	10	0	396
Retail	88	26	449
Other recreation	15	24	594
Workplace - Farm	63	32	1,644
Workplace - Food processing	118	37	1,100
Other types of workplaces	347	174	3,637
Other	39	47	124
Unknown	9	47	128
Total number of cases	2,590	2,047	36,098

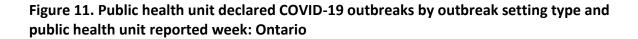
**Note**: Interpret case counts for the most recent week with caution due to reporting lags. Outbreak categories are mutually exclusive. Retail includes settings such as grocery stores, pharmacies, malls, etc. Other types of workplaces include settings such as offices as well as warehousing, shipping and distribution, construction, etc. Other recreation includes settings such as entertainment and event venues, gatherings (e.g., weddings), religious facilities, etc. Medical/health services refer to settings such as doctor's office or clinic, wellness clinics, etc., and excludes categories listed in the congregate care setting group.

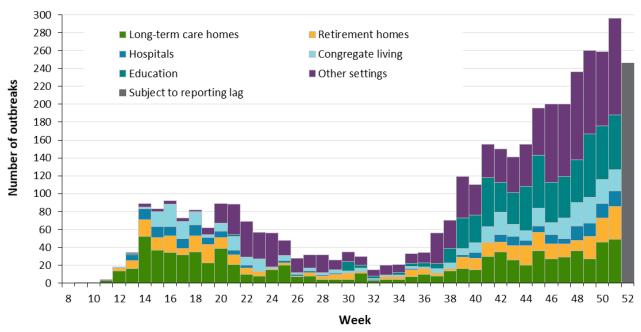
<sup>\*</sup>Cumulative counts include cases of COVID-19 associated with school outbreaks reported starting week 36 (August 30 to September 5, 2020). Ongoing re-classification of settings for reported outbreaks can result in case counts that may differ from previously reported counts.





**Note:** If public health unit outbreak reported date is unavailable, the date the public health unit created the outbreak is used. Ongoing outbreaks includes all outbreaks that are 'Open' in CCM plus without a 'Declared Over Date' recorded. Closed outbreaks are 'Closed' or have a 'Declared Over Date' recorded in CCM plus 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/iPHIS is 'OPEN'. Week 8 refers to February 16 and 22, 2020 and week 52 refers to December 20 and 26, 2020.





**Note**: If public health unit outbreak reported date is unavailable, the date the public health unit created the outbreak is used. Week 8 refers to February 16 and 22, 2020 and week 52 refers to December 20 and 26, 2020. Congregate living include group homes, shelters, correctional facilities, etc. Other settings include outbreaks within workplaces, childcare, schools, restaurants, recreation etc.

#### **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 29**, 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 29, 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 29, 2020 at 1 p.m.**
- 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.
- Statistics Canada Postal Code Conversion File (PCCF), reference date of May 2020.
- The health equity (neighbourhood-level diversity and deprivation) analyses use data from the 2016 Ontario Marginalization Index and population counts from the 2016 Canada Census:
  - Matheson FI; van Ingen T. 2016 Ontario marginalization index. Toronto, ON: Providence St. Joseph's and St. Michael's Healthcare; 2018. Joint publication with Public Health Ontario.
  - Statistics Canada. Census of Population, 2016: Profile for Canada, Provinces, Territories, Census Divisions, Census Subdivisions and Dissemination Areas. Retrieved from:
     <a href="https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/download-telecharger/comp/GetFile.cfm?Lang=E&FILETYPE=CSV&GEONO=044">https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/download-telecharger/comp/GetFile.cfm?Lang=E&FILETYPE=CSV&GEONO=044</a> ONTARIO.

#### Data Caveats and Methods: Case Data

- The data only represent cases reported to public health units and recorded in CCM plus. As a
  result, all counts are 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.
- Observed trends over time should be interpreted with caution for the most recent period due to reporting and/or data entry lags.

- All cases meeting the confirmed case classification as listed in the MOH <u>COVID-19 case definition</u> are included except where noted (e.g., analyses that describe the relationship between COVID-19 and marginalization). 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**.
- 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.
- Reported date is the date the case was reported to the public health unit. This is different than the daily change in cases released by the Province for the same time period, which reflects the difference in cumulative counts reported to the Province between one day and the next.
- Reported weeks were created to align with the Public Health Agency of Canada (PHAC) influenza surveillance weeks.
- 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.
- Cases with unknown or missing ages were excluded from age-specific analyses.
- Health care worker includes cases that reported 'Yes' to any of the following occupations: health care worker, doctor, nurse, dentist, dental hygienist, midwife, other medical technicians, personal support worker, respiratory therapist, first responder.
- 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 considered 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 hospitalization end date entered) and have a case status of 'closed' indicating that public health follow up is complete and are 14 days past their symptom onset date or specimen collection date
- Data on hospital admissions, ICU admissions and deaths are likely under-reported as these
  events may occur after the completion of public health follow up of cases. Cases that were
  admitted to hospital or died after follow-up was completed may not be captured in CCM.
- 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.
- 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.
- 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 an Epidemiological link with type unspecified, 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
- '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.
- '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.
- 'Cases associated with school outbreaks' includes cases that are linked to an outbreak, by school
  classification type (Elementary, Elementary/Secondary, Secondary, Post-Secondary), that met
  the definition of a school outbreak.

- School classification types are defined by the Ministry of Education.
  - Elementary/Secondary schools include public or private schools educating children in a combination of elementary and secondary grades (e.g., Kindergarten to Grade 8, Grades 9 to 12, and Kindergarten to Grade 12).
- 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
- Ongoing outbreaks are those that are reported in CCM plus as 'Open' and without a 'Declared
  Over Date' recorded. Closed outbreaks are 'Closed' or have a 'Declared Over Date' recorded in
  CCM plus 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/iPHIS is
  'OPEN'.
- Outbreaks are declared by the local medical officer of health or their designate in accordance to the Health Protection and Promotion Act and criteria outlined in Ministry guidance documents.
- School outbreaks include outbreaks declared on or after week 36 (August 30 to September 5, 2020).

#### Data Caveats and Methods: ON-Marg

- ON-Marg is a data tool that combines a wide range of demographic indicators into multiple
  distinct dimensions of marginalization. It is an area-based index which assigns a measure of
  marginalization based on neighbourhood versus individual characteristics. As such, the broader
  demographic trends of an area may not reflect all residents of a neighbourhood owing to the
  inherent heterogeneity of demographic characteristics which can vary substantially especially
  across large rural geographies. For more information, please visit <a href="PHO's ON-Marg website">PHO's ON-Marg website</a>.
- Neighbourhood diversity is defined using the ethnic concentration dimension of ON-Marg,
  which measures populations who may experience marginalization related to racism and
  discrimination. It is based on the proportion of non-white and non-Indigenous residents (visible
  minority) and/or the proportion of immigrants that arrived in Canada within the past five years.
  'Visible minority' is a term used by Statistics Canada that, although is considered to be outdated,
  is used here to be consistent with the Canadian census.
- Neighbourhood deprivation is defined using the material deprivation dimension of ON-Marg, which is closely connected to poverty. It refers to the inability of individuals and communities to access and attain basic material needs. The indicators included in this dimension measure income, quality of housing, educational attainment and family structure characteristics.

- "Neighbourhoods" are considered to be Statistic Canada dissemination areas (DA). The Single Link Indicator Postal Code Conversion File (PCCF) was used to match individuals to a DA based on their postal code, which were subsequently assigned to a quintile of marginalization that contained 20% of Ontario neighbourhoods. The quintiles for the ethnic concentration and the material deprivation dimensions are ordered from quintiles 1 to 5, with quintile 1 having the lowest level of marginalization (i.e., least diverse or least deprived) and quintile 5 having the highest level of marginalization (i.e., most diverse or most deprived).
- The following were not included in analyses that summarize the impact of COVID-19 among Ontarians who may experience marginalization:
  - People who have tested positive for COVID-19 that reside in institutional and congregate settings are not included in the census data from which the marginalization indicators (ethnic concentration and material deprivation) are derived. Although these cases represent a large number of cases overall and deaths, their exclusion ensures appropriate comparisons since institutional and congregate setting residents are excluded from ON-Marg.
  - People who have tested positive for COVID-19 that reside in census dissemination areas where data has been suppressed, and cases that have missing or invalid postal codes could not be assigned to a quintile of marginalization.
  - Due to data suppression for some census indicators on Indian Reserves in Ontario, residents of Indian Reserves could not be included in ON-Marg and therefore people who have tested positive for COVID-19 and are living on Indian Reserves could not be assigned to a quintile of marginalization. While Indigenous individuals living off reserves are included in this analysis, Indigeneity data is not currently collected or captured in dimensions of ON-Marg.

# Appendix A

Table 1A. Confirmed cases of COVID-19 by public health unit reported week: Ontario

Reported Week	Start date	End date	Number of cases	Cumulative count
2	January 5, 2020	January 11, 2020	0	0
3	January 12, 2020	January 18, 2020	0	0
4	January 19, 2020	January 25, 2020	3	3
5	January 26, 2020	February 1, 2020	0	3
6	February 2, 2020	February 8, 2020	0	3
7	February 9, 2020	February 15, 2020	0	3
8	February 16, 2020	February 22, 2020	1	4
9	February 23, 2020	February 29, 2020	13	17
10	March 1, 2020	March 7, 2020	15	32
11	March 8, 2020	March 14, 2020	147	179
12	March 15, 2020	March 21, 2020	448	627
13	March 22, 2020	March 28, 2020	1,326	1,953
14	March 29, 2020	April 4, 2020	2,800	4,753
15	April 5, 2020	April 11, 2020	3,168	7,921
16	April 12, 2020	April 18, 2020	4,274	12,195
17	April 19, 2020	April 25, 2020	3,653	15,848
18	April 26, 2020	May 2, 2020	2,905	18,753
19	May 3, 2020	May 9, 2020	2,345	21,098
20	May 10, 2020	May 16, 2020	2,234	23,332
21	May 17, 2020	May 23, 2020	2,613	25,945

Reported Week	Start date	End date	Number of cases	Cumulative count
22	May 24, 2020	May 30, 2020	2,615	28,560
23	May 31, 2020	June 6, 2020	2,306	30,866
24	June 7, 2020	June 13, 2020	1,469	32,335
25	June 14, 2020	June 20, 2020	1,231	33,566
26	June 21, 2020	June 27, 2020	1,253	34,819
27	June 28, 2020	July 4, 2020	1,085	35,904
28	July 5, 2020	July 11, 2020	865	36,769
29	July 12, 2020	July 18, 2020	932	37,701
30	July 19, 2020	July 25, 2020	995	38,696
31	July 26, 2020	August 1, 2020	804	39,500
32	August 2, 2020	August 8, 2020	597	40,097
33	August 9, 2020	August 15, 2020	611	40,708
34	August 16, 2020	August 22, 2020	729	41,437
35	August 23, 2020	August 29, 2020	855	42,292
36	August 30, 2020	September 5, 2020	976	43,268
37	September 6, 2020	September 12, 2020	1,505	44,773
38	September 13, 2020	September 19, 2020	2,393	47,166
39	September 20, 2020	September 26, 2020	3,133	50,299
40	September 27, 2020	October 3, 2020	4,242	54,541
41	October 4, 2020	October 10, 2020	5,053	59,594
42	October 11, 2020	October 17, 2020	5,303	64,897
43	October 18, 2020	October 24, 2020	6,056	70,953
44	October 25, 2020	October 31, 2020	6,402	77,355

Reported Week	Start date	End date	Number of cases	Cumulative count
45	November 1, 2020	November 7, 2020	7,620	84,975
46	November 8, 2020	November 14, 2020	10,427	95,402
47	November 15, 2020	November 21, 2020	9,929	105,331
48	November 22, 2020	November 28, 2020	11,025	116,356
49	November 29, 2020	December 5, 2020	12,660	129,016
50	December 6, 2020	December 12, 2020	13,099	142,115
51	December 13, 2020	December 19, 2020	15,706	157,821
52	December 20, 2020	December 26, 2020	15,420	173,241

Table 2A. Confirmed cases of COVID-19 by public health unit and region: Ontario

Public Health Unit Name	Cases reported week 51	Rate per 100,000 population Reported week 51	Cases reported week 52	Rate per 100,000 population Reported week 52
Northwestern Health Unit	5	5.7	20	22.8
Thunder Bay District Health Unit	67	44.7	58	38.7
TOTAL NORTH WEST	72	30.3	78	32.8
Algoma Public Health	0	0.0	3	2.6
North Bay Parry Sound District Health Unit	17	13.1	14	10.8
Porcupine Health Unit	4	4.8	6	7.2
Public Health Sudbury & Districts	8	4.0	13	6.5
Timiskaming Health Unit	11	33.7	25	76.5
TOTAL NORTH EAST	40	7.2	61	10.9
Ottawa Public Health	285	27.0	361	34.2
Eastern Ontario Health Unit	94	45.0	102	48.9
Hastings Prince Edward Public Health	25	14.8	16	9.5
Kingston, Frontenac and Lennox & Addington Public Health	76	35.7	52	24.4
Leeds, Grenville & Lanark District Health Unit	37	21.4	17	9.8
Renfrew County and District Health Unit	17	15.6	10	9.2
TOTAL EASTERN	534	27.7	558	29.0

Public Health Unit Name	Cases reported week 51	Rate per 100,000 population Reported week 51	Cases reported week 52	Rate per 100,000 population Reported week 52
Durham Region Health Department	633	88.9	625	87.7
Haliburton, Kawartha, Pine Ridge District Health Unit	46	24.3	43	22.8
Peel Public Health	3,233	201.3	2,829	176.2
Peterborough Public Health	24	16.2	45	30.4
Simcoe Muskoka District Health Unit	357	59.5	337	56.2
York Region Public Health	1,479	120.7	1,485	121.1
TOTAL CENTRAL EAST	5,772	128.8	5,364	119.7
Toronto Public Health	4,591	147.1	4,563	146.2
TOTAL TORONTO	4,591	147.1	4,563	146.2
Chatham-Kent Public Health	35	32.9	49	46.1
Grey Bruce Health Unit	30	17.7	36	21.2
Huron Perth Public Health	72	51.5	105	75.1
Lambton Public Health	73	55.7	137	104.6
Middlesex-London Health Unit	387	76.3	462	91.0
Southwestern Public Health	165	78.0	213	100.7
Windsor-Essex County Health Unit	1,144	269.3	1,105	260.1
TOTAL SOUTH WEST	1,906	112.7	2,107	124.6
Brant County Health Unit	110	70.9	75	48.3

Public Health Unit Name	Cases reported week 51	Rate per 100,000 population Reported week 51	Cases reported week 52	Rate per 100,000 population Reported week 52
City of Hamilton Public Health Services	717	121.1	630	106.4
Haldimand-Norfolk Health Unit	68	59.6	64	56.1
Halton Region Public Health	521	84.2	536	86.6
Niagara Region Public Health	508	107.5	520	110.1
Region of Waterloo Public Health and Emergency Services	573	98.1	567	97.0
Wellington-Dufferin-Guelph Public Health	294	94.3	297	95.2
TOTAL CENTRAL WEST	2,791	98.0	2,689	94.4
TOTAL ONTARIO	15,706	105.7	15,420	103.7

**Note:** Interpret information for the most recent week with caution due to reporting lags.

#### Disclaimer

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## For Further Information

For more information, email cd@oahpp.ca.

#### **Public Health Ontario**

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