Public Health Ontario | Santé publique Ontario

Weekly Epidemiologic Summary

COVID-19 in Ontario: Focus on December 27, 2020 to January 2, 2021

This report includes the most current information available from CCM and other case management systems (CCM plus) as of **January 5, 2021.**

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

A daily summary 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.

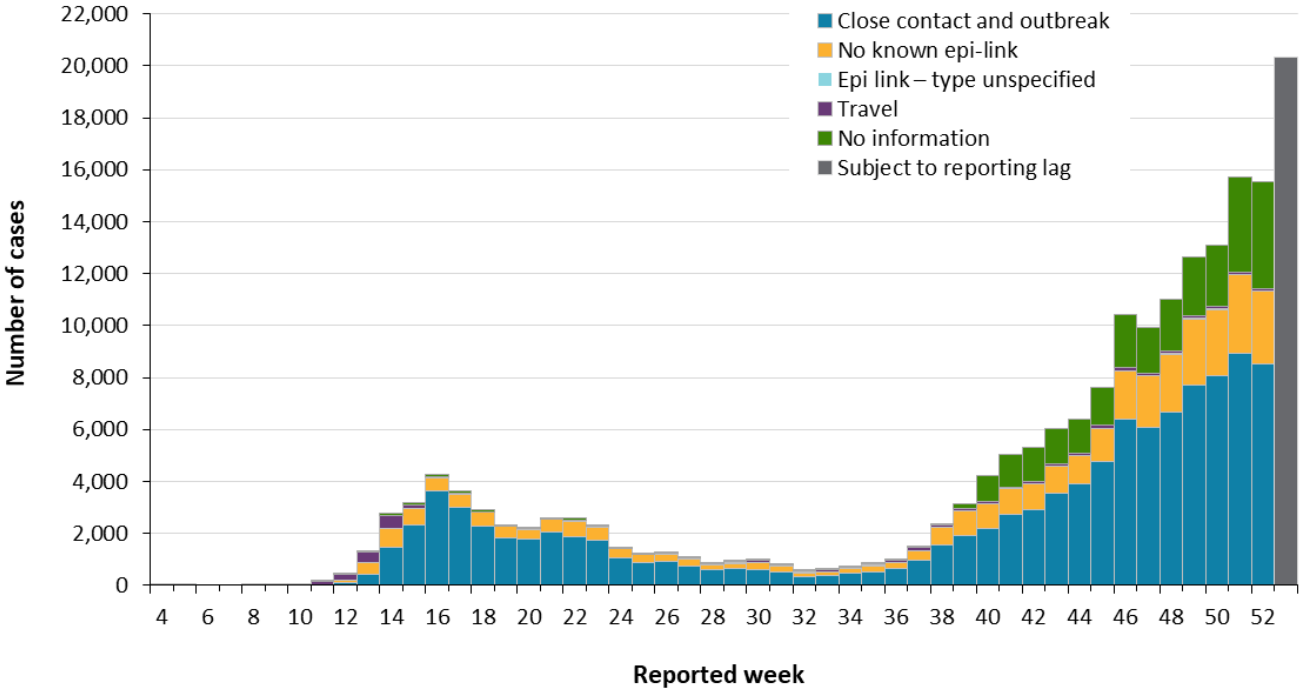
Highlights

- There are a total of 193,692 confirmed cases of COVID-19 in Ontario with a public health unit reported date up to January 2, 2021.
- For the period with a public health unit reported date between December 27, 2020 to January 2, 2021 (week 53):
    - A total of 20,324 cases were reported to public health compared to 15,529 cases the previous week (December 20 to 26).
    - Over 20,000 cases were reported this week (30.9% increase compared to last week), which is the highest number ever reported in a single week. This upward trend in cases is reflected among all age groups in the current week.
    - Approximately 85% of public health units reported an increase in the rate of disease in the current week compared to the previous week with over two-thirds of health units reporting a rate of disease greater than or equal to 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

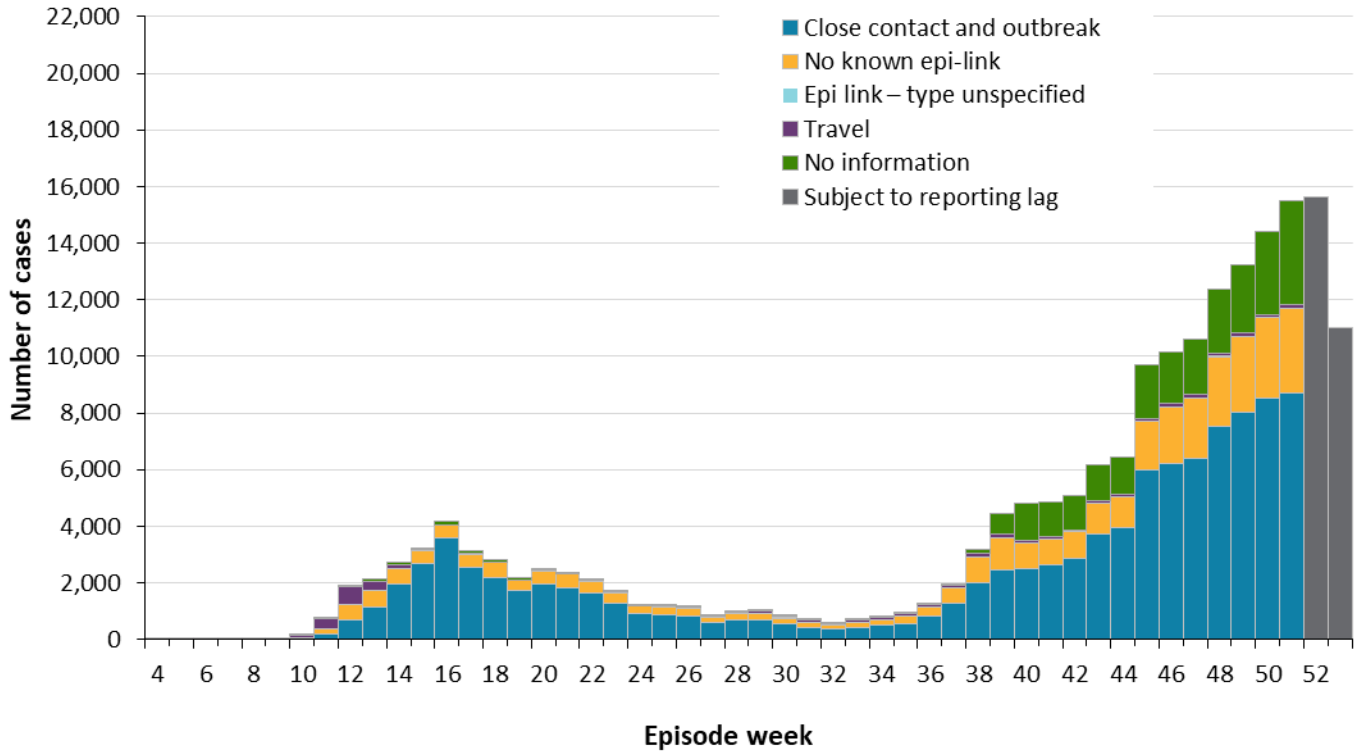
Figure 1. Confirmed cases of COVID-19 by likely source of acquisition and public health unit reported week: Ontario



Note: Include cases with reported dates ranging from week 4 (January 19 and 25, 2020) to week 53 (December 27, 2020 to January 2, 2021). See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM plus

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 53 (December 27, 2020 to January 2, 2021). See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM plus

Case Characteristics

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

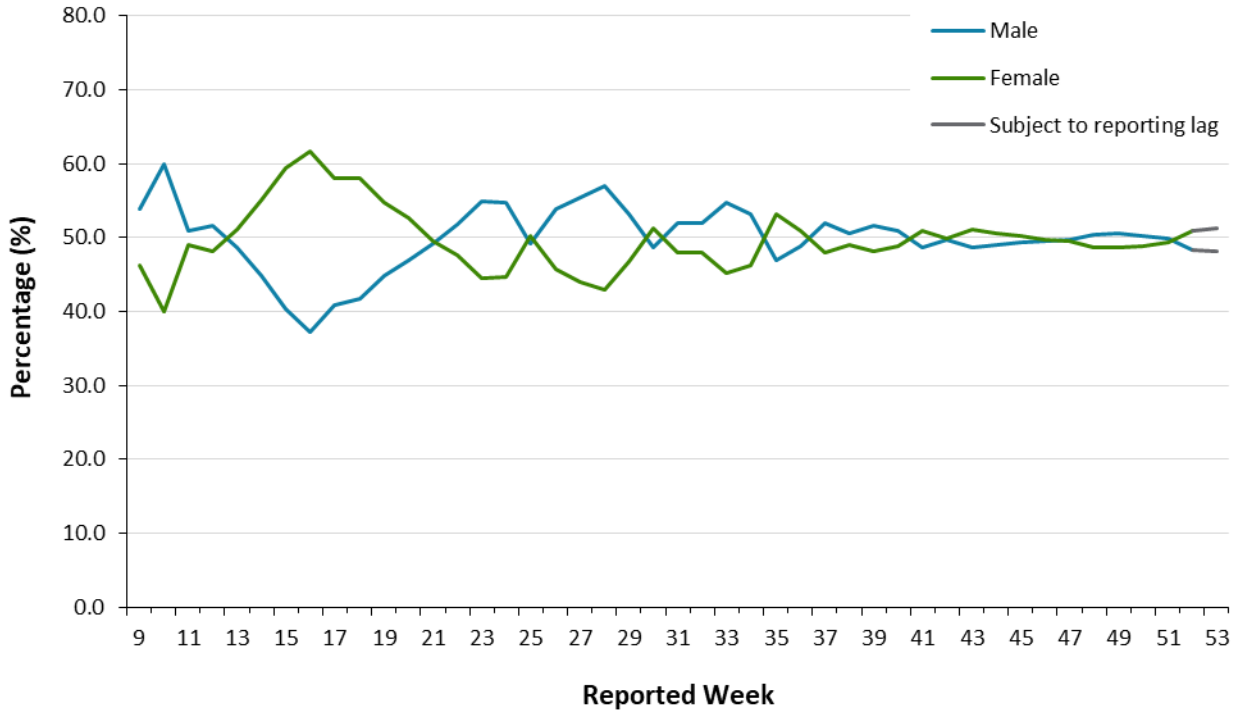
	Reported week 52 (December 20 to 26)	Reported week 53 (December 27 to January 2)	Cumulative case count up to January 2	Cumulative rate per 100,000 population
Total number of cases	15,529	20,324	193,692	1,303.1
Gender: Male	7,494	9,789	94,781	1,295.0
Gender: Female	7,912	10,406	97,726	1,295.2
Ages: 19 and under	2,147	2,689	25,045	798.5
Ages: 20-39	5,513	7,312	70,574	1,698.0
Ages: 40-59	4,578	6,120	55,906	1,419.8
Ages: 60-79	2,319	3,057	28,012	948.0
Ages: 80 and over	965	1,139	14,116	2,078.1
Number resolved	N/A	N/A	169,602	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.

Data Source: CCM plus

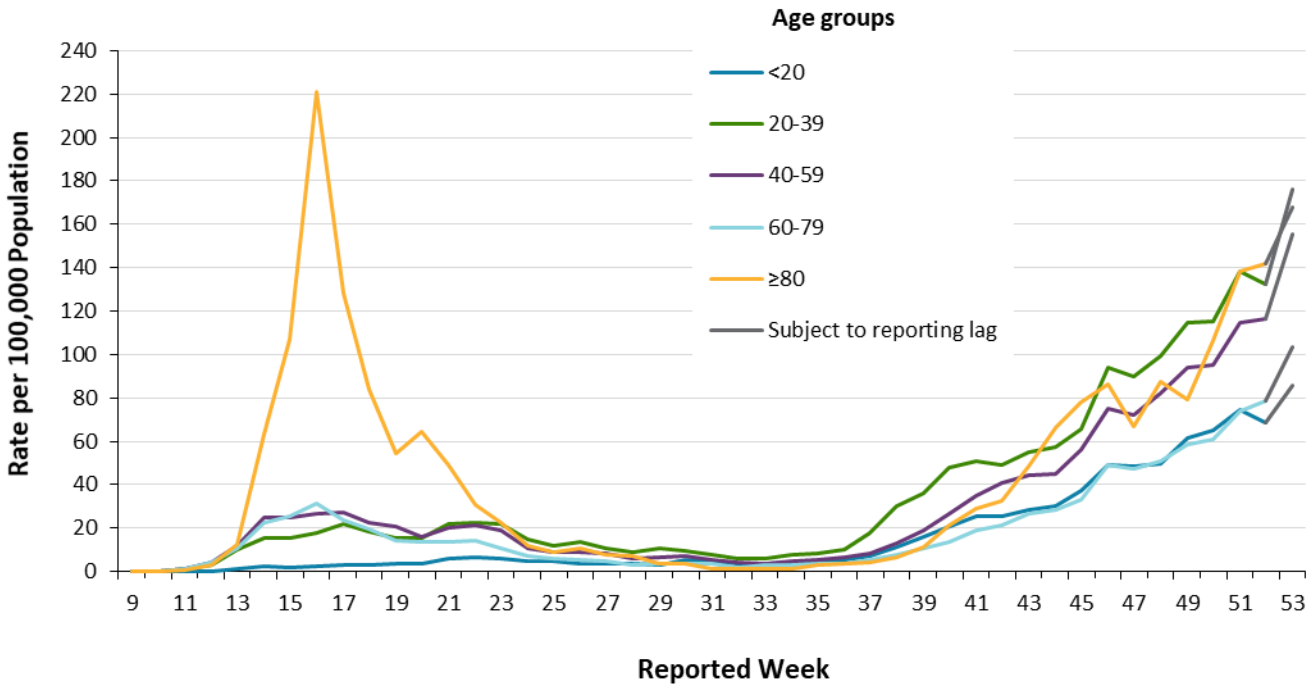
Figure 3. Percentage of confirmed cases of COVID-19 by gender and public health unit reported week: Ontario



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 53 (December 27, 2020 to January 2, 2021). See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM plus

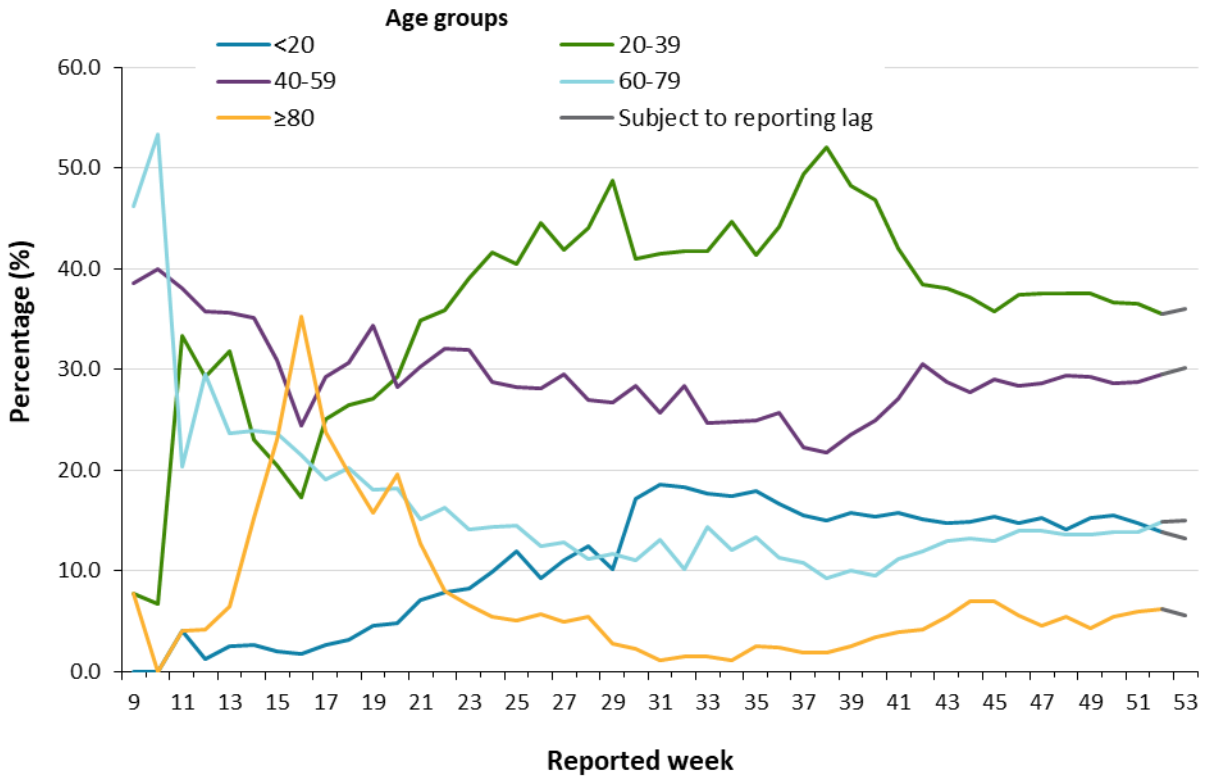
Figure 4a. Rate of confirmed cases of COVID-19 per 100,000 population by age group and public health unit reported week: Ontario



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 53 (December 27, 2020 to January 2, 2021). See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM plus

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

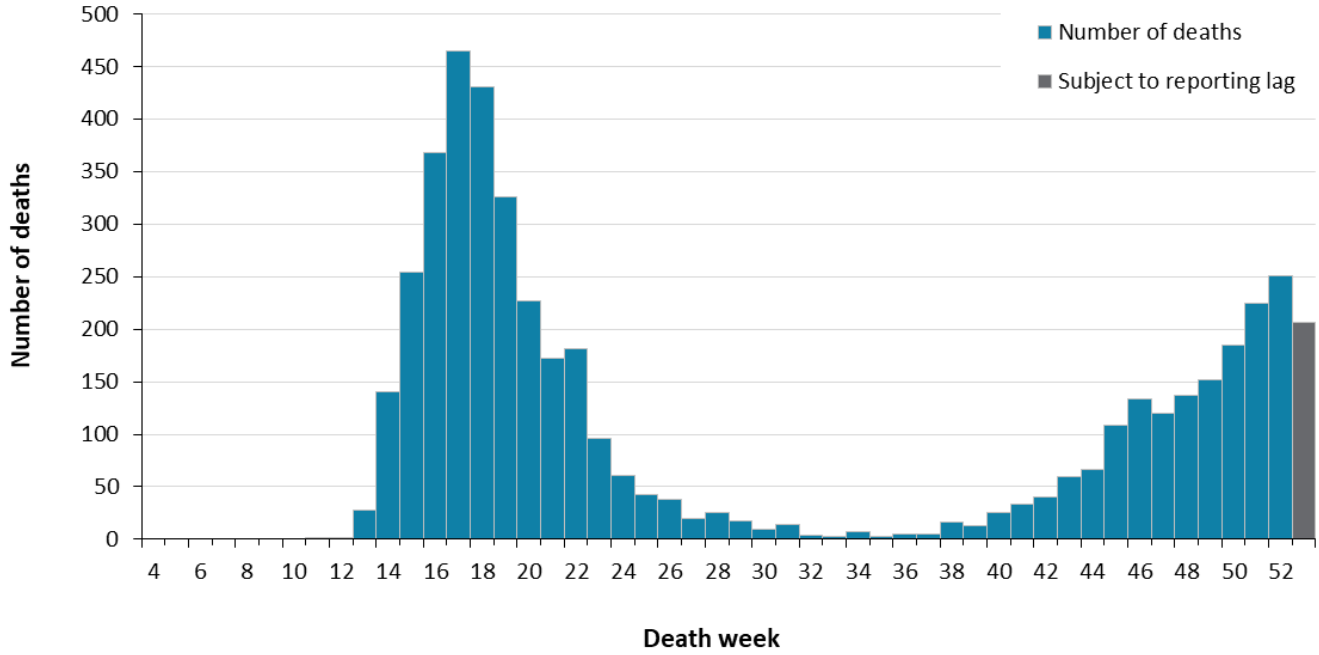


Note: Only weeks with more than 10 cases by public health unit reporting date are included (starting in week 9). Include cases with reported dates ranging from week 9 (February 23 and 29, 2020) to week 53 (December 27, 2020 to January 2, 2021). See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM plus

Deaths

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 53 (December 27, 2020 to January 2, 2021). See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM plus

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

Deaths	Reported week 52 (December 20 to 26)	Reported week 53 (December 27 to January 2)	Cumulative case count up to January 2	Cumulative rate per 100,000 population
Number of deaths	131	63	4,758	32.0
Gender: Male	64	30	2,246	30.7
Gender: Female	66	33	2,473	32.8
Ages: 19 and under	0	0	1	0.0
Ages: 20-39	1	1	20	0.5
Ages: 40-59	3	3	183	4.6
Ages: 60-79	34	24	1,275	43.1
Ages: 80 and over	92	35	3,278	482.6

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.

Data Source: CCM plus

Exposure

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

	Reported week 52 (December 20 to 26)	Percentage	Reported week 53 (December 27 to January 2)	Percentage	Cumulative case count up to January 2	Cumulative percentage
Travel	92	0.6%	90	0.4%	4,077	2.1%
Outbreak-associated or close contact of a confirmed case	8,510	54.8%	9,793	48.2%	117,682	60.8%
Epidemiological link – type unspecified	0	0.0%	0	0.0%	257	0.1%
No known epidemiological link	2,837	18.3%	3,162	15.6%	37,195	19.2%
Information missing or unknown	4,090	26.3%	7,279	35.8%	34,481	17.8%
Total	**15,529**		**20,324**		**193,692**	

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.

Data Source: CCM plus.

Sub-populations of interest

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

Health care workers	Reported week 52 (December 20 to 26)	Reported week 53 (December 27 to January 2)	Cumulative case count up to January 2
Number of cases	830	852	13,762
Ever hospitalized	11	4	317
Ever in ICU	4	0	71

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 52 (December 20 to 26)	Reported week 53 (December 27 to January 2)	Cumulative case count up to January 2
Residents	689	632	11,406
Deaths among residents	50	18	2,881
Health care workers	230	215	4,511
Deaths among health care workers	0	1	9

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.

Data Source: CCM plus

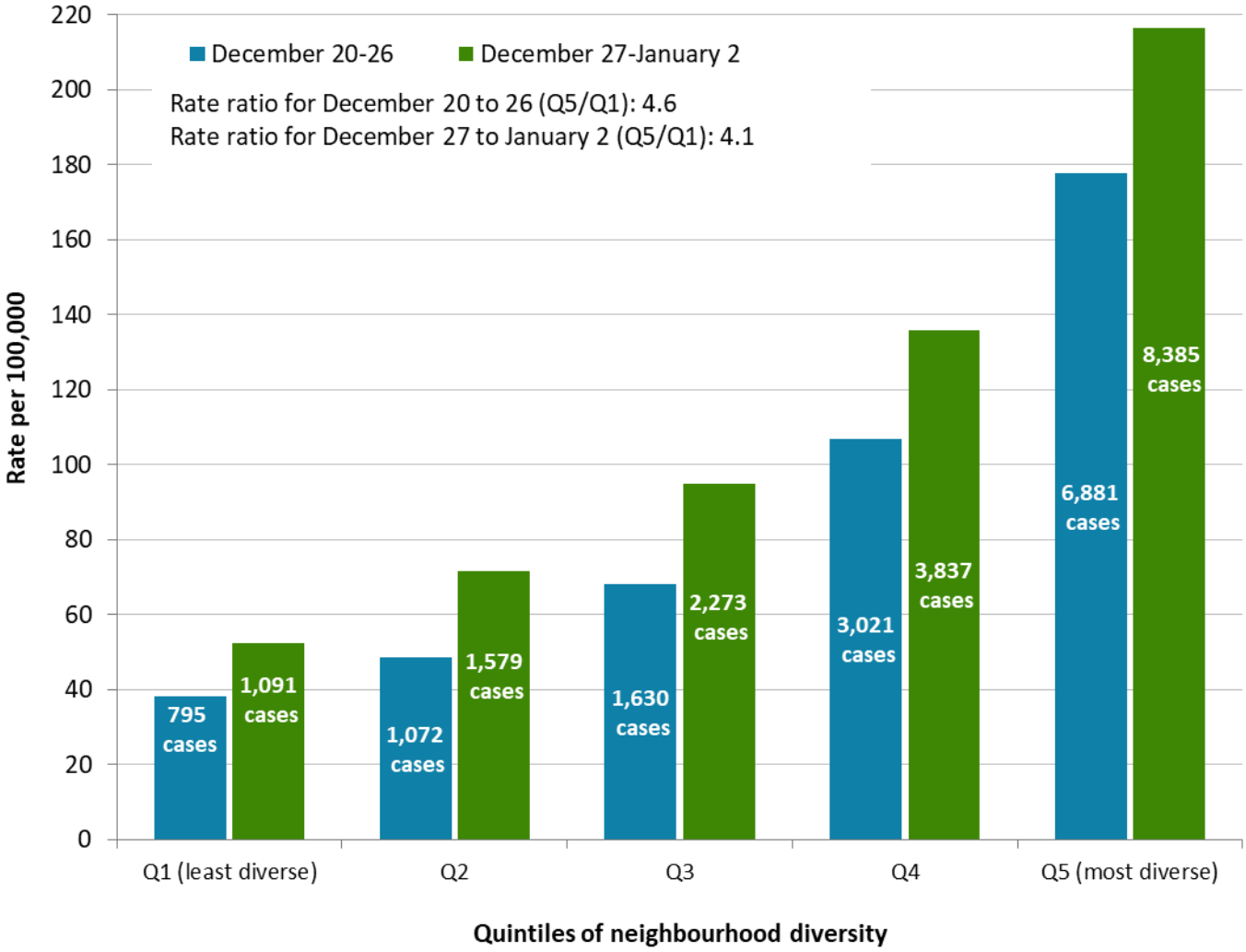
Table 6: Summary of cases of COVID-19 among school aged children by age group: Ontario

	Reported week 52 (December 20 to 26)	Reported week 53 (December 27 to January 2)	Cumulative case count from August 30 up to January 2
Ages: 4-8	374	417	4,005
Ages: 9-13	538	677	5,673
Ages: 14-17	551	764	5,644

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).

Data Source: CCM plus

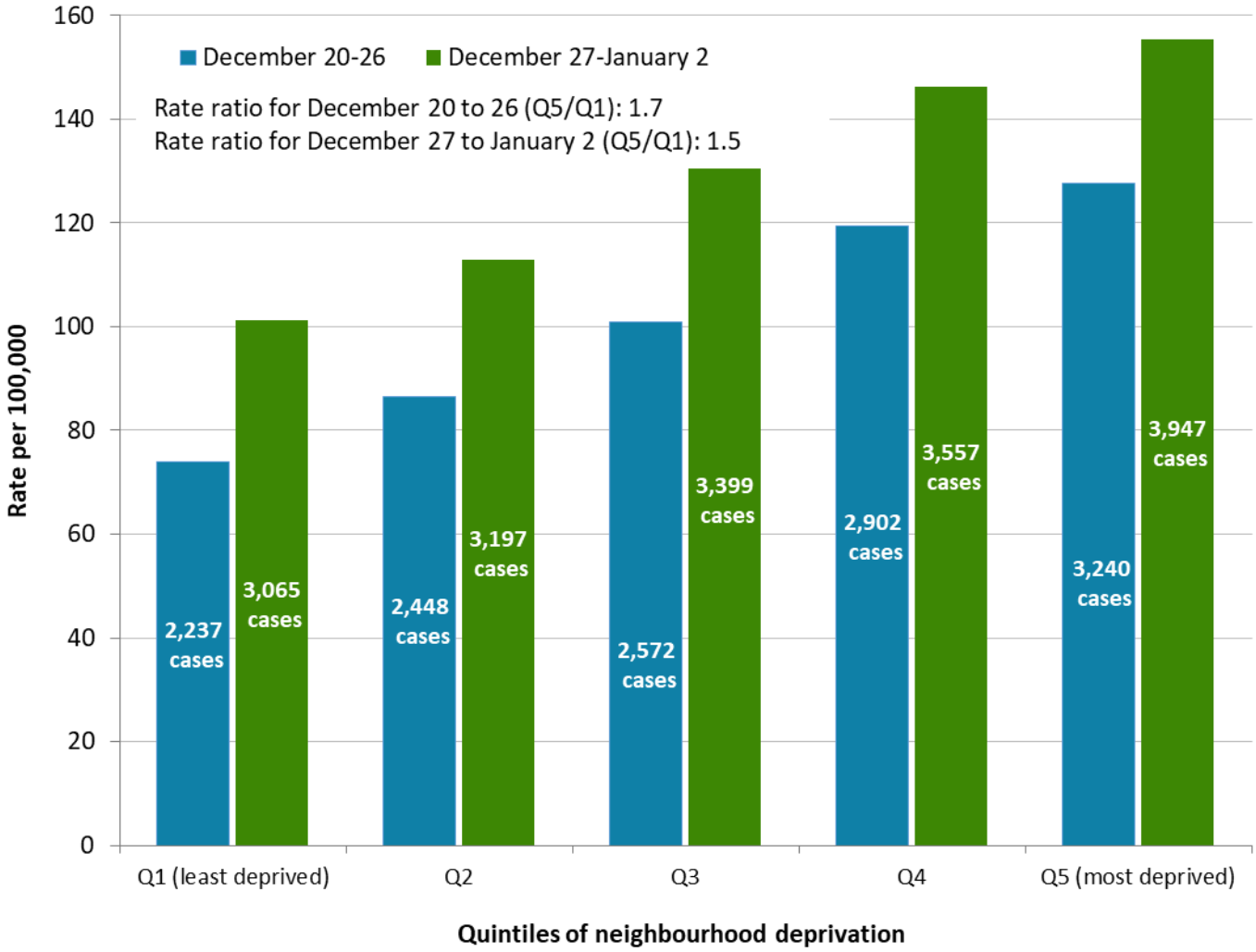
Figure 6. Rate and number of confirmed cases of COVID-19 for each quintile of neighbourhood diversity: Ontario, week 52 (December 20 to 26, 2020) and week 53 (December 27, 2020 to January 2, 2021).



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 52 (December 20 to 26, 2020) and week 53 (December 27, 2020 to January 2, 2021).

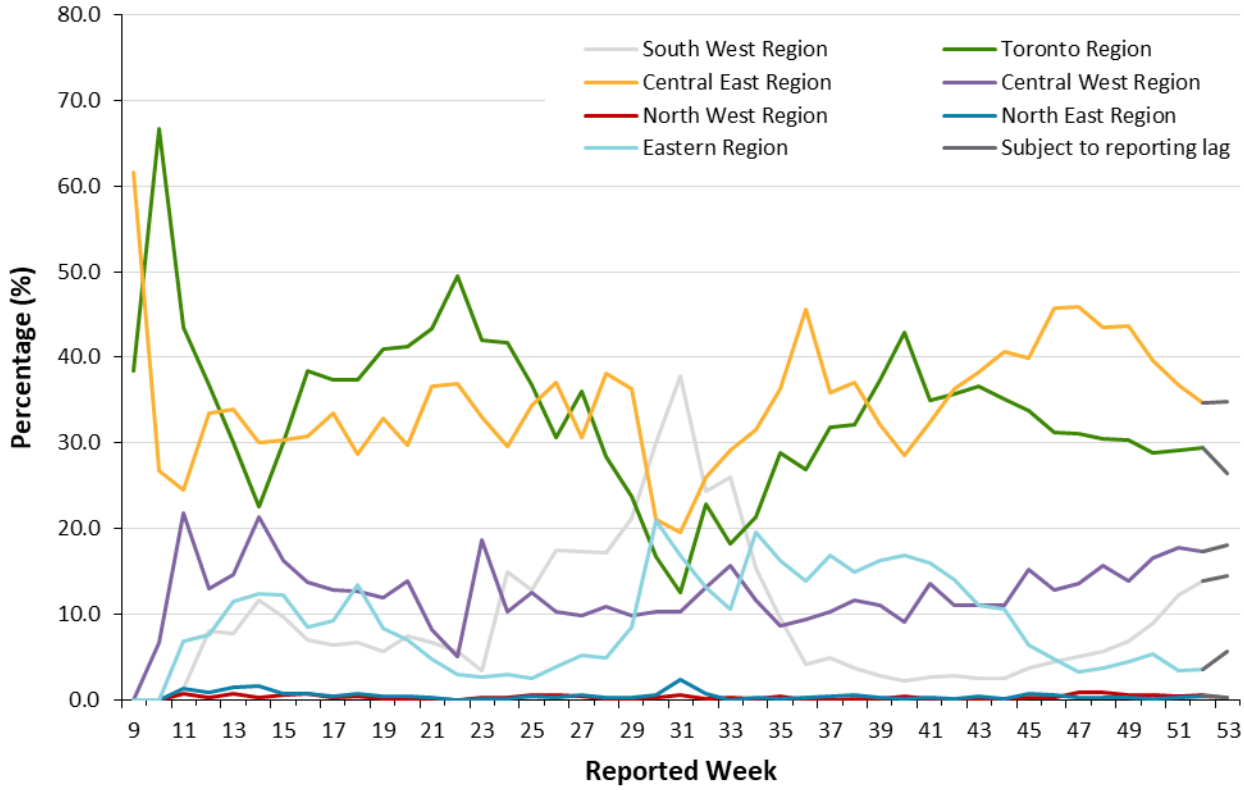


Note: Neighbourhood deprivation is measured using the material deprivation dimension of the Ontario Marginalization Index. The material deprivation dimension uses Canadian census data on income, quality of housing, educational attainment and family structure characteristics to assess the ability of individuals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

Data Source: CCM plus, Ontario Marginalization Index

Geography

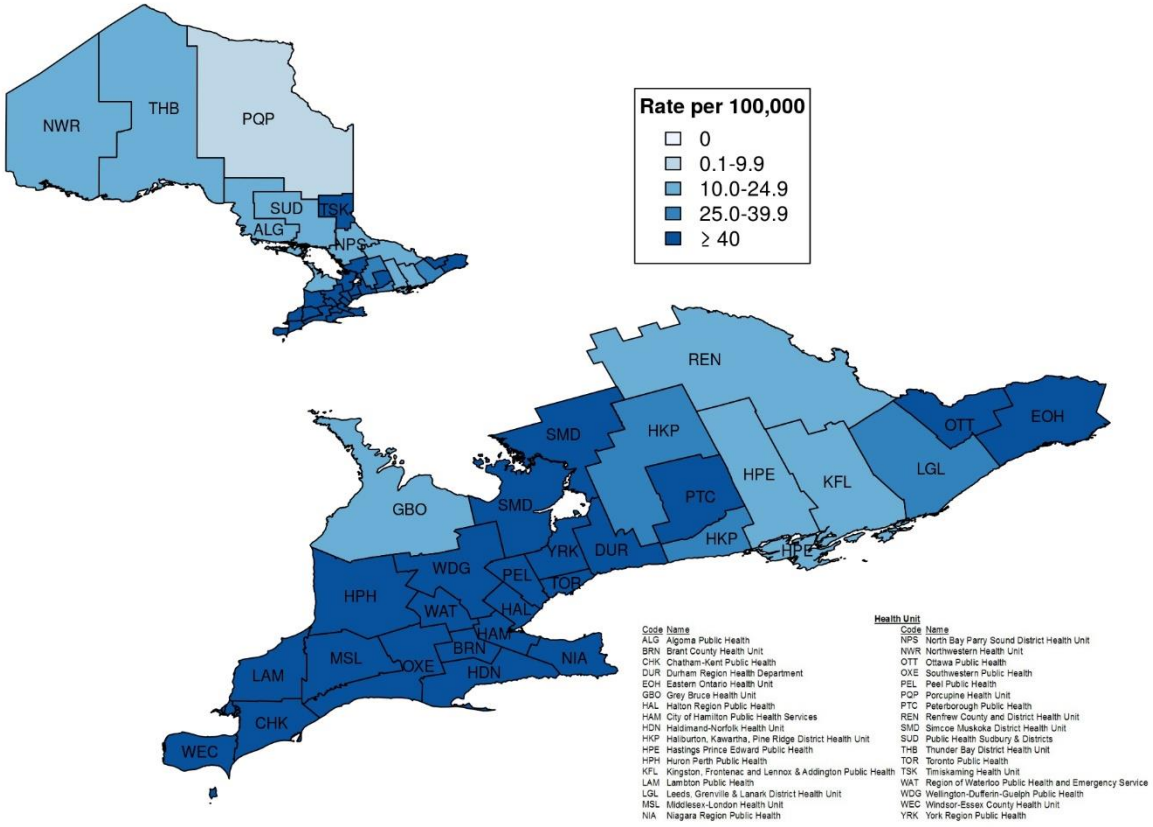
Figure 8. Percentage of COVID-19 cases by geographic region and public health unit reported week: Ontario



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 53 (December 27, 2020 to January 2, 2021). Table 2A in Appendix A has a listing of public health units by region.

Data Source: CCM plus

Figure 9. Rate of confirmed cases of COVID-19 in public health reported week 53 (December 27, 2020 to January 2, 2021) by public health unit: Ontario



Note: The provincial rate of confirmed cases of COVID-19 reported in week 53 was 136.7 cases per 100,000 population.
Data Source: CCM plus

Outbreaks

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

Setting Type	Reported week 53 (December 27 to January 2)	Number of ongoing outbreaks	Cumulative number of outbreaks reported to January 2
Congregate Care	**129**	**407**	**1,734**
Long-term care homes	59	221	964
Retirement homes	46	127	514
Hospitals	24	59	256
Congregate Living	**39**	**93**	**502**
Correctional facility	0	6	16
Shelter	5	12	91
Group Home/supportive Housing	30	68	334
Short-term accommodations	0	0	7
Congregate other	4	7	54
Education	**42**	**132**	**770**
Child care	14	57	252
School – Elementary*	21	48	365
School – Elementary/secondary*	2	4	25
School – Secondary*	5	21	115
School – Post-secondary*	0	2	13
Other settings	**81**	**295**	**1,412**
Bar/restaurant/nightclub	7	22	129
Medical/health services	2	9	60

Setting Type	Reported week 53 (December 27 to January 2)	Number of ongoing outbreaks	Cumulative number of outbreaks reported to January 2
Personal service settings	0	2	11
Recreational fitness	2	12	51
Retail	17	44	158
Other recreation	5	21	74
Workplace - Farm	4	15	57
Workplace - Food processing	3	25	117
Other types of workplaces	35	139	739
Other	4	4	7
Unknown	2	2	9
Total number of outbreaks	**291**	**927**	**4,418**

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 52 (December 20 to 26)	Reported week 53 (December 27 to January 2)	Cumulative number of cases
Congregate Care	**1,456**	**1,529**	**23,955**
Long-term care homes	1,070	1,018	17,467
Retirement homes	219	309	3,939
Hospitals	167	202	2,549
Congregate Living	**178**	**143**	**2,839**
Correctional facility	30	5	276
Shelter	12	17	688
Group Home/supportive Housing	122	108	1,465
Short-term accommodations	0	0	14
Congregate other	14	13	396
Education	**177**	**89**	**2,542**
Child care	31	37	509
School – Elementary*	101	33	1,357
School – Elementary/secondary*	8	4	176
School – Secondary*	37	15	461
School – Post-secondary*	0	0	39
Other settings	**578**	**478**	**9,540**
Bar/restaurant/nightclub	19	31	493
Medical/health services	27	3	215
Personal service settings	0	0	36

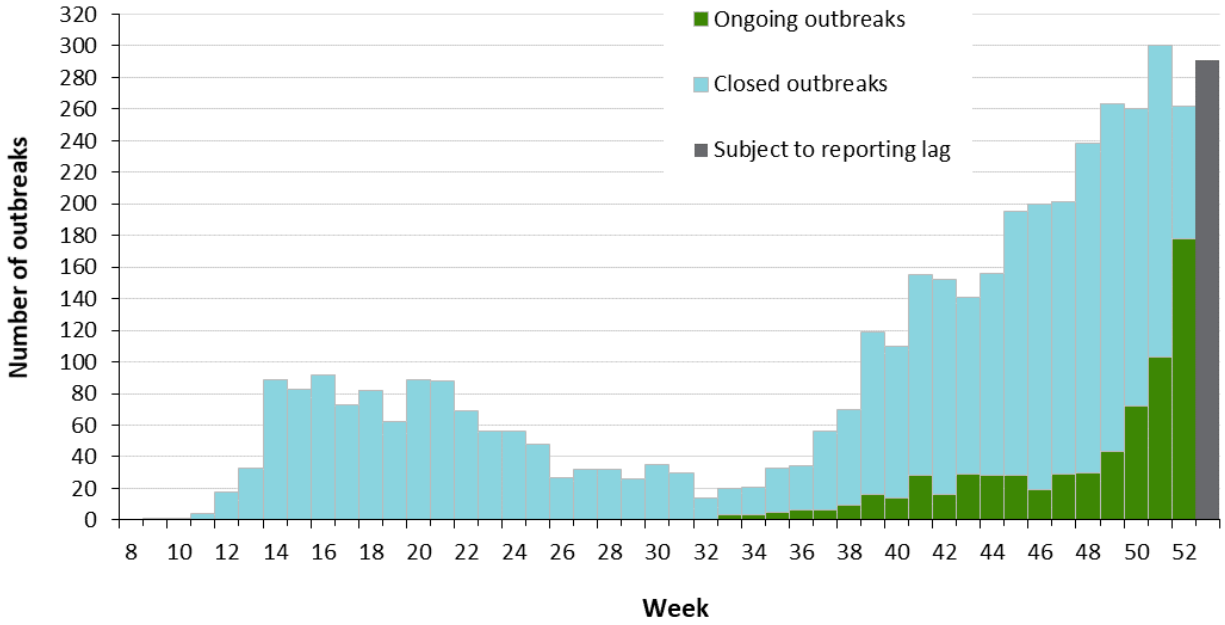
Cases associated with the outbreak setting type	Reported week 52 (December 20 to 26)	Reported week 53 (December 27 to January 2)	Cumulative number of cases
Recreational fitness	12	14	428
Retail	45	57	543
Other recreation	14	7	590
Workplace - Farm	97	74	1,803
Workplace - Food processing	92	62	1,261
Other types of workplaces	260	199	4,013
Other	9	22	69
Unknown	3	9	89
Total number of cases	**2,389**	**2,239**	**38,876**

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.

*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.

Data Source: CCM plus

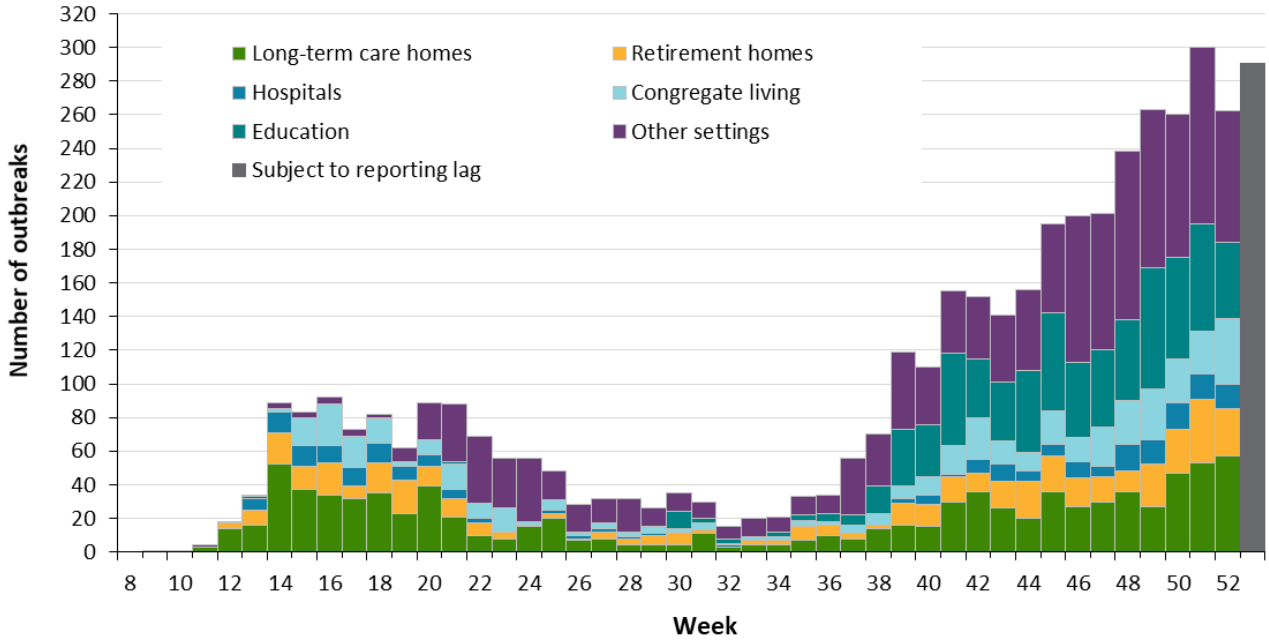
Figure 10. Public health unit declared COVID-19 outbreaks by status (ongoing or closed) and public health unit outbreak reported week: Ontario



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 53 refers to December 27, 2020 to January 2, 2021.

Data Source: CCM plus

Figure 11. Public health unit declared COVID-19 outbreaks by outbreak setting type and public health unit reported week: Ontario



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 53 refers to December 27, 2020 to January 2, 2021. Congregate living include group homes, shelters, correctional facilities, etc. Other settings include outbreaks within workplaces, childcare, schools, restaurants, recreation etc.

Data Source: CCM plus

Technical Notes

Data Sources

- The data for this report were based on:
    - Information extracted from the Ontario Ministry of Health (Ministry) integrated Public Health Information System (iPHIS) database for Toronto Public Health as of **January 5, 2021 at 1 p.m.**
    - Information successfully uploaded to the Ministry from local systems: Toronto Public Health (Coronavirus Rapid Entry System) CORES as of **January 5, 2021 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 **January 5, 2021 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: https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/download-telecharger/comp/GetFile.cfm?Lang=E&FILETYPE=CSV&GEONO=044_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 COVID-19 case definition 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**.

- Cases of confirmed reinfection, i.e. where genome sequencing indicates the two episodes are caused by different viral lineages, added to the confirmed case definition on November 20, 2020, are counted as unique investigations.

- 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 PHO’s ON-Marg website.

- 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	2
3	January 12, 2020	January 18, 2020	0	2
4	January 19, 2020	January 25, 2020	3	5
5	January 26, 2020	February 1, 2020	1	6
6	February 2, 2020	February 8, 2020	0	6
7	February 9, 2020	February 15, 2020	0	6
8	February 16, 2020	February 22, 2020	1	7
9	February 23, 2020	February 29, 2020	13	20
10	March 1, 2020	March 7, 2020	15	35
11	March 8, 2020	March 14, 2020	147	182
12	March 15, 2020	March 21, 2020	448	630
13	March 22, 2020	March 28, 2020	1,326	1,956
14	March 29, 2020	April 4, 2020	2,800	4,756
15	April 5, 2020	April 11, 2020	3,168	7,924
16	April 12, 2020	April 18, 2020	4,273	12,197
17	April 19, 2020	April 25, 2020	3,653	15,850
18	April 26, 2020	May 2, 2020	2,905	18,755
19	May 3, 2020	May 9, 2020	2,346	21,101
20	May 10, 2020	May 16, 2020	2,234	23,335
21	May 17, 2020	May 23, 2020	2,613	25,948

Reported Week	Start date	End date	Number of cases	Cumulative count
22	May 24, 2020	May 30, 2020	2,615	28,563
23	May 31, 2020	June 6, 2020	2,306	30,869
24	June 7, 2020	June 13, 2020	1,469	32,338
25	June 14, 2020	June 20, 2020	1,231	33,569
26	June 21, 2020	June 27, 2020	1,253	34,822
27	June 28, 2020	July 4, 2020	1,085	35,907
28	July 5, 2020	July 11, 2020	865	36,772
29	July 12, 2020	July 18, 2020	932	37,704
30	July 19, 2020	July 25, 2020	995	38,699
31	July 26, 2020	August 1, 2020	804	39,503
32	August 2, 2020	August 8, 2020	597	40,100
33	August 9, 2020	August 15, 2020	611	40,711
34	August 16, 2020	August 22, 2020	729	41,440
35	August 23, 2020	August 29, 2020	855	42,295
36	August 30, 2020	September 5, 2020	976	43,271
37	September 6, 2020	September 12, 2020	1,505	44,776
38	September 13, 2020	September 19, 2020	2,392	47,168
39	September 20, 2020	September 26, 2020	3,130	50,298
40	September 27, 2020	October 3, 2020	4,242	54,540
41	October 4, 2020	October 10, 2020	5,052	59,592
42	October 11, 2020	October 17, 2020	5,300	64,892
43	October 18, 2020	October 24, 2020	6,056	70,948
44	October 25, 2020	October 31, 2020	6,400	77,348

Reported Week	Start date	End date	Number of cases	Cumulative count
45	November 1, 2020	November 7, 2020	7,620	84,968
46	November 8, 2020	November 14, 2020	10,428	95,396
47	November 15, 2020	November 21, 2020	9,927	105,323
48	November 22, 2020	November 28, 2020	11,036	116,359
49	November 29, 2020	December 5, 2020	12,662	129,021
50	December 6, 2020	December 12, 2020	13,098	142,119
51	December 13, 2020	December 19, 2020	15,720	157,839
52	December 20, 2020	December 26, 2020	15,529	173,368
53	December 27, 2020	January 2, 2021	20,324	193,692

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

Public Health Unit Name	Cases reported week 52	Rate per 100,000 population Reported week 52	Cases reported week 53	Rate per 100,000 population Reported week 53
Northwestern Health Unit	22	25.1	17	19.4
Thunder Bay District Health Unit	60	40.0	31	20.7
TOTAL NORTH WEST	**82**	**34.5**	**48**	**20.2**
Algoma Public Health	3	2.6	14	12.2
North Bay Parry Sound District Health Unit	13	10.0	15	11.6
Porcupine Health Unit	6	7.2	4	4.8
Public Health Sudbury & Districts	13	6.5	21	10.6
Timiskaming Health Unit	25	76.5	16	48.9
TOTAL NORTH EAST	**60**	**10.7**	**70**	**12.5**
Ottawa Public Health	364	34.5	718	68.1
Eastern Ontario Health Unit	104	49.8	270	129.4
Hastings Prince Edward Public Health	16	9.5	34	20.2
Kingston, Frontenac and Lennox & Addington Public Health	52	24.4	41	19.3
Leeds, Grenville & Lanark District Health Unit	17	9.8	51	29.5
Renfrew County and District Health Unit	10	9.2	24	22.1
TOTAL EASTERN	**563**	**29.2**	**1,138**	**59.1**

Public Health Unit Name	Cases reported week 52	Rate per 100,000 population Reported week 52	Cases reported week 53	Rate per 100,000 population Reported week 53
Durham Region Health Department	626	87.9	938	131.7
Haliburton, Kawartha, Pine Ridge District Health Unit	43	22.8	72	38.1
Peel Public Health	2,843	177.0	3,382	210.6
Peterborough Public Health	45	30.4	72	48.7
Simcoe Muskoka District Health Unit	345	57.5	404	67.4
York Region Public Health	1,492	121.7	2,217	180.9
TOTAL CENTRAL EAST	**5,394**	**120.4**	**7,085**	**158.1**
Toronto Public Health	4,569	146.4	5,386	172.6
TOTAL TORONTO	**4,569**	**146.4**	**5,386**	**172.6**
Chatham-Kent Public Health	49	46.1	122	114.8
Grey Bruce Health Unit	35	20.6	42	24.7
Huron Perth Public Health	107	76.6	110	78.7
Lambton Public Health	137	104.6	303	231.4
Middlesex-London Health Unit	465	91.6	599	118.0
Southwestern Public Health	217	102.6	343	162.2
Windsor-Essex County Health Unit	1,157	272.3	1,417	333.5
TOTAL SOUTH WEST	**2,167**	**128.2**	**2,936**	**173.6**
Brant County Health Unit	80	51.5	140	90.2

Public Health Unit Name	Cases reported week 52	Rate per 100,000 population Reported week 52	Cases reported week 53	Rate per 100,000 population Reported week 53
City of Hamilton Public Health Services	631	106.6	965	163.0
Haldimand-Norfolk Health Unit	65	57.0	126	110.4
Halton Region Public Health	536	86.6	674	108.9
Niagara Region Public Health	518	109.6	743	157.3
Region of Waterloo Public Health and Emergency Services	566	96.9	652	111.6
Wellington-Dufferin-Guelph Public Health	298	95.5	361	115.7
TOTAL CENTRAL WEST	**2,694**	**94.5**	**3,661**	**128.5**
TOTAL ONTARIO	**15,529**	**104.5**	**20,324**	**136.7**

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

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.

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For Further Information

For more information, email cd@oahpp.ca.

Public Health Ontario

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