

WEEKLY EPIDEMIOLOGICAL SUMMARY

COVID-19 in Ontario: Focus on June 20, 2021 to June 26, 2021

This report includes the most current information available from CCM as of June 29, 2021.

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

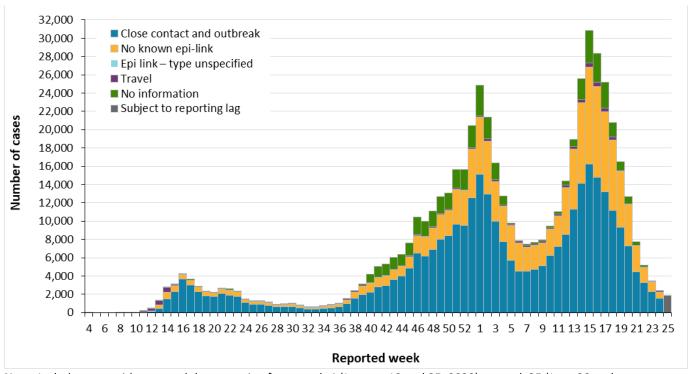
- There are a total of 544,388 confirmed cases of COVID-19 in Ontario with a public health unit reported date up to June 26, 2021.
- For the period with a public health unit (PHU) reported date between June 20 to 26, 2021 (week 25):
 - A total of 1,899 cases were reported to public health compared to 2,418 cases the previous week (June 13 to 19, 2021).
 - COVID-19 cases rates in Ontario have declined week-over-week for over ten consecutive weeks. Previously, the largest week-over-week decrease in case rates in the province lasted six weeks (week 2, 2021 to week 7, 2021). There was a 21.5% decrease in cases in week 25 compared to week 24.
 - After reporting case rates of less than 40.0 per 100,000 population in week 24, Grey Bruce (77.1) and North Bay Parry Sound District (47.0) health units are now reporting some of the highest rates of COVID-19 in the province along with Porcupine (87.5) and the Region of Waterloo (66.1).

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

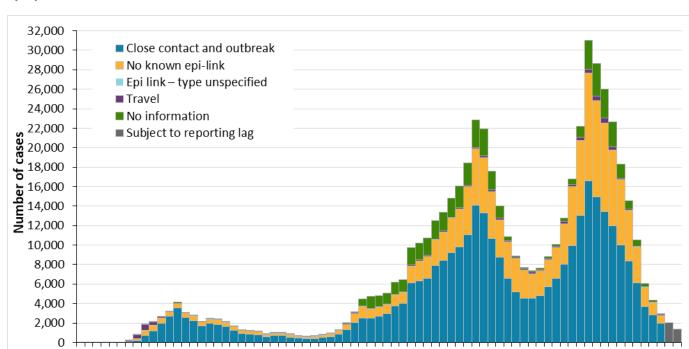
Data corrections or updates can result in case records being removed and or updated from past reports. Thus comparisons of case counts by public health unit reported date may not align with daily change in cases publicly reported by the province for the same time period, which reflects the difference 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 25 (June 20 and 26, 2021). See <u>Table 1A</u> in Appendix A for a list of the weeks and corresponding start and end dates.



Episode week

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 25 (June 20 and 26, 2021). 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 24 (June 13 to 19)	Reported week 25 (June 20 to 26)	Cumulative case count up to June 26	Cumulative rate per 100,000 population
Total number of cases	2,418	1,899	544,388	3,662.4
Gender: Male	1,187	942	271,233	3,705.8
Gender: Female	1,171	894	269,381	3,570.2
Ages: 19 and under	582	464	87,564	2,791.8
Ages: 20-39	913	703	203,934	4,906.7
Ages: 40-59	570	471	155,403	3,946.7
Ages: 60-79	300	216	72,343	2,448.2
Ages: 80 and over	53	45	25,045	3,687.1
Number resolved	N/A	N/A	533,446	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.

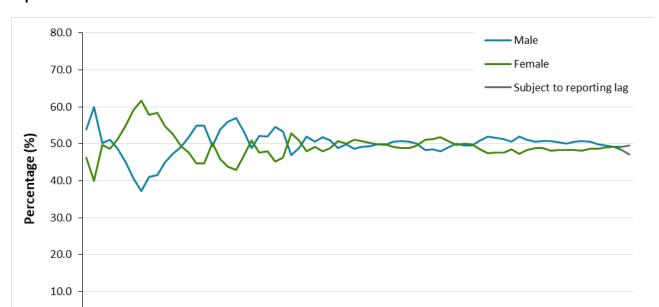


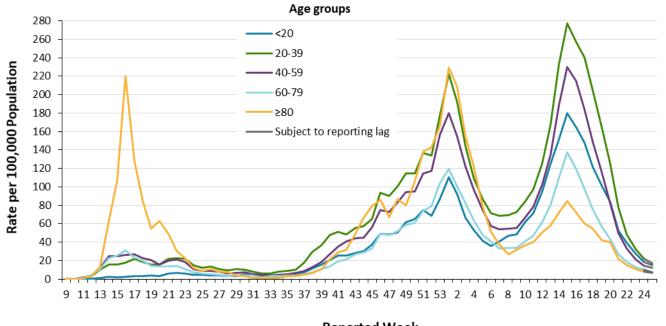
Figure 3. Percentage of confirmed cases of COVID-19 by gender and public health unit reported week: Ontario

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 25 (June 20 and 26, 2021). See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.

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Reported Week

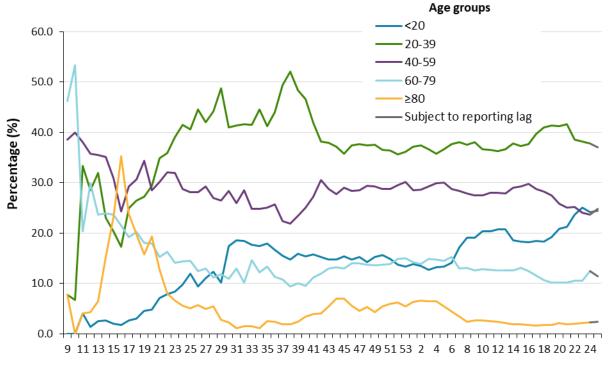
Figure 4a. Rate of confirmed cases of COVID-19 per 100,000 population by age group and public health unit reported week: Ontario



Reported Week

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 25 (June 20 and 26, 2021). 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



Reported week

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 25 (June 20 and 26, 2021). 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 + 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 25 (June 20 and 26, 2021). 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 24 (June 13 to 19)	Reported week 25 (June 20 to 26)	Cumulative case count up to June 26	Cumulative rate per 100,000 population
Number of deaths	6	4	9,168	61.7
Gender: Male	3	1	4,637	63.4
Gender: Female	3	3	4,470	59.2
Ages: 19 and under	0	0	4	0.1
Ages: 20-39	0	0	82	2.0
Ages: 40-59	0	2	573	14.6
Ages: 60-79	1	2	2,916	98.7
Ages: 80 and over	5	0	5,592	823.2

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 24 (June 13 to 19)	Percentage	Reported week 25 (June 20 to 26)	Percentage	Cumulative case count up to June 26	Cumulative percentage
Travel	79	3.3%	75	3.9%	8,939	1.6%
Outbreak-associated or close contact of a confirmed case	1,561	64.6%	1,140	60.0%	326,286	59.9%
Epidemiological link – type unspecified	0	0.0%	0	0.0%	113	<0.1 %
No known epidemiological link	687	28.4%	500	26.3%	157,969	29.0%
Information missing or unknown	91	3.8%	184	9.7%	51,081	9.4%
Total	2,418		1,899		544,388	

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.

Sub-populations of interest

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

Health care workers	Reported week 24 (June 13 to 19)	Reported week 25 (June 20 to 26)	Cumulative case count up to June 26
Number of cases	40	26	23,591
Ever hospitalized	0	0	459
Ever in ICU	0	0	97

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

Data Source: CCM

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

Long-term care home associated cases	Reported week 24 (June 13 to 19)	Reported week 25 (June 20 to 26)	Cumulative case count up to June 26
Residents	5	9	15,385
Deaths among residents	1	0	3,970
Health care workers	2	1	7,194
Deaths among health care workers	0	0	10

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

Table 6: Summary of cases of COVID-19 among long-term care home (LTCH) residents and health care workers by vaccine category: Ontario

Vaccine category	Number of resident cases	Percent of resident cases	Number of health care worker cases	Percent of health care worker cases	Total LTCH cases	Percent of LTCH cases
Breakthrough	81	12.7%	28	7.9%	109	11.0%
Partially vaccinated	157	24.5%	83	23.5%	240	24.2%
Not yet protected	402	62.8%	242	68.6%	644	64.9%
Total post- vaccination cases	640		353		993	

Note: Include cases reported from December 14, 2020 to June 28, 2021. The number of LTCH residents and health-care workers that have received at least one dose of vaccine can be found in the latest version of the COVID-19
Vaccine Uptake in Ontario report.

Data Source: CCM/COVaxON

Table 7: Summary of cases of COVID-19 among school aged children by age group: Ontario

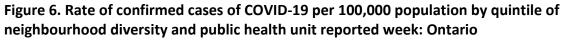
	Reported week 24 (June 13 to 19)	Reported week 25 (June 20 to 26)	Cumulative case count from August 30 up to June 26
Ages: 4-8	144	112	16,166
Ages: 9-13	134	112	20,280
Ages: 14-17	120	102	20,643

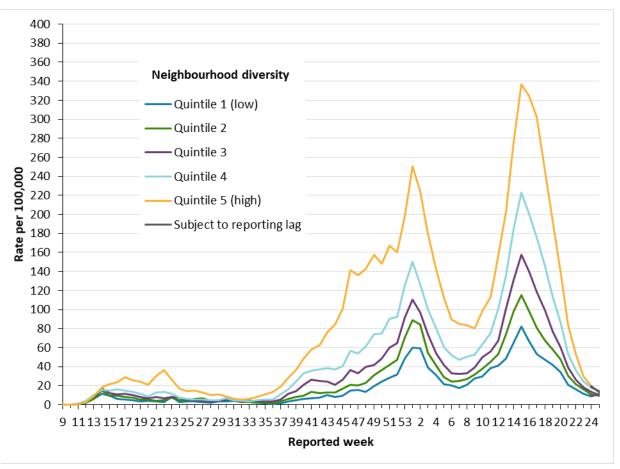
Note: Interpret information for the most recent week with caution due to reporting lags. Includes all confirmed cases of COVID-19 for specified ages, regardless of school attendance. Cumulative counts include cases of COVID-19 reported starting week-36 (August 30 to September 5, 2020).

Table 8: Summary of reinfection cases of COVID-19 by age group and public health unit reported week: Ontario

Age Group	Reported Week 24 (June 13 to 19)	Reported Week 25 (June 20 to 26)	Cumulative count from November 1 up to June 26	Percent of reinfection cases
Ages: 19 and under	0	2	33	14.2%
Ages: 20-39	6	2	103	44.4%
Ages: 40-59	1	1	70	30.2%
Ages: 60-79	1	1	19	8.2%
Ages: 80 and over	0	0	7	3.0%
Total reinfection cases	8	6	232	

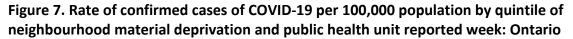
Note: Cases identified as reinfections meeting the <u>provincial definition</u> as indicated by public health units selecting the reinfection checkbox. Cumulative counts include cases of COVID-19 reinfection reported starting week-45 (November 1 to 7, 2020). Not all cases have a reported age or gender. Data corrections or updates can result in case records being removed and or updated from past reports and may result in subset totals (i.e., age group, gender) differing from past publicly reported case counts.

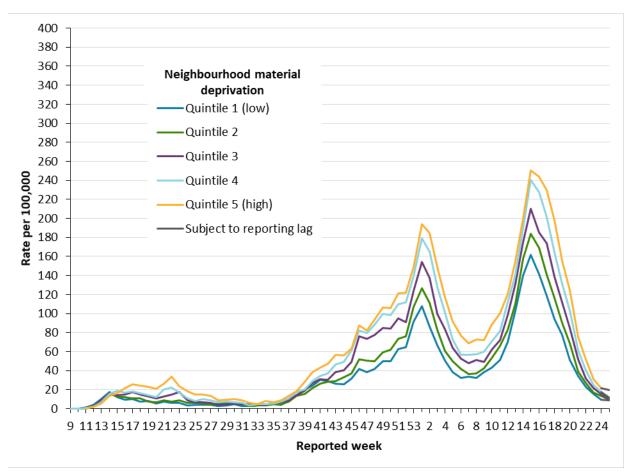




Note: Neighbourhood diversity is measured using the ethnic concentration dimension of the Ontario Marginalization Index. The ethnic concentration dimension is based on the proportion of non-white and non-Indigenous residents and/or the proportion of immigrants that arrived in Canada within the past five years. 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 weeks 9 (February 23 to 29, 2020) to week 25 (June 20 to 26, 2021). As of June 8, all rate denominators were changed to the 2021 OHIP RPDB population, and as a result, rates shown here may differ from previous reports. See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM, Ontario Marginalization Index





Note: Neighbourhood material 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. 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 weeks 9 (February 23 to 29, 2020) to week 25 (June 20 to 26, 2021). As of June 8, all rate denominators were changed to the 2021 OHIP RPDB population, and as a result, rates shown here may differ from previous reports. See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM, Ontario Marginalization Index

Table 9: Summary of cases of COVID-19 by quintile of neighbourhood diversity and public health unit reported week: Ontario

	Cases Reported Week 24 (June 13 to 19)	Cases Reported Week 25 (June 20 to 26)	Cumulative case count up to June 26	Cumulative rate per 100,000 population up to June 26
Quintile 1 (least diverse)	198	255	28,241	1,271.4
Quintile 2	264	226	42,586	1,798.3
Quintile 3	348	260	63,271	2,440.9
Quintile 4	560	445	109,236	3,492.6
Quintile 5 (most diverse)	841	550	259,751	6,009.6

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. Cumulative counts and rates include cases of COVID-19 reported starting week 9 (February 23 to 29, 2020). **Data Source:** CCM, Ontario Marginalization Index

Table 10: Summary of cases of COVID-19 by quintile of neighbourhood material deprivation and public health unit reported week: Ontario

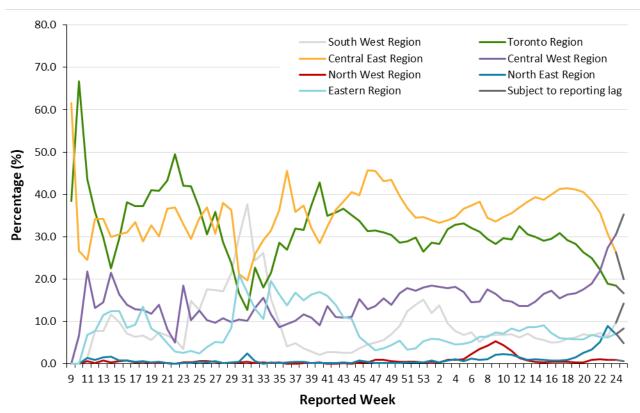
	Cases Reported Week 24 (June 13 to 19)	Cases Reported Week 25 (June 20 to 26)	Cumulative case count up to June 26	Cumulative rate per 100,000 population up to June 26
Quintile 1 (least material deprivation)	330	305	83,911	2,434.9
Quintile 2	413	301	88,563	2,852.6
Quintile 3	433	293	97,507	3,516.4
Quintile 4	462	310	107,269	4,082.5
Quintile 5 (most material deprivation)	573	527	125,835	4,695.3

Note: Neighbourhood material 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. Cumulative counts and rates include cases of COVID-19 reported starting week 9 (February 23 to 29, 2020).

Data Source: CCM, Ontario Marginalization Index

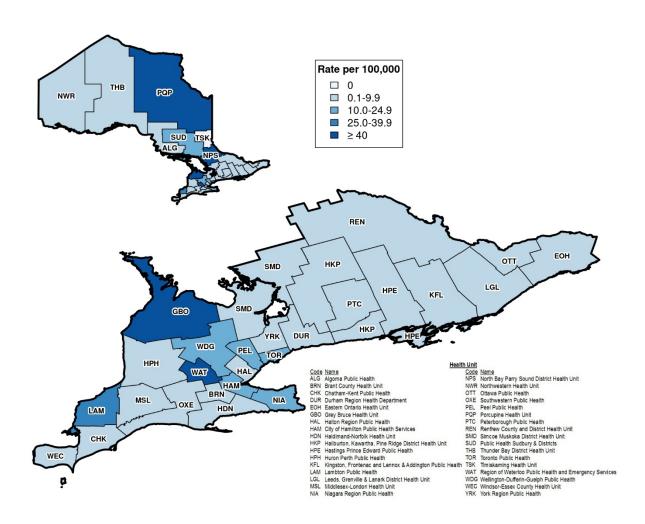
Geography

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 25 (June 20 and 26, 2021). <u>Table 2A</u> in Appendix A has a listing of public health units by region.

Figure 9. Rate of confirmed cases of COVID-19 in public health reported week 25 (June 20 to 26, 2021) by public health unit: Ontario



Note: The provincial rate of confirmed cases of COVID-19 reported in week 25 was 12.8 cases per 100,000 population.

Outbreaks

Table 11. Number of public health unit declared COVID-19 outbreaks by setting type: Ontario

Setting Type	Reported week 25 (June 20 to 26)	Number of ongoing outbreaks	Cumulative number of outbreaks reported to June 26
Congregate Care	5	9	2,928
Long-term care homes	1	3	1,484
Retirement homes	2	1	873
Hospitals	2	5	571
Congregate Living	6	20	1,290
Correctional facility	1	5	58
Shelter	1	6	265
Group Home/supportive housing	1	3	764
Short-term accommodations	1	2	36
Congregate other	2	4	167
Education	7	15	2,430
Child care	6	13	992
School – Elementary*	0	1	1,071
School – Elementary/secondary*	0	0	64
School – Secondary*	1	1	257
School – Post-secondary*	0	0	46
Other settings	21	58	4,127
Bar/restaurant/nightclub	1	4	326
Medical/health services	1	1	150
Personal service settings	0	0	28
Recreational fitness	0	1	91

Setting Type	Reported week 25 (June 20 to 26)	Number of ongoing outbreaks	Cumulative number of outbreaks reported to June 26
Retail	1	4	457
Other recreation/community	0	7	208
Workplace – Farm	1	2	211
Workplace - Food processing	0	2	272
Other types of workplaces	13	32	2,362
Other	2	3	4
Unknown	2	2	18
Total number of outbreaks	39	102	10,775

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 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 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, manufacturing facilities, mines and construction sites, etc. Other recreation/community 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.

Ongoing re-classification of settings for reported outbreaks can result in outbreak counts that may differ from previously reported counts. Outbreaks in settings outside of Ontario are excluded from all outbreak counts. **Data Source:** CCM

^{*}Cumulative counts include COVID-19 school outbreaks reported starting week-36 (August 30 to September 5, 2020)

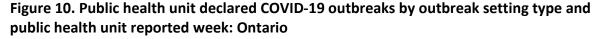
Table 12. Confirmed cases of COVID-19 associated with COVID-19 outbreaks by setting type and public health unit reported week: Ontario

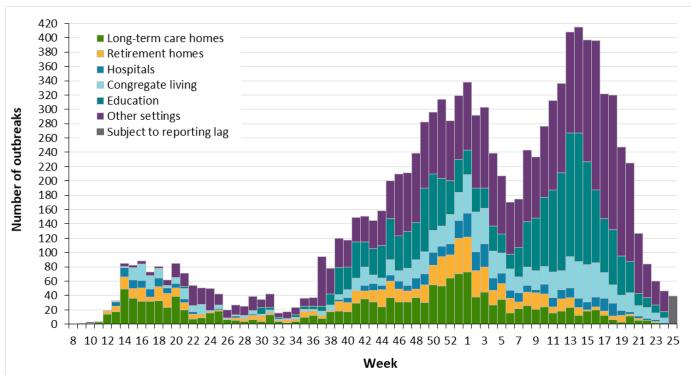
Cases associated with the outbreak setting type	Reported week 24 (June 13 to 19)	Reported week 25 (June 20 to 26)	Cumulative number of cases
Congregate Care	38	39	39,865
Long-term care homes	13	13	26,212
Retirement homes	4	2	7,321
Hospitals	21	24	6,332
Congregate Living	92	53	9,717
Correctional facility	40	35	1,739
Shelter	38	5	2,762
Group Home/supportive housing	7	1	3,551
Short-term accommodations	1	3	204
Congregate other	6	9	1,461
Education	31	17	10,340
Child care	30	15	4,060
School – Elementary*	0	0	4,437
School – Elementary/secondary*	0	0	333
School – Secondary*	0	2	1,097
School – Post-secondary*	1	0	413
Other settings	118	103	32,813
Bar/restaurant/nightclub	9	4	1,407
Medical/health services	0	1	659
Personal service settings	0	0	107
Recreational fitness	1	5	715
Retail	7	2	2,403

Cases associated with the outbreak setting type	Reported week 24 (June 13 to 19)	Reported week 25 (June 20 to 26)	Cumulative number of cases
Other recreation/community	8	4	2,856
Workplace - Farm	1	1	3,056
Workplace - Food processing	2	0	3,531
Other types of workplaces	90	71	17,988
Other	0	11	23
Unknown	0	4	68
Total number of cases	279	212	92,735

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, manufacturing facilities, mines, and construction sites, etc. Other recreation/community 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. Cases associated with outbreaks outside of Ontario are excluded from case counts in this table.





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 25 refers to June 20 and 26, 2021. Congregate living include group homes, shelters, correctional facilities, etc. Other settings include outbreaks within workplaces, childcare, schools, restaurants, recreation etc.

Variant COVID-19 Cases

Table 13. Summary of confirmed COVID-19 cases with a mutation or VOC detected by age group and gender: Ontario

	Lineage B.1.1.7 (Alpha)*	Lineage B.1.351 (Beta)**	Lineage P.1 (Gamma)* **	Lineage B.1.617.2 (Delta)†	Mutations‡	Mutation not detected§	Cumulative case count as of June 26, 2021
Gender: Male	72,349	671	2,353	973	13,039	5,600	94,985
Gender: Female	70,086	689	2,162	908	11,938	5,489	91,272
Ages: 19 and under	27,148	220	794	337	5,093	2,063	35,655
Ages: 20-39	54,441	446	1,663	831	9,747	4,211	71,339
Ages: 40-59	42,018	446	1,382	502	6,943	3,149	54,440
Ages: 60-79	17,077	213	583	194	2,994	1,449	22,510
Ages: 80 and over	2,729	40	122	44	491	312	3,738

Note: Not all cases have an age or gender reported. Data corrections or updates can result in case records being removed and or updated from past reports and may result in subset totals (i.e., age group, gender) differing from past publicly reported case counts. Data for cases with a B.1.1.7 (Alpha), B.1.351 (Beta), P.1 (Gamma) and B.1.617.2 (Delta) lineage detected or a mutation are determined using the Investigation Subtype field only. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the data caveats section.

§Includes cases identified as 'Mutation not detected' or 'Mutation N501Y- and E484K-' in the Investigation Subtype field only.

^{*}Includes all confirmed COVID-19 cases where lineage B.1.1.7 (Alpha) was identified by genomic analysis and those presumed to be B.1.1.7 based on a positive N501Y and negative E484K mutation in the Investigation Subtype field.

^{**}Includes B.1.351 (Beta) cases identified by genomic analysis and those presumed to be B.1.351 based on 'Mutation K417N+ and N501Y+ and E484K+' in the Investigation Subtype field.

^{***}Includes P.1 (Gamma) cases identified by genomic analysis and those presumed to be P.1 based on 'Mutation K417T+ and N501Y+ and E484K+' in the Investigation Subtype field.

[†]Includes B.1.617.2 (Delta) cases identified by genomic analysis. Mutations common to B.1.617.2 are not included in the current VOC mutation test.

[‡]Mutations includes all confirmed COVID-19 cases with the following mutations detected, reported from the Investigation Subtype field: N501Y and E484K, N501Y (E484K unknown), E484K (N501Y negative), E484K (N501Y unknown).

Table 14. Summary of confirmed COVID-19 cases with a mutation or VOC detected by likely source of acquisition: Ontario

	Lineage B.1.1.7 (Alpha)	%	Lineage B.1.351 (Beta)**	%	Lineage P.1 (Gamm a)***	%	Lineage B.1.617.2 (Delta)†	%	Mutations ‡	%	Cumulative case count up to June 26, 2021	Cumulative percentage
Travel	774	0.5%	31	2.3%	52	1.1%	94	4.9%	313	1.2%	1,264	0.7%
Outbreak- associated or close contact of a confirmed case	79,347	55.3%	872	63.9%	2,875	63.3%	1,168	61.2%	16,374	64.8%	100,636	57.0%
Epidemiologic al link – type unspecified	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
No known epidemiologic al link	51,519	35.9%	373	27.3%	1,412	31.1%	580	30.4%	7,335	29.0%	61,219	34.7%
Information missing or unknown	11,785	8.2 %	89	6.5%	205	4.5%	66	3.5%	1,249	4.9%	13,394	7.6%
Total	143,425		1,365		4,544		1,908		25,271		176,513	

Note: Information for how cases are grouped within each category is available in the technical notes. Data for cases with a B.1.1.7 (Alpha), B.1.351 (Beta), and P.1 (Gamma) lineage detected are determined using the Investigation Subtype field only.

^{*}Includes all confirmed COVID-19 cases where lineage B.1.1.7 (Alpha) was identified by genomic analysis and those presumed to be B.1.1.7 based on a positive N501Y and negative E484K mutation in the Investigation Subtype field.

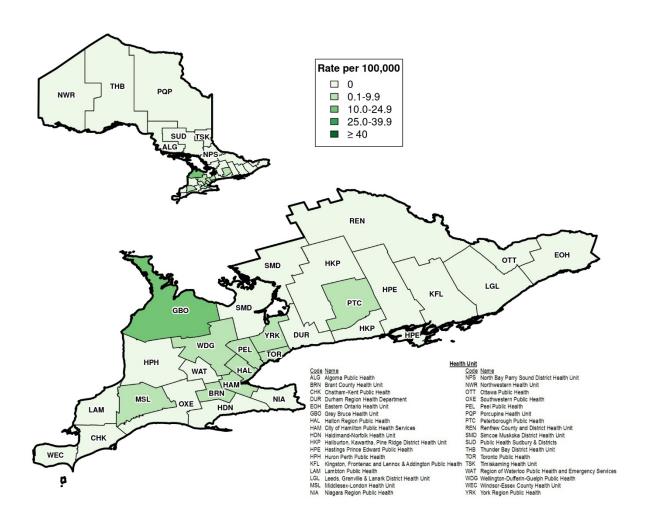
^{**}Includes B.1.351 (Beta) cases identified by genomic analysis and those presumed to be B.1.351 based on 'Mutation K417N+ and N501Y+ and E484K+' in the Investigation Subtype field.

^{***}Includes P.1 (Gamma) cases identified by genomic analysis and those presumed to be P.1 based on 'Mutation K417T+ and N501Y+ and E484K+' in the Investigation Subtype field.

[†]Includes B.1.617.2 (Delta) cases identified by genomic analysis. Mutations common to B.1.617.2 are not included in the current VOC mutation test.

[‡]Mutations includes all confirmed COVID-19 cases with the following mutations detected, reported from the Investigation Subtype field: N501Y and E484K, N501Y (E484K unknown), E484K (N501Y negative), E484K (N501Y unknown)

Figure 11. Rates of confirmed cases of COVID-19 with lineage B.1.617.2 (Delta)* detected in public health reported week 25 (June 20 to 26, 2021) by public health unit: Ontario



Note: The provincial rate of confirmed cases of COVID-19 with lineage B.1.617.2 (Delta)* reported in week 25 was 0.5 cases per 100,000 population. Data for cases with a B.1.617.2* lineage are determined using the Investigation Subtype field only. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the data caveats section.

*Includes B.1.617.2 (Delta) cases identified by genomic analysis. Mutations common to B.1.617.2 are not included in the current VOC mutation test.

Technical Notes

Data Sources

- The data for this report were based on:
 - Information successfully extracted from the Public Health Case and Contact Management Solution (CCM) for all PHUS by PHO as of June 29, 2021 at 1 p.m. for cases reported from February 1, 2021 onwards and as of June 28, 2021 at 9 a.m. for cases reported up January 31, 2021.
 - VOC data was successfully extracted from CCM for all PHUs by PHO as of June 29, 2021 at 1 p.m. for cases reported from April 1, 2021 onwards and as of June 28, 2021 at 9 a.m. for cases reported up to March 31, 2021.
 - COVID-19 vaccination data were based on information successfully extracted from the
 Ontario Ministry of Health's COVaxON application as of June 28, 2021 at approximately 7
 a.m. COVaxON data was subsequently linked to COVID-19 case data based on information
 successfully extracted from the Public Health Case and Contact Management Solution
 (CCM) for all PHUs by PHO as of June 28, 2021 at 1 p.m.
- CCM and COVaxON are dynamic disease reporting systems, which allow ongoing updates to data previously entered. As a result, data extracted from CCM and COVaxON 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 Plus (PCCF+), version 7B.
- The health equity (neighbourhood-level diversity and material deprivation) analyses use data from the 2016 Ontario Marginalization Index (ON-Marg), and population counts from the Ontario Health Insurance Plan (OHIP) Registered Person Database (RPDB) as of May 1, 2021 (provided by the Institute for Clinical Evaluative Sciences [ICES]):
 - 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.
 - Chung H, Fung K, Ishiguro L, Paterson M, et al. Characteristics of COVID-19 diagnostic test recipients, Applied Health Research Questions (AHRQ) # 2021 0950 080 000. Toronto: Institute for Clinical Evaluative Sciences; 2020.

Data Caveats and Methods: Case Data

- The data represent case and vaccination information reported to public health units and recorded in CCM or COVaxON. 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.

- Only cases meeting the confirmed case classification as listed in the <u>MOH Case Definition</u> <u>Coronavirus Disease (COVID-19) document</u> are included in the report counts from CCM. This includes persons with:
 - laboratory confirmation by a validated NAAT assay
 - a validated point-of-care (POC) assay deemed acceptable to provide a final result
 - a validated laboratory-based serological assay SARS-CoV-2
- Cases of confirmed reinfection, as defined in the provincial case definitions, are counted as unique investigations. Reinfection cases include cases for persons (CCM clients) with two or more confirmed case investigations where the case investigations after the first one have the reinfection checkbox marked as 'Yes'.
- Case classification information may be updated for individuals with a positive result issued from a point-of-care assays.
- COVID-19 cases from CCM for which the Classification and/or Disposition was reported as ENTERED IN ERROR, DOES NOT MEET DEFINITION, IGNORE, DUPLICATE, or any variation on these values have been excluded. The provincial case count for COVID-19 may include some duplicate records, if these records were not identified and resolved.
- 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 represents an estimate of disease onset. This date is calculated based on the earliest date of symptom onset, specimen collection/test date, or the date reported to the public health unit.
- 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. 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 or hospitalization/ICU was reported as 'Yes' 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 as 'Open' and without a 'Declared Over Date' recorded. Closed outbreaks are 'Closed' or have a 'Declared Over Date' recorded in CCM or where the outbreak start date (determined by the onset date of first case, or if missing the reported date, or if missing the created date) is more than 5 months from the current date, even for outbreaks where the outbreak status value selected in CCM is 'OPEN'.
- 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).
- Public Health Ontario conducts testing and genomic analyses for SARS-CoV-2 positive specimens using the criteria outlined here: https://www.publichealthontario.ca/en/laboratory-services/test-information-index/covid-19-voc
- Lineage nomenclature is dynamic. PANGO lineage naming and assignment may change as more samples are sequenced and analyzed.
- Variant status may be updated based on scientific evidence. Variants designated as a VOC in Canada is available on the <u>Public Health Agency of Canada's SARS-CoV-2 Variants webpage</u>.
- Changes to the VOC testing algorithm may occur over time and trends should be interpreted with caution. Since February 3, 2021 all PCR positive SARS-Co-V-2 specimens with CT values \leq 35 are tested for a N501Y mutation. As of March 22, 2021, positive specimens with a Ct \leq 35 are tested for both the N501Y and E484K mutation, with all E484K positive specimens with a Ct \leq 30 forwarded for further genomic analysis. If found to be positive for the N501Y mutation only, no further genomic analysis are performed as these are presumed to be B.1.1.7 (alpha). As of May 26, 2021, cases where an E484K mutation is detected will no longer be reflexed for sequencing as VOC testing labs switched to a representative sampling method where only a proportion of all positives with a Ct \leq 30 are forwarded for further genomic analysis. The laboratory detection of a variant of concern is a multi-step process. Samples that test positive for SARS-CoV-2 and have a cycle threshold (Ct) value \leq 35 can be tested for mutations common to variants of concern. If positive for the mutation of interest these samples may then undergo genomic analyses to

identify the VOC. VOC lineages may still be confirmed using genomic analysis despite specific S gene mutation(s) being documented as 'unable to complete' due to poor sequence quality at the genome position.

• If a VOC is identified through genomic analysis cases initially classified as a mutation may be updated and moved to the appropriate lineage [B.1.1.7 (Alpha), B.1.351 (Beta), P.1 (Gamma) and B.1.617.2 (Delta)].

Data Caveats and Methods: COVaxON

- Linking COVaxON and CCM data is dependent on availability of personal identifiers reported in both databases. For example, if a client was reported in both COVaxON and CCM, but personal identifiers (e.g. such as health card number, date of birth) were not available, then sufficient information would not have been available to identify the client and the client would not have been included in the linkage.
- The following COVID-19 cases were excluded from the primary analysis as the timing of infection (i.e. date of symptom onset) relative to vaccination (i.e. date of dose administration) could not be determined.
 - Cases reported as asymptomatic and where no symptom information was reported.
 - Cases were no symptoms onset date was reported.
 - Cases reported as re-positive or remote positive.
 - Re-positive cases are defined as cases that test positive again after a negative test
 result based on an approved method or after being cleared/resolved (based on
 either time from symptom onset or having two negative tests). This may include
 cases that were asymptomatic at the time of the initial positive result and later
 developed symptoms which lead to subsequent testing. As a result, the timing of
 infection may be unclear.
 - Remote positive cases are defined as asymptomatic positive cases with a low pretest probability (e.g., no epidemiologic link to a confirmed case or an outbreak) and a repeat test that is negative. For these cases, the timing of infection may be unclear.
- The definitions for partially vaccinated and breakthrough cases used in this report were modelled after proposed national definitions, and do not necessarily align with those used in other jurisdictions. Further, the definitions may be revised over time.
 - Cases not yet protected by vaccination: Individuals with a symptom onset date that was 0 to <14 days following the first dose of a COVID-19 vaccine. This time period from vaccination is not sufficient to develop immunity, therefore these cases are not considered protected from vaccination.
 - Partially vaccinated case: Individuals with a symptom onset date that was 14 or more days
 following the first dose of a COVID-19 vaccine or 0 to <14 days after receiving the second
 dose of a 2-dose COVID-19 vaccine series. This time period from vaccination may be
 sufficient to develop some degree of immunity, but these cases are not considered fully

protected as they have not yet received the second dose or have only recently received the second dose.

- Breakthrough (i.e., fully vaccinated) case: Cases with a symptom onset date that was 14 or more days following receipt of the second dose of a 2-dose COVID-19 vaccine series or 14 or more days following the first dose of a COVID-19 vaccine product with a 1-dose schedule. These cases are considered fully protected from vaccination, however, as VE is not 100%, it is expected that a small number of cases will occur following complete vaccination.
- For breakthrough cases, the time interval between doses was not assessed to determine if the second dose was administered as per the product-specific recommended minimum interval.

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 material 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). Cases were
 probabilistically matched to a DA based on their postal code using Statistics Canada's PCCF+
 version 7B file, and 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.
- Population counts used in rate denominators were provided by ICES. Individuals alive and eligible for the Ontario Health Insurance Plan (OHIP) as of January 1st, 2021 using the OHIP RPDB were included.
 - Individuals residing in long-term care (LTC) homes were excluded. Recent health care
 transaction records (e.g., OHIP physician billings, Ontario Drug Benefit [ODB] Plan claims)
 and Resident Assessment Instrument (RAI) assessments from the Continuing Care
 Reporting System (CCRS) were used to identify individuals residing in a LTC home near the
 period prior to the index date.
 - Postal codes were assigned to individuals according to the most recent residential address available in the OHIP RPDB.
- This work is supported by the Applied Health Research Questions (AHRQ) Portfolio at ICES, which is funded by the Ontario Ministry of Health, and Ontario Health Data Platform (OHDP), a Province of Ontario initiative to support Ontario's ongoing response to COVID-19 and its related impacts. Parts of this material are based on data and information compiled and provided by the Ontario Ministry of Health. The analyses, conclusions, opinions and statements expressed herein are solely those of the authors and do not reflect those of ICES, the OHDP or the funding or data sources; no endorsement is intended or should be inferred. For more information on AHRQ and how to submit a request, please visit www.ices.on.ca/DAS/AHRQ.

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	438	617
13	March 22, 2020	March 28, 2020	1,321	1,938
14	March 29, 2020	April 4, 2020	2,798	4,736
15	April 5, 2020	April 11, 2020	3,151	7,887
16	April 12, 2020	April 18, 2020	4,245	12,132
17	April 19, 2020	April 25, 2020	3,641	15,773
18	April 26, 2020	May 2, 2020	2,902	18,675
19	May 3, 2020	May 9, 2020	2,349	21,024
20	May 10, 2020	May 16, 2020	2,207	23,231
21	May 17, 2020	May 23, 2020	2,617	25,848
22	May 24, 2020	May 30, 2020	2,610	28,458
23	May 31, 2020	June 6, 2020	2,304	30,762

Reported Week	Start date	End date	Number of cases	Cumulative count
24	June 7, 2020	June 13, 2020	1,473	32,235
25	June 14, 2020	June 20, 2020	1,228	33,463
26	June 21, 2020	June 27, 2020	1,250	34,713
27	June 28, 2020	July 4, 2020	1,085	35,798
28	July 5, 2020	July 11, 2020	869	36,667
29	July 12, 2020	July 18, 2020	931	37,598
30	July 19, 2020	July 25, 2020	992	38,590
31	July 26, 2020	August 1, 2020	807	39,397
32	August 2, 2020	August 8, 2020	594	39,991
33	August 9, 2020	August 15, 2020	610	40,601
34	August 16, 2020	August 22, 2020	730	41,331
35	August 23, 2020	August 29, 2020	851	42,182
36	August 30, 2020	September 5, 2020	976	43,158
37	September 6, 2020	September 12, 2020	1,503	44,661
38	September 13, 2020	September 19, 2020	2,372	47,033
39	September 20, 2020	September 26, 2020	3,121	50,154
40	September 27, 2020	October 3, 2020	4,223	54,377
41	October 4, 2020	October 10, 2020	5,037	59,414
42	October 11, 2020	October 17, 2020	5,277	64,691
43	October 18, 2020	October 24, 2020	6,036	70,727
44	October 25, 2020	October 31, 2020	6,387	77,114
45	November 1, 2020	November 7, 2020	7,609	84,723
46	November 8, 2020	November 14, 2020	10,431	95,154
47	November 15, 2020	November 21, 2020	9,989	105,143
48	November 22, 2020	November 28, 2020	11,132	116,275

Reported Week	Start date	End date	Number of cases	Cumulative count
49	November 29, 2020	December 5, 2020	12,685	128,960
50	December 6, 2020	December 12, 2020	13,057	142,017
51	December 13, 2020	December 19, 2020	15,653	157,670
52	December 20, 2020	December 26, 2020	15,631	173,301
53	December 27, 2020	January 2, 2021	20,446	193,747
1	January 3, 2021	January 9, 2021	24,868	218,615
2	January 10, 2021	January 16, 2021	21,381	239,996
3	January 17, 2021	January 23, 2021	16,399	256,395
4	January 24, 2021	January 30, 2021	12,762	269,157
5	January 31, 2021	February 6, 2021	9,779	278,936
6	February 7, 2021	February 13, 2021	7,896	286,832
7	February 14, 2021	February 20, 2021	7,455	294,287
8	February 21, 2021	February 27, 2021	7,678	301,965
9	February 28, 2021	March 6, 2021	7,929	309,894
10	March 7, 2021	March 13, 2021	9,475	319,369
11	March 14, 2021	March 20, 2021	11,022	330,391
12	March 21, 2021	March 27, 2021	14,384	344,775
13	March 28, 2021	April 3, 2021	18,938	363,713
14	April 4, 2021	April 10, 2021	25,568	389,281
15	April 11, 2021	April 17, 2021	30,875	420,156
16	April 18, 2021	April 24, 2021	28,329	448,485
17	April 25, 2021	May 1, 2021	25,200	473,685
18	May 2, 2021	May 8, 2021	20,750	494,435
19	May 9, 2021	May 15, 2021	16,517	510,952
20	May 16, 2021	May 22, 2021	12,652	523,604

Reported Week	Start date	End date	Number of cases	Cumulative count
21	May 23, 2021	May 29, 2021	7,764	531,368
22	May 30, 2021	June 5, 2021	5,210	536,578
23	June 6, 2021	June 12, 2021	3,493	540,071
24	June 13, 2021	June 19, 2021	2,418	542,489
25	June 20, 2021	June 26, 2021	1,899	544,388

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

Public Health Unit Name	Cases reported week 24	Rate per 100,000 population Reported week 24	Cases reported week 25	Rate per 100,000 population Reported week 25
Northwestern Health Unit	8	9.1	6	6.8
Thunder Bay District Health Unit	13	8.7	7	4.7
TOTAL NORTH WEST	21	8.8	13	5.5
Algoma Public Health	1	0.9	1	0.9
North Bay Parry Sound District Health Unit	43	33.1	61	47.0
Porcupine Health Unit	102	122.2	73	87.5
Public Health Sudbury & Districts	21	10.6	24	12.1
Timiskaming Health Unit	0	0.0	0	0.0
TOTAL NORTH EAST	167	29.9	159	28.4
Ottawa Public Health	142	13.5	77	7.3
Eastern Ontario Health Unit	10	4.8	4	1.9
Hastings Prince Edward Public Health	1	0.6	1	0.6
Kingston, Frontenac and Lennox & Addington Public Health	8	3.8	3	1.4
Leeds, Grenville & Lanark District Health Unit	5	2.9	3	1.7
Renfrew County and District Health Unit	6	5.5	4	3.7
TOTAL EASTERN	172	8.9	92	4.8
Durham Region Health Department	110	15.4	59	8.3

Public Health Unit Name	Cases reported week 24	Rate per 100,000 population Reported week 24	Cases reported week 25	Rate per 100,000 population Reported week 25
Haliburton, Kawartha, Pine Ridge District Health Unit	21	11.1	13	6.9
Peel Public Health	330	20.5	190	11.8
Peterborough Public Health	22	14.9	9	6.1
Simcoe Muskoka District Health Unit	53	8.8	37	6.2
York Region Public Health	102	8.3	70	5.7
TOTAL CENTRAL EAST	638	14.2	378	8.4
Toronto Public Health	446	14.3	316	10.1
TOTAL TORONTO	446	14.3	316	10.1
Chatham-Kent Public Health	3	2.8	3	2.8
Grey Bruce Health Unit	37	21.8	131	77.1
Huron Perth Public Health	20	14.3	11	7.9
Lambton Public Health	15	11.5	40	30.5
Middlesex-London Health Unit	73	14.4	33	6.5
Southwestern Public Health	32	15.1	12	5.7
Windsor-Essex County Health Unit	56	13.2	40	9.4
TOTAL SOUTH WEST	236	14.0	270	16.0
Brant County Health Unit	22	14.2	14	9.0
City of Hamilton Public Health Services	112	18.9	99	16.7
Haldimand-Norfolk Health Unit	12	10.5	8	7.0
Halton Region Public Health	74	12.0	48	7.8

Public Health Unit Name	Cases reported week 24	Rate per 100,000 population Reported week 24	Cases reported week 25	Rate per 100,000 population Reported week 25
Niagara Region Public Health	77	16.3	66	14.0
Region of Waterloo Public Health and Emergency Services	404	69.1	386	66.1
Wellington-Dufferin-Guelph Public Health	37	11.9	50	16.0
TOTAL CENTRAL WEST	738	25.9	671	23.5
TOTAL ONTARIO	2,418	16.3	1,899	12.8

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

Table 3A. Confirmed COVID-19 variants of concern by public health unit and region: Ontario

Public Health Unit Name	Cumulative case count up to June 26 for Lineage B.1.1.7 (Alpha)*	Cumulative case count up to June 26 for Lineage B.1.351 (Beta)**	Cumulative case count up to June 26 for Lineage P.1 (Gamma)***	Cumulative case count up to June 26 for Lineage B.1.617.2 (Delta)†	Cumulative count up to June 26 for Mutations‡
Northwestern Health Unit	56	0	1	0	16
Thunder Bay District Health Unit	104	0	2	5	74
TOTAL NORTH WEST	160	0	3	5	90
Algoma Public Health	68	0	12	2	28
North Bay Parry Sound District Health Unit	209	28	2	7	13
Porcupine Health Unit	1,052	2	0	34	8
Public Health Sudbury & Districts	614	9	5	1	343
Timiskaming Health Unit	83	1	0	0	0
TOTAL NORTH EAST	2,026	40	19	44	392
Ottawa Public Health	6,631	480	50	19	480
Eastern Ontario Health Unit	649	41	17	2	276
Hastings Prince Edward Public Health	76	0	8	0	407
Kingston, Frontenac and Lennox & Addington Public Health	439	2	35	3	129
Leeds, Grenville & Lanark District Health Unit	292	18	0	0	42

Public Health Unit Name	Cumulative case count up to June 26 for Lineage B.1.1.7 (Alpha)*	Cumulative case count up to June 26 for Lineage B.1.351 (Beta)**	Cumulative case count up to June 26 for Lineage P.1 (Gamma)***	Cumulative case count up to June 26 for Lineage B.1.617.2 (Delta)†	Cumulative count up to June 26 for Mutations‡
Renfrew County and District Health Unit	222	8	5	1	12
TOTAL EASTERN	8,309	549	115	25	1,346
Durham Region Health Department	9,492	65	261	51	1,205
Haliburton, Kawartha, Pine Ridge District Health Unit	442	0	17	30	313
Peel Public Health	30,549	132	1,399	462	3,578
Peterborough Public Health	580	4	7	8	161
Simcoe Muskoka District Health Unit	3,845	28	159	56	833
York Region Public Health	15,853	79	466	68	2,697
TOTAL CENTRAL EAST	60,761	308	2,309	675	8,787
Toronto Public Health	44,819	339	1,408	404	8,644
TOTAL TORONTO	44,819	339	1,408	404	8,644
Chatham-Kent Public Health	113	5	14	0	110
Grey Bruce Health Unit	305	0	5	50	56
Huron Perth Public Health	233	0	10	17	68
Lambton Public Health	430	0	17	12	129
Middlesex-London Health Unit	3,352	2	95	19	184

Public Health Unit Name	Cumulative case count up to June 26 for Lineage B.1.1.7 (Alpha)*	Cumulative case count up to June 26 for Lineage B.1.351 (Beta)**	Cumulative case count up to June 26 for Lineage P.1 (Gamma)***	Cumulative case count up to June 26 for Lineage B.1.617.2 (Delta)†	Cumulative count up to June 26 for Mutations‡
Southwestern Public Health	656	2	14	13	165
Windsor-Essex County Health Unit	1,819	5	17	3	130
TOTAL SOUTH WEST	6,908	14	172	114	842
Brant County Health Unit	664	2	88	26	496
City of Hamilton Public Health Services	4,957	65	101	65	2,092
Haldimand-Norfolk Health Unit	368	3	22	7	401
Halton Region Public Health	5,071	29	159	69	606
Niagara Region Public Health	4,229	4	16	17	1,082
Region of Waterloo Public Health and Emergency Services	3,079	11	71	410	300
Wellington-Dufferin- Guelph Public Health	2,074	1	61	47	193
TOTAL CENTRAL WEST	20,442	115	518	641	5,170
TOTAL ONTARIO	143,425	1,365	4,544	1,908	25,271

Note: Interpret the VOC and mutation trends with caution due to the varying time required to complete VOC testing and/or genomic analysis following the initial positive test for SARS-CoV-2. Data for calculating the cumulative case count uses data from the Investigation Subtype field only. Data for cases with a B.1.1.7 (Alpha), B.1.351 (Beta), P.1 (Gamma) and B.1.617.2 (Delta) lineage detected or a mutation are determined using the Investigation Subtype field only.

^{*}Includes all confirmed COVID-19 cases where lineage B.1.1.7 (Alpha) was identified by genomic analysis and those presumed to be B.1.1.7 based on a positive N501Y and negative E484K mutation in the Investigation Subtype field.

^{**}Includes B.1.351 (Beta) cases identified by genomic analysis and those presumed to be B.1.351 based on

^{&#}x27;Mutation K417N+ and N501Y+ and E484K+' in the Investigation Subtype field

- ***Includes P.1 (Gamma) cases identified by genomic analysis and those presumed to be P.1 based on 'Mutation K417T+ and N501Y+ and E484K+' in the Investigation Subtype field
- †Includes B.1.617.2 (Delta) cases identified by genomic analysis. Mutations common to B.1.617.2 are not included in the current VOC mutation test.
- ‡ Mutations includes all confirmed COVID-19 cases with the following mutations detected, reported from the Investigation Subtype field: N501Y and E484K, N501Y (E484K unknown), E484K (N501Y negative), E484K (N501Y unknown)

Citation

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For Further Information

For more information, email cd@oahpp.ca.

Public Health Ontario

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