

WEEKLY EPIDEMIOLOGICAL SUMMARY

COVID-19 in Ontario: Focus on June 13, 2021 to June 19, 2021

This report includes the most current information available from CCM as of **June 22, 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

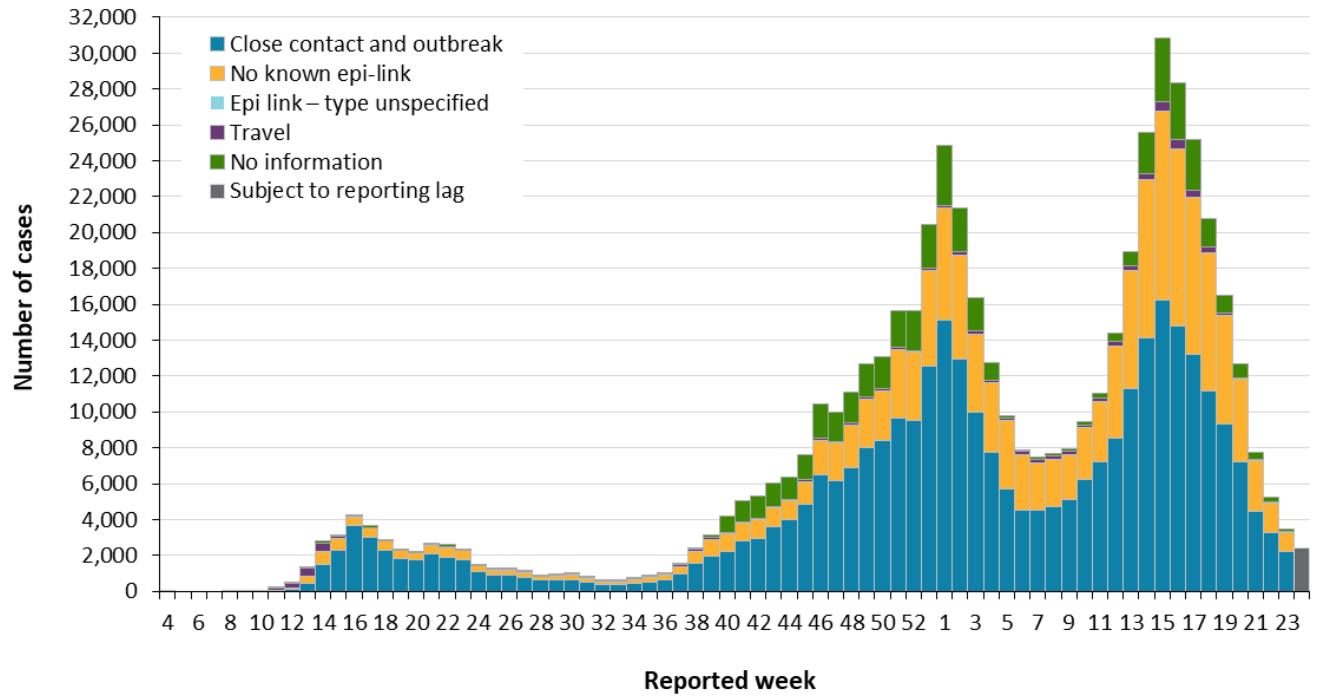
- There are a total of 542,428 confirmed cases of COVID-19 in Ontario with a public health unit reported date up to June 19, 2021.
- For the period with a public health unit (PHU) reported date between June 13 to 19, 2021 (week 24):
 - A total of 2,433 cases were reported to public health compared to 3,492 cases the previous week (June 6 to 12, 2021).
 - In the past two weeks, only two out of 34 public health units, Porcupine Health Unit and Region of Waterloo, have reported rates greater than 40.0 cases per 100,000 population. Of note, however, rates for these health units were lower in week 24 compared to week 23 (122.2 in week 24 compared to 320.0 in week 23 for Porcupine Health Unit and 69.0 in week 24 compared to 72.4 in week 23 for Region of Waterloo).
 - While only representing 1.6% of all COVID-19 cases in Ontario, there was an increase in travel-related cases from 1.5% (54/3,492 cases) in week 23 to 3.0% (73/2,433 cases) of all cases in week 24. During this time, outbreak-associated cases or close contacts of a confirmed case decreased from 63.5% (2,218/3,492) to 61.0% (1,485/2,433) and cases with no known epidemiological link decreased from 30.1% (1,051/3,492) to 28.0% (682/2,433).

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

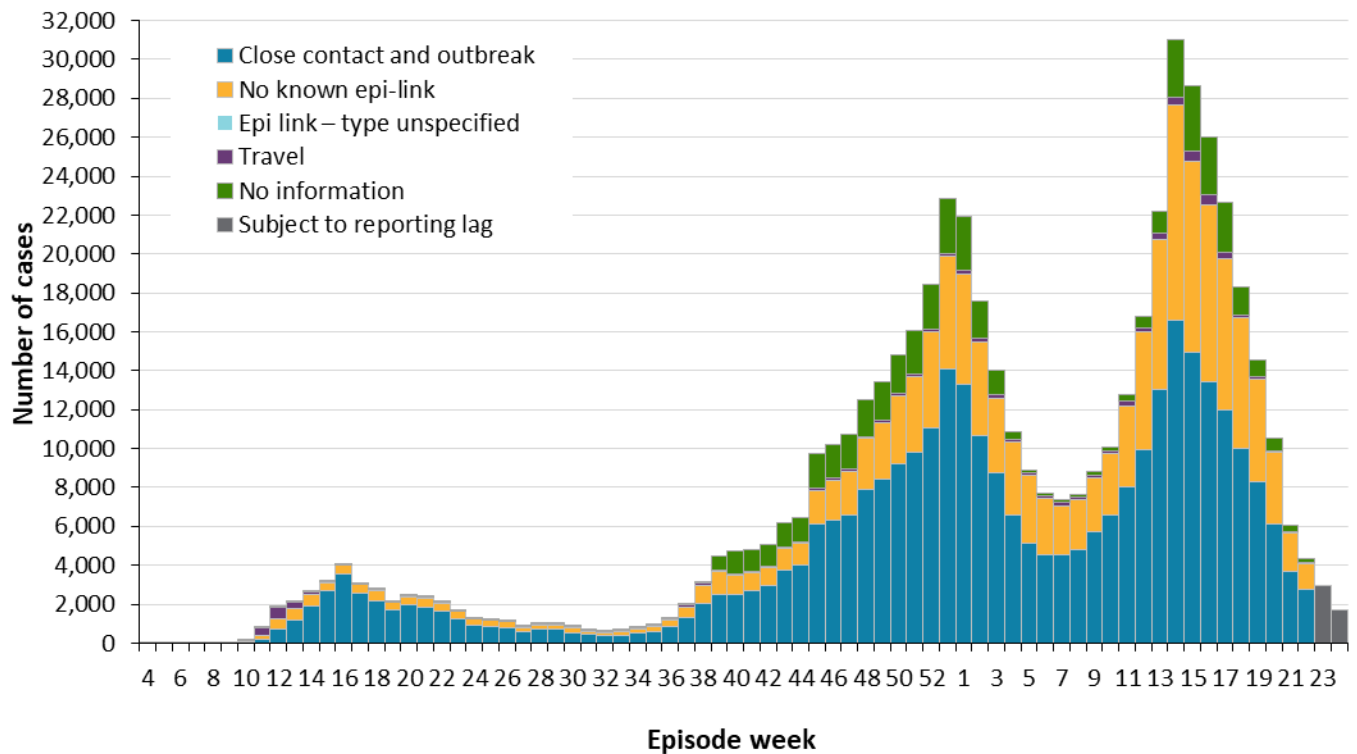
Figure 1. Confirmed cases of COVID-19 by likely source of acquisition and public health unit reported week: Ontario



Note: Include cases with reported dates ranging from week-4 (January 19 and 25, 2020) to week 24 (June 13 and 19, 2021). See [Table 1A](#) in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM

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 24 (June 13 and 19, 2021). See [Table 1A](#) in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM

Case Characteristics

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

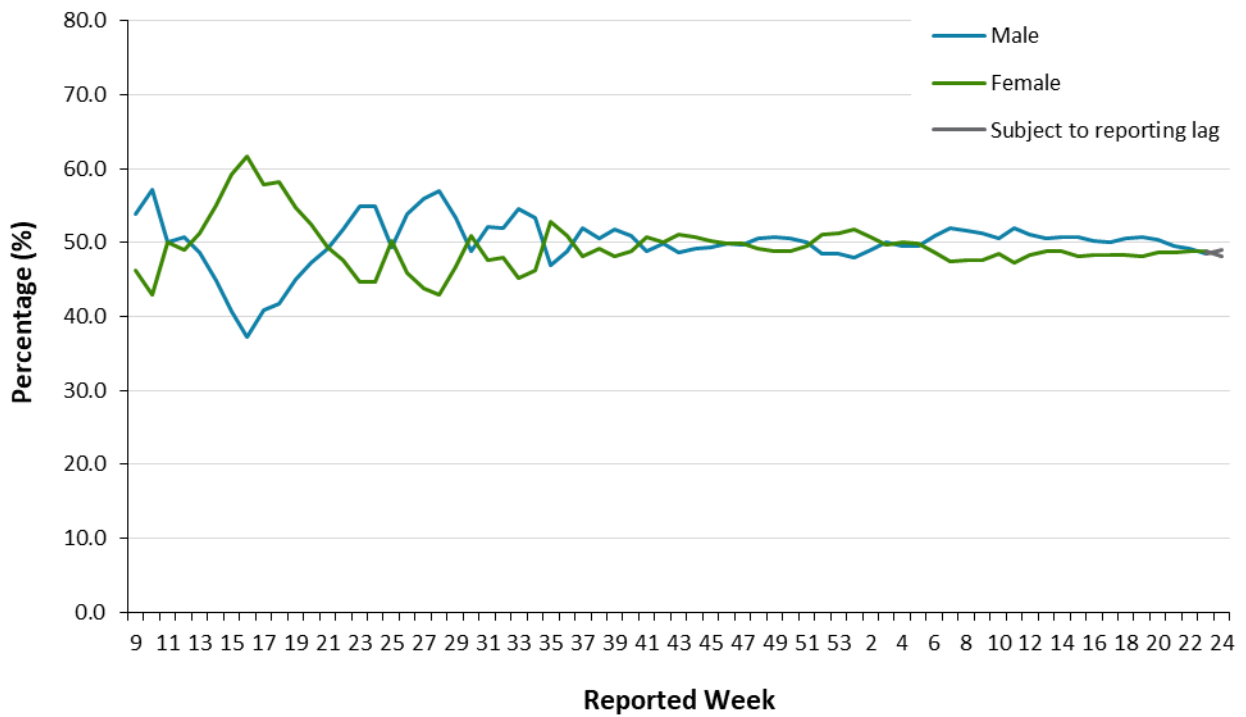
	Reported week 23 (June 6 to 12)	Reported week 24 (June 13 to 19)	Cumulative case count up to June 19	Cumulative rate per 100,000 population
Total number of cases	3,492	2,433	542,428	3,649.2
Gender: Male	1,695	1,192	270,204	3,691.7
Gender: Female	1,703	1,171	268,401	3,557.2
Ages: 19 and under	872	583	87,100	2,777.0
Ages: 20-39	1,335	918	203,222	4,889.6
Ages: 40-59	840	569	154,898	3,933.9
Ages: 60-79	371	306	72,118	2,440.6
Ages: 80 and over	74	56	24,988	3,678.7
Number resolved	N/A	N/A	530,864	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

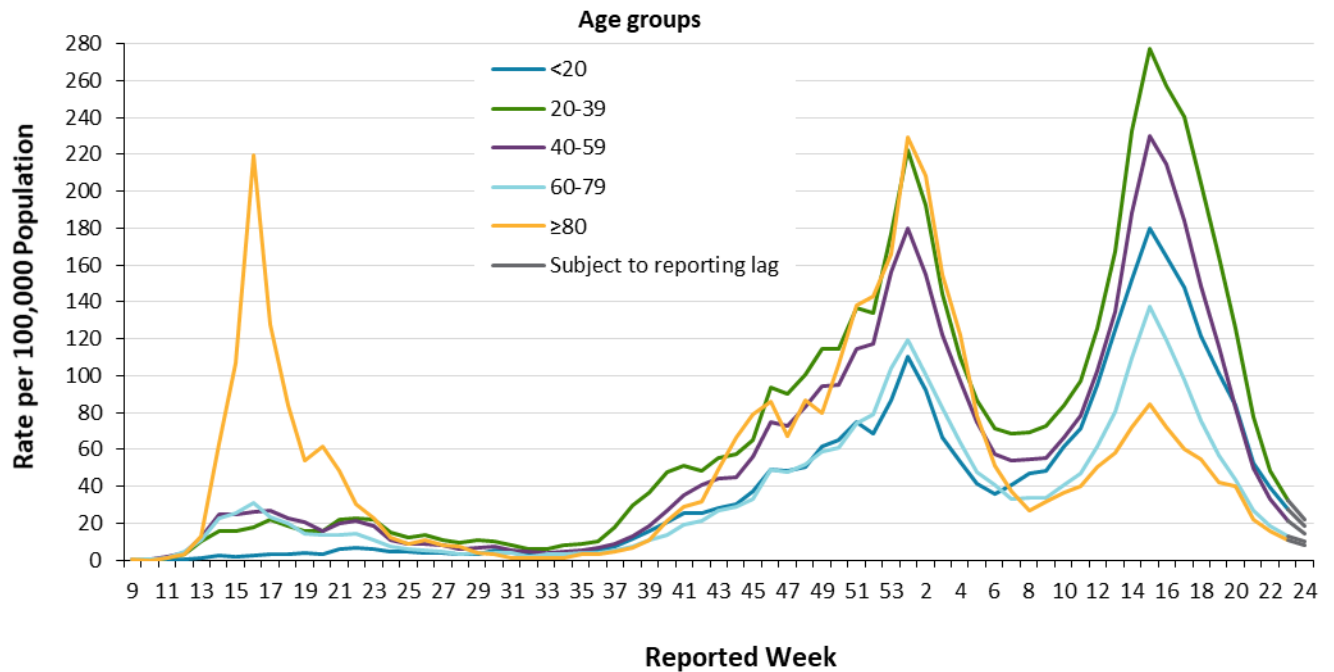
Figure 3. Percentage of confirmed cases of COVID-19 by gender and public health unit reported week: Ontario



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 24 (June 13 and 19, 2021). See [Table 1A](#) in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM

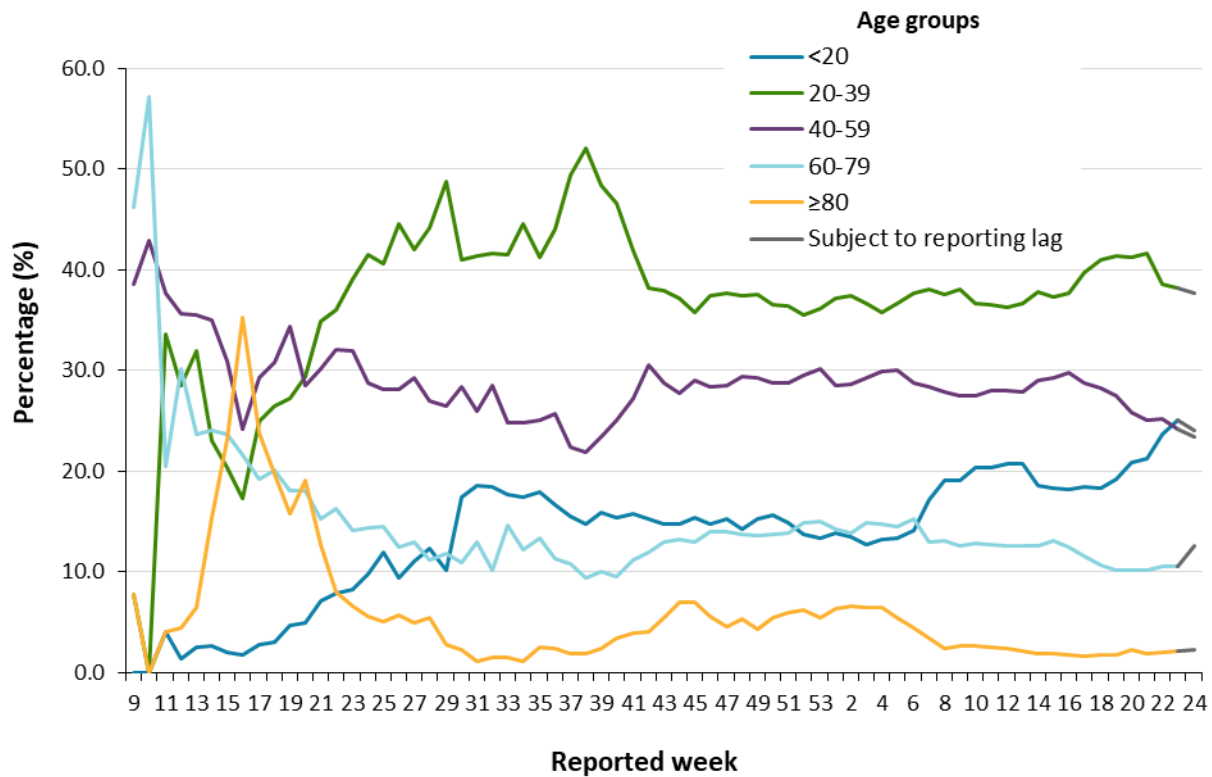
Figure 4a. Rate of confirmed cases of COVID-19 per 100,000 population by age group and public health unit reported week: Ontario



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 24 (June 13 and 19, 2021). See [Table 1A](#) in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM

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

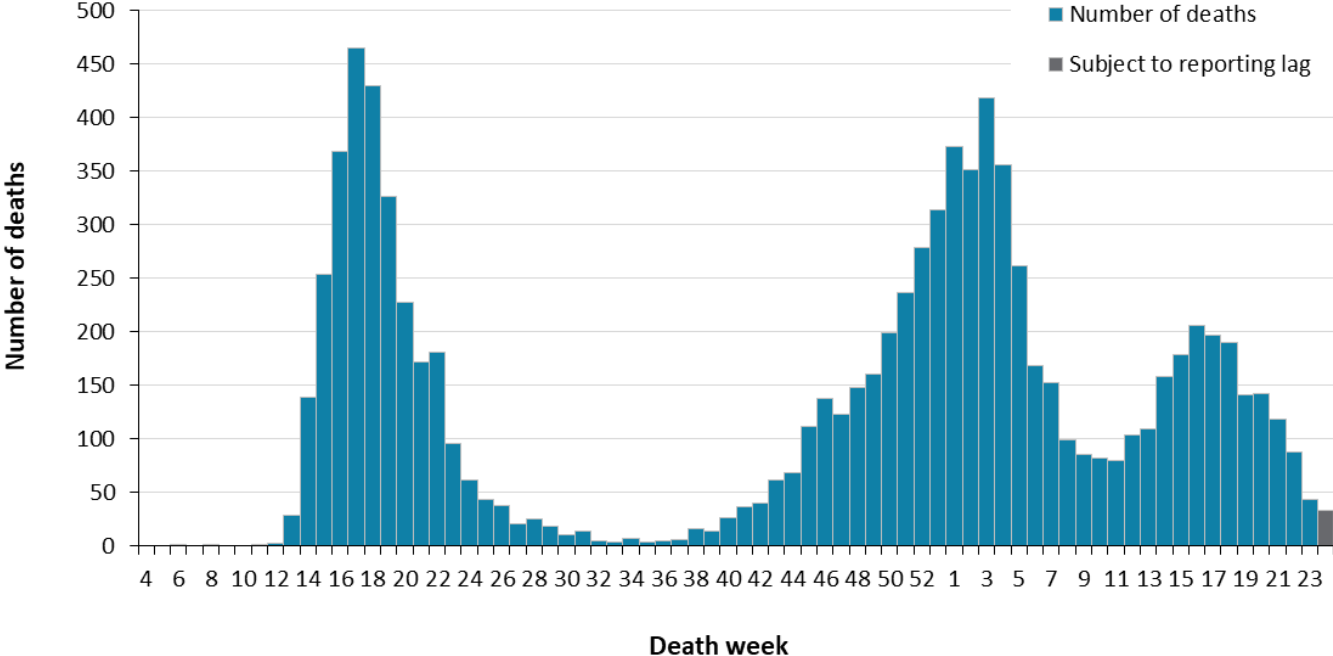


Note: Only weeks with more than 10 cases by public health unit reporting date are included (starting in week 9). Include cases with reported dates ranging from week 9 (February 23 and 29, 2020) to week 24 (June 13 and 19, 2021). See [Table 1A](#) in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM

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 24 (June 13 and 19, 2021). See [Table 1A](#) in Appendix A for a list of the weeks and corresponding start and end dates.

Data Source: CCM

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

Deaths	Reported week 23 (June 6 to 12)	Reported week 24 (June 13 to 19)	Cumulative case count up to June 19	Cumulative rate per 100,000 population
Number of deaths	11	3	9,093	61.2
Gender: Male	6	1	4,589	62.7
Gender: Female	4	2	4,442	58.9
Ages: 19 and under	0	0	4	0.1
Ages: 20-39	2	0	81	1.9
Ages: 40-59	1	0	558	14.2
Ages: 60-79	2	0	2,876	97.3
Ages: 80 and over	6	3	5,573	820.4

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

Exposure

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

	Reported week 23 (June 6 to 12)	Percentage	Reported week 24 (June 13 to 19)	Percentage	Cumulative case count up to June 19	Cumulative percentage
Travel	54	1.5%	73	3.0%	8,864	1.6%
Outbreak-associated or close contact of a confirmed case	2,218	63.5%	1,485	61.0%	324,810	59.9%
Epidemiological link – type unspecified	0	0.0%	0	0.0%	119	0.0%
No known epidemiological link	1,051	30.1%	682	28.0%	157,481	29.0%
Information missing or unknown	169	4.8%	193	7.9%	51,154	9.4%
Total	3,492		2,433		542,428	

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

Sub-populations of interest

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

Health care workers	Reported week 23 (June 6 to 12)	Reported week 24 (June 13 to 19)	Cumulative case count up to June 19
Number of cases	64	39	23,527
Ever hospitalized	2	0	456
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 23 (June 6 to 12)	Reported week 24 (June 13 to 19)	Cumulative case count up to June 19
Residents	12	6	15,355
Deaths among residents	1	1	3,967
Health care workers	5	3	7,175
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.

Data Source: CCM

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	79	12.4%	28	8.0%	107	10.8%
Partially vaccinated	158	24.8%	82	23.3%	240	24.2%
Not yet protected	401	62.9%	242	68.8%	643	64.9%
Total post-vaccination cases	638		352		990	

Note: Include cases reported from December 14, 2020 to June 21, 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 23 (June 6 to 12)	Reported week 24 (June 13 to 19)	Cumulative case count from August 30 up to June 19
Ages: 4-8	176	145	16,055
Ages: 9-13	183	134	20,166
Ages: 14-17	215	120	20,545

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

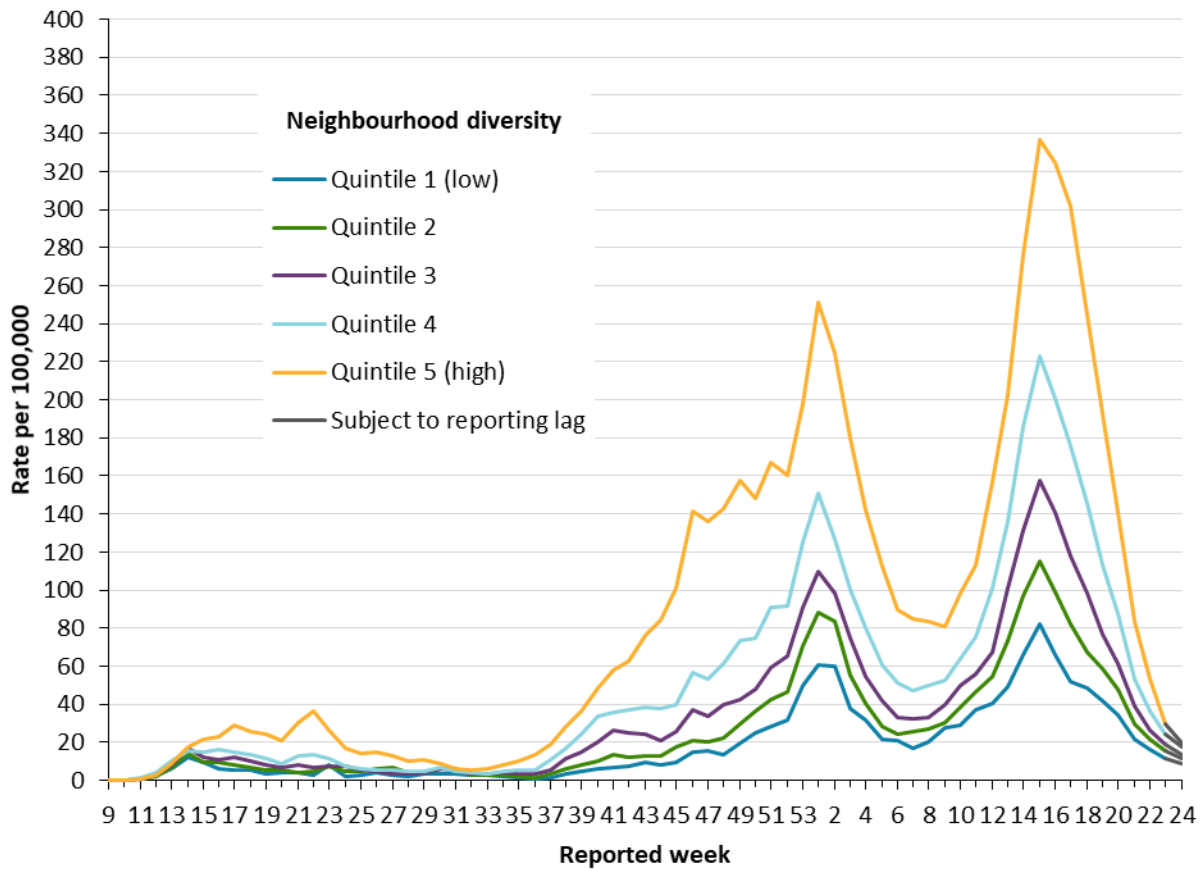
Table 8: Summary of reinfection cases of COVID-19 by age group and public health unit reported week: Ontario

Age Group	Reported Week 23 (June 6 to 12)	Reported Week 24 (June 13 to 19)	Cumulative count from November 1 up to June 19	Percent of reinfection cases
Ages: 19 and under	1	0	30	13.8%
Ages: 20-39	1	5	96	44.2%
Ages: 40-59	3	1	67	30.9%
Ages: 60-79	0	1	17	7.8%
Ages: 80 and over	0	0	7	3.2%
Total reinfection cases	5	7	217	

Note: Cases identified as reinfections meeting the [provincial definition](#) 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.

Data Source: CCM

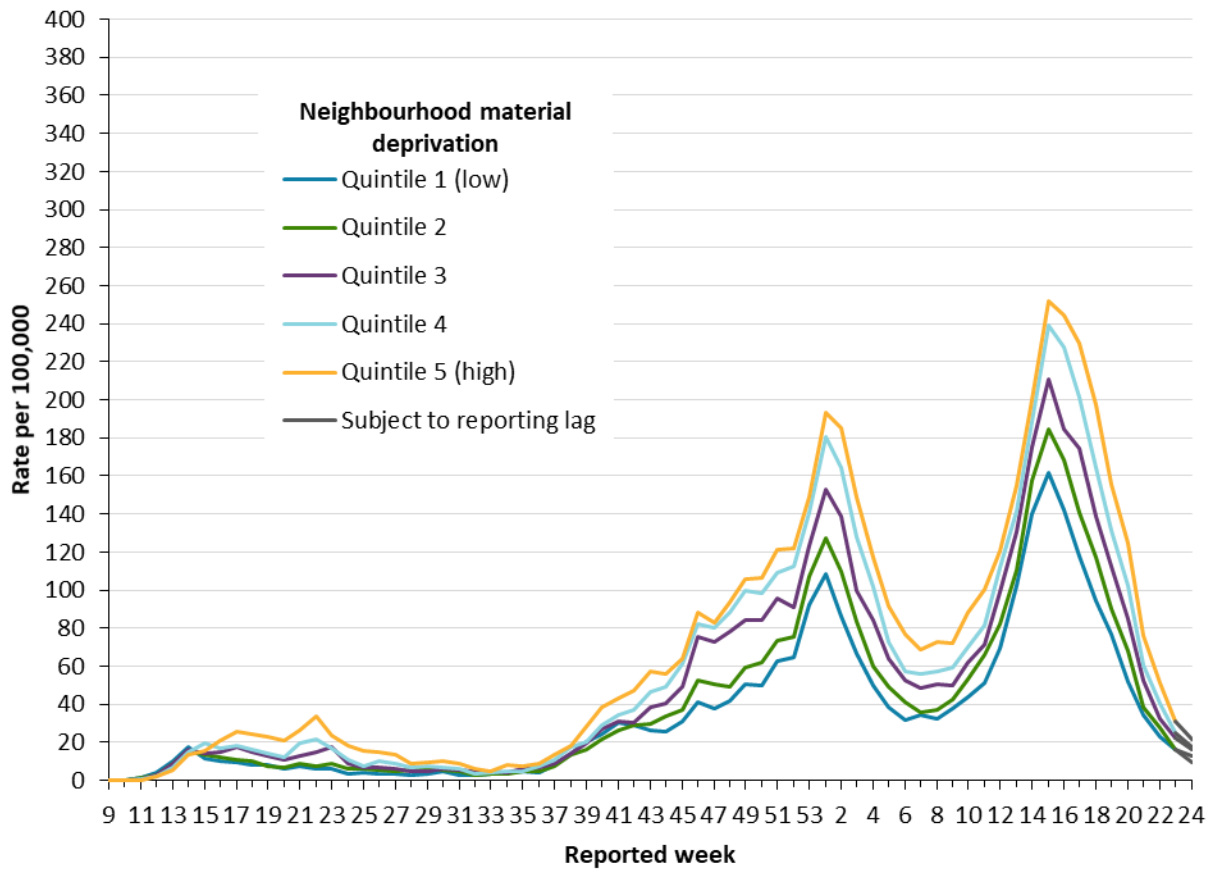
Figure 6. Rate of confirmed cases of COVID-19 per 100,000 population by quintile of neighbourhood diversity and public health unit reported week: Ontario



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 24 (June 13 to 19, 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

Figure 7. Rate of confirmed cases of COVID-19 per 100,000 population by quintile of neighbourhood material deprivation and public health unit reported week: Ontario



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 24 (June 13 to 19, 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 23 (June 6 to 12)	Cases Reported Week 24 (June 13 to 19)	Cumulative case count up to June 19	Cumulative rate per 100,000 population up to June 19
Quintile 1 (least diverse)	257	199	28,060	1,263.3
Quintile 2	371	274	42,293	1,785.9
Quintile 3	484	352	63,115	2,434.9
Quintile 4	764	555	108,856	3,480.5
Quintile 5 (most diverse)	1,285	848	259,078	5,994.0

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

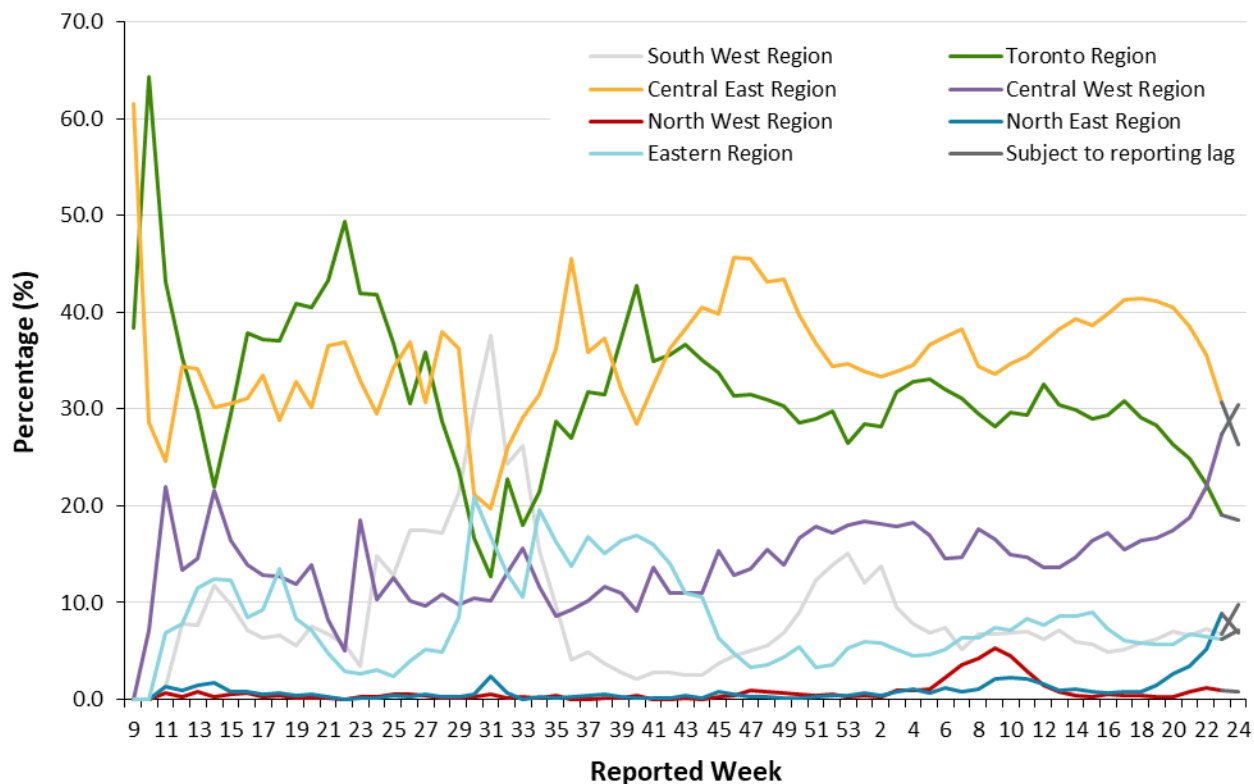
	Cases Reported Week 23 (June 6 to 12)	Cases Reported Week 24 (June 13 to 19)	Cumulative case count up to June 19	Cumulative rate per 100,000 population up to June 19
Quintile 1 (least material deprivation)	552	330	83,637	2,426.9
Quintile 2	509	407	88,267	2,843.0
Quintile 3	620	453	97,209	3,505.6
Quintile 4	651	467	106,946	4,070.2
Quintile 5 (most material deprivation)	829	571	125,343	4,677.0

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

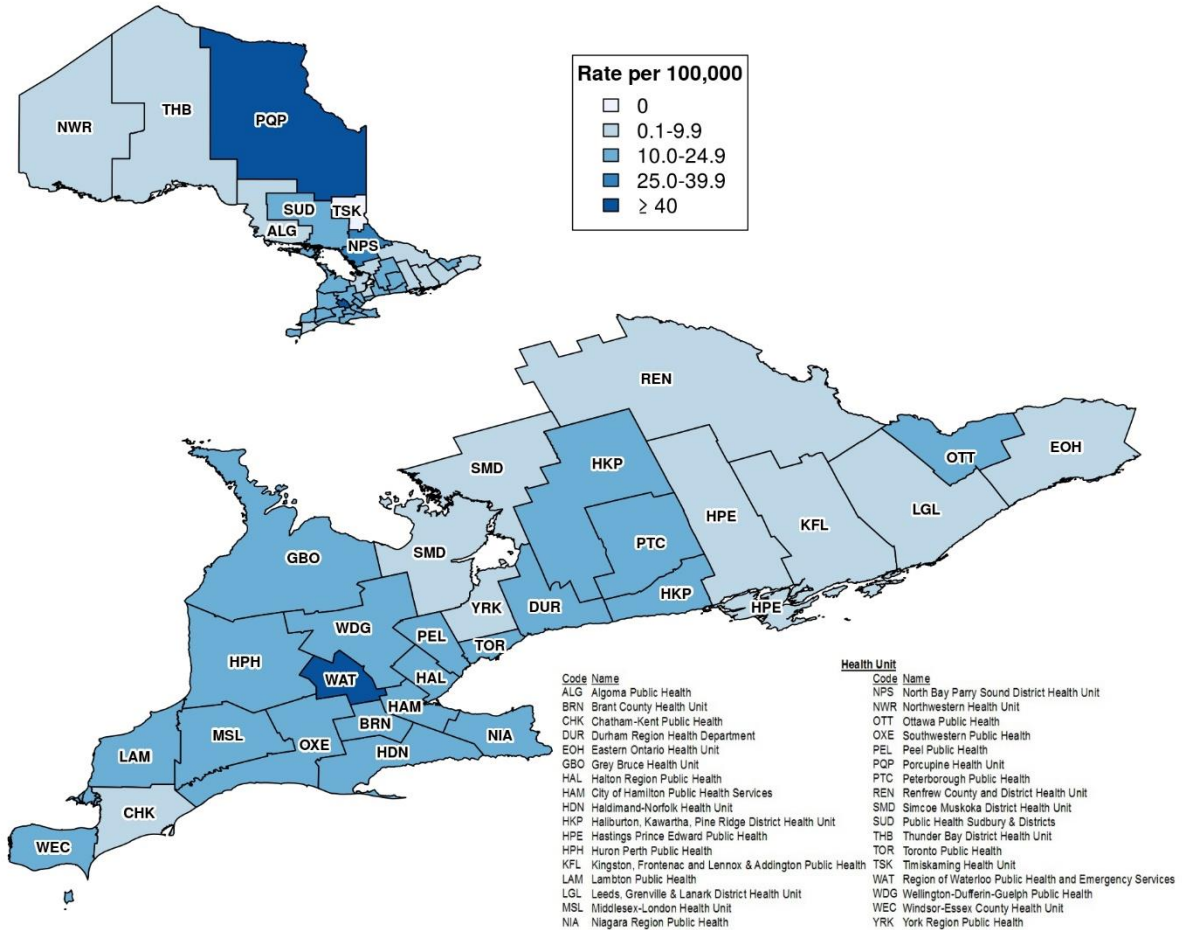
Figure 8. Percentage of COVID-19 cases by geographic region and public health unit reported week: Ontario



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 24 (June 13 and 19, 2021). [Table 2A](#) in Appendix A has a listing of public health units by region.

Data Source: CCM

Figure 9. Rate of confirmed cases of COVID-19 in public health reported week 24 (June 13 to 19, 2021) by public health unit: Ontario



Note: The provincial rate of confirmed cases of COVID-19 reported in week 24 was 16.4 cases per 100,000 population.

Data Source: CCM

Outbreaks

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

Setting Type	Reported week 24 (June 13 to 19)	Number of ongoing outbreaks	Cumulative number of outbreaks reported to June 19
Congregate Care	2	17	2,924
Long-term care homes	0	9	1,482
Retirement homes	0	3	873
Hospitals	2	5	569
Congregate Living	8	26	1,284
Correctional facility	2	6	56
Shelter	1	6	264
Group Home/supportive housing	3	7	764
Short-term accommodations	1	1	35
Congregate other	1	6	165
Education	6	16	2,423
Child care	5	12	987
School – Elementary*	0	1	1,071
School – Elementary/secondary*	0	0	64
School – Secondary*	0	0	255
School – Post-secondary*	1	3	46
Other settings	26	71	4,100
Bar/restaurant/nightclub	4	9	326
Medical/health services	1	1	149
Personal service settings	0	0	28
Recreational fitness	0	0	90

Setting Type	Reported week 24 (June 13 to 19)	Number of ongoing outbreaks	Cumulative number of outbreaks reported to June 19
Retail	4	7	455
Other recreation/community	1	7	208
Workplace – Farm	1	1	210
Workplace - Food processing	0	2	271
Other types of workplaces	14	43	2,343
Other	0	0	2
Unknown	1	1	18
Total number of outbreaks	42	130	10,731

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.

*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. Outbreaks in settings outside of Ontario are excluded from all outbreak counts.

Data Source: CCM

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 23 (June 6 to 12)	Reported week 24 (June 13 to 19)	Cumulative number of cases
Congregate Care	43	36	39,764
Long-term care homes	21	14	26,148
Retirement homes	7	2	7,310
Hospitals	15	20	6,306
Congregate Living	104	95	9,655
Correctional facility	12	40	1,701
Shelter	56	38	2,755
Group Home/supportive housing	21	10	3,546
Short-term accommodations	2	1	201
Congregate other	13	6	1,452
Education	42	24	10,321
Child care	41	23	4,040
School – Elementary*	0	0	4,446
School – Elementary/secondary*	0	0	334
School – Secondary*	0	0	1,088
School – Post-secondary*	1	1	413
Other settings	180	100	32,451
Bar/restaurant/nightclub	10	8	1,412
Medical/health services	2	0	658
Personal service settings	0	0	106
Recreational fitness	0	0	707
Retail	16	8	2,374

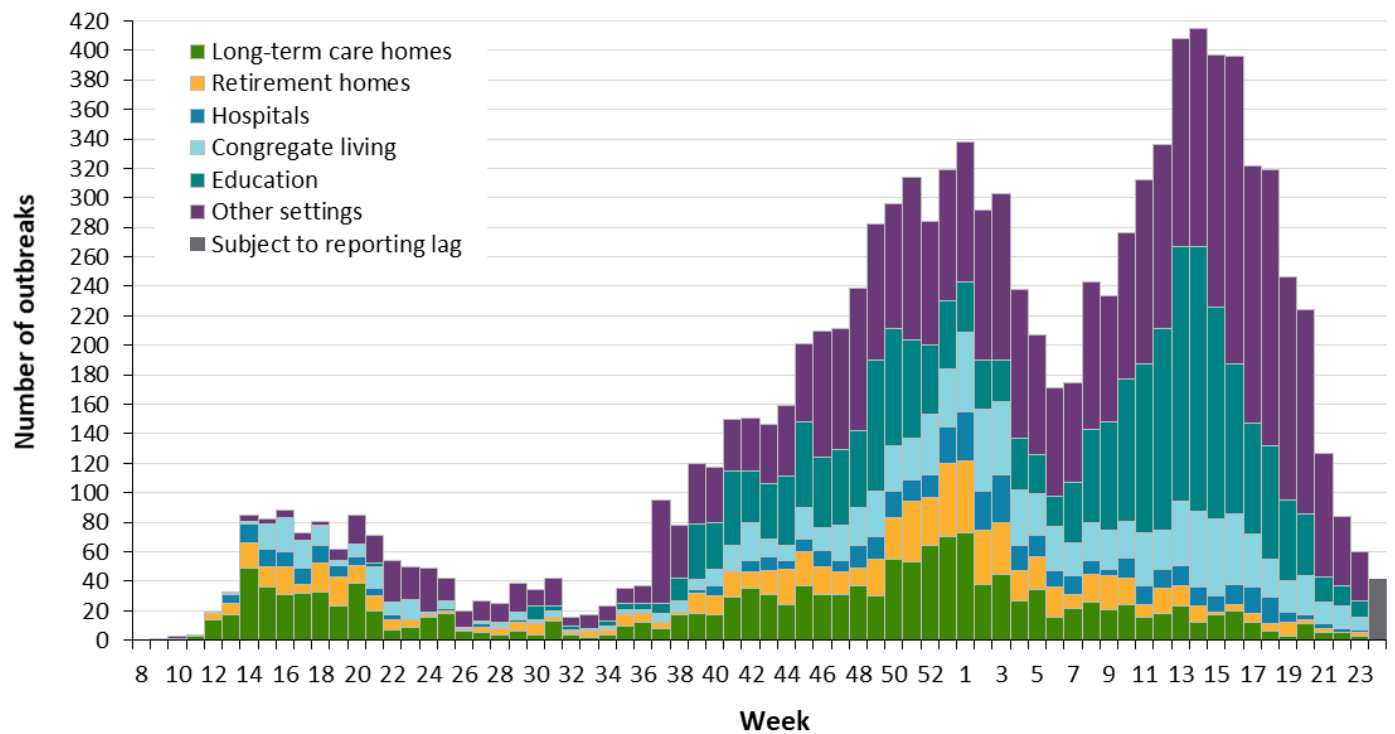
Cases associated with the outbreak setting type	Reported week 23 (June 6 to 12)	Reported week 24 (June 13 to 19)	Cumulative number of cases
Other recreation/community	30	7	2,816
Workplace - Farm	2	1	3,054
Workplace - Food processing	4	0	3,517
Other types of workplaces	115	75	17,688
Other	0	0	12
Unknown	1	1	107
Total number of cases	369	255	92,191

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.

Data Source: CCM

Figure 10. 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 24 refers to June 13 and 19, 2021. Congregate living include group homes, shelters, correctional facilities, etc. Other settings include outbreaks within workplaces, childcare, schools, restaurants, recreation etc.

Data Source: CCM

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*	Lineage B.1.351	Lineage P.1	Lineage B.1.617.2* *	Mutations ***	Mutation not detected†	Cumulative case count as of June 19, 2021
Gender: Male	71,910	577	2,203	511	13,269	5,081	93,551
Gender: Female	69,678	572	2,031	453	12,180	5,005	89,919
Ages: 19 and under	26,951	186	748	144	5,189	1,911	35,129
Ages: 20-39	54,097	364	1,559	451	9,907	3,819	70,197
Ages: 40-59	41,832	389	1,293	251	7,082	2,839	53,686
Ages: 60-79	16,982	182	547	102	3,065	1,320	22,198
Ages: 80 and over	2,713	33	116	26	499	280	3,667

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, B.1.351, P.1 and B.1.617.2 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 all confirmed COVID-19 cases where lineage B.1.1.7 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.1.617.2 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).

†Includes cases identified as 'Mutation not detected' in the Investigation Subtype field only.

Data Source: CCM

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*	%	Lineage B.1.351	%	Lineage P.1	%	Lineage B.1.617.2**	%	Mutations***	%	Cumulative case count up to June 19, 2021	Cumulative percentage
Travel	768	0.5%	31	2.7%	48	1.1%	51	5.2%	314	1.2%	1,212	0.7%
Outbreak-associated or close contact of a confirmed case	78,727	55.2%	732	63.4%	2,693	63.2%	591	60.7%	16,624	64.6%	99,367	56.9%
Epidemiological link – type unspecified	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
No known epidemiological link	51,280	36.0%	324	28.1%	1,329	31.2%	300	30.8%	7,523	29.2%	60,756	34.8%
Information missing or unknown	11,813	8.3%	67	5.8%	193	4.5%	32	3.3%	1,284	5.0%	13,389	7.7%
Total	142,588		1,154		4,263		974		25,745		174,724	

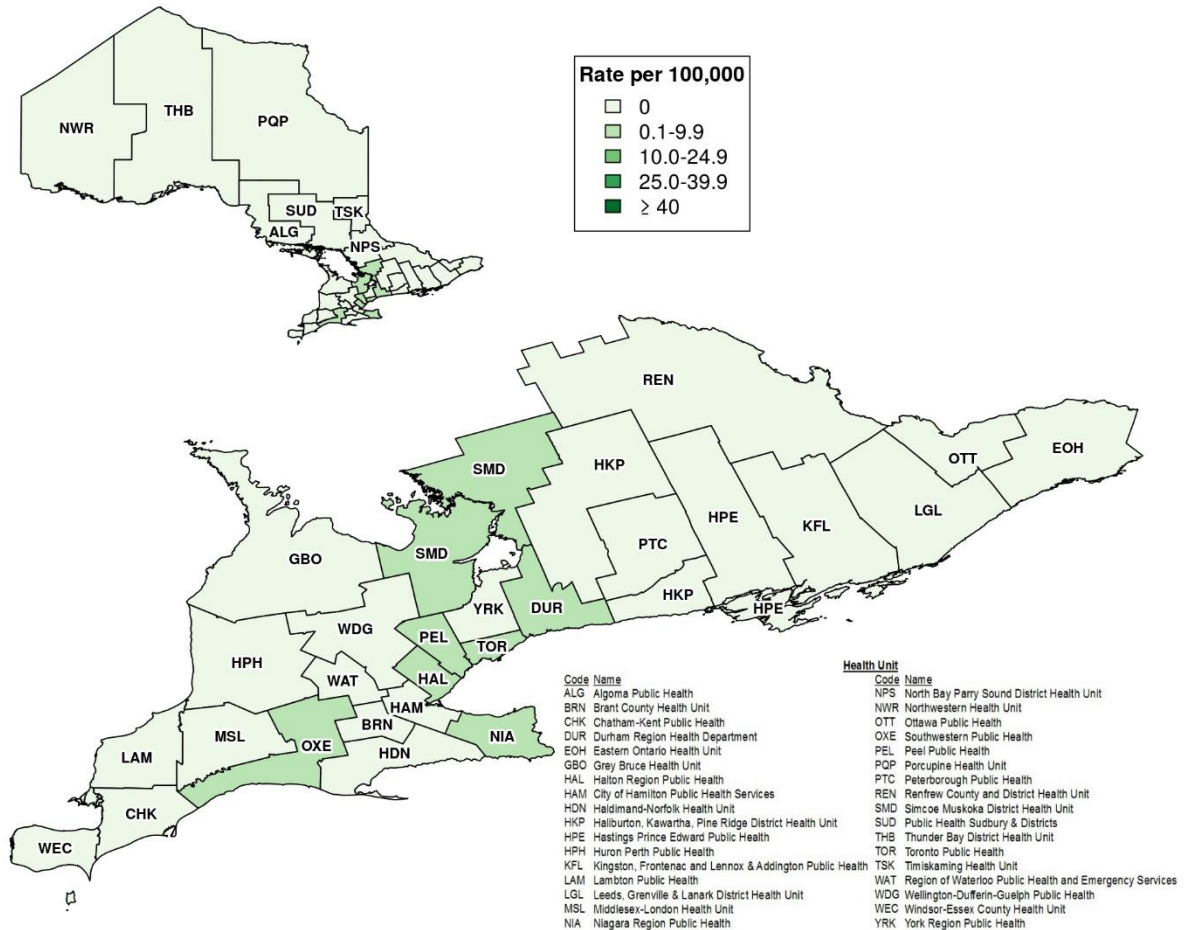
Note: Information for how cases are grouped within each category is available in the technical notes. Data for cases with a B.1.1.7, B.1.351, and P.1 lineage detected are determined using the Investigation Subtype field only.* Includes all confirmed COVID-19 cases where lineage B.1.1.7 was identified 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.1.617.2 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)

Data Source: CCM

Figure 11. Rates of confirmed cases of COVID-19 with lineage B.1.617.2* detected in public health reported week 24 (June 13 to 19, 2021) by public health unit: Ontario



Note: The provincial rate of confirmed cases of COVID-19 with lineage B.1.617.2* reported in week 24 was 0.3 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 cases identified by genomic analysis. Mutations common to B.1.617.2 are not included in the current VOC mutation test.

Data Source: CCM

Technical Notes

Data Sources

- The data for this report were based on:
 - Information successfully extracted from the Public Health Case and Contact Management Solution (CCM) for all PHUs by PHO as of **June 22, 2021 at 1 p.m.** for cases reported from February 1, 2021 onwards and as of **June 21, 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 22, 2021 at 1 p.m.** for cases reported from April 1, 2021 onwards and as of **June 21, 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 21, 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 21, 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 [MOH Case Definition – Coronavirus Disease \(COVID-19\) document](#) 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 [Public Health Agency of Canada’s SARS-CoV-2 Variants webpage](#).
- 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-CoV-2 specimens with CT values ≤ 35 are tested for a N501Y mutation. As of March 22, 2021, positive specimens with a Ct ≤ 35 are tested for both the N501Y and E484K mutation, with all E484K positive specimens with a Ct ≤ 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. 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 ≤ 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 ≤ 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, B.1.351 and P.1).

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 where 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 pre-test 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	14	31
11	March 8, 2020	March 14, 2020	146	177
12	March 15, 2020	March 21, 2020	435	612
13	March 22, 2020	March 28, 2020	1,321	1,933
14	March 29, 2020	April 4, 2020	2,781	4,714
15	April 5, 2020	April 11, 2020	3,146	7,860
16	April 12, 2020	April 18, 2020	4,226	12,086
17	April 19, 2020	April 25, 2020	3,636	15,722
18	April 26, 2020	May 2, 2020	2,894	18,616
19	May 3, 2020	May 9, 2020	2,343	20,959
20	May 10, 2020	May 16, 2020	2,197	23,156
21	May 17, 2020	May 23, 2020	2,614	25,770
22	May 24, 2020	May 30, 2020	2,606	28,376
23	May 31, 2020	June 6, 2020	2,303	30,679

Reported Week	Start date	End date	Number of cases	Cumulative count
24	June 7, 2020	June 13, 2020	1,473	32,152
25	June 14, 2020	June 20, 2020	1,228	33,380
26	June 21, 2020	June 27, 2020	1,250	34,630
27	June 28, 2020	July 4, 2020	1,085	35,715
28	July 5, 2020	July 11, 2020	869	36,584
29	July 12, 2020	July 18, 2020	931	37,515
30	July 19, 2020	July 25, 2020	992	38,507
31	July 26, 2020	August 1, 2020	807	39,314
32	August 2, 2020	August 8, 2020	594	39,908
33	August 9, 2020	August 15, 2020	610	40,518
34	August 16, 2020	August 22, 2020	730	41,248
35	August 23, 2020	August 29, 2020	851	42,099
36	August 30, 2020	September 5, 2020	976	43,075
37	September 6, 2020	September 12, 2020	1,502	44,577
38	September 13, 2020	September 19, 2020	2,372	46,949
39	September 20, 2020	September 26, 2020	3,121	50,070
40	September 27, 2020	October 3, 2020	4,223	54,293
41	October 4, 2020	October 10, 2020	5,037	59,330
42	October 11, 2020	October 17, 2020	5,277	64,607
43	October 18, 2020	October 24, 2020	6,035	70,642
44	October 25, 2020	October 31, 2020	6,387	77,029
45	November 1, 2020	November 7, 2020	7,609	84,638
46	November 8, 2020	November 14, 2020	10,431	95,069
47	November 15, 2020	November 21, 2020	9,990	105,059
48	November 22, 2020	November 28, 2020	11,132	116,191

Reported Week	Start date	End date	Number of cases	Cumulative count
49	November 29, 2020	December 5, 2020	12,683	128,874
50	December 6, 2020	December 12, 2020	13,057	141,931
51	December 13, 2020	December 19, 2020	15,654	157,585
52	December 20, 2020	December 26, 2020	15,630	173,215
53	December 27, 2020	January 2, 2021	20,448	193,663
1	January 3, 2021	January 9, 2021	24,870	218,533
2	January 10, 2021	January 16, 2021	21,377	239,910
3	January 17, 2021	January 23, 2021	16,396	256,306
4	January 24, 2021	January 30, 2021	12,761	269,067
5	January 31, 2021	February 6, 2021	9,779	278,846
6	February 7, 2021	February 13, 2021	7,896	286,742
7	February 14, 2021	February 20, 2021	7,455	294,197
8	February 21, 2021	February 27, 2021	7,678	301,875
9	February 28, 2021	March 6, 2021	7,929	309,804
10	March 7, 2021	March 13, 2021	9,475	319,279
11	March 14, 2021	March 20, 2021	11,024	330,303
12	March 21, 2021	March 27, 2021	14,386	344,689
13	March 28, 2021	April 3, 2021	18,939	363,628
14	April 4, 2021	April 10, 2021	25,568	389,196
15	April 11, 2021	April 17, 2021	30,880	420,076
16	April 18, 2021	April 24, 2021	28,328	448,404
17	April 25, 2021	May 1, 2021	25,199	473,603
18	May 2, 2021	May 8, 2021	20,750	494,353
19	May 9, 2021	May 15, 2021	16,519	510,872
20	May 16, 2021	May 22, 2021	12,652	523,524

Reported Week	Start date	End date	Number of cases	Cumulative count
21	May 23, 2021	May 29, 2021	7,766	531,290
22	May 30, 2021	June 5, 2021	5,213	536,503
23	June 6, 2021	June 12, 2021	3,492	539,995
24	June 13, 2021	June 19, 2021	2,433	542,428

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

Public Health Unit Name	Cases reported week 23	Rate per 100,000 population Reported week 23	Cases reported week 24	Rate per 100,000 population Reported week 24
Northwestern Health Unit	6	6.8	8	9.1
Thunder Bay District Health Unit	26	17.3	13	8.7
TOTAL NORTH WEST	32	13.5	21	8.8
Algoma Public Health	3	2.6	1	0.9
North Bay Parry Sound District Health Unit	28	21.6	43	33.1
Porcupine Health Unit	267	320.0	102	122.2
Public Health Sudbury & Districts	13	6.5	22	11.1
Timiskaming Health Unit	1	3.1	0	0.0
TOTAL NORTH EAST	312	55.8	168	30.0
Ottawa Public Health	187	17.7	146	13.8
Eastern Ontario Health Unit	8	3.8	10	4.8
Hastings Prince Edward Public Health	5	3.0	1	0.6
Kingston, Frontenac and Lennox & Addington Public Health	3	1.4	8	3.8
Leeds, Grenville & Lanark District Health Unit	7	4.0	5	2.9
Renfrew County and District Health Unit	9	8.3	5	4.6
TOTAL EASTERN	219	11.4	175	9.1
Durham Region Health Department	182	25.5	110	15.4

Public Health Unit Name	Cases reported week 23	Rate per 100,000 population Reported week 23	Cases reported week 24	Rate per 100,000 population Reported week 24
Haliburton, Kawartha, Pine Ridge District Health Unit	19	10.1	21	11.1
Peel Public Health	576	35.9	331	20.6
Peterborough Public Health	23	15.5	22	14.9
Simcoe Muskoka District Health Unit	98	16.3	56	9.3
York Region Public Health	174	14.2	102	8.3
TOTAL CENTRAL EAST	1,072	23.9	642	14.3
Toronto Public Health	664	21.3	450	14.4
TOTAL TORONTO	664	21.3	450	14.4
Chatham-Kent Public Health	3	2.8	4	3.8
Grey Bruce Health Unit	23	13.5	36	21.2
Huron Perth Public Health	25	17.9	20	14.3
Lambton Public Health	17	13.0	15	11.5
Middlesex-London Health Unit	79	15.6	75	14.8
Southwestern Public Health	16	7.6	32	15.1
Windsor-Essex County Health Unit	72	16.9	55	12.9
TOTAL SOUTH WEST	235	13.9	237	14.0
Brant County Health Unit	43	27.7	22	14.2
City of Hamilton Public Health Services	161	27.2	113	19.1
Haldimand-Norfolk Health Unit	20	17.5	12	10.5
Halton Region Public Health	127	20.5	76	12.3

Public Health Unit Name	Cases reported week 23	Rate per 100,000 population Reported week 23	Cases reported week 24	Rate per 100,000 population Reported week 24
Niagara Region Public Health	141	29.8	77	16.3
Region of Waterloo Public Health and Emergency Services	423	72.4	403	69.0
Wellington-Dufferin-Guelph Public Health	43	13.8	37	11.9
TOTAL CENTRAL WEST	958	33.6	740	26.0
TOTAL ONTARIO	3,492	23.5	2,433	16.4

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 19 for Lineage B.1.1.7*	Cumulative case count up to June 19 for Lineage B.1.351	Cumulative case count up to June 19 for Lineage P.1	Cumulative case count up to June 19 for Lineage B.1.617.2**	Cumulative count up to June 19 for Mutations***
Northwestern Health Unit	54	0	1	0	16
Thunder Bay District Health Unit	104	0	2	4	72
TOTAL NORTH WEST	158	0	3	4	88
Algoma Public Health	67	0	12	2	28
North Bay Parry Sound District Health Unit	165	28	2	2	13
Porcupine Health Unit	1,012	2	0	30	8
Public Health Sudbury & Districts	596	9	5	1	342
Timiskaming Health Unit	82	1	0	0	0
TOTAL NORTH EAST	1,922	40	19	35	391
Ottawa Public Health	6,568	326	30	9	532
Eastern Ontario Health Unit	646	41	17	1	276
Hastings Prince Edward Public Health	74	0	7	0	410
Kingston, Frontenac and Lennox & Addington Public Health	437	2	35	0	129
Leeds, Grenville & Lanark District Health Unit	290	18	0	0	41
Renfrew County and District Health Unit	222	6	4	1	14

Public Health Unit Name	Cumulative case count up to June 19 for Lineage B.1.1.7*	Cumulative case count up to June 19 for Lineage B.1.351	Cumulative case count up to June 19 for Lineage P.1	Cumulative case count up to June 19 for Lineage B.1.617.2**	Cumulative count up to June 19 for Mutations***
TOTAL EASTERN	8,237	393	93	11	1,402
Durham Region Health Department	9,470	49	189	26	1,287
Haliburton, Kawartha, Pine Ridge District Health Unit	442	0	17	6	314
Peel Public Health	30,362	132	1,379	323	3,579
Peterborough Public Health	566	4	7	2	162
Simcoe Muskoka District Health Unit	3,835	26	158	20	833
York Region Public Health	15,844	77	452	45	2,709
TOTAL CENTRAL EAST	60,519	288	2,202	422	8,884
Toronto Public Health	44,617	315	1,306	242	8,852
TOTAL TORONTO	44,617	315	1,306	242	8,852
Chatham-Kent Public Health	110	5	14	0	112
Grey Bruce Health Unit	301	0	5	8	54
Huron Perth Public Health	156	0	5	8	147
Lambton Public Health	416	0	17	7	130
Middlesex-London Health Unit	3,336	2	86	5	192
Southwestern Public Health	643	2	11	5	171
Windsor-Essex County Health Unit	1,812	5	16	2	124

Public Health Unit Name	Cumulative case count up to June 19 for Lineage B.1.1.7*	Cumulative case count up to June 19 for Lineage B.1.351	Cumulative case count up to June 19 for Lineage P.1	Cumulative case count up to June 19 for Lineage B.1.617.2**	Cumulative count up to June 19 for Mutations***
TOTAL SOUTH WEST	6,774	14	154	35	930
Brant County Health Unit	664	2	87	4	494
City of Hamilton Public Health Services	4,909	61	100	23	2,110
Haldimand-Norfolk Health Unit	366	3	21	6	400
Halton Region Public Health	5,066	23	143	38	625
Niagara Region Public Health	4,221	3	13	6	1,079
Region of Waterloo Public Health and Emergency Services	3,069	11	61	116	298
Wellington-Dufferin-Guelph Public Health	2,066	1	61	32	192
TOTAL CENTRAL WEST	20,361	104	486	225	5,198
TOTAL ONTARIO	142,588	1,154	4,263	974	25,745

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, B.1.351, P.1 and B.1.617.2 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 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.1.617.2 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

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Public Health Ontario

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