Public Health Ontario | Santé publique Ontario

WEEKLY EPIDEMIOLOGICAL SUMMARY

COVID-19 in Ontario: Focus on August 15, 2021 to August 21, 2021

This report includes the most current information available from CCM as of **August 24, 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.

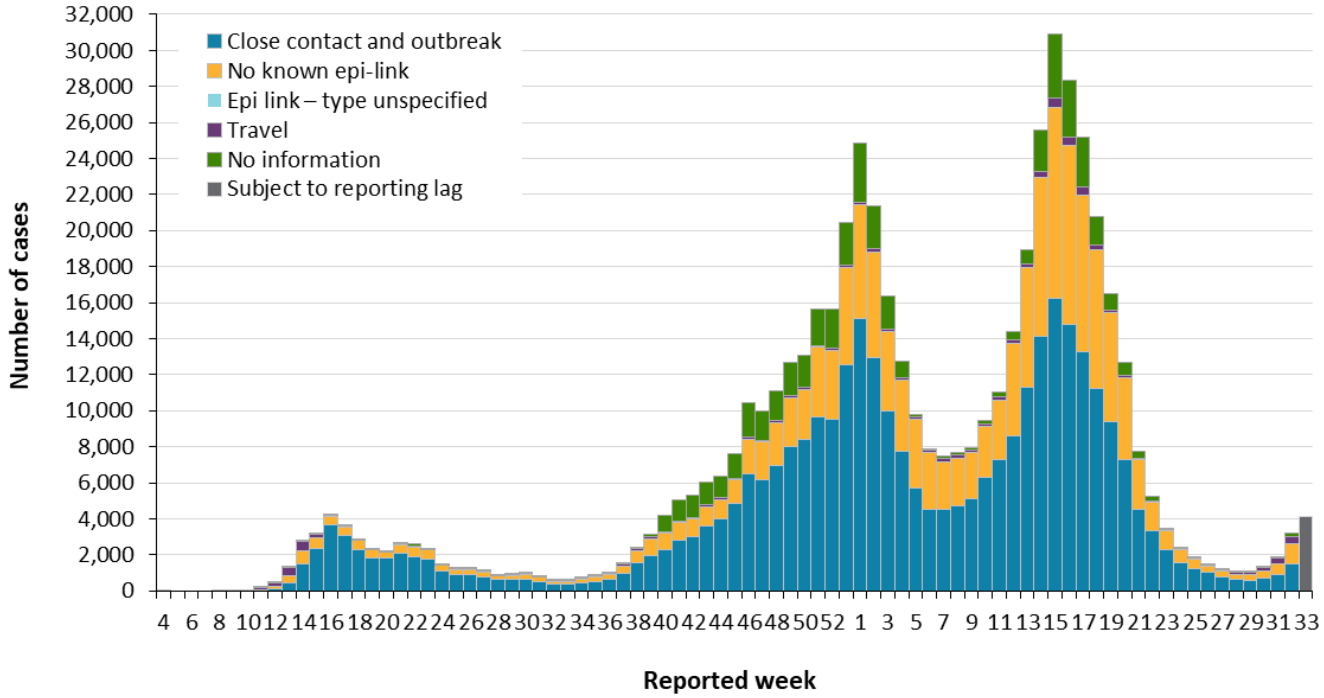
Highlights

- There are a total of 559,974 confirmed cases of COVID-19 in Ontario with a public health unit reported date up to August 21, 2021.
- For the period with a public health unit (PHU) reported date between August 15 to 21, 2021 (week 33):
    - A total of 4,140 cases were reported to public health compared to 3,206 cases the previous week (August 8 to 14, 2021).
    - In week 33, the most ethnically diverse neighbourhoods in Ontario had COVID-19 case counts that were more than four times higher and rates 2.5 times higher than the least diverse neighbourhoods.
    - The highest number of outbreak-associated cases are reported in other settings, mainly bars, restaurants and nightclubs as well as in education and childcare and congregate care settings.

> 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.

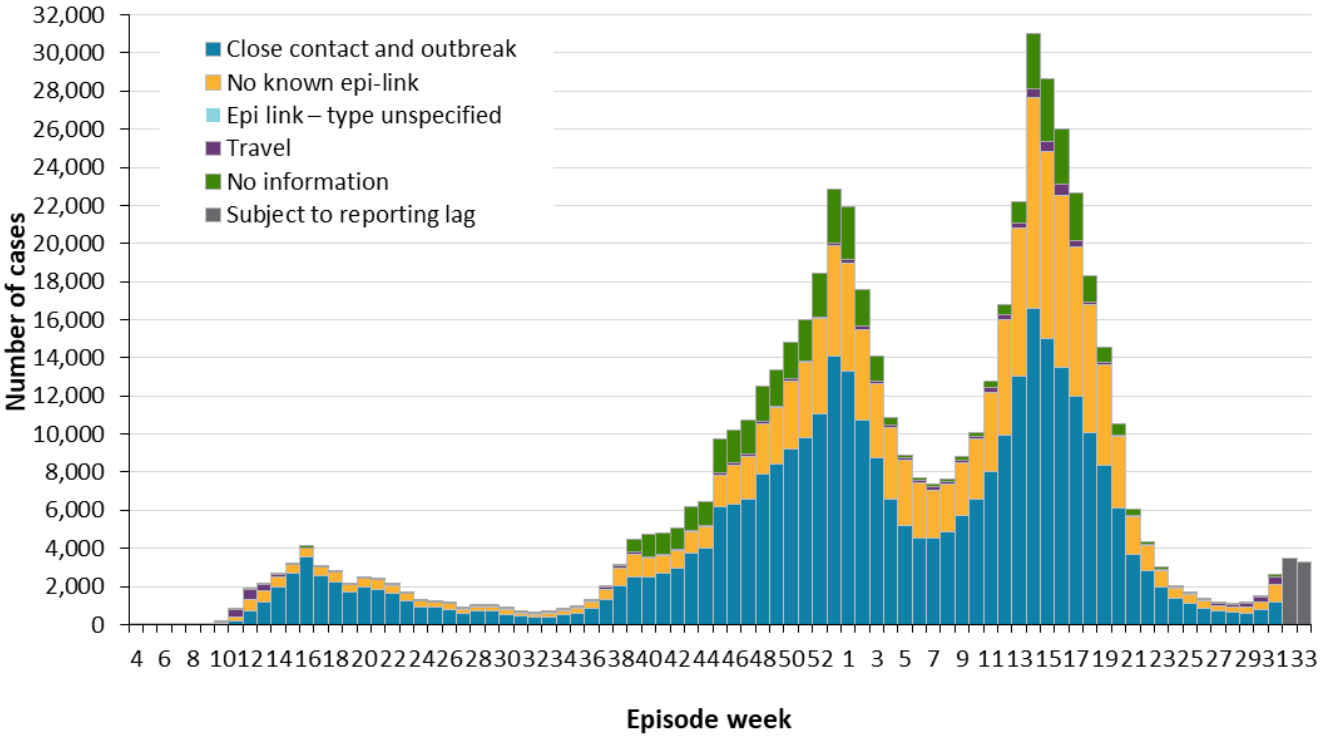
Cases Over Time

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 33 (August 15 and 21, 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 33 (August 15 and 21, 2021). See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.
Data Source: CCM

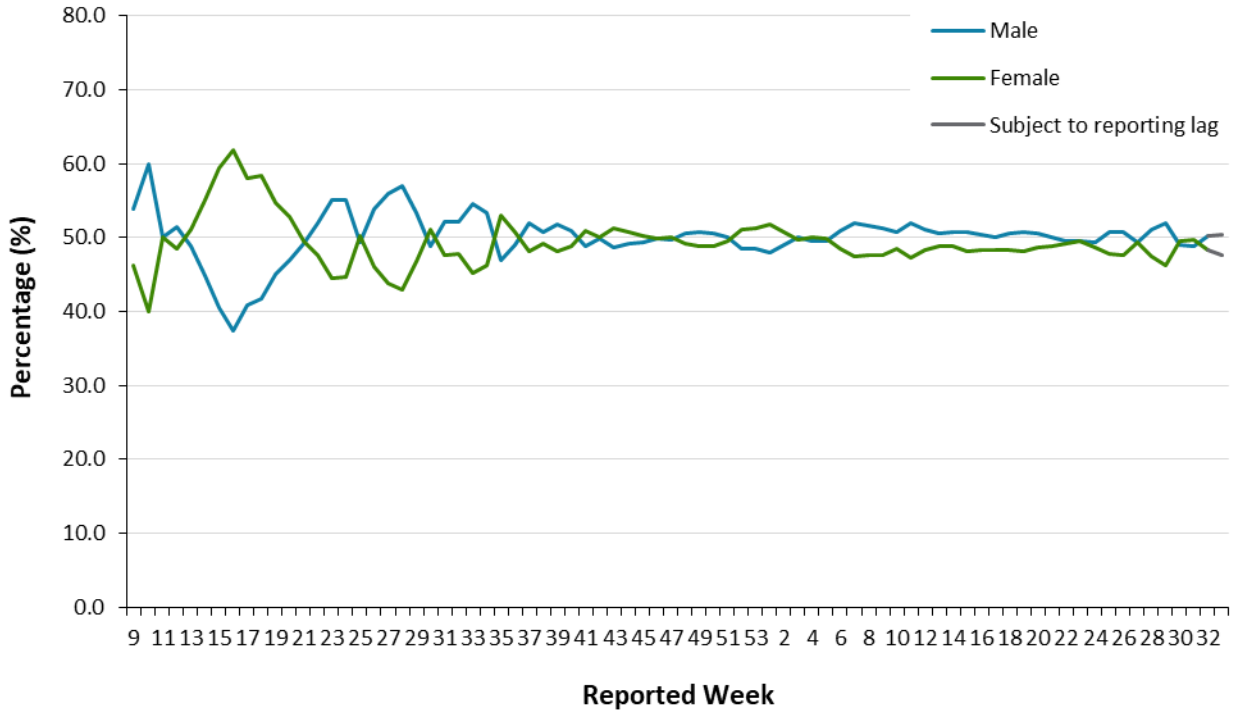
Case Characteristics

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

	Reported week 32 (August 8 to 14)	Reported week 33 (August 15 to 21)	Cumulative case count up to August 21	Cumulative rate per 100,000 population
Total number of cases	3,206	4,140	559,974	3,800.6
Gender: Male	1,614	2,088	279,194	3,835.4
Gender: Female	1,551	1,975	277,055	3,716.6
Ages: 0-4	125	181	15,102	2,088.8
Ages: 5-11	258	339	26,579	2,464.4
Ages: 12-19	306	391	49,597	3,730.6
Ages: 20-39	1,623	2,053	210,877	5,079.1
Ages: 40-59	649	840	158,738	4,074.9
Ages: 60-79	210	273	73,649	2,539.8
Ages: 80 and over	34	59	25,331	3,862.4
Number resolved	N/A	N/A	546,653	N/A

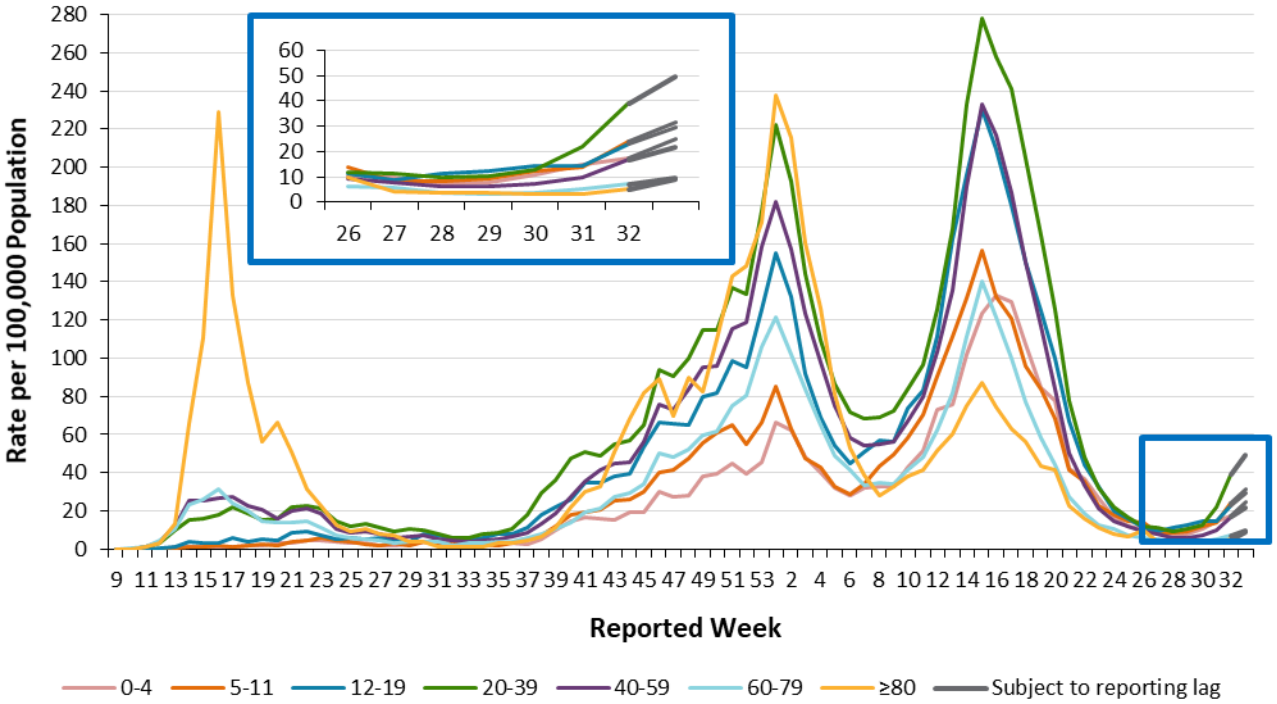
Note: Not all cases have an age or gender reported.
Interpret information for the most recent week with caution due to reporting lags.
Data Source: CCM

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



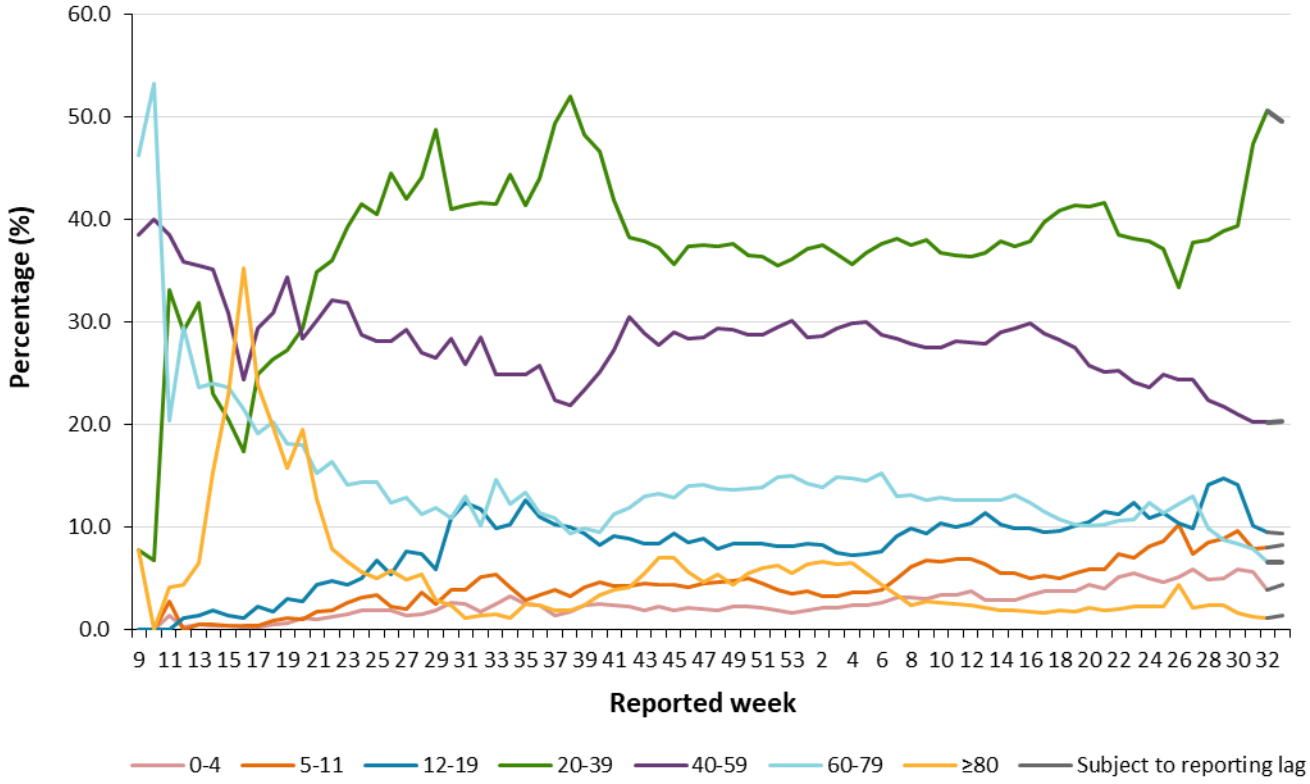
Note: Not all cases have a gender reported. The denominator for calculating weekly percentages includes all cases. Only weeks with more than 10 cases by public health unit reporting date are included (starting in week-9). Include cases with reported dates ranging from week-9 (February 23 and 29, 2020) to week 33 (August 15 and 21, 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 33 (August 15 and 21, 2021). See Table 1A in Appendix A for a list of the weeks and corresponding start and end dates.
Data Source: CCM

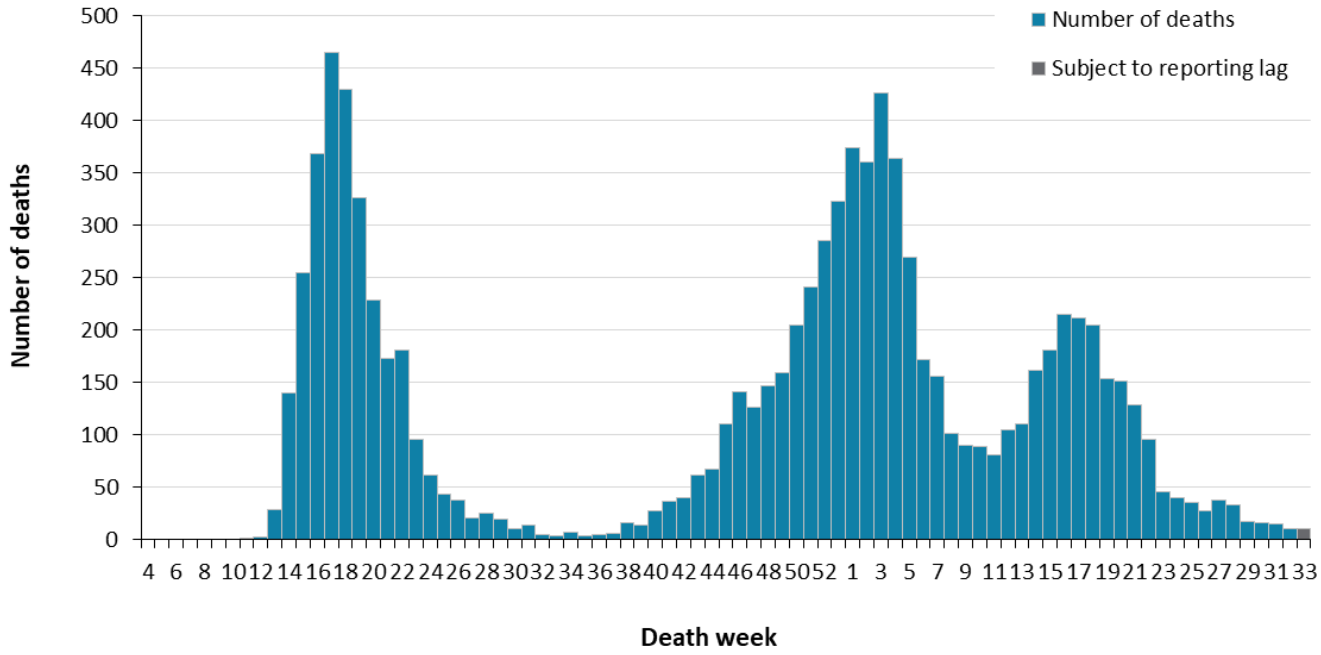
Figure 4b. Percentage of confirmed cases of COVID-19 by age group and public health unit reported week: Ontario



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 33 (August 15 and 21, 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 33 (August 15 and 21, 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 32 (August 8 to 14)	Reported week 33 (August 15 to 21)	Cumulative case count up to August 21	Cumulative rate per 100,000 population
Number of deaths	2	4	9,472	64.3
Gender: Male	2	0	4,827	66.3
Gender: Female	0	4	4,583	61.5
Ages: 19 and under	0	0	5	0.2
Ages: 20-39	0	0	90	2.2
Ages: 40-59	0	3	622	16
Ages: 60-79	1	0	3,061	105.6
Ages: 80 and over	1	1	5,693	868.1

Note: Age and gender may not be reported for all cases. Reported week is the week the case was reported to the public health unit. This is different than the "week of death" presented in Figure 5 which reflects the week the case was reported to have a 'Fatal' outcome.
Interpret information for the most recent week with caution due to reporting lags.
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 32 (August 8 to 14)	Percentage	Reported week 33 (August 15 to 21)	Percentage	Cumulative case count up to August 21	Cumulative percentage
Travel	411	12.8%	360	8.7%	10,696	1.9%
Outbreak-associated or close contact of a confirmed case	1,482	46.2%	1,919	46.4%	335,049	59.8%
Epidemiological link – type unspecified	0	0.0%	0	0.0%	59	<0.1%
No known epidemiological link	1,109	34.6%	1,456	35.2%	162,905	29.1%
Information missing or unknown	204	6.4%	405	9.8%	51,265	9.2%
Total	**3,206**		**4,140**		**559,974**	

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 32 (August 8 to 14)	Reported week 33 (August 15 to 21)	Cumulative case count up to August 21
Number of cases	58	86	23,805
Ever hospitalized	2	0	464
Ever in ICU	0	0	98

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 32 (August 8 to 14)	Reported week 33 (August 15 to 21)	Cumulative case count up to August 21
Residents	4	9	15,421
Deaths among residents	0	0	3,976
Health care workers	3	2	7,265
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	119	17.5%	35	9.6%	154	14.7%
Partially vaccinated	159	23.3%	84	23.0%	243	23.2%
Not yet protected	403	59.2%	247	67.5%	650	62.1%
Total post-vaccination cases	**681**		**366**		**1,047**	

Note: Include cases reported from December 14, 2020 to August 23, 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 confirmed COVID-19 outbreaks in camps and cases associated with camp outbreaks reported July 4, 2021 to August 21, 2021: Ontario

	Camp – Day	Camp - Overnight	Camp - Unspecified	Total
Cases in camp outbreaks by age	50	11	3	64
<12 years of age	46	9	0	55
12 years of age and older	4	2	3	9
N cases per outbreak				
≤ 1 case*	0	0	0	0
2 cases	2	0	0	2
3-5 cases	1	0	1	2
6-9 cases	1	0	0	1
≥10 cases	2	1	0	3
Median number of cases per outbreak (IQR)	5.5 (2-11)	11 (11-11)	3 (3-3)	5.5 (2.5-11)

IQR: Interquartile Range

Note: Due to reporting delays and potential variations in data entry processes across public health units, there may be additional camp-associated COVID-19 cases that have not yet been entered in CCM, or have not been entered as linked to a camp-associated outbreak. Results should be interpreted with caution due to potential under-detection of outbreak associated cases.

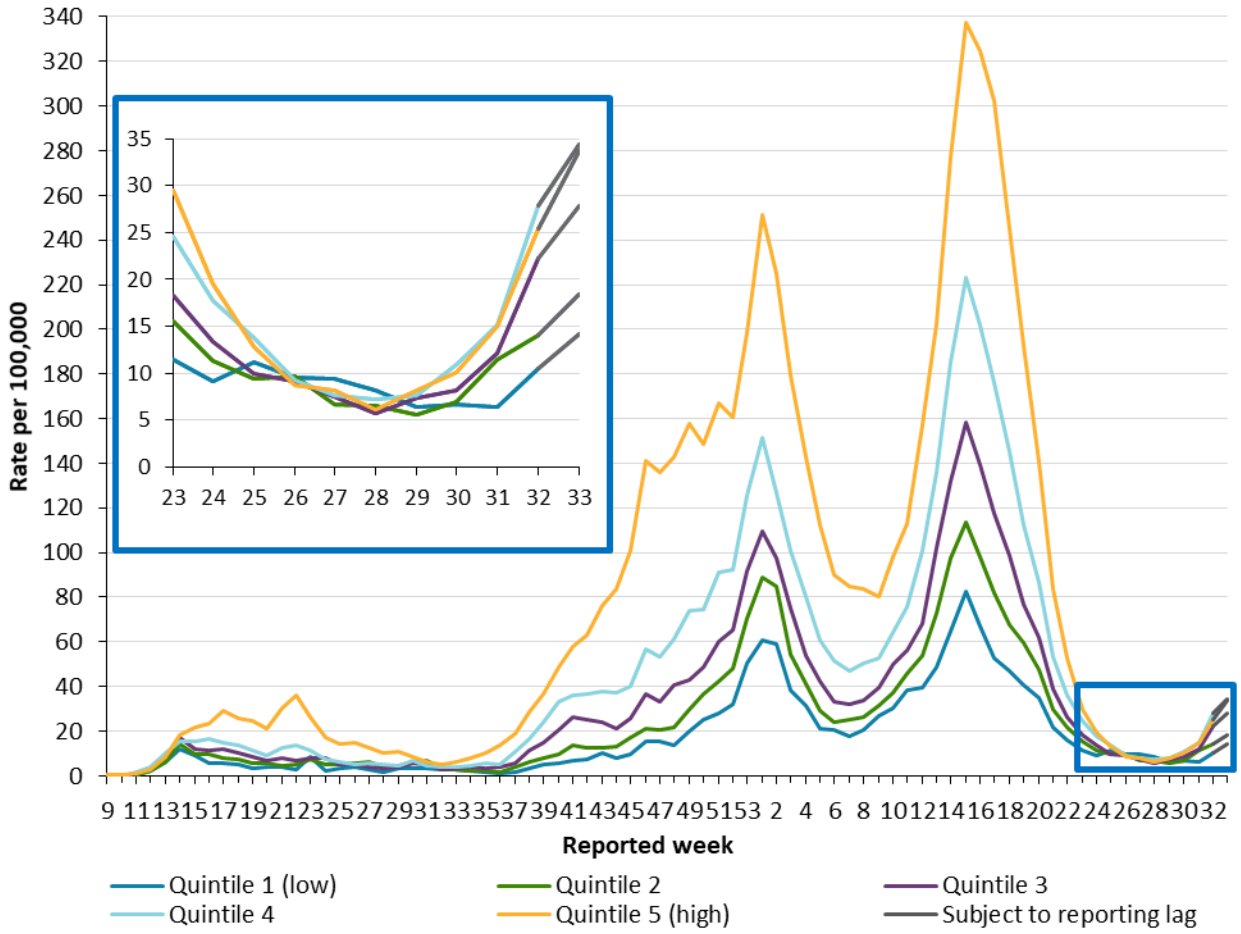
*There may be COVID-19 outbreaks in camps that have zero cases linked to the outbreak in CCM. Median number of cases per outbreak includes cases in individuals that may include camp attendees and/or staff.

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

Age Group	Reported Week 32 (August 8 to 14)	Reported Week 33 (August 15 to 21)	Cumulative count from November 1 up to August 21	Percent of reinfection cases
Ages: 0-4	0	0	7	2.6%
Ages: 5-11	0	0	2	0.7%
Ages: 12-19	0	1	31	11.4%
Ages: 20-39	8	7	124	45.8%
Ages: 40-59	0	1	77	28.4%
Ages: 60-79	0	0	22	8.1%
Ages: 80 and over	0	0	8	3.0%
Total reinfection cases	**8**	**9**	**271**	

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

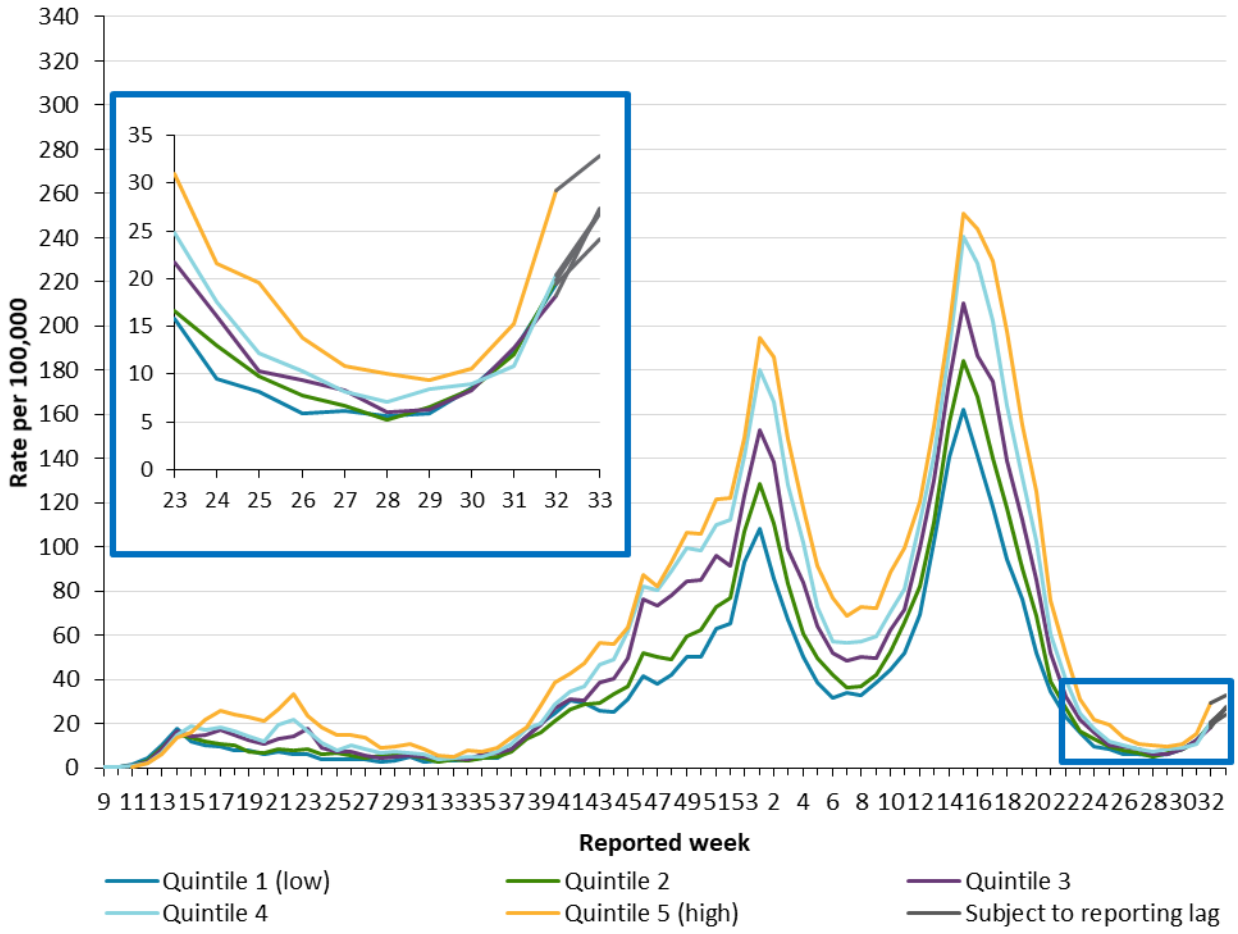
Figure 6. Rate of confirmed cases of COVID-19 per 100,000 population by quintile of neighbourhood diversity and public health unit reported week: Ontario



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 33 (August 15 to 21, 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 33 (August 15 to 21, 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 32(August 8 to 14)	Cases Reported Week 33 (August 15 to 21)	Cumulative case count up to August 21	Cumulative rate per 100,000 population up to August 21
Quintile 1 (least diverse)	232	315	29,890	1,345.7
Quintile 2	334	437	44,454	1,877.2
Quintile 3	578	723	66,105	2,550.2
Quintile 4	871	1,076	113,042	3,614.3
Quintile 5 (most diverse)	1,095	1,458	264,958	6,130.1

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

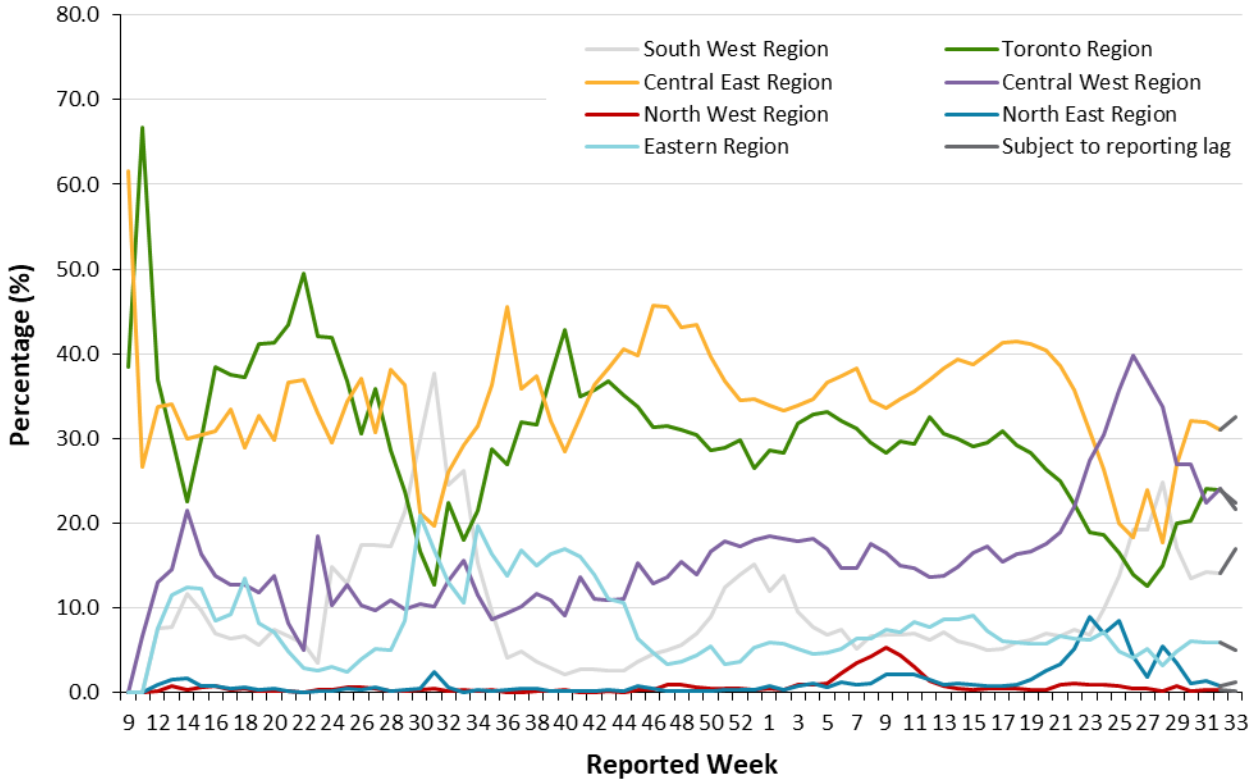
Table 10: Summary of cases of COVID-19 by quintile of neighbourhood material deprivation and public health unit reported week: Ontario

	Cases Reported Week 32(August 8 to 14)	Cases Reported Week 33 (August 15 to 21)	Cumulative case count up to August 21	Cumulative rate per 100,000 population up to August 21
Quintile 1 (least material deprivation)	668	831	87,085	2,527.0
Quintile 2	616	832	91,532	2,948.2
Quintile 3	507	758	100,263	3,615.8
Quintile 4	537	709	110,091	4,189.9
Quintile 5 (most material deprivation)	782	879	129,478	4,831.2

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

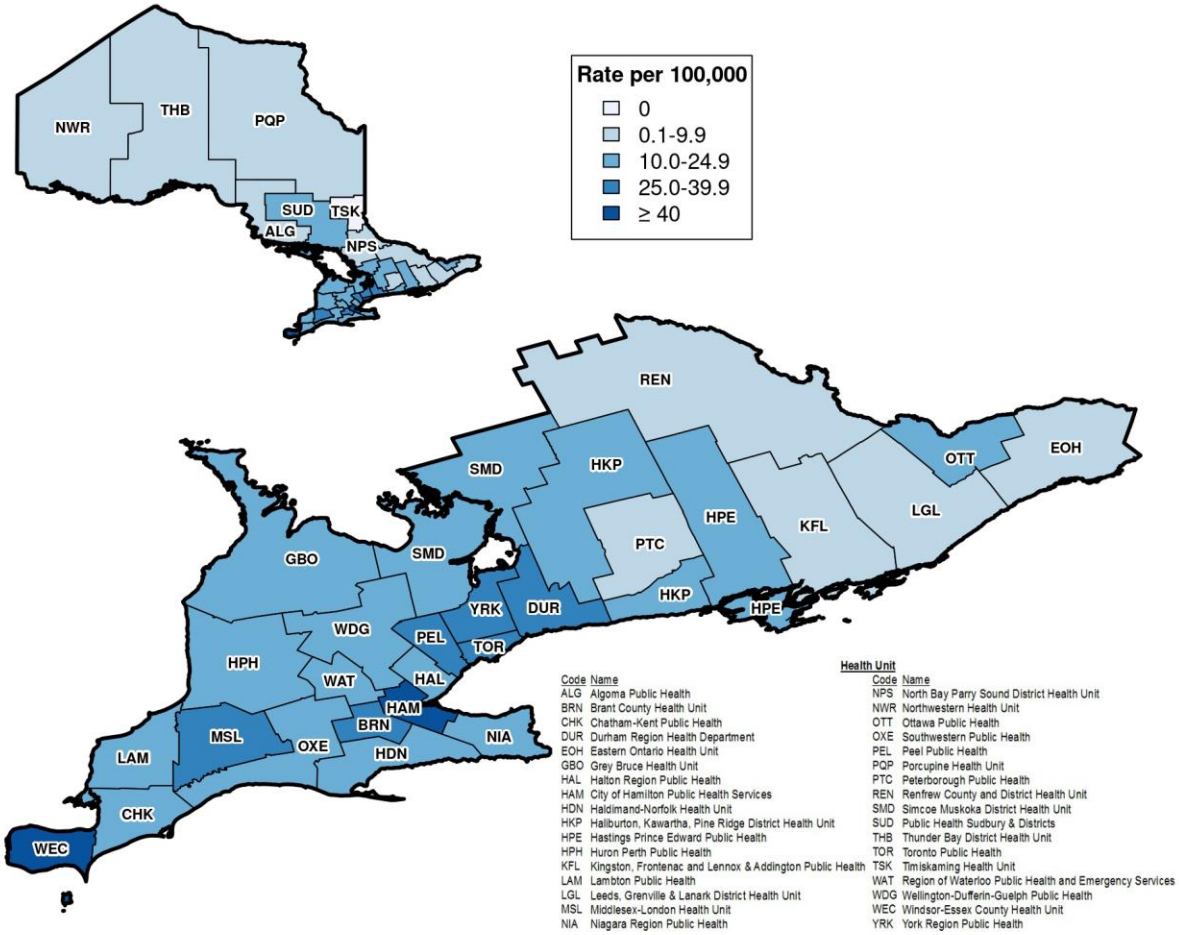
Geography

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 33 (August 15 and 21, 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 33 (August 15 to 21, 2021) by public health unit: Ontario



Note: The provincial rate of confirmed cases of COVID-19 reported in week 33 was 28.1 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 33 (August 15 to 21)	Number of ongoing outbreaks	Cumulative number of outbreaks reported to August 21
Congregate Care	**1**	**9**	**2,957**
Long-term care homes	1	3	1,495
Retirement homes	0	4	877
Hospitals	0	2	585
Congregate Living	**1**	**13**	**1,324**
Correctional facility	1	1	60
Shelter	0	5	272
Group Home/supportive housing	0	4	782
Short-term accommodations	0	1	39
Congregate other	0	2	171
Education and Childcare	**2**	**14**	**2,473**
Child care	1	11	1,028
Camp – Day*	1	1	6
Camp – Overnight*	0	0	1
Camp – Unspecified*	0	1	1
School – Elementary**	0	1	1,070
School – Elementary/secondary**	0	0	64
School – Secondary**	0	0	257
School – Post-secondary**	0	0	46
Other settings	**21**	**57**	**4,285**
Bar/restaurant/nightclub	4	15	359

Setting Type	Reported week 33 (August 15 to 21)	Number of ongoing outbreaks	Cumulative number of outbreaks reported to August 21
Medical/health services	0	1	157
Personal service settings	2	2	30
Recreational fitness	1	3	95
Retail	2	4	470
Other recreation/community	1	2	218
Workplace – Farm	1	7	230
Workplace - Food processing	0	1	278
Other types of workplaces	5	11	2,407
Other	4	6	11
Unknown	1	5	30
Total number of outbreaks	**25**	**93**	**11,039**

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 camp outbreaks reported starting week-27 of 2021 (July 4 to 10, 2021).
**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

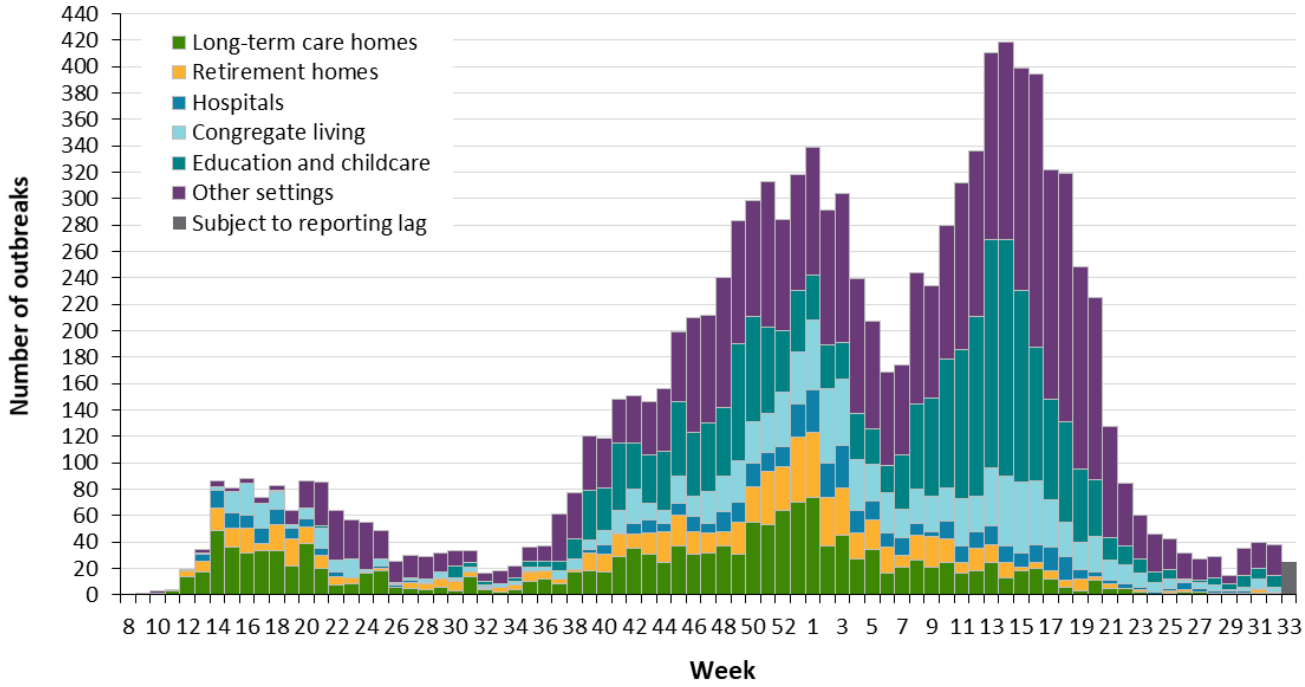
Table 12. Confirmed cases of COVID-19 associated with COVID-19 outbreaks by setting type and public health unit reported week: Ontario

Cases associated with the outbreak setting type	Reported week 32 (August 8 to 14)	Reported week 33 (August 15 to 21)	Cumulative number of cases
Congregate Care	**23**	**35**	**40,138**
Long-term care homes	6	12	26,522
Retirement homes	12	14	7,218
Hospitals	5	9	6,398
Congregate Living	**20**	**15**	**10,073**
Correctional facility	0	1	1,754
Shelter	2	9	2,798
Group Home/supportive housing	3	3	3,642
Short-term accommodations	0	0	215
Congregate other	15	2	1,664
Education and Childcare	**35**	**50**	**10,660**
Child care	30	24	4,276
Camp – Day*	1	23	50
Camp – Overnight*	1	0	11
Camp – Unspecified*	2	1	3
School – Elementary**	0	0	4,450
School – Elementary/secondary**	0	0	343
School – Secondary**	1	0	1,107
School – Post-secondary**	0	2	420
Other settings	**237**	**211**	**35,050**
Bar/restaurant/nightclub	85	83	1,699
Medical/health services	0	0	727

Cases associated with the outbreak setting type	Reported week 32 (August 8 to 14)	Reported week 33 (August 15 to 21)	Cumulative number of cases
Personal service settings	3	2	112
Recreational fitness	14	16	763
Retail	6	7	2,560
Other recreation/community	39	23	2,979
Workplace - Farm	13	10	3,152
Workplace - Food processing	0	0	3,731
Other types of workplaces	24	29	19,059
Other	18	28	76
Unknown	35	13	192
Total number of cases	**315**	**311**	**95,921**

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 COVID-19 camp outbreaks reported starting week-27 of 2021 (July 4 to 10, 2021).
**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 33 refers to August 15 and 21, 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 (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 August 21, 2021
Gender: Male	73,686	735	2,705	4,137	12,116	9,605	102,984
Gender: Female	71,307	760	2,483	3,816	11,163	9,386	98,915
Ages: 19 and under	27,723	249	905	1,814	4,729	3,692	39,112
Ages: 20-39	55,383	483	1,943	3,424	9,156	7,758	78,147
Ages: 40-59	42,655	491	1,568	1,858	6,453	5,066	58,091
Ages: 60-79	17,361	236	668	770	2,767	2,175	23,977
Ages: 80 and over	2,783	41	137	160	460	454	4,035

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 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).

§Includes cases identified as 'Mutation not detected' or 'Mutation N501Y- and E484K-'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

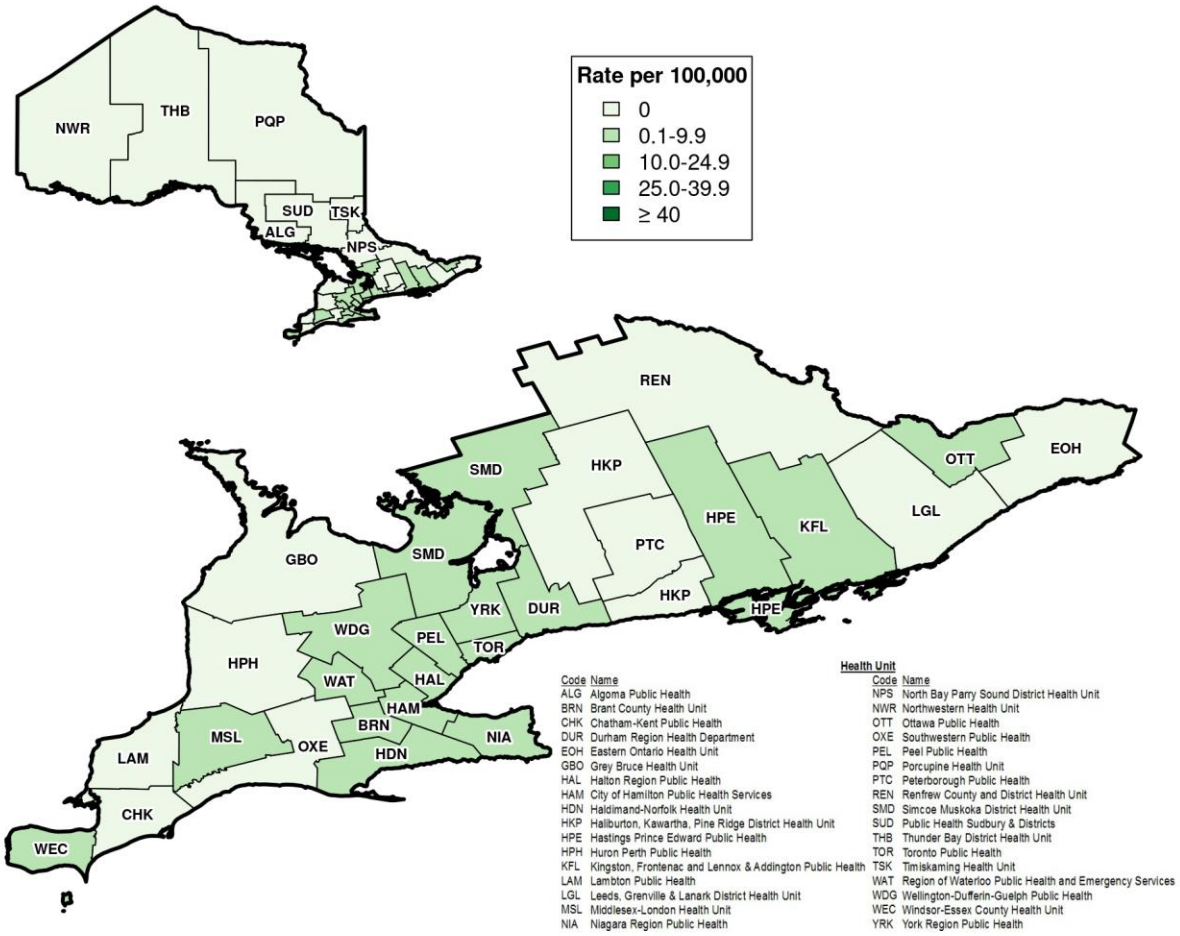
	Lineage B.1.1.7 (Alpha) *	%	Lineage B.1.351 (Beta)**	%	Lineage P.1 (Gamma)***	%	Lineage B.1.617.2 (Delta)†	%	Mutations ‡	%	Cumulative case count up to August 21, 2021	Cumulative percentage
Travel	833	0.6%	38	2.5%	66	1.3%	610	7.6%	319	1.4%	1,866	1.0%
Outbreak-associated or close contact of a confirmed case	81,210	55.7%	958	63.9%	3,313	63.5%	4,789	59.7%	15,307	65.0%	105,577	57.3%
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	52,169	35.8%	405	27.0%	1,612	30.9%	2,336	29.1%	6,837	29.0%	63,359	34.4%
Information missing or unknown	11,703	8.0%	99	6.6%	230	4.4%	292	3.6%	1,103	4.7%	13,427	7.3%
Total	**145,915**		**1,500**		**5,221**		**8,027**		**23,566**		**184,229**	

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)
Data Source: CCM

Figure 11. Rates of confirmed cases of COVID-19 with lineage B.1.617.2 (Delta)* detected in public health reported week 33 (August 15 to 21, 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 33 was 2.4 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.

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 **August 24, 2021 at 1 p.m.** for cases reported from February 1, 2021 onwards and as of **August 23, 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 **August 24, 2021 at 1 p.m.** for cases reported from April 1, 2021 onwards and as of **August 23, 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 **August 23, 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 **August 23, 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 estimate data were sourced from Statistics Canada. Population estimates 2001-2020: Table 1 annual population estimates by age and sex for July 1, 2001 to 2020, health regions, Ontario [unpublished data table]. Ottawa, ON: Government of Canada; 2021 [received April 22, 2021].
- 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 permanent health unit. This is equivalent to the diagnosing health unit (DHU) in iPHIS. 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-Co-V-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 (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 ≤ 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 (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 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.

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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	148	180
12	March 15, 2020	March 21, 2020	447	627
13	March 22, 2020	March 28, 2020	1,326	1,953
14	March 29, 2020	April 4, 2020	2,797	4,750
15	April 5, 2020	April 11, 2020	3,168	7,918
16	April 12, 2020	April 18, 2020	4,265	12,183
17	April 19, 2020	April 25, 2020	3,653	15,836
18	April 26, 2020	May 2, 2020	2,903	18,739
19	May 3, 2020	May 9, 2020	2,353	21,092
20	May 10, 2020	May 16, 2020	2,222	23,314
21	May 17, 2020	May 23, 2020	2,617	25,931
22	May 24, 2020	May 30, 2020	2,611	28,542
23	May 31, 2020	June 6, 2020	2,302	30,844

Reported Week	Start date	End date	Number of cases	Cumulative count
24	June 7, 2020	June 13, 2020	1,472	32,316
25	June 14, 2020	June 20, 2020	1,226	33,542
26	June 21, 2020	June 27, 2020	1,250	34,792
27	June 28, 2020	July 4, 2020	1,085	35,877
28	July 5, 2020	July 11, 2020	867	36,744
29	July 12, 2020	July 18, 2020	931	37,675
30	July 19, 2020	July 25, 2020	993	38,668
31	July 26, 2020	August 1, 2020	807	39,475
32	August 2, 2020	August 8, 2020	592	40,067
33	August 9, 2020	August 15, 2020	610	40,677
34	August 16, 2020	August 22, 2020	729	41,406
35	August 23, 2020	August 29, 2020	851	42,257
36	August 30, 2020	September 5, 2020	976	43,233
37	September 6, 2020	September 12, 2020	1,504	44,737
38	September 13, 2020	September 19, 2020	2,373	47,110
39	September 20, 2020	September 26, 2020	3,123	50,233
40	September 27, 2020	October 3, 2020	4,222	54,455
41	October 4, 2020	October 10, 2020	5,036	59,491
42	October 11, 2020	October 17, 2020	5,277	64,768
43	October 18, 2020	October 24, 2020	6,037	70,805
44	October 25, 2020	October 31, 2020	6,387	77,192
45	November 1, 2020	November 7, 2020	7,605	84,797
46	November 8, 2020	November 14, 2020	10,434	95,231
47	November 15, 2020	November 21, 2020	9,991	105,222
48	November 22, 2020	November 28, 2020	11,132	116,354

Reported Week	Start date	End date	Number of cases	Cumulative count
49	November 29, 2020	December 5, 2020	12,682	129,036
50	December 6, 2020	December 12, 2020	13,059	142,095
51	December 13, 2020	December 19, 2020	15,655	157,750
52	December 20, 2020	December 26, 2020	15,629	173,379
53	December 27, 2020	January 2, 2021	20,443	193,822
1	January 3, 2021	January 9, 2021	24,872	218,694
2	January 10, 2021	January 16, 2021	21,382	240,076
3	January 17, 2021	January 23, 2021	16,394	256,470
4	January 24, 2021	January 30, 2021	12,767	269,237
5	January 31, 2021	February 6, 2021	9,782	279,019
6	February 7, 2021	February 13, 2021	7,899	286,918
7	February 14, 2021	February 20, 2021	7,455	294,373
8	February 21, 2021	February 27, 2021	7,681	302,054
9	February 28, 2021	March 6, 2021	7,933	309,987
10	March 7, 2021	March 13, 2021	9,477	319,464
11	March 14, 2021	March 20, 2021	11,023	330,487
12	March 21, 2021	March 27, 2021	14,386	344,873
13	March 28, 2021	April 3, 2021	18,944	363,817
14	April 4, 2021	April 10, 2021	25,576	389,393
15	April 11, 2021	April 17, 2021	30,893	420,286
16	April 18, 2021	April 24, 2021	28,335	448,621
17	April 25, 2021	May 1, 2021	25,214	473,835
18	May 2, 2021	May 8, 2021	20,754	494,589
19	May 9, 2021	May 15, 2021	16,520	511,109
20	May 16, 2021	May 22, 2021	12,655	523,764

Reported Week	Start date	End date	Number of cases	Cumulative count
21	May 23, 2021	May 29, 2021	7,759	531,523
22	May 30, 2021	June 5, 2021	5,212	536,735
23	June 6, 2021	June 12, 2021	3,482	540,217
24	June 13, 2021	June 19, 2021	2,418	542,635
25	June 20, 2021	June 26, 2021	1,881	544,516
26	June 27, 2021	July 3, 2021	1,472	545,988
27	July 4, 2021	July 10, 2021	1,227	547,215
28	July 11, 2021	July 17, 2021	1,046	548,261
29	July 18, 2021	July 24, 2021	1,108	549,369
30	July 25, 2021	July 31, 2021	1,350	550,719
31	August 1, 2021	August 7, 2021	1,909	552,628
32	August 8, 2021	August 14, 2021	3,206	555,834
33	August 15, 2021	August 21, 2021	4,140	559,974

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

Public Health Unit Name	Cases reported week 32	Rate per 100,000 population Reported week 32	Cases reported week 33	Rate per 100,000 population Reported week 33
Northwestern Health Unit	8	9.9	3	3.7
Thunder Bay District Health Unit	3	1.9	6	3.8
TOTAL NORTH WEST	**11**	**4.6**	**9**	**3.8**
Algoma Public Health	2	1.7	11	9.3
North Bay Parry Sound District Health Unit	4	3.1	3	2.3
Porcupine Health Unit	1	1.2	6	7.1
Public Health Sudbury & Districts	17	8.3	30	14.6
Timiskaming Health Unit	0	0	0	0
TOTAL NORTH EAST	**24**	**4.2**	**50**	**8.8**
Ottawa Public Health	117	11.2	135	12.9
Eastern Ontario Health Unit	24	11.1	17	7.9
Hastings Prince Edward Public Health	23	13.3	31	17.9
Kingston, Frontenac and Lennox & Addington Public Health	5	2.4	11	5.3
Leeds, Grenville & Lanark District Health Unit	19	10.6	10	5.6
Renfrew County and District Health Unit	0	0	1	0.9
TOTAL EASTERN	**188**	**9.7**	**205**	**10.6**
Durham Region Health Department	137	19.3	184	25.9

Public Health Unit Name	Cases reported week 32	Rate per 100,000 population Reported week 32	Cases reported week 33	Rate per 100,000 population Reported week 33
Haliburton, Kawartha, Pine Ridge District Health Unit	14	7.3	26	13.6
Peel Public Health	397	25.4	551	35.2
Peterborough Public Health	4	2.7	14	9.5
Simcoe Muskoka District Health Unit	106	17.5	134	22.2
York Region Public Health	336	28	440	36.7
TOTAL CENTRAL EAST	**994**	**22.5**	**1,349**	**30.5**
Toronto Public Health	766	25.6	928	31.1
TOTAL TORONTO	**766**	**25.6**	**928**	**31.1**
Chatham-Kent Public Health	25	23.4	26	24.4
Grey Bruce Health Unit	38	21.6	26	14.8
Huron Perth Public Health	26	17.8	19	13
Lambton Public Health	15	11.3	16	12
Middlesex-London Health Unit	100	19.6	193	37.8
Southwestern Public Health	30	13.7	29	13.2
Windsor-Essex County Health Unit	219	50.8	395	91.7
TOTAL SOUTH WEST	**453**	**26.3**	**704**	**40.9**
Brant County Health Unit	48	31.3	59	38.4
City of Hamilton Public Health Services	324	55.7	394	67.7
Haldimand-Norfolk Health Unit	9	7.5	28	23.3
Halton Region Public Health	145	23.7	139	22.8

Public Health Unit Name	Cases reported week 32	Rate per 100,000 population Reported week 32	Cases reported week 33	Rate per 100,000 population Reported week 33
Niagara Region Public Health	79	16.4	97	20.1
Region of Waterloo Public Health and Emergency Services	134	22.1	125	20.7
Wellington-Dufferin-Guelph Public Health	31	9.9	53	17
TOTAL CENTRAL WEST	**770**	**26.9**	**895**	**31.2**
TOTAL ONTARIO	**3,206**	**21.8**	**4,140**	**28.1**

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 August 21 for Lineage B.1.1.7 (Alpha)*	Cumulative case count up to August 21 for Lineage B.1.351 (Beta)**	Cumulative case count up to August 21 for Lineage P.1 (Gamma)***	Cumulative case count up to August 21 for Lineage B.1.617.2 (Delta)†	Cumulative count up to August 21 for Mutations‡
Northwestern Health Unit	58	0	1	7	16
Thunder Bay District Health Unit	104	1	2	7	74
TOTAL NORTH WEST	**162**	**1**	**3**	**14**	**90**
Algoma Public Health	68	0	14	6	26
North Bay Parry Sound District Health Unit	235	28	3	35	14
Porcupine Health Unit	1,109	2	0	52	8
Public Health Sudbury & Districts	691	13	10	15	268
Timiskaming Health Unit	83	1	0	1	0
TOTAL NORTH EAST	**2,186**	**44**	**27**	**109**	**316**
Ottawa Public Health	6,843	515	55	193	465
Eastern Ontario Health Unit	662	46	21	12	267
Hastings Prince Edward Public Health	111	0	18	23	393

Public Health Unit Name	Cumulative case count up to August 21 for Lineage B.1.1.7 (Alpha)*	Cumulative case count up to August 21 for Lineage B.1.351 (Beta)**	Cumulative case count up to August 21 for Lineage P.1 (Gamma)***	Cumulative case count up to August 21 for Lineage B.1.617.2 (Delta)†	Cumulative count up to August 21 for Mutations‡
Kingston, Frontenac and Lennox & Addington Public Health	457	2	35	17	132
Leeds, Grenville & Lanark District Health Unit	295	19	0	10	44
Renfrew County and District Health Unit	232	8	7	6	12
TOTAL EASTERN	**8,600**	**590**	**136**	**261**	**1,313**
Durham Region Health Department	9,518	66	270	268	1,211
Haliburton, Kawartha, Pine Ridge District Health Unit	443	0	23	68	309
Peel Public Health	31,182	161	1,774	1,158	2,836
Peterborough Public Health	630	4	8	25	161
Simcoe Muskoka District Health Unit	3,865	35	173	208	828
York Region Public Health	15,871	79	479	472	2,728
TOTAL CENTRAL EAST	**61,509**	**345**	**2,727**	**2,199**	**8,073**
Toronto Public Health	45,701	375	1,521	1,627	7,825

Public Health Unit Name	Cumulative case count up to August 21 for Lineage B.1.1.7 (Alpha)*	Cumulative case count up to August 21 for Lineage B.1.351 (Beta)**	Cumulative case count up to August 21 for Lineage P.1 (Gamma)***	Cumulative case count up to August 21 for Lineage B.1.617.2 (Delta)†	Cumulative count up to August 21 for Mutations‡
TOTAL TORONTO	**45,701**	**375**	**1,521**	**1,627**	**7,825**
Chatham-Kent Public Health	131	5	16	25	102
Grey Bruce Health Unit	310	0	6	538	55
Huron Perth Public Health	278	0	12	71	27
Lambton Public Health	438	0	18	58	126
Middlesex-London Health Unit	3,383	2	124	235	188
Southwestern Public Health	684	3	21	94	160
Windsor-Essex County Health Unit	1,852	8	19	104	140
TOTAL SOUTH WEST	**7,076**	**18**	**216**	**1,125**	**798**
Brant County Health Unit	670	2	97	86	496
City of Hamilton Public Health Services	5,060	66	105	494	2,087
Haldimand-Norfolk Health Unit	368	3	23	42	408
Halton Region Public Health	5,088	30	167	306	618

Public Health Unit Name	Cumulative case count up to August 21 for Lineage B.1.1.7 (Alpha)*	Cumulative case count up to August 21 for Lineage B.1.351 (Beta)**	Cumulative case count up to August 21 for Lineage P.1 (Gamma)***	Cumulative case count up to August 21 for Lineage B.1.617.2 (Delta)†	Cumulative count up to August 21 for Mutations‡
Niagara Region Public Health	4,285	4	20	84	1,103
Region of Waterloo Public Health and Emergency Services	3,125	21	98	1,445	262
Wellington-Dufferin-Guelph Public Health	2,085	1	81	235	177
TOTAL CENTRAL WEST	**20,681**	**127**	**591**	**2,692**	**5,151**
TOTAL ONTARIO	**145,915**	**1,500**	**5,221**	**8,027**	**23,566**

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 '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)

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