Public Health Ontario | Santé publique Ontario

WEEKLY EPIDEMIOLOGICAL SUMMARY

COVID-19 in Ontario: Focus on March 12, 2023 to March 18, 2023 (Week 11)

Published: March 24, 2023

Figures and tables in this report present the most recent 52 weeks of data for Ontario, ranging from **March 20, 2022 to March 18, 2023**. This report includes the most current information available from the Public Health Case and Contact Management Solution (CCM), unless otherwise specified.

Interpretation notes:

- Testing and case, contact, and outbreak management in Ontario is currently restricted to high-risk populations and settings, and as such, counts in this report are an underestimate of the extent of COVID-19 activity in Ontario.
- Observed trends over time should be interpreted with caution for the most recent period due to reporting and/or data entry lags.
- Severe outcomes are a lagging indicator, meaning that severe outcomes often occur after (e.g. days or weeks) cases are initially reported to public health. As such, counts for severe outcomes in more recent reporting periods may increase as more outcomes are reported.

Please visit the interactive Ontario COVID-19 Data Tool to explore data from the entire COVID-19 pandemic (i.e. February 2020 onward) by public health unit, age group, sex, and trends over time

Highlights

Case Trends and Percent Positivity

- **Weekly case numbers similar (+/- 10%) compared to last week among those eligible for testing**: The number of reported cases in Ontario was 3,594 this week, compared to 3,751 last week. Cases have been gradually declining since early January. Current projections suggest weekly case numbers may be similar over the next two weeks.
    - Among Ontario's seven regions, case rates were similar in four, lower in two, and higher in one, compared to last week. Among the 34 public health units, case rates were similar in 13, lower in 12, and higher in 9, compared to last week.
    - Among the seven age groups, case rates were similar in four and lower in three, compared to last week.
- **Percent positivity and testing volumes similar (+/- 10%) compared to last week:** Percent positivity was 10.7% this week compared to 10.4% observed last week. Percent positivity has been gradually declining since early January. Testing volume this week was 35,492 compared to 36,634 tests last week.

Severity

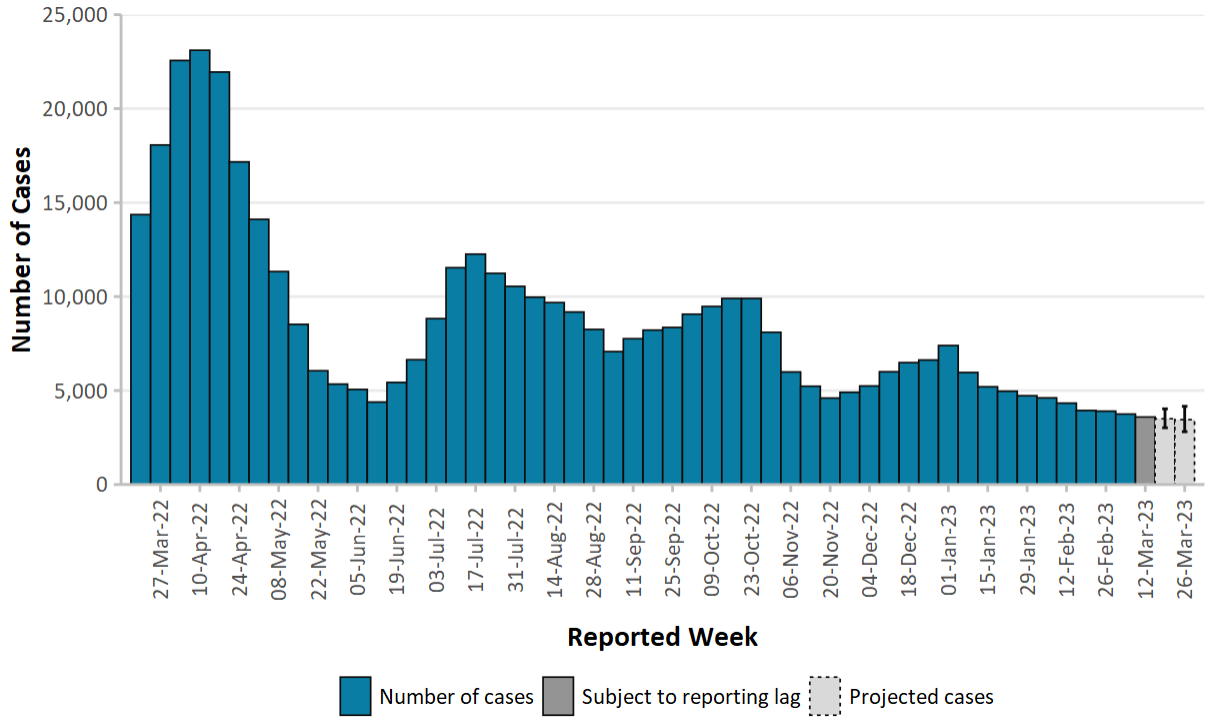
- **Hospital admissions and deaths trending downward:** There were 213 hospital admissions reported this week, compared to 253 last week. There were 21 deaths reported this week, compared to 38 last week. Hospital admission and death counts, particularly for more recent weeks, may increase as these outcomes are lagging indicators.

Outbreaks

- **Outbreaks in high-risk settings similar (+/- 10%) compared to last week:** The total number of outbreaks in high-risk settings was 90 this week, compared to 86 last week. Compared to last week, this week there were a similar number of outbreaks in most settings.
- **Outbreak-associated cases in high-risk settings similar (+/- 10%) compared to last week**: There were 890 outbreak-associated cases reported this week in high-risk settings, compared to 953 last week. Compared to last week, this week there were a similar number of outbreak-associated cases reported in long-term care homes, retirement homes, correctional facilities, and shelters; and a lower number of outbreak-associated cases in hospitals and group homes/supportive housing.

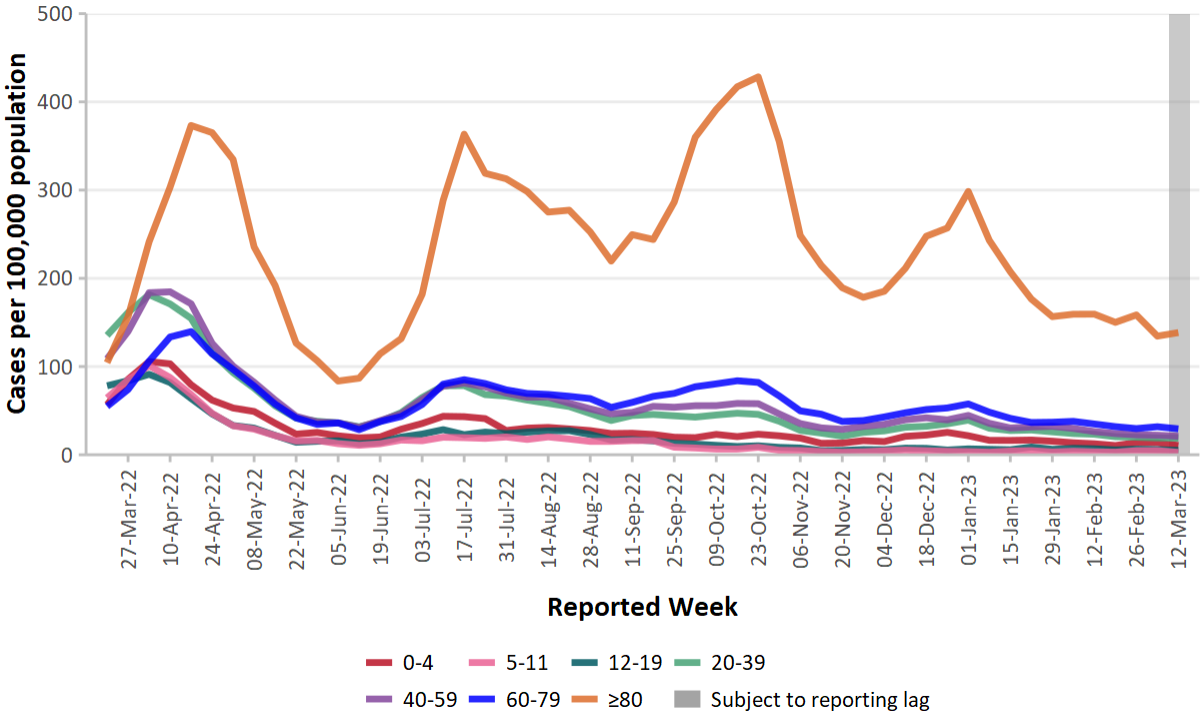
Cases

Figure 1a. Confirmed and projected cases of COVID-19 by reported week



Note: Projections were estimated using the daily distribution of SARS-CoV-2 lineages and COVID-19 cases over time to forecast COVID-19 cases into the future by 14 days. The error bars on the projected cases represent the 75% credible interval. For more information refer to Appendix E. Projections are made based on our current knowledge of COVID-19, and thus cannot predict introductions of new lineages, which may impact model accuracy.

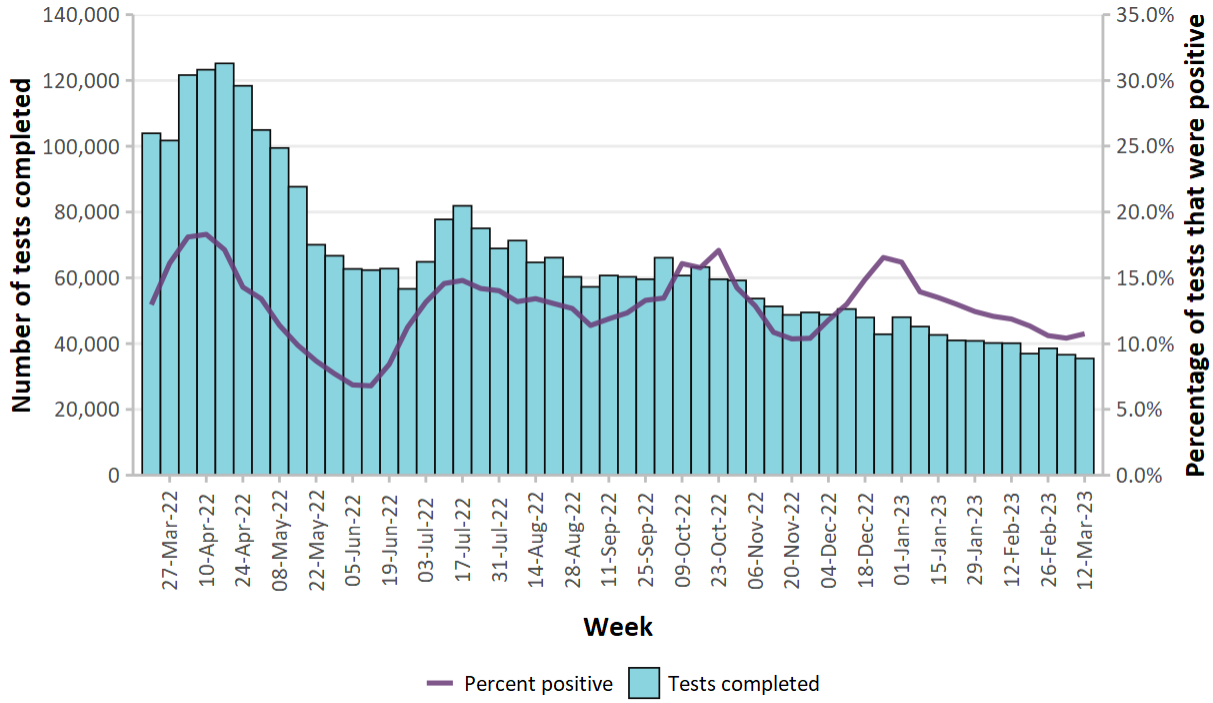
Figure 1b. Confirmed cases of COVID-19 (per 100,000 population), by age group and report week



Note: Not all cases have an age reported.

Testing

Figure 2. Weekly COVID-19 tests completed and percent positivity



Data Source: The Provincial COVID-19 Diagnostics Network, data reported by member microbiology laboratories.

Hospital Admissions

Figure 3a. Confirmed COVID-19 cases that were admitted to hospital, by hospital admission week

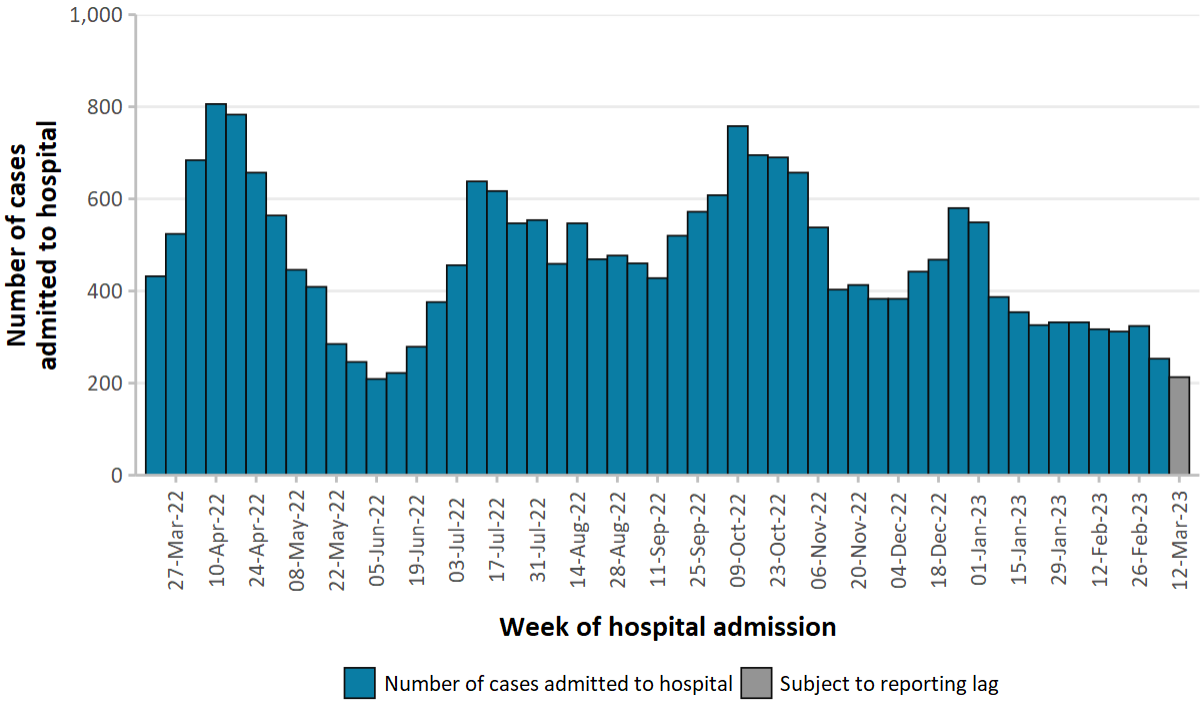
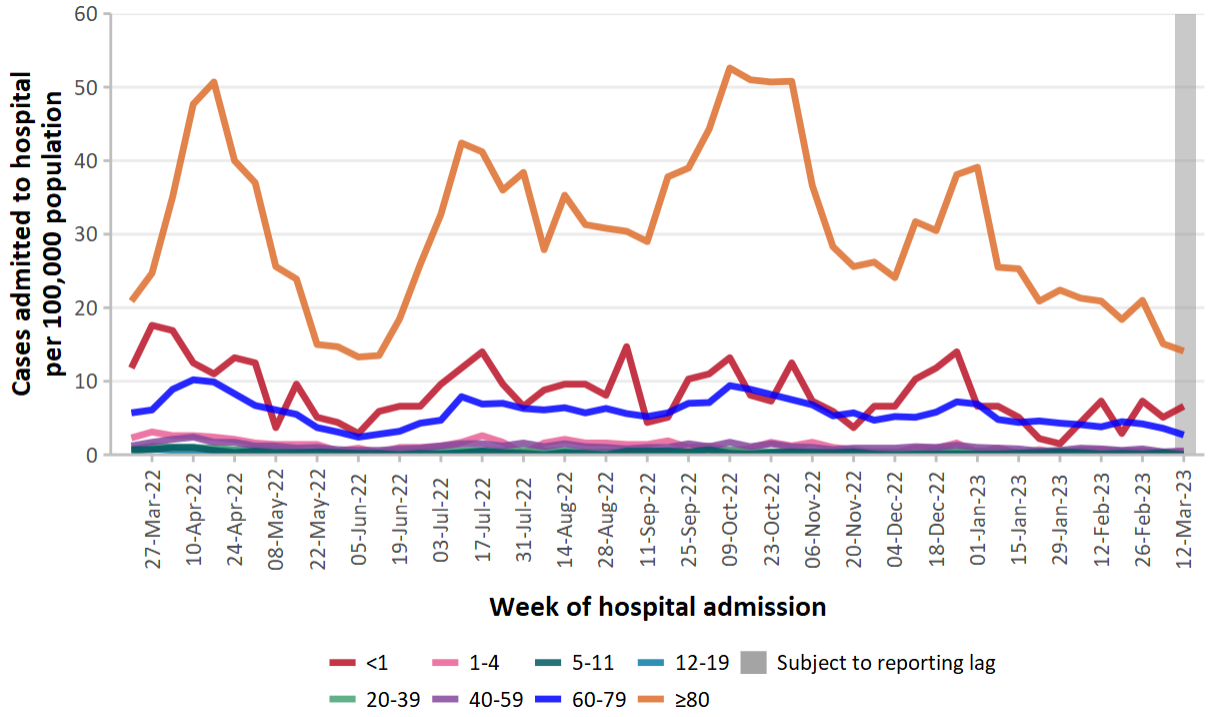


Figure 3b. Confirmed COVID-19 cases that were admitted to hospital (per 100,000 population), by age group and hospital admission date



Note: Not all cases have an age reported.

Deaths

Figure 4a. Confirmed COVID-19 deaths, by cause and week of death

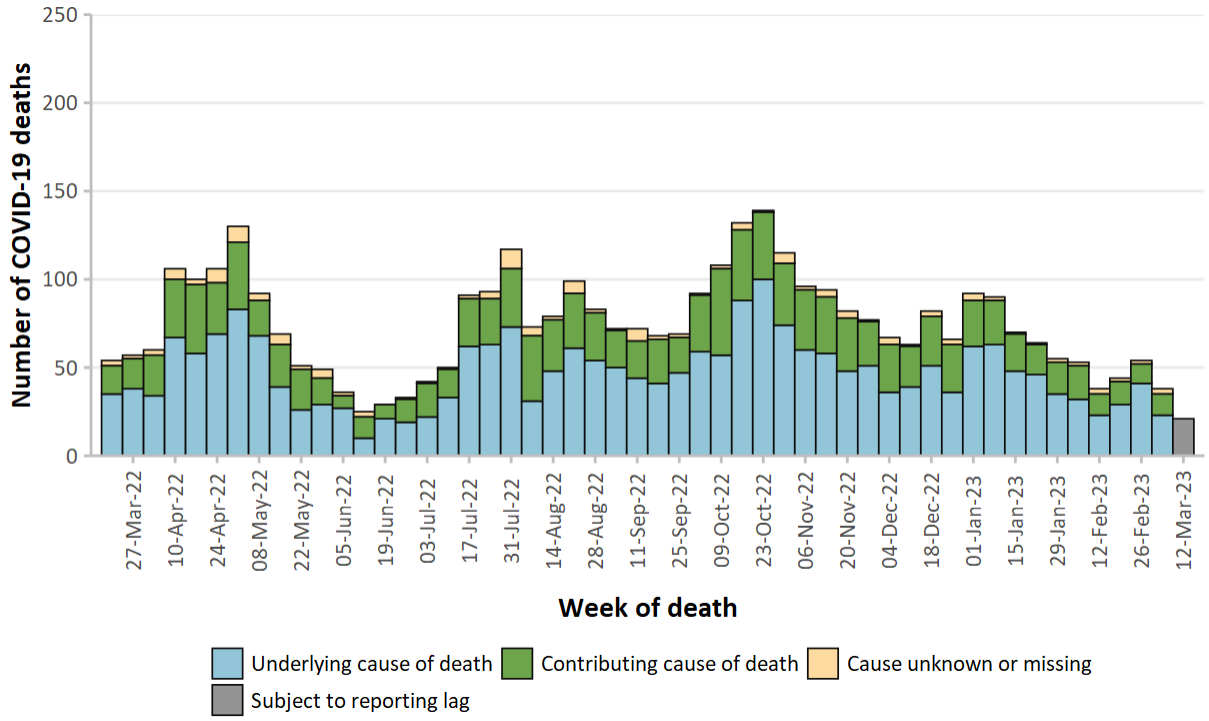
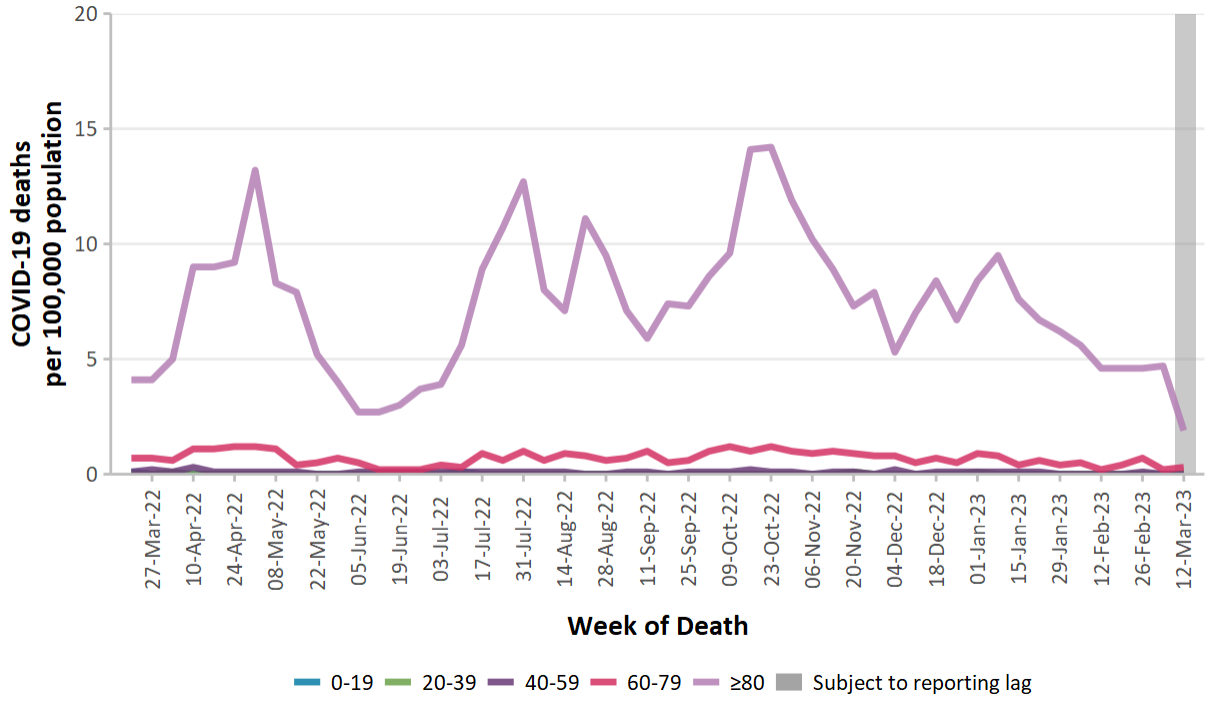
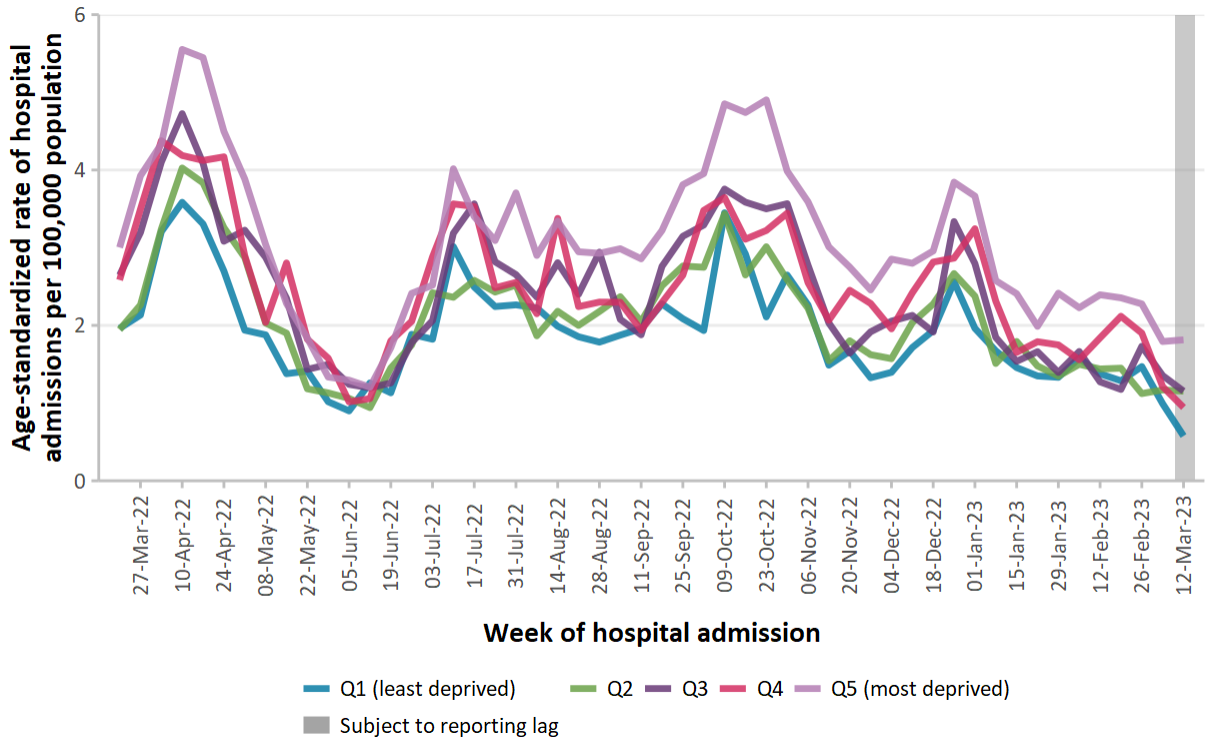


Figure 4b. Confirmed COVID-19 deaths (per 100,000 population), by age group and week of death



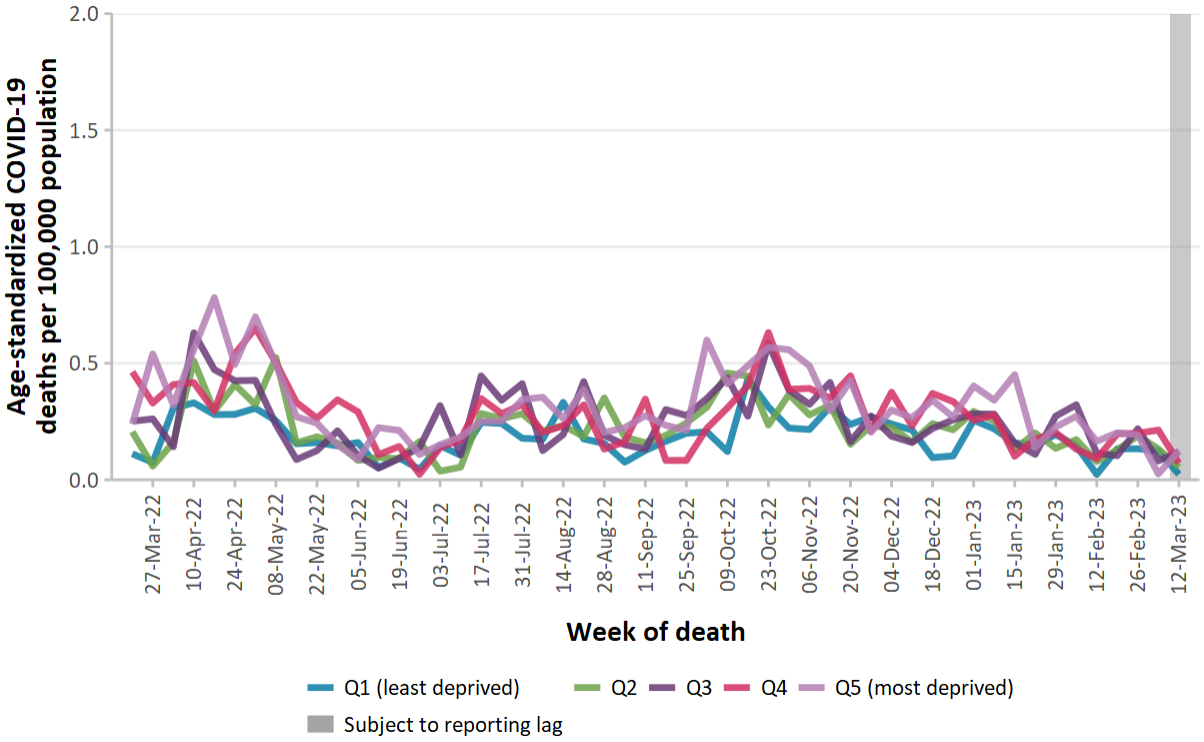
Severity by Neighbourhood Material Deprivation

Figure 5a. Confirmed COVID-19 cases that were admitted to hospital (per 100,000 population), by quintile of neighbourhood material deprivation and hospital admission week



Data Source: CCM, ON-Marg 2016

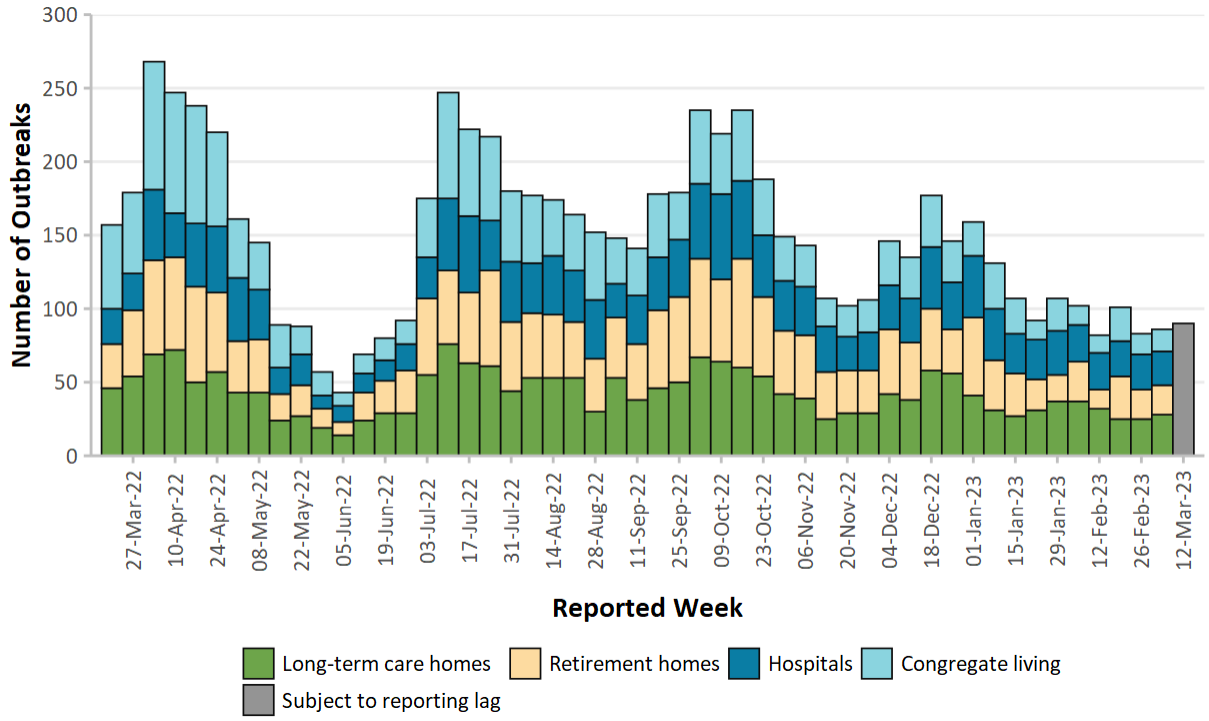
Figure 5b. Confirmed COVID-19 deaths (per 100,000 population), by quintile of neighbourhood material deprivation and week of death



Data Source: CCM, ON-Marg 2016

Outbreaks

Figure 6. Confirmed COVID-19 outbreaks, by setting type and reported week



Note: Congregate living includes group homes, shelters, and correctional facilities.

Table 1. Confirmed COVID-19 outbreaks, by setting type

Setting Type	Reported March 5 to March 11, 2023	Reported March 12 to March 18, 2023	Ongoing Outbreaks	Reported Past 52 Weeks (March 20, 2022 to March 18, 2023)
Congregate Care Total	**71**	**71**	**131**	**5,892**
Long-term care homes	28	31	65	2,223
Retirement homes	20	18	38	2,000
Hospitals	23	22	28	1,669
Congregate Living Total	**15**	**19**	**21**	**1,823**
Correctional facility	1	1	2	113
Shelter	0	1	1	306
Group homes/supportive housing	14	17	18	1,404
Total number of outbreaks*	**86**	**90**	**152**	**7,715**

*Only includes outbreaks in the setting types above

Table 2. Confirmed outbreak-associated COVID-19 cases, by setting type and reported week

Cases associated with the outbreak setting type	Reported March 5 to March 11, 2023	Reported March 12 to March 18, 2023	Reported Past 52 Weeks (March 20, 2022 to March 18, 2023)
Congregate Care Total	**922**	**865**	**89,739**
Long-term care homes	516	535	51,914
Retirement homes	221	205	24,524
Hospitals	185	125	13,301
Congregate Living Total	**31**	**25**	**6,057**
Correctional facility	1	4	1,194
Shelter	0	0	741
Group homes/supportive housing	30	21	4,122
Total number of cases*	**953**	**890**	**95,796**

*Only includes cases associated to outbreaks in the setting types above

Technical Notes

Details on data caveats and methods are documented in Technical Notes of the Ontario COVID-19 Data Tool. For information on data caveats and methods related to Ontario Marginalization Index (ON-Marg), please visit PHO's ON-Marg webpage.

Data Sources

- The data for this report were based on information successfully extracted from the CCM for all PHUS by PHO as of:
    - **March 21, 2023 at 1 p.m**. for cases reported March 1, 2022 onwards
    - **March 20, 2023 at 9 a.m**. for cases reported August 1, 2021 to February 28, 2022
    - **February 27, 2023 at 9 a.m**. for cases reported up to July 31, 2021
- Hospital and ICU bed occupancy data were obtained from the Ministry of Health on **March 21, 2023**. The same data is available weekly from Ontario's Data Catalogue (dataset: COVID-19 cases in hospital and ICU, by Ontario Health (OH) region). The 'date' field was adjusted to account for reporting lags. Specifically, hospital occupancy counts ('hospitalizations') correspond to the 'date' field minus two days, and ICU occupancy counts ('icu_crci_total') correspond to the 'date' field minus one day.
- Ontario population estimate data were sourced from Statistics Canada. Population estimates 2001-2021: Table 1 annual population estimates by age and sex for July 1, 2001 to 2021, health regions, Ontario [unpublished data table]. Ottawa, ON: Government of Canada; 2022 [received April 12, 2022].
- Statistics Canada Postal Code Conversion File Plus (PCCF+), version 7E.
- The health equity (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) Cohort FY 2019/20 (Extracted October 2020), provided by Health Analytics and Insights Branch, Capacity Planning and Analytics Division, Ministry of Health. For more information, please visit PHO's ON-Marg webpage.
- Whole genome sequencing data used in the short-term projection model were based on information extracted on **March 15, 2023** from PHO and **March 14, 2023** from partner laboratories in the Ontario COVID-19 Genomics Network. For more information on SARS-CoV-2 whole genome sequencing surveillance please see the report SARS-CoV-2 Genomic Surveillance in Ontario report.

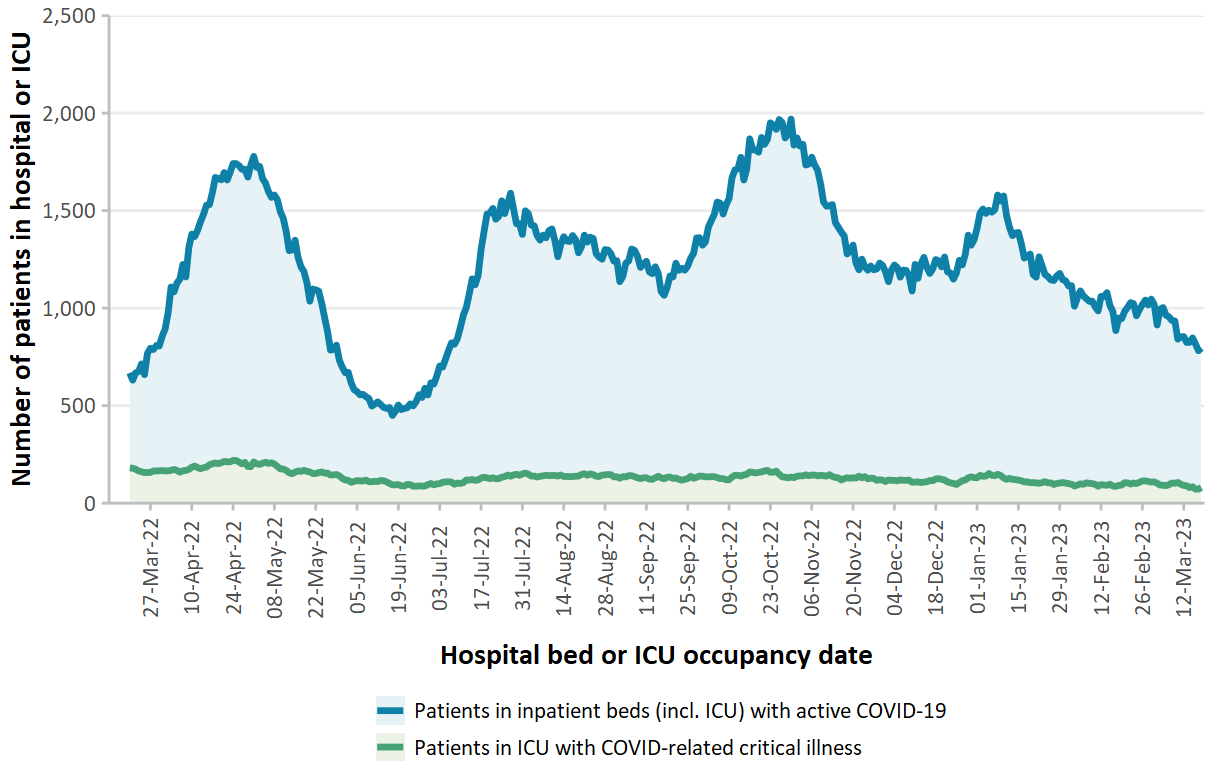
Appendix A: Hospital Bed Occupancy

This graph shows a daily count of:

1. the number of people in hospital (including intensive care unit (ICU)) with active COVID-19 (i.e. testing positive); and
2. the number of people in ICU because of COVID-19.

These counts differ from hospital admissions data in this report (Figures 3a, 3b, and Table 4), which count the number of people admitted to hospital each week due to COVID-19.

Figure 7. Hospital and ICU bed occupancy, by day



Data Source: Ontario Ministry of Health
Note: Hospital bed occupancy data comes from the Hospital Daily Bed Census and ICU bed occupancy data comes from the Critical Care Information System.

Appendix B: Cases by Public Health Unit

Figure 8. Confirmed cases of COVID-19 (per 100,000 population), by region and reported week

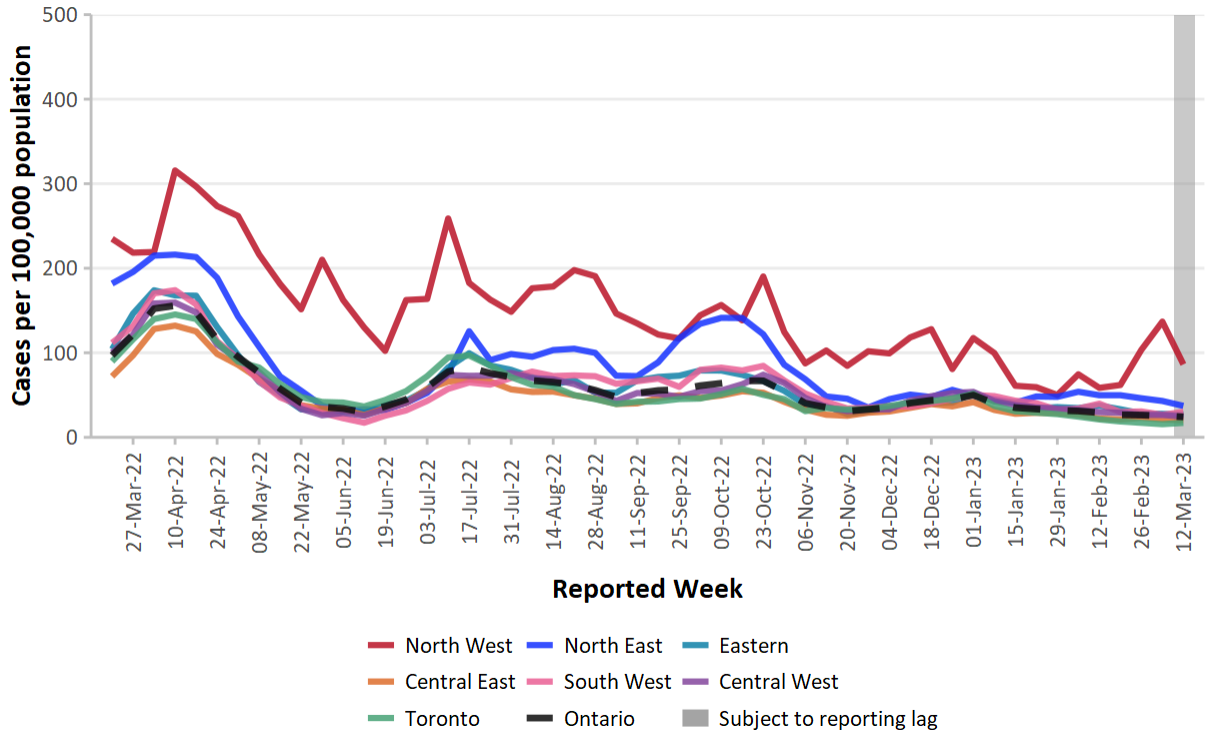


Table 3. Confirmed cases of COVID-19, by public health unit and region

Public Health Unit Name	Cases March 5 to March 11, 2023	Cases per 100,000 population March 5 to March 11, 2023	Cases March 12 to March 18, 2023	Cases per 100,000 population March 12 to March 18, 2023	Cases per 100,000 population Past 52 weeks (March 20, 2022 to March 18, 2023)
Northwestern Health Unit	264	323.5	127	155.6	11,110.0
Thunder Bay District Health Unit	61	39.1	78	50.0	6,040.8
TOTAL NORTH WEST	**325**	**136.8**	**205**	**86.3**	**7,781.7**
Algoma Public Health	79	67.4	83	70.8	5,158.8
North Bay Parry Sound District Health Unit	38	29.1	37	28.3	3,907.1
Porcupine Health Unit	12	14.3	9	10.7	3,699.5
Public Health Sudbury & Districts	112	54.5	77	37.5	4,778.1
Timiskaming Health Unit	5	14.6	7	20.5	4,707.4
TOTAL NORTH EAST	**246**	**43.0**	**213**	**37.2**	**4,493.8**
Ottawa Public Health	224	21.2	228	21.6	2,443.7
Eastern Ontario Health Unit	45	20.6	68	31.2	2,847.9
Hastings Prince Edward Public Health	42	24.1	67	38.5	4,186.9

Public Health Unit Name	Cases March 5 to March 11, 2023	Cases per 100,000 population March 5 to March 11, 2023	Cases March 12 to March 18, 2023	Cases per 100,000 population March 12 to March 18, 2023	Cases per 100,000 population Past 52 weeks (March 20, 2022 to March 18, 2023)
Kingston, Frontenac and Lennox & Addington Public Health	79	37.7	57	27.2	6,074.4
Leeds, Grenville & Lanark District Health Unit	80	44.1	65	35.8	4,059.0
Renfrew County and District Health Unit	69	63.1	38	34.8	3,898.5
TOTAL EASTERN	**539**	**27.7**	**523**	**26.9**	**3,268.0**
Durham Region Health Department	170	23.4	171	23.5	2,591.3
Haliburton, Kawartha, Pine Ridge District Health Unit	73	37.8	72	37.3	3,021.3
Peel Public Health	247	15.7	273	17.4	2,080.9
Peterborough Public Health	94	63.6	69	46.7	3,563.5
Simcoe Muskoka District Health Unit	193	31.3	178	28.9	3,267.0
York Region Public Health	172	14.2	148	12.2	2,603.0
TOTAL CENTRAL EAST	**949**	**21.2**	**911**	**20.4**	**2,558.9**
Toronto Public Health	463	15.6	509	17.1	2,889.4
TOTAL TORONTO	**463**	**15.6**	**509**	**17.1**	**2,889.4**

Public Health Unit Name	Cases March 5 to March 11, 2023	Cases per 100,000 population March 5 to March 11, 2023	Cases March 12 to March 18, 2023	Cases per 100,000 population March 12 to March 18, 2023	Cases per 100,000 population Past 52 weeks (March 20, 2022 to March 18, 2023)
Chatham-Kent Public Health	44	40.8	72	66.7	3,977.8
Grey Bruce Health Unit	27	15.1	27	15.1	2,729.8
Huron Perth Public Health	46	31.1	45	30.4	2,710.6
Lambton Public Health	26	19.6	22	16.6	3,609.8
Middlesex-London Health Unit	108	21.0	103	20.0	3,060.9
Southwestern Public Health	43	19.3	54	24.2	3,056.5
Windsor-Essex County Health Unit	167	39.2	199	46.7	3,493.1
TOTAL SOUTH WEST	**461**	**26.6**	**522**	**30.1**	**3,201.8**
Brant County Health Unit	34	21.7	50	31.9	2,926.4
City of Hamilton Public Health Services	197	33.5	199	33.9	4,185.9
Haldimand-Norfolk Health Unit	42	34.4	41	33.6	3,257.2
Halton Region Public Health	113	18.3	80	12.9	2,316.1
Niagara Region Public Health	122	25.2	125	25.8	3,382.8

Public Health Unit Name	Cases March 5 to March 11, 2023	Cases per 100,000 population March 5 to March 11, 2023	Cases March 12 to March 18, 2023	Cases per 100,000 population March 12 to March 18, 2023	Cases per 100,000 population Past 52 weeks (March 20, 2022 to March 18, 2023)
Region of Waterloo Public Health and Emergency Services	148	24.2	132	21.6	2,494.2
Wellington-Dufferin-Guelph Public Health	112	35.4	84	26.5	2,617.8
TOTAL CENTRAL WEST	**768**	**26.5**	**711**	**24.5**	**3,016.6**
TOTAL ONTARIO	**3,751**	**25.3**	**3,594**	**24.2**	**3,041.2**

Note: Access to testing can vary across the province and as a result may impact the reported confirmed case rates by public health unit.

Appendix C: Severity Measures by Age and Sex

Table 4. Confirmed COVID-19 cases that were admitted to hospital, by sex and age group

Sex and age group	Hospital admissions March 5 to March 11, 2023	Hospital admissions per 100,000 population March 5 to March 11, 2023	Hospital admissions March 12 to March 18, 2023	Hospital admissions per 100,000 population March 12 to March 18, 2023	Hospital admissions Past 52 weeks (March 20, 2022 to March 18, 2023)	Hospital admissions per 100,000 population Past 52 weeks (March 20, 2022 to March 18, 2023)
Total Cases	253	1.7	213	1.4	24,383	164.5
Sex: Female	125	1.7	97	1.3	11,375	151.7
Sex: Male	128	1.7	115	1.6	12,962	176.9
Sex: Did not specify female or male	0	N/A	1	N/A	46	N/A
Ages: <1	7	5.1	9	6.6	594	436.5
Ages: 1 – 4	2	0.3	3	0.5	364	63.1
Ages: 5 – 11	3	0.3	0	0.0	161	15.0
Ages: 12 – 19	2	0.2	1	0.1	160	12.2
Ages: 20 – 39	12	0.3	5	0.1	1,080	25.8
Ages: 40 – 59	17	0.4	20	0.5	2,200	56.8
Ages: 60 – 79	108	3.6	80	2.7	9,069	302.8
Ages: 80 and over	102	15.1	95	14.1	10,753	1593.1
Ages: Unknown	0	N/A	0	N/A	2	N/A

Table 5. Confirmed COVID-19 deaths, by sex and age group

Sex and age group	Deaths March 5 to March 11, 2023	Deaths per 100,000 population March 5 to March 11, 2023	Deaths March 12 to March 18, 2023	Deaths per 100,000 population March 12 to March 18, 2023	Deaths Past 52 weeks (March 20, 2022 to March 18, 2023)	Deaths per 100,000 population Past 52 weeks (March 20, 2022 to March 18, 2023)
Total Cases	38	0.3	21	0.1	3,837	25.9
Sex: Female	16	0.2	14	0.2	1,795	23.9
Sex: Male	22	0.3	7	0.1	2,036	27.8
Sex: Did not specify female or male	0	N/A	0	N/A	6	N/A
Ages: 0 – 19	0	0.0	0	0.0	10	0.3
Ages: 20 – 39	0	0.0	0	0.0	30	0.7
Ages: 40 – 59	1	<0.1	0	0.0	145	3.7
Ages: 60 – 79	5	0.2	8	0.3	1,082	36.1
Ages: 80 and over	32	4.7	13	1.9	2,570	380.8
Ages: Unknown	0	N/A	0	N/A	0	N/A

Appendix D: All Time Severe Outcomes

Table 6. Confirmed COVID-19 cases and deaths among LTCH residents, by wave[1]

Wave	Number of LTCH Resident Cases	Number of LTCH Resident COVID-19 deaths	Case Fatality Rate (CFR)
Wave 1 (February 26, 2020 to August 31, 2020)	6,012	1,906	31.7%
Wave 2 (September 1, 2020 to February 28, 2021)	9,086	1,949	21.5%
Wave 3 (March 1, 2021 to July 31, 2021)	414	60	14.5%
Wave 4 (August 1, 2021 to December 14, 2021)	247	45	18.2%
Wave 5 (December 15, 2021 to February 28, 2022)	10,179	485	4.8%
Wave 6 (March 1, 2022 to June 18, 2022)	7,712	202	2.6%
Wave 7 onwards (June 19, 2022 to March 18, 2023)[2]	31,160	911	2.9%
Total	**64,810**	**5,558**	**8.6%**

Notes:
1. As of August 31, 2022, only LTCH resident cases linked to an outbreak are required to be identified as LTCH residents in CCM. As a result, fewer LTCH resident cases will be identified. The number of LTCH resident cases, deaths, and CFR should be interpreted with this reporting change in mind. 2. The case fatality rate for this time period may change as new cases are reported.

Appendix E: Short-term Projections of COVID-19 in Ontario

- A multinomial logistic regression model (from the R package, *nnet*[1]) of whole genome sequencing (WGS) data, was used to estimate the proportion of each SARS-CoV-2 lineage over the last three months. Lineages with at least fourteen days of non-zero case counts were included in the model. Proportions of the top five lineages and an additional group that included all remaining lineages with at least one day of an estimated prevalence of 5% or greater during the 12 week period (6 observed and 6 projected) were then applied to the reported daily COVID-19 cases to determine the daily estimated number of cases for each lineage.
- The R package, *EpiNow2*[2], was used to project the daily number of cases forward 14 days. The model was run by lineage to ensure potential differences in lineage-specific transmission were accounted for. *EpiNow2*[2] calculates these projections using Bayesian latent variable modelling[3]. Model inputs included an incubation period of 4 days[4,5] and a generation time of 2.5 days[6]. The reporting delay was estimated to be about 3 days using the symptom onset date. The results by lineage were then summed to generate the projected total number of cases and 75% credible interval. Modelling results of past weeks were compared with reported cases to confirm model accuracy.

References

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6. Abbot S, Sherratt K, Gerstung M, Funk S. Estimation of the test to test distribution as a proxy for generation interval distribution for the Omicron variant in England. medRxiv 22268920 [Preprint]. 2022 Jan 10 [cited 2022 Sep 08]. Available from: https://doi.org/10.1101/2022.01.08.22268920

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