

WEEKLY EPIDEMIOLOGICAL SUMMARY

COVID-19 in Ontario: Focus on March 19, 2023 to March 25, 2023 (Week 12)

Published: March 31, 2023

This report is discontinued as of March 31, 2023. Information from this report can now be found in Respiratory Virus Overview in Ontario epidemiological summary and the Ontario COVID-19 Data Tool. To view a detailed roadmap of where you can access the information that was previously found in this report, please see: [Respiratory Virus Data and Surveillance Reporting \(including COVID-19\) Updates](#).

Figures and tables in this report present the most recent 52 weeks of data for Ontario, ranging from **March 27, 2022 to March 25, 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 3,405 this week, compared to 3,573 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 three, lower in three, and higher in one, compared to last week. Among the 34 public health units, case rates were similar in nine, lower in 15, and higher in 10, compared to last week.
 - Among the seven age groups, case rates were similar in four, lower in one, and higher in two, compared to last week.
- **Percent positivity and testing volumes similar (+/- 10%) compared to last week:** Percent positivity was 9.9% this week compared to 10.7% observed last week. Testing volume this week was 34,083 compared to 35,492 tests last week. Percent positivity and testing volumes have been gradually declining since early January.

Severity

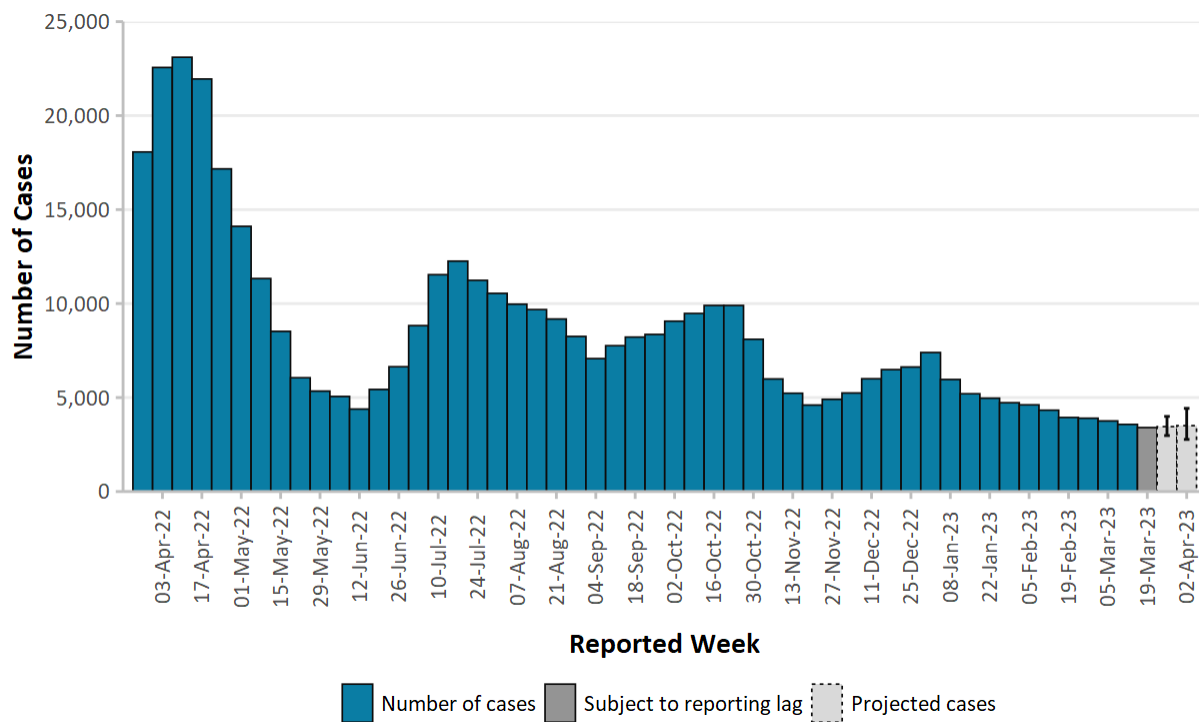
- **Hospital admissions and deaths trending downward:** There were 243 hospital admissions reported this week, compared to 250 last week. There were 30 deaths reported this week, compared to 30 last week. Hospital admission and death counts, particularly for more recent weeks, may increase as these outcomes are lagging indicators.

Outbreaks

- **Outbreaks in high-risk settings down 35% compared to last week:** The total number of outbreaks in high-risk settings was 61 this week, compared to 94 last week. Compared to last week, this week there were fewer outbreaks in long-term care homes, hospitals, shelters, and group homes/supportive housing, and a similar number of outbreaks in retirement homes and correctional facilities.
- **Outbreak-associated cases in high-risk settings down 25% compared to last week:** There were 714 outbreak-associated cases reported this week in high-risk settings, compared to 949 last week. Compared to last week, this week there were fewer outbreak-associated cases reported in long-term care homes, retirement homes, and hospitals; and a similar number of outbreak-associated cases reported in correctional facilities, shelters, and group homes/supportive housing.

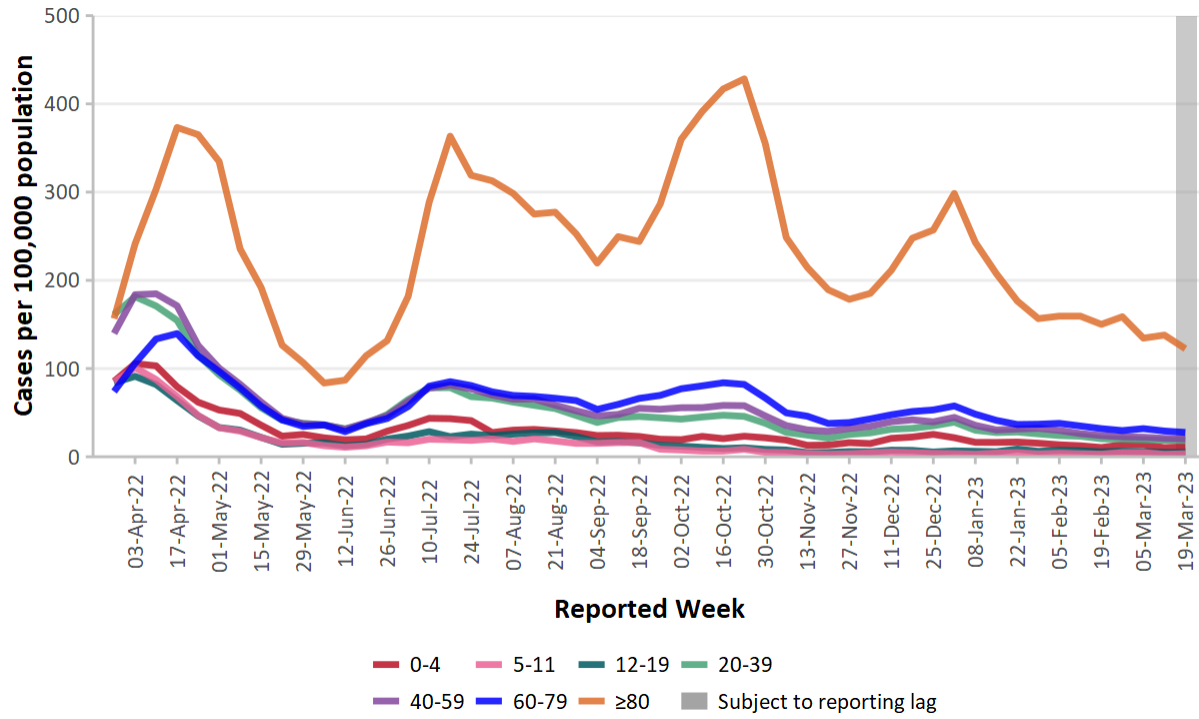
Cases

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.

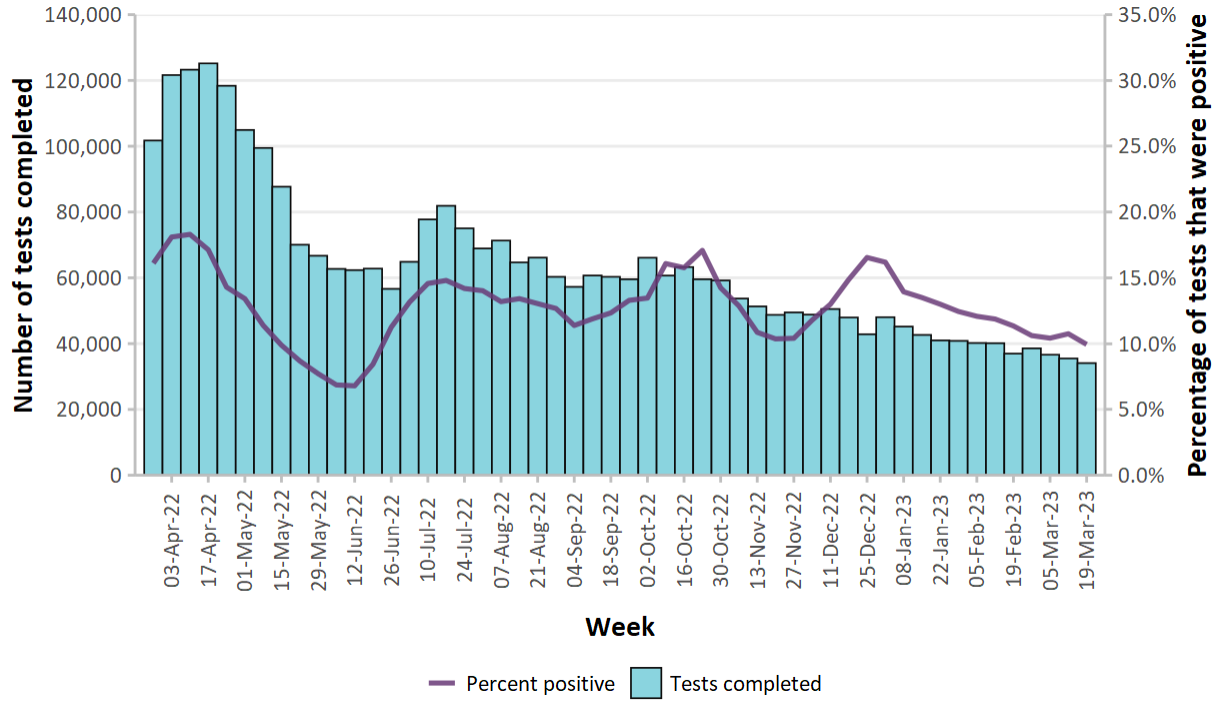
Figure 1b. Confirmed cases of COVID-19 (per 100,000 population), by age group and report week



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

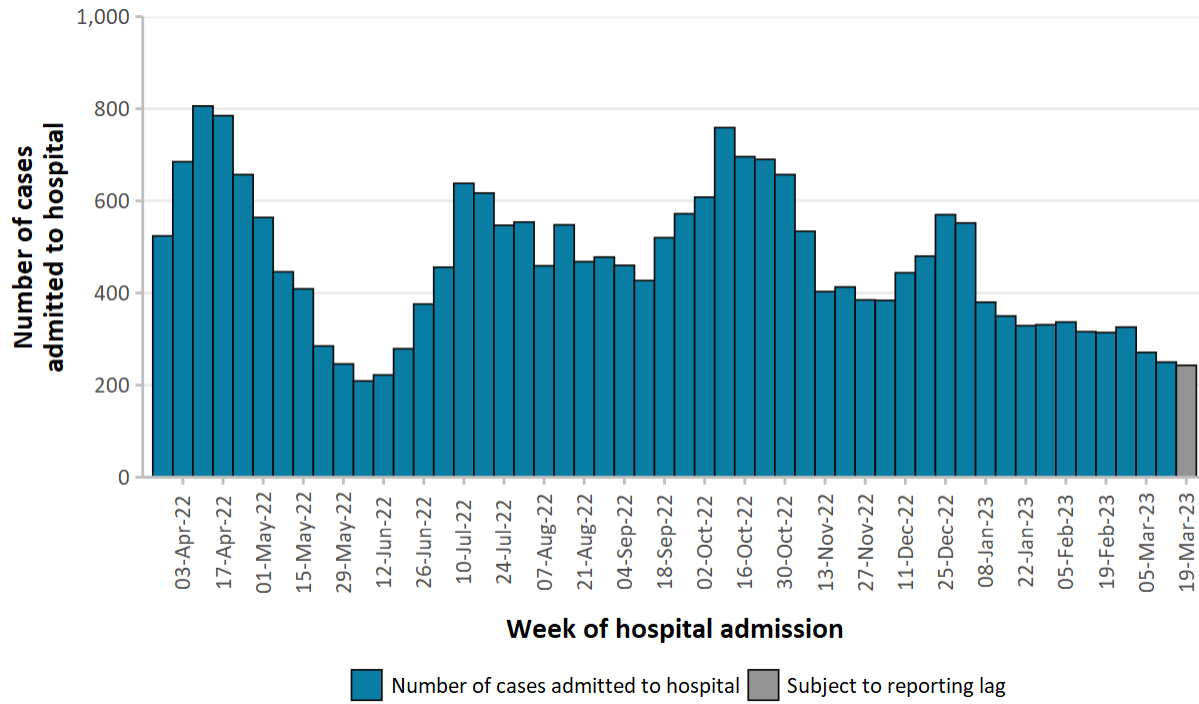
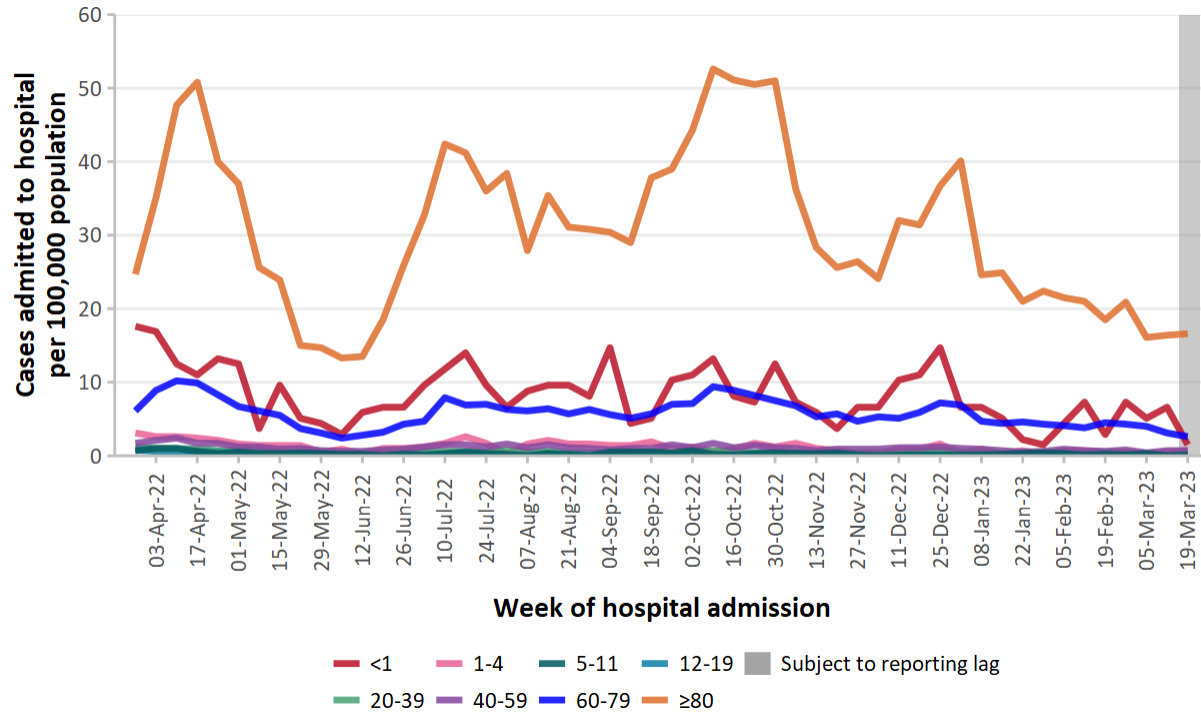


Figure 3b. Confirmed COVID-19 cases that were admitted to hospital (per 100,000 population), by age group and hospital admission date



Note: Not all cases have an age reported.

Deaths

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

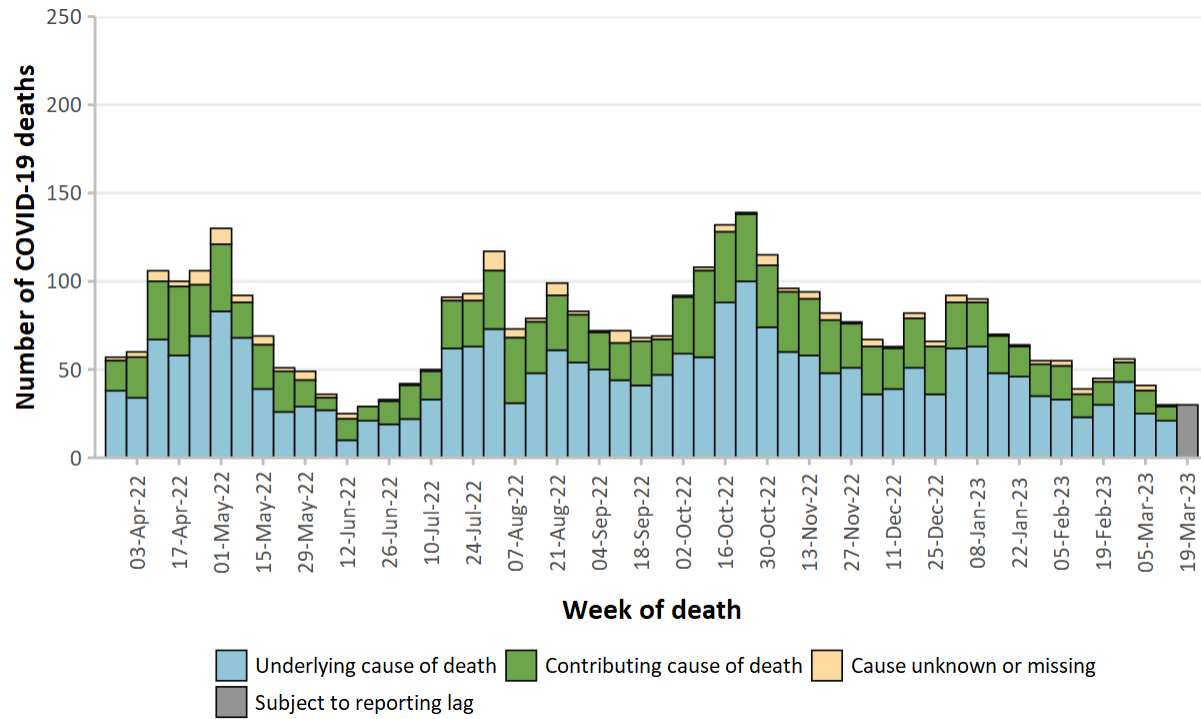
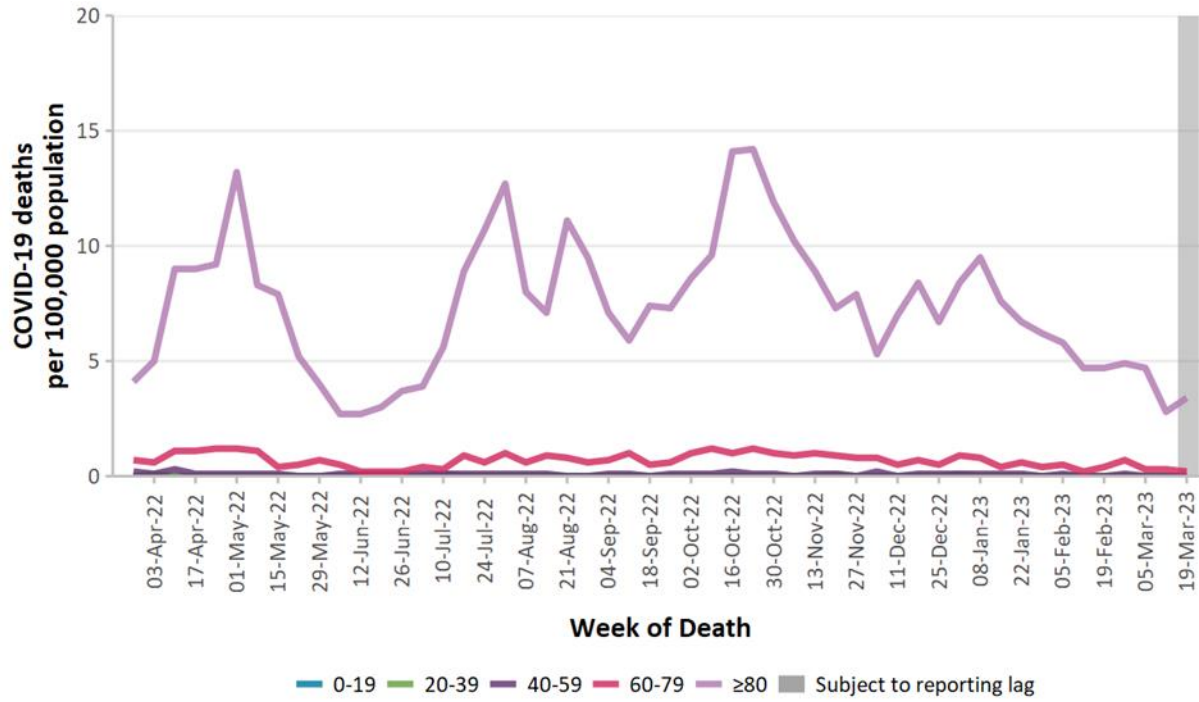
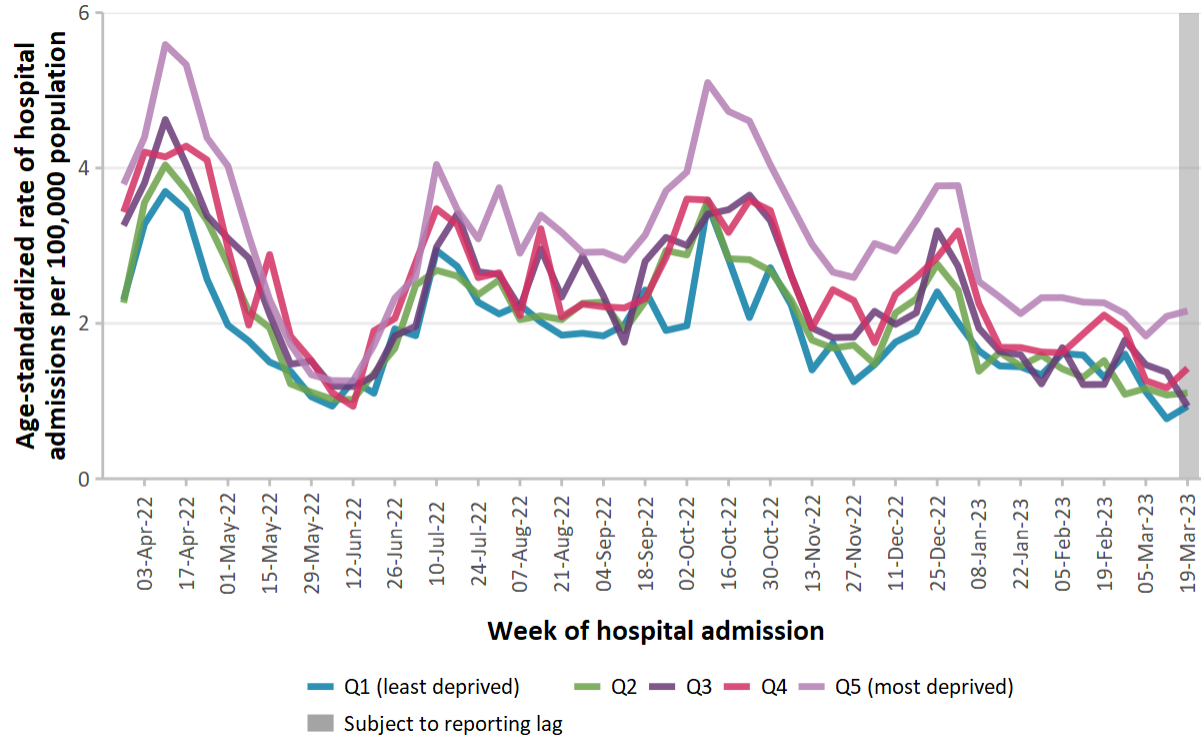


Figure 4b. Confirmed COVID-19 deaths (per 100,000 population), by age group and week of death



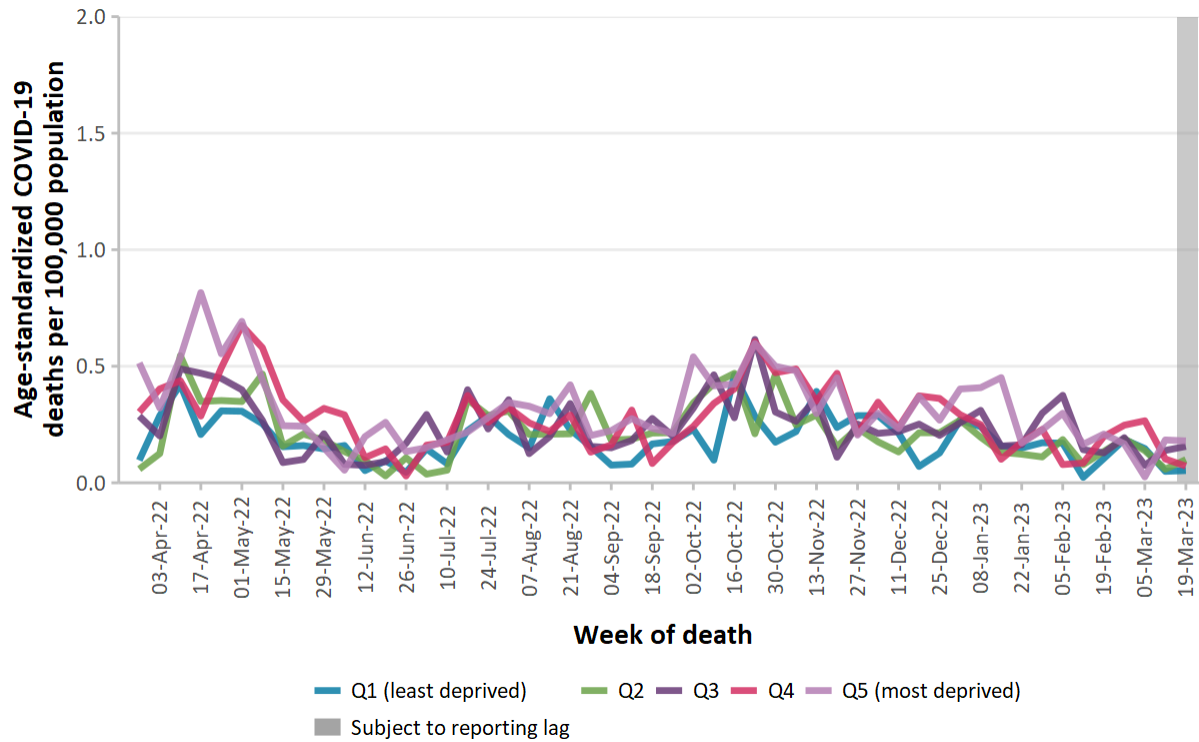
Severity by Neighbourhood Material Deprivation

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

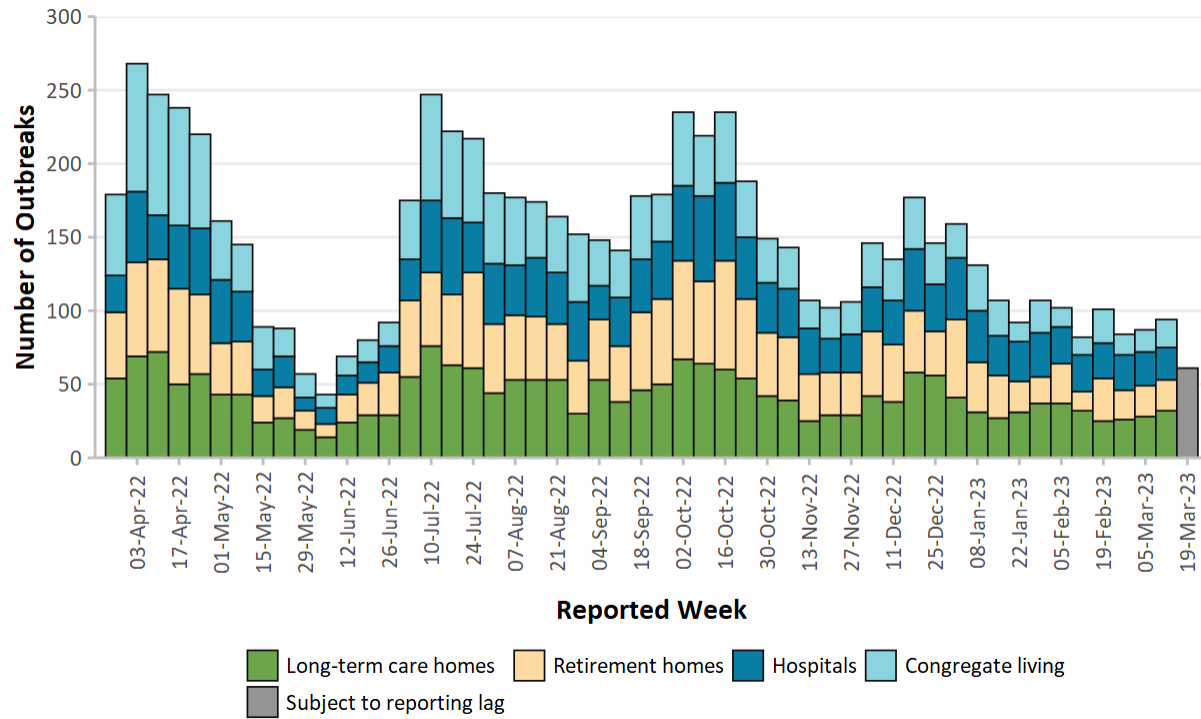
Figure 5b. Confirmed COVID-19 deaths (per 100,000 population), by quintile of neighbourhood material deprivation and week of death



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 12 to March 18, 2023	Reported March 19 to March 25, 2023	Ongoing Outbreaks	Reported Past 52 Weeks (March 27, 2022 to March 25, 2023)
Congregate Care Total	75	51	104	5,849
Long-term care homes	32	13	50	2,192
Retirement homes	21	21	32	1,995
Hospitals	22	17	22	1,662
Congregate Living Total	19	10	13	1,776
Correctional facility	1	1	2	110
Shelter	1	0	0	294
Group homes/supportive housing	17	9	11	1,372
Total number of outbreaks*	94	61	117	7,625

*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 12 to March 18, 2023	Reported March 19 to March 25, 2023	Reported Past 52 Weeks (March 27, 2022 to March 25, 2023)
Congregate Care Total	923	692	89,835
Long-term care homes	564	424	52,032
Retirement homes	218	161	24,481
Hospitals	141	107	13,322
Congregate Living Total	26	22	5,859
Correctional facility	4	2	1,129
Shelter	0	0	708
Group homes/supportive housing	22	20	4,022
Total number of cases*	949	714	95,694

*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 28, 2023 at 1 p.m.** for cases reported March 1, 2022 onwards
 - **March 27, 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 28, 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 22, 2023** from PHO and **March 21, 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](#).

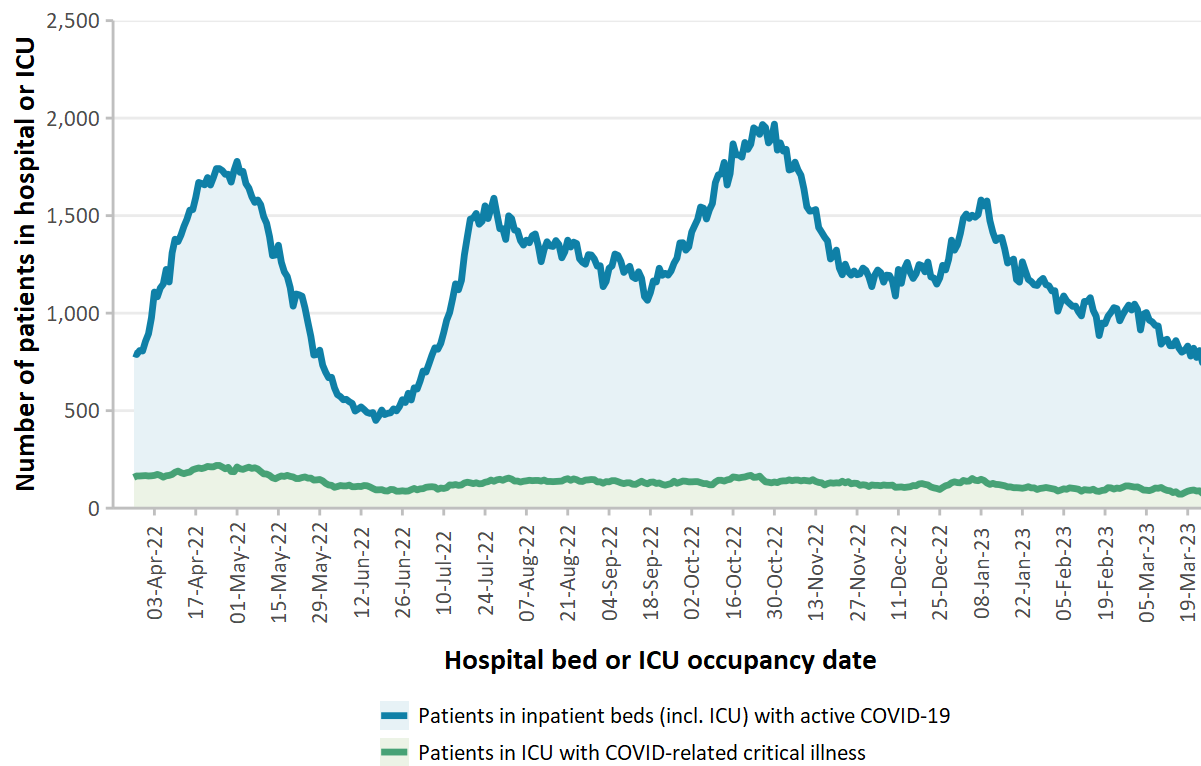
Appendix A: Hospital Bed Occupancy

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

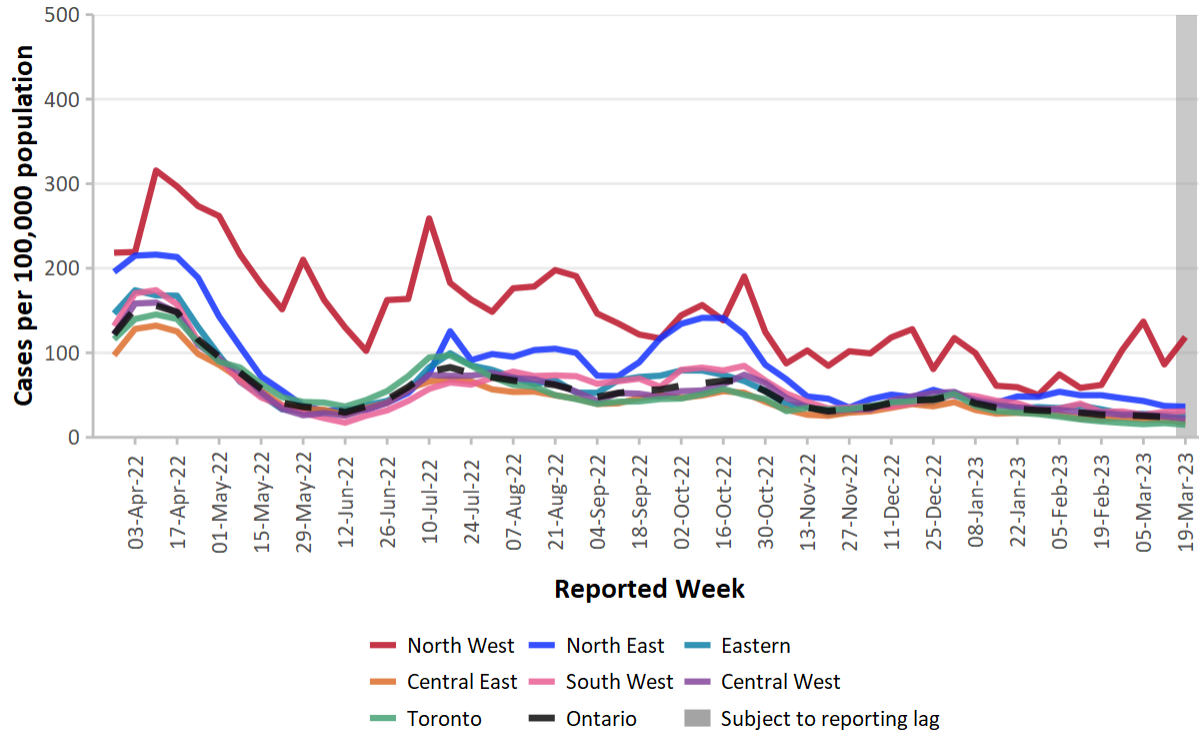


Table 3. Confirmed cases of COVID-19, by public health unit and region

Public Health Unit Name	Cases March 12 to March 18, 2023	Cases per 100,000 population March 12 to March 18, 2023	Cases March 19 to March 25, 2023	Cases per 100,000 population March 19 to March 25, 2023	Cases per 100,000 population Past 52 weeks (March 27, 2022 to March 25, 2023)
Northwestern Health Unit	127	155.6	183	224.2	10,890.7
Thunder Bay District Health Unit	78	50.0	99	63.5	5,978.6
TOTAL NORTH WEST	205	86.3	282	118.7	7,665.6
Algoma Public Health	82	70.0	78	66.6	4,907.9
North Bay Parry Sound District Health Unit	35	26.8	37	28.3	3,827.6
Porcupine Health Unit	9	10.7	12	14.3	3,540.3
Public Health Sudbury & Districts	79	38.4	77	37.5	4,661.3
Timiskaming Health Unit	7	20.5	3	8.8	4,526.0
TOTAL NORTH EAST	212	37.1	207	36.2	4,348.0
Ottawa Public Health	228	21.6	210	19.9	2,393.8
Eastern Ontario Health Unit	68	31.2	97	44.5	2,808.0
Hastings Prince Edward Public Health	67	38.5	77	44.3	4,073.7

Public Health Unit Name	Cases March 12 to March 18, 2023	Cases per 100,000 population March 12 to March 18, 2023	Cases March 19 to March 25, 2023	Cases per 100,000 population March 19 to March 25, 2023	Cases per 100,000 population Past 52 weeks (March 27, 2022 to March 25, 2023)
Kingston, Frontenac and Lennox & Addington Public Health	58	27.7	54	25.7	5,822.1
Leeds, Grenville & Lanark District Health Unit	65	35.8	47	25.9	3,998.9
Renfrew County and District Health Unit	41	37.5	19	17.4	3,829.0
TOTAL EASTERN	527	27.1	504	25.9	3,189.7
Durham Region Health Department	163	22.4	140	19.2	2,532.4
Haliburton, Kawartha, Pine Ridge District Health Unit	72	37.3	52	26.9	2,969.0
Peel Public Health	270	17.2	268	17.1	2,052.6
Peterborough Public Health	68	46.0	42	28.4	3,504.6
Simcoe Muskoka District Health Unit	179	29.0	147	23.8	3,174.0
York Region Public Health	146	12.1	156	12.9	2,537.9
TOTAL CENTRAL EAST	898	20.1	805	18.0	2,504.7
Toronto Public Health	499	16.8	443	14.9	2,814.0
TOTAL TORONTO	499	16.8	443	14.9	2,814.0

Public Health Unit Name	Cases March 12 to March 18, 2023	Cases per 100,000 population March 12 to March 18, 2023	Cases March 19 to March 25, 2023	Cases per 100,000 population March 19 to March 25, 2023	Cases per 100,000 population Past 52 weeks (March 27, 2022 to March 25, 2023)
Chatham-Kent Public Health	72	66.7	33	30.6	3,913.9
Grey Bruce Health Unit	27	15.1	44	24.6	2,652.0
Huron Perth Public Health	45	30.4	31	20.9	2,618.0
Lambton Public Health	22	16.6	28	21.1	3,504.2
Middlesex-London Health Unit	100	19.4	116	22.5	2,972.7
Southwestern Public Health	55	24.7	40	17.9	2,978.9
Windsor-Essex County Health Unit	199	46.7	239	56.1	3,424.5
TOTAL SOUTH WEST	520	30.0	531	30.7	3,120.7
Brant County Health Unit	50	31.9	39	24.9	2,856.1
City of Hamilton Public Health Services	199	33.9	169	28.8	4,077.0
Haldimand-Norfolk Health Unit	42	34.4	42	34.4	3,202.3
Halton Region Public Health	80	12.9	109	17.6	2,239.2
Niagara Region Public Health	125	25.8	100	20.6	3,312.2

Public Health Unit Name	Cases March 12 to March 18, 2023	Cases per 100,000 population March 12 to March 18, 2023	Cases March 19 to March 25, 2023	Cases per 100,000 population March 19 to March 25, 2023	Cases per 100,000 population Past 52 weeks (March 27, 2022 to March 25, 2023)
Region of Waterloo Public Health and Emergency Services	131	21.4	86	14.1	2,429.0
Wellington-Dufferin-Guelph Public Health	85	26.8	88	27.8	2,542.3
TOTAL CENTRAL WEST	712	24.6	633	21.8	2,938.2
TOTAL ONTARIO	3,573	24.1	3,405	23.0	2,967.2

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 12 to March 18, 2023	Hospital admissions per 100,000 population March 12 to March 18, 2023	Hospital admissions March 19 to March 25, 2023	Hospital admissions per 100,000 population March 19 to March 25, 2023	Hospital admissions Past 52 weeks (March 27, 2022 to March 25, 2023)	Hospital admissions per 100,000 population Past 52 weeks (March 27, 2022 to March 25, 2023)
Total Cases	250	1.7	243	1.6	24,259	163.6
Sex: Female	118	1.6	114	1.5	11,335	151.1
Sex: Male	130	1.8	127	1.7	12,875	175.7
Sex: Did not specify female or male	2	N/A	2	N/A	49	N/A
Ages: <1	9	6.6	2	1.5	580	426.2
Ages: 1 – 4	3	0.5	4	0.7	355	61.6
Ages: 5 – 11	0	0.0	1	0.1	154	14.3
Ages: 12 – 19	1	0.1	0	0.0	154	11.8
Ages: 20 – 39	6	0.1	18	0.4	1,069	25.5
Ages: 40 – 59	26	0.7	28	0.7	2,187	56.4
Ages: 60 – 79	94	3.1	78	2.6	9,010	300.9
Ages: 80 and over	111	16.4	112	16.6	10,748	1592.4
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 12 to March 18, 2023	Deaths per 100,000 population March 12 to March 18, 2023	Deaths March 19 to March 25, 2023	Deaths per 100,000 population March 19 to March 25, 2023	Deaths Past 52 weeks (March 27, 2022 to March 25, 2023)	Deaths per 100,000 population Past 52 weeks (March 27, 2022 to March 25, 2023)
Total Cases	30	0.2	30	0.2	3,831	25.8
Sex: Female	19	0.3	14	0.2	1,796	23.9
Sex: Male	11	0.2	16	0.2	2,029	27.7
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	8	0.3
Ages: 20 – 39	0	0.0	0	0.0	29	0.7
Ages: 40 – 59	1	<0.1	0	0.0	144	3.7
Ages: 60 – 79	10	0.3	7	0.2	1,074	35.9
Ages: 80 and over	19	2.8	23	3.4	2,576	381.6
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 wave¹

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)	7,713	202	2.6%
Wave 7 onwards (June 19, 2022 to March 25, 2023) ²	31,579	921	2.9%
Total	65,230	5,568	8.5%

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 modelling³. Model inputs included an incubation period of 4 days^{4,5} and a generation time of 2.5 days⁶. 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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Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Weekly epidemiologic summary: COVID-19 in Ontario – March 19 to March 25, 2023. Toronto, ON: King's Printer for Ontario; 2023.

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