

WEEKLY EPIDEMIOLOGICAL SUMMARY

COVID-19 in Ontario: Focus on March 5, 2023 to March 11, 2023 (Week 10)

Published: March 17, 2023

Figures and tables in this report present the most recent 52 weeks of data for Ontario, ranging from **March 13, 2022 to March 11, 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 3,748 this week, compared to 3,909 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 five, lower in one, and higher in one, compared to last week. Among the 34 public health units, case rates were similar in 11, lower in 15, and higher in 8, compared to last week.
- Among the seven age groups, case rates were similar in six and lower in one, compared to last week.
- **Percent positivity and testing volumes similar (+/- 10%) compared to last week:** Percent positivity was 10.4% this week compared to 10.6% observed last week. Percent positivity has been gradually declining since early January. Testing volume this week was 36,634 compared to 38,565 tests last week.

Severity

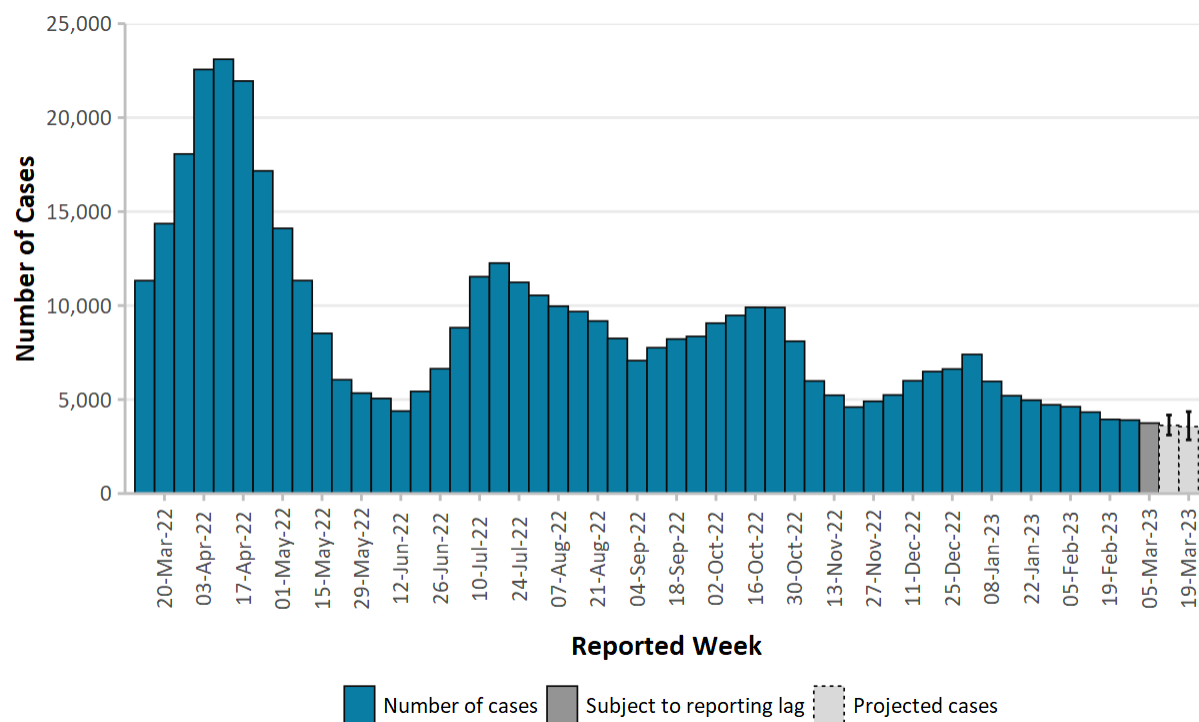
- **Hospital admissions and deaths trending downward:** There were 216 hospital admissions reported this week, compared to 312 last week. There were 34 deaths reported this week, compared to 48 last week. Hospital admission and death counts, particularly for more recent weeks, may increase as these outcomes 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 82 this week, compared to 81 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 878 outbreak-associated cases reported this week in high-risk settings, compared to 972 last week. Compared to last week, this week there were a similar number of outbreak-associated cases reported in hospitals, shelters, and group homes/supportive housing; a lower number of outbreak-associated cases in retirement homes; and a higher number of outbreak-associated cases in long-term care homes and correctional facilities.

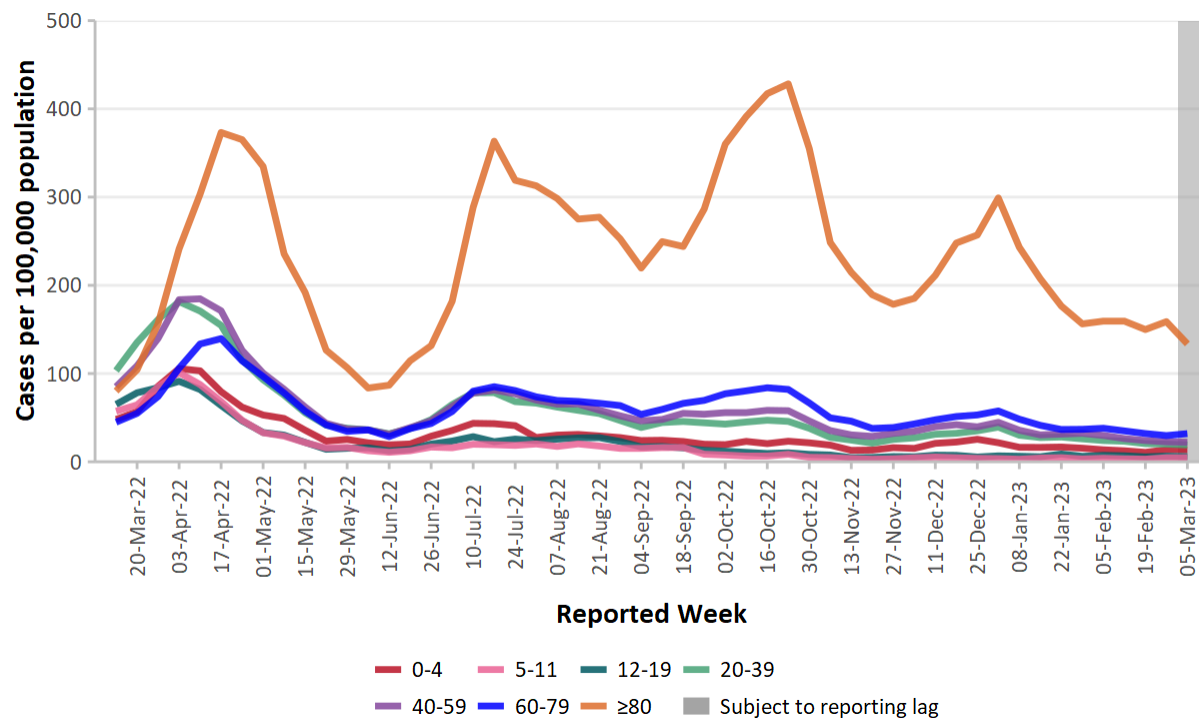
Cases

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.

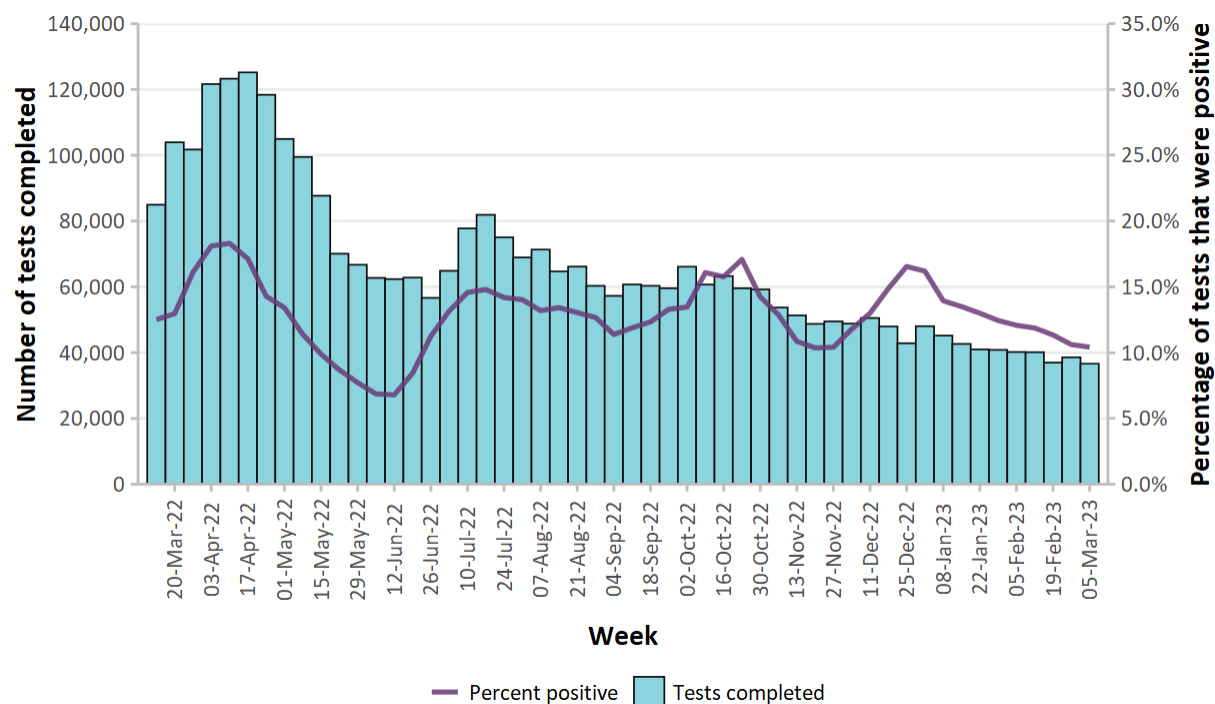
Figure 1b. Confirmed cases of COVID-19 (per 100,000 population), by age group and report week



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

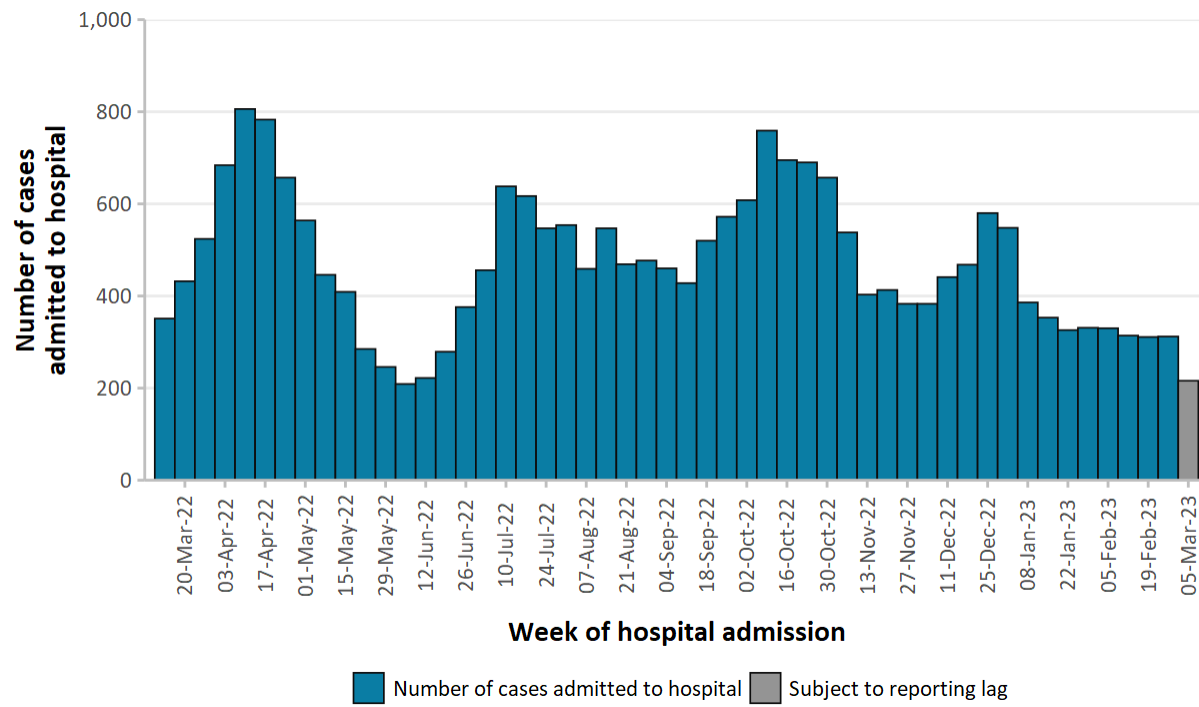
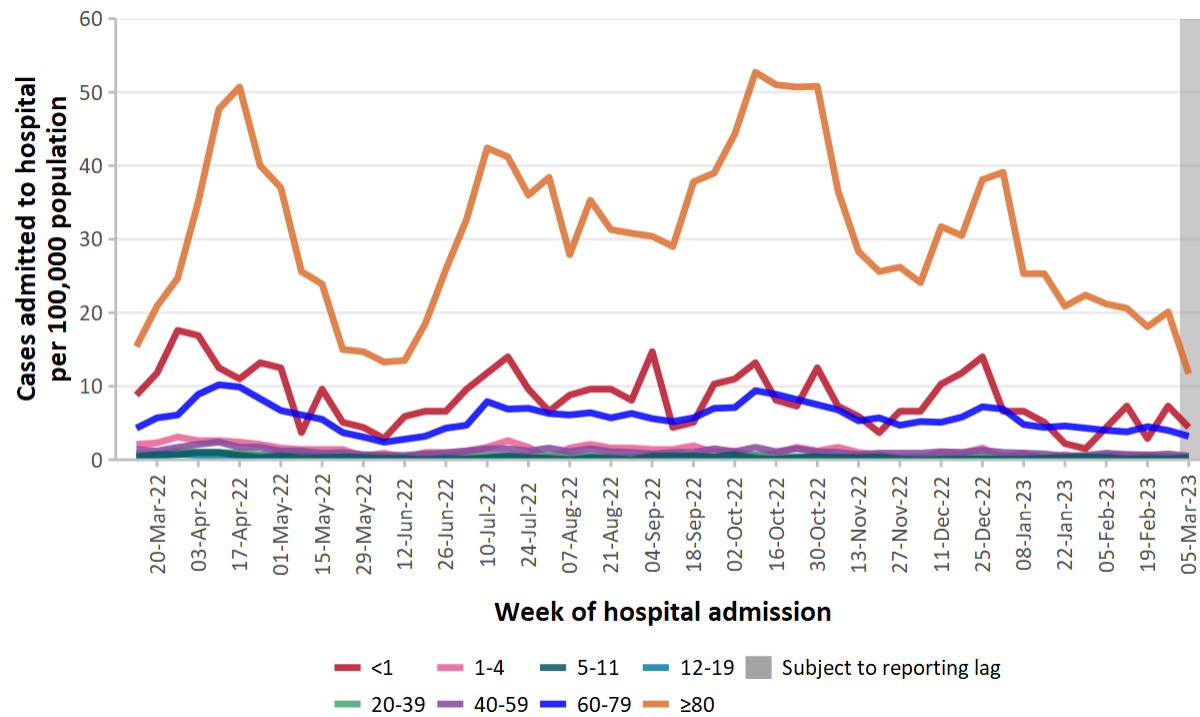


Figure 3b. Confirmed COVID-19 cases that were admitted to hospital (per 100,000 population), by age group and hospital admission date



Note: Not all cases have an age reported.

Deaths

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

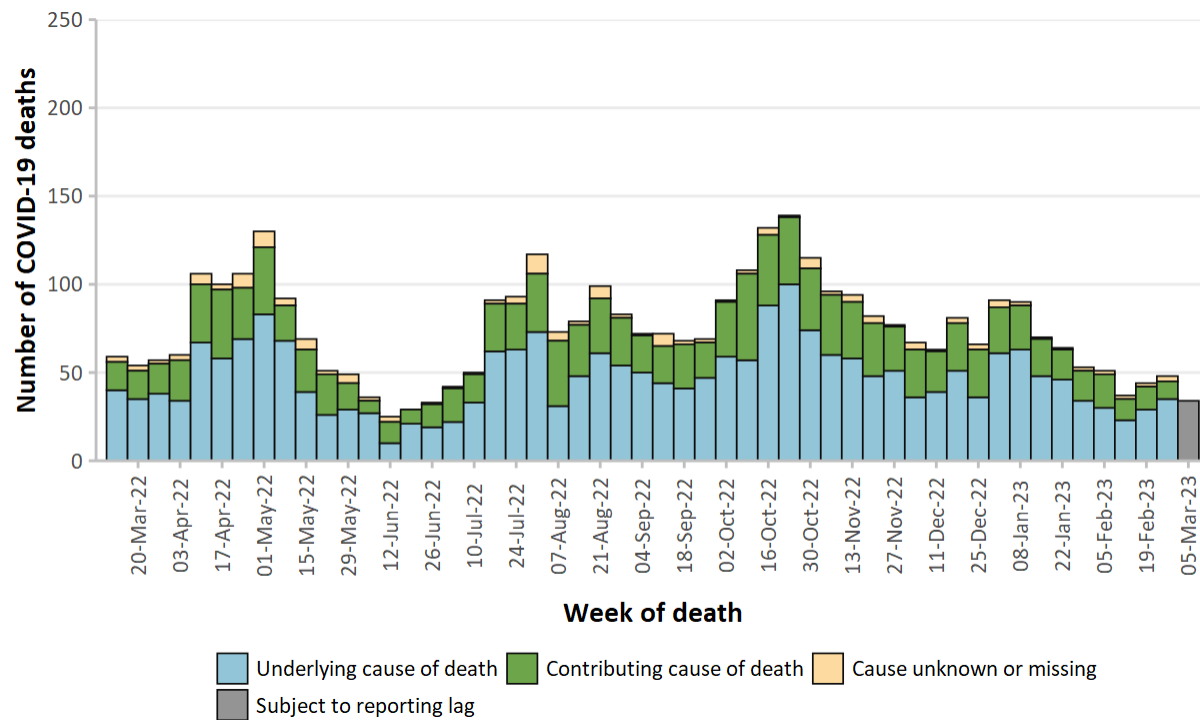
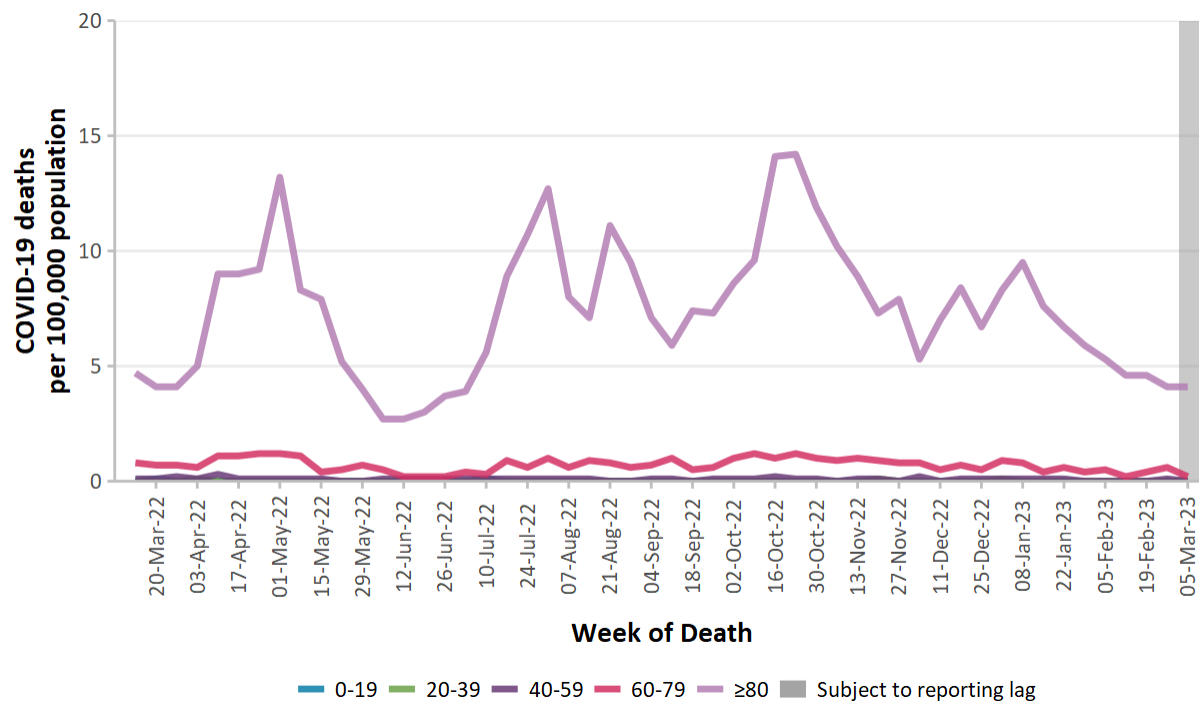
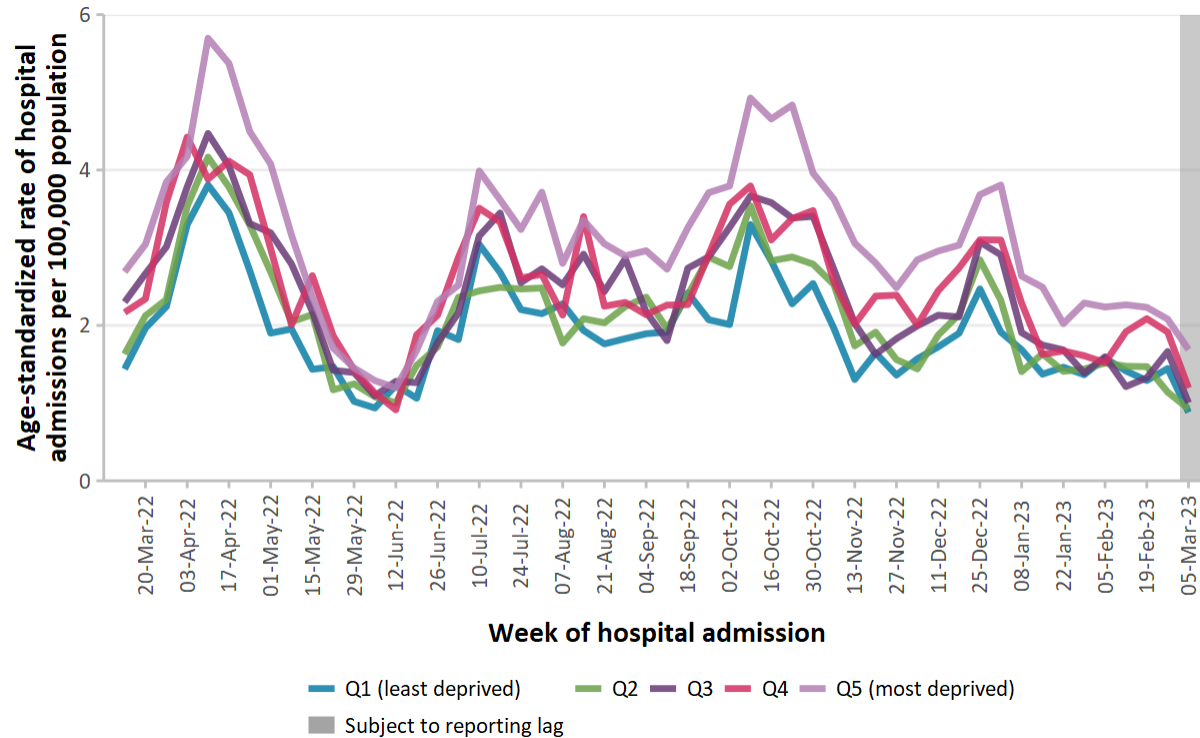


Figure 4b. Confirmed COVID-19 deaths (per 100,000 population), by age group and week of death



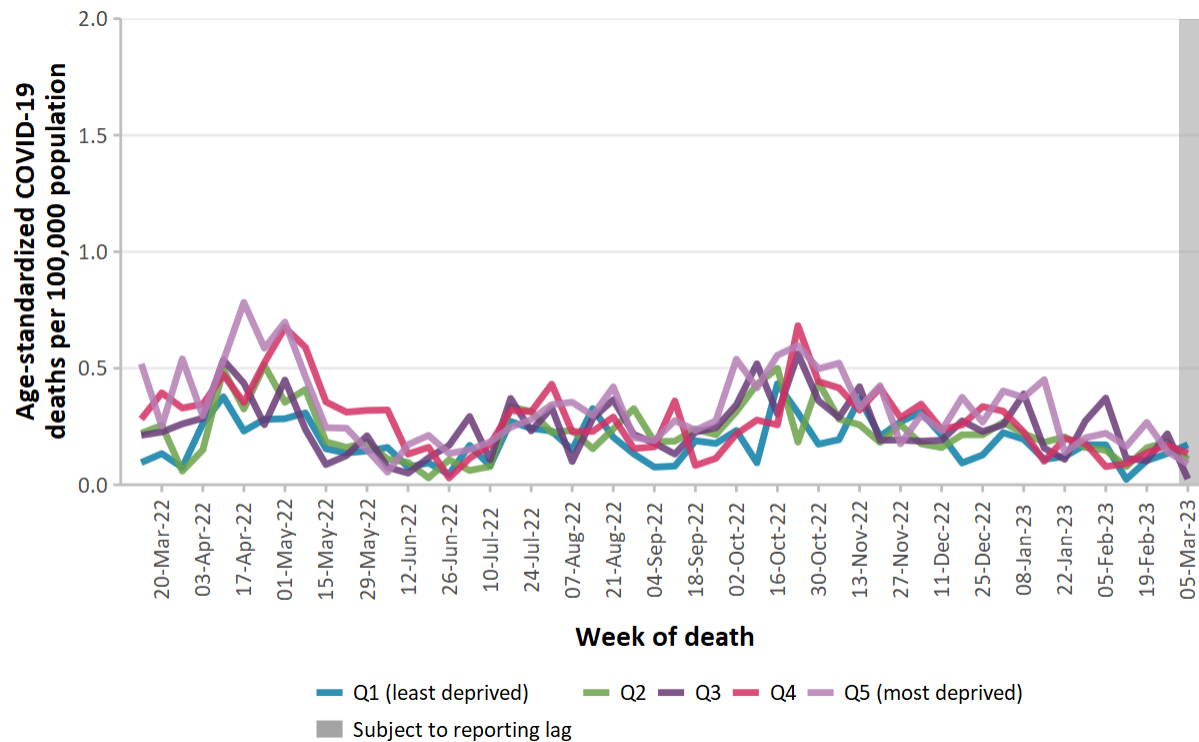
Severity by Neighbourhood Material Deprivation

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

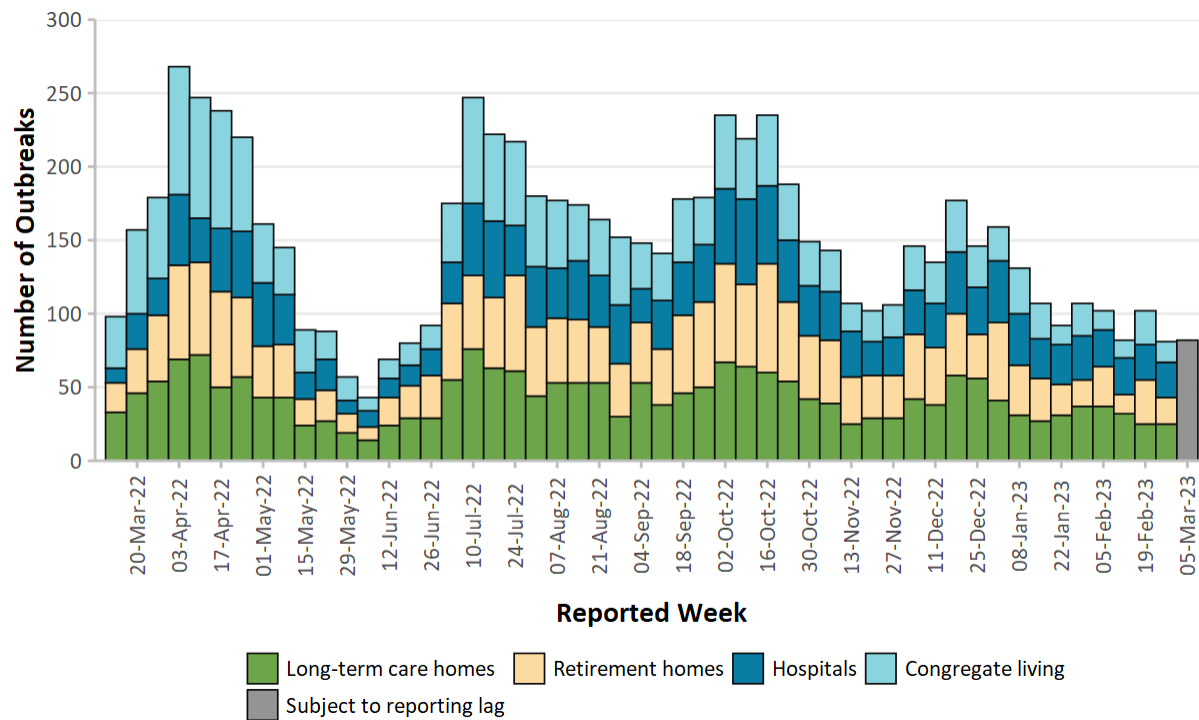
Figure 5b. Confirmed COVID-19 deaths (per 100,000 population), by quintile of neighbourhood material deprivation and week of death



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 February 26 to March 4, 2023	Reported March 5 to March 11, 2023	Ongoing Outbreaks	Reported Past 52 Weeks (March 13, 2022 to March 11, 2023)
Congregate Care Total	67	68	133	5,880
Long-term care homes	25	28	68	2,225
Retirement homes	18	19	39	2,000
Hospitals	24	21	26	1,655
Congregate Living Total	14	14	18	1,838
Correctional facility	0	1	2	113
Shelter	2	0	1	310
Group homes/supportive housing	12	13	15	1,415
Total number of outbreaks*	81	82	151	7,718

*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 February 26 to March 4, 2023	Reported March 5 to March 11, 2023	Reported Past 52 Weeks (March 13, 2022 to March 11, 2023)
Congregate Care Total	956	857	89,387
Long-term care homes	435	489	51,648
Retirement homes	369	216	24,515
Hospitals	152	152	13,224
Congregate Living Total	16	21	6,141
Correctional facility	0	1	1,219
Shelter	0	0	749
Group homes/supportive housing	16	20	4,173
Total number of cases*	972	878	95,528

*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 14, 2023 at 1 p.m.** for cases reported March 1, 2022 onwards
 - **March 13, 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 14, 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 8, 2023** from PHO and **March 7, 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](#).

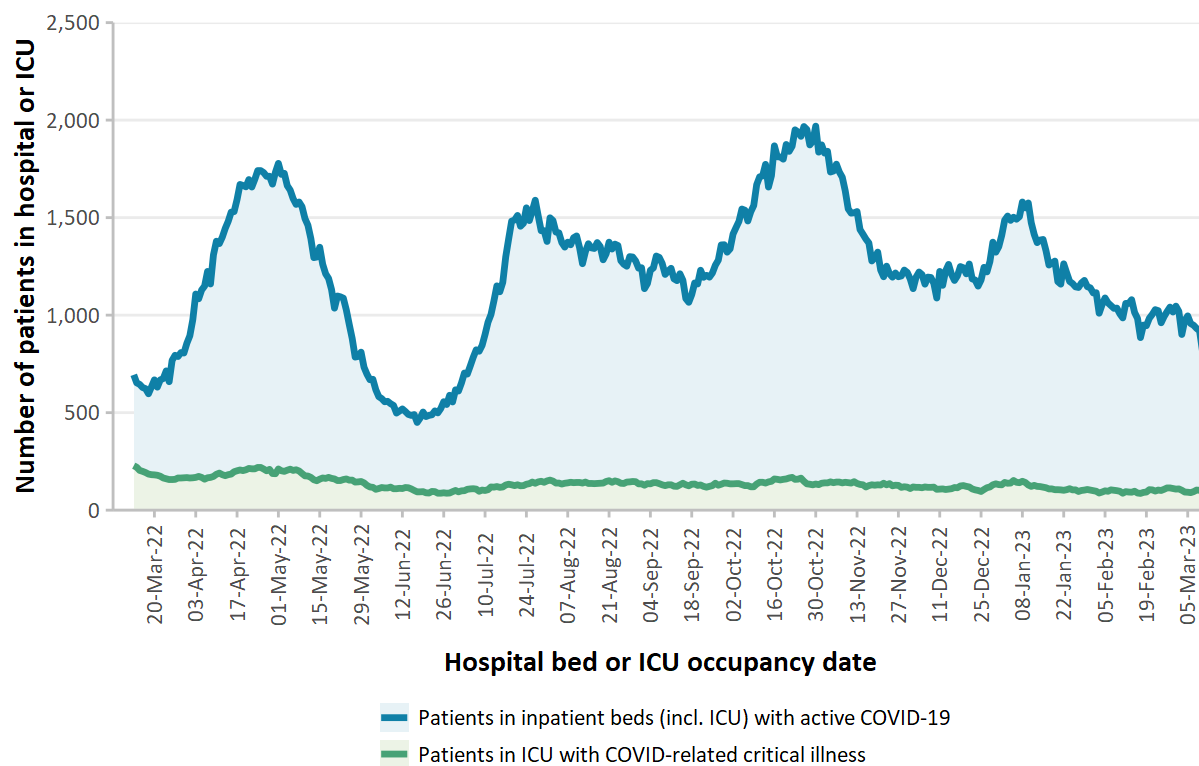
Appendix A: Hospital Bed Occupancy

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

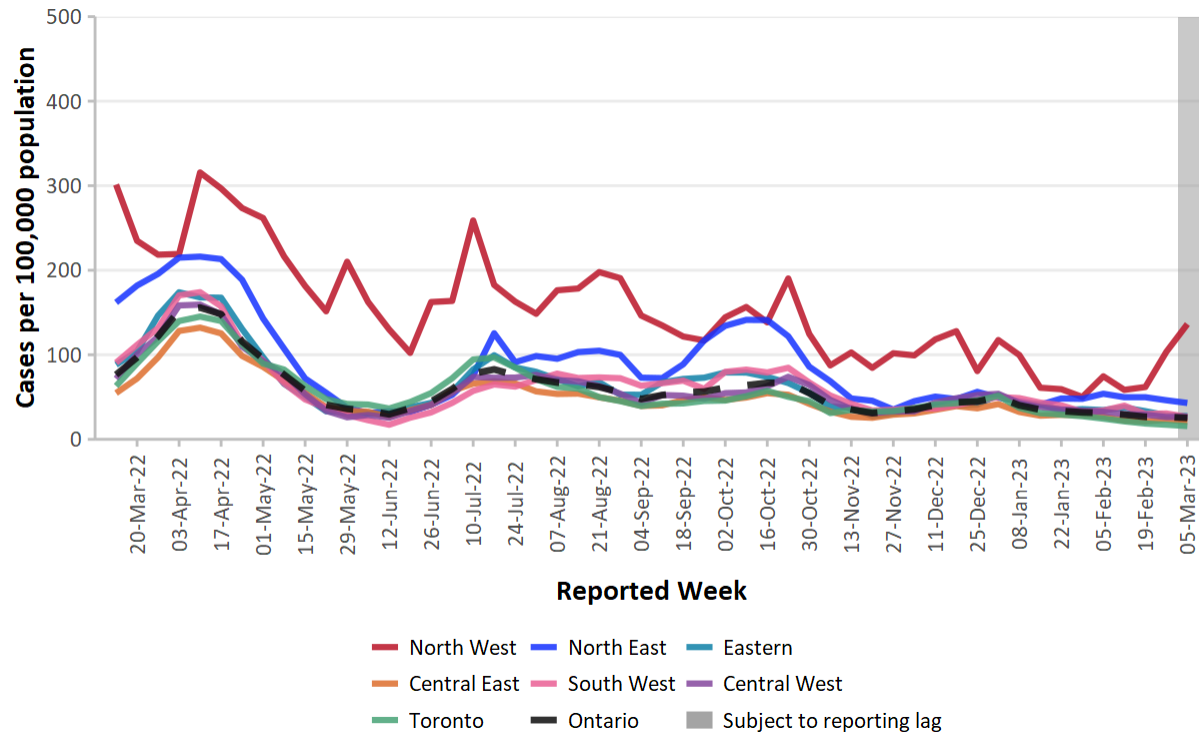


Table 3. Confirmed cases of COVID-19, by public health unit and region

Public Health Unit Name	Cases February 26 to March 4, 2023	Cases per 100,000 population February 26 to March 4, 2023	Cases March 5 to March 11, 2023	Cases per 100,000 population March 5 to March 11, 2023	Cases per 100,000 population Past 52 weeks (March 13, 2022 to March 11, 2023)
Northwestern Health Unit	174	213.2	263	322.3	11,549.9
Thunder Bay District Health Unit	72	46.1	61	39.1	6,137.6
TOTAL NORTH WEST	246	103.5	324	136.3	7,996.4
Algoma Public Health	73	62.3	79	67.4	5,376.4
North Bay Parry Sound District Health Unit	48	36.7	38	29.1	3,970.5
Porcupine Health Unit	9	10.7	12	14.3	3,856.2
Public Health Sudbury & Districts	127	61.8	112	54.5	4,878.8
Timiskaming Health Unit	7	20.5	5	14.6	4,812.8
TOTAL NORTH EAST	264	46.2	246	43.0	4,618.5
Ottawa Public Health	176	16.7	221	21.0	2,479.9
Eastern Ontario Health Unit	59	27.1	46	21.1	2,873.6
Hastings Prince Edward Public Health	75	43.1	42	24.1	4,299.6

Public Health Unit Name	Cases February 26 to March 4, 2023	Cases per 100,000 population February 26 to March 4, 2023	Cases March 5 to March 11, 2023	Cases per 100,000 population March 5 to March 11, 2023	Cases per 100,000 population Past 52 weeks (March 13, 2022 to March 11, 2023)
Kingston, Frontenac and Lennox & Addington Public Health	139	66.3	78	37.2	6,298.0
Leeds, Grenville & Lanark District Health Unit	50	27.5	80	44.1	4,086.5
Renfrew County and District Health Unit	54	49.4	69	63.1	3,939.7
TOTAL EASTERN	553	28.4	536	27.5	3,329.5
Durham Region Health Department	183	25.2	173	23.8	2,632.1
Haliburton, Kawartha, Pine Ridge District Health Unit	121	62.7	73	37.8	3,039.9
Peel Public Health	250	15.9	244	15.5	2,094.7
Peterborough Public Health	104	70.4	91	61.6	3,596.0
Simcoe Muskoka District Health Unit	218	35.4	194	31.5	3,338.5
York Region Public Health	163	13.5	171	14.1	2,644.7
TOTAL CENTRAL EAST	1,039	23.3	946	21.2	2,593.4
Toronto Public Health	514	17.3	466	15.7	2,935.7
TOTAL TORONTO	514	17.3	466	15.7	2,935.7

Public Health Unit Name	Cases February 26 to March 4, 2023	Cases per 100,000 population February 26 to March 4, 2023	Cases March 5 to March 11, 2023	Cases per 100,000 population March 5 to March 11, 2023	Cases per 100,000 population Past 52 weeks (March 13, 2022 to March 11, 2023)
Chatham-Kent Public Health	83	76.9	45	41.7	3,979.7
Grey Bruce Health Unit	27	15.1	27	15.1	2,809.9
Huron Perth Public Health	35	23.7	45	30.4	2,768.1
Lambton Public Health	30	22.6	25	18.9	3,683.7
Middlesex-London Health Unit	139	27.0	112	21.7	3,126.7
Southwestern Public Health	59	26.5	42	18.8	3,103.6
Windsor-Essex County Health Unit	157	36.8	163	38.2	3,559.2
TOTAL SOUTH WEST	530	30.6	459	26.5	3,262.7
Brant County Health Unit	31	19.8	35	22.4	2,966.0
City of Hamilton Public Health Services	217	37.0	199	33.9	4,238.3
Haldimand-Norfolk Health Unit	50	41.0	40	32.8	3,290.8
Halton Region Public Health	104	16.8	112	18.1	2,363.9
Niagara Region Public Health	135	27.8	122	25.2	3,437.8

Public Health Unit Name	Cases February 26 to March 4, 2023	Cases per 100,000 population February 26 to March 4, 2023	Cases March 5 to March 11, 2023	Cases per 100,000 population March 5 to March 11, 2023	Cases per 100,000 population Past 52 weeks (March 13, 2022 to March 11, 2023)
Region of Waterloo Public Health and Emergency Services	141	23.1	149	24.4	2,535.1
Wellington-Dufferin-Guelph Public Health	85	26.8	114	36.0	2,668.0
TOTAL CENTRAL WEST	763	26.3	771	26.6	3,064.3
TOTAL ONTARIO	3,909	26.4	3,748	25.3	3,093.7

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 February 26 to March 4, 2023	Hospital admissions per 100,000 population February 26 to March 4, 2023	Hospital admissions March 5 to March 11, 2023	Hospital admissions per 100,000 population March 5 to March 11, 2023	Hospital admissions Past 52 weeks (March 13, 2022 to March 11, 2023)	Hospital admissions per 100,000 population Past 52 weeks (March 13, 2022 to March 11, 2023)
Total Cases	312	2.1	216	1.5	24,462	165.0
Sex: Female	137	1.8	107	1.4	11,394	151.9
Sex: Male	175	2.4	108	1.5	13,022	177.7
Sex: Did not specify female or male	0	N/A	1	N/A	46	N/A
Ages: <1	10	7.3	6	4.4	596	437.9
Ages: 1 – 4	3	0.5	2	0.3	374	64.8
Ages: 5 – 11	1	0.1	3	0.3	165	15.3
Ages: 12 – 19	0	0.0	2	0.2	165	12.6
Ages: 20 – 39	11	0.3	10	0.2	1,100	26.3
Ages: 40 – 59	32	0.8	18	0.5	2,236	57.7
Ages: 60 – 79	119	4.0	96	3.2	9,096	303.7
Ages: 80 and over	136	20.1	79	11.7	10,728	1589.4
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 February 26 to March 4, 2023	Deaths per 100,000 population February 26 to March 4, 2023	Deaths March 5 to March 11, 2023	Deaths per 100,000 population March 5 to March 11, 2023	Deaths Past 52 weeks (March 13, 2022 to March 11, 2023)	Deaths per 100,000 population Past 52 weeks (March 13, 2022 to March 11, 2023)
Total Cases	48	0.3	34	0.2	3,857	26.0
Sex: Female	29	0.4	15	0.2	1,797	24.0
Sex: Male	18	0.2	19	0.3	2,054	28.0
Sex: Did not specify female or male	1	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	3	0.1	1	<0.1	147	3.8
Ages: 60 – 79	17	0.6	5	0.2	1,093	36.5
Ages: 80 and over	28	4.1	28	4.1	2,577	381.8
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 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)	10,180	485	4.8%
Wave 6 (March 1, 2022 to June 18, 2022)	7,710	201	2.6%
Wave 7 onwards (June 19, 2022 to March 11, 2023) ²	30,719	901	2.9%
Total	64,368	5,547	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 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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