Public Health Ontario | Santé publique Ontario

ENHANCED EPIDEMIOLOGICAL SUMMARY

COVID-19 in Long-Term Care Homes: Focus on January 30, 2022 to February 12, 2022

Introduction

This report includes the most current information available from Public Health Case and Contact Management Solution (CCM) and vaccine uptake data extracted from the Ontario Ministry of Health's COVaxON application for all public health units (PHUs) in Ontario as of February 14, 2022.

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 Epidemiological Summary, a Weekly Epidemiological Summary, as well as additional Enhanced Epidemiological Reports are available on the Public Health Ontario website.

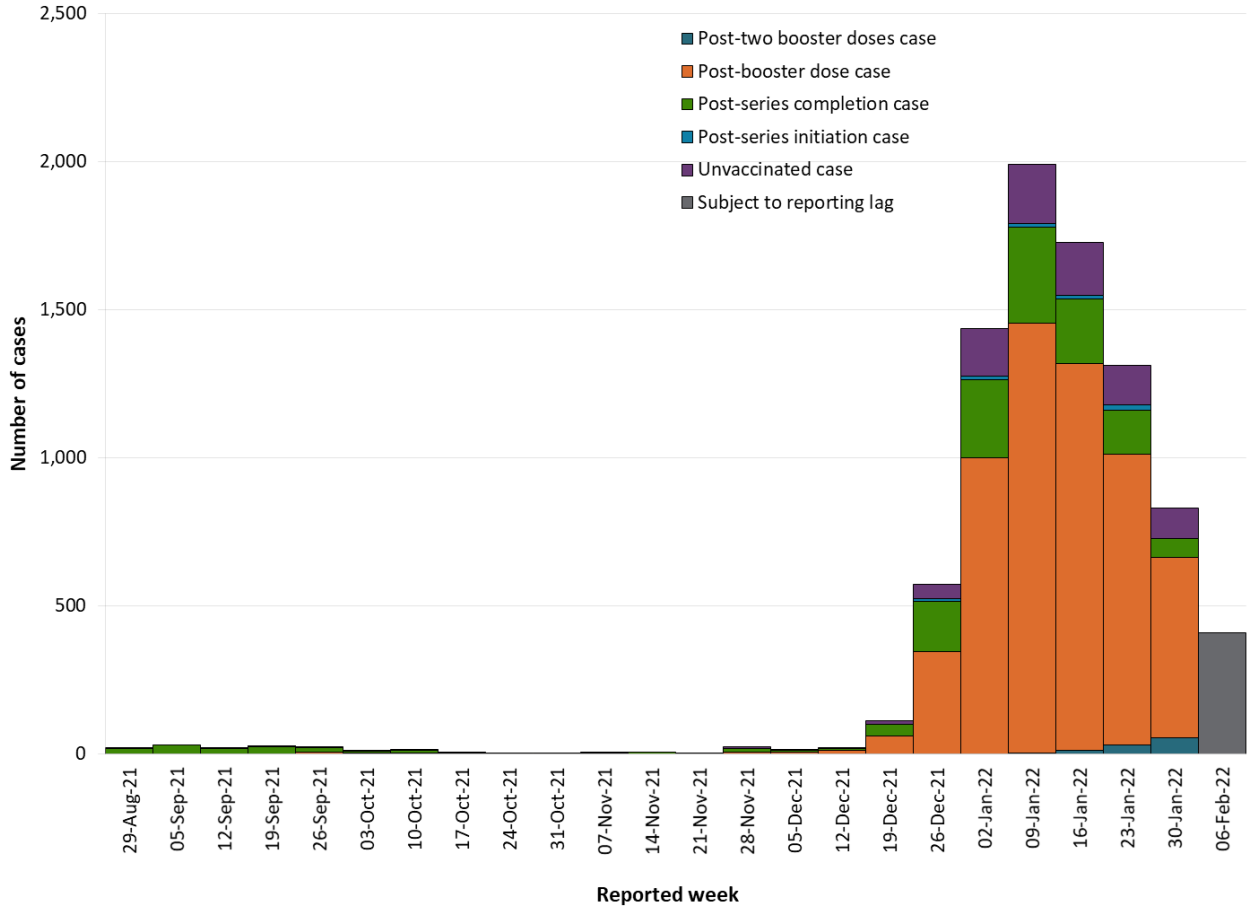
For information on COVID-19 vaccine uptake in the province and impact of the vaccination program on COVID-19 cases please refer to the COVID-19 Vaccine Uptake in Ontario report and the Confirmed Cases of COVID-19 Following Vaccination in Ontario report.

Highlights

- A total of 8,603 confirmed COVID-19 cases were reported among Ontario's long-term care home (LTCH) residents from September 1, 2021 to February 12, 2022
- Comparing the period between January 30, 2022 to February 12, 2022 (weeks 5 and 6) to January 16, 2022 to January 29, 2022 (weeks 3 and 4):
    - The number of cases in LTCH residents was lower for the current period compared to the prior two weeks. A total of 1,239 LTCH resident COVID-19 cases were reported to public health compared to 3,041 cases.
    - There were 32 hospitalizations and 40 deaths reported among LTCH resident cases, compared to 94 hospitalizations and 121 deaths.
    - A total of 19 LTCH outbreaks were reported compared to 48 LTCH outbreaks.

Trends

Figure 1: Number of confirmed COVID-19 long-term care home resident cases by vaccination status and reported week: Ontario, August 29, 2021 to February 12, 2022



Note: All lab-confirmed cases of COVID-19 are included (i.e., asymptomatic and symptomatic), regardless of severity of illness.
Data Source: CCM/COVax

Case Characteristics

Table 1: Number of confirmed COVID-19 cases among long-term care home residents and staff by vaccination status: Ontario, January 16, 2022 to February 12, 2022

Vaccination status	Reported weeks 3 and 4 (January 16 to January 29, 2022)	Reported weeks 5 and 6 (January 30 to February 12, 2022)	Cumulative case count since September 1, 2021	Percent of cases since September 1, 2021
Resident: Post-two booster doses case	43	111	157	1.8%
Resident: Post-booster dose case	2,287	875	6,063	70.5%
Resident: Post-series completion case	370	92	1,400	16.3%
Resident: Post-series initiation case	27	7	70	0.8%
Resident: Unvaccinated case	314	154	913	10.6%
Resident: Total	3,041	1,239	8,603	100.0%
Health care worker: Post-two booster doses case	0	0	0	0.0%
Health care worker: Post-booster dose case	190	108	601	19.0%
Health care worker: Post-series completion case	420	68	2,127	67.4%
Heath care worker: Post-series initiation case	2	1	7	0.2%

Vaccination status	Reported weeks 3 and 4 (January 16 to January 29, 2022)	Reported weeks 5 and 6 (January 30 to February 12, 2022)	Cumulative case count since September 1, 2021	Percent of cases since September 1, 2021
Health care worker: Unvaccinated case	112	29	423	13.4%
Health care worker: Total	724	206	3,158	100.0%
Non-HCW staff: Post-two booster doses case	2	0	2	0.0%
Non-HCW staff: Post-booster dose case	374	316	1,174	23.6%
Non-HCW staff: Post-series completion case	758	184	3,167	63.7%
Non-HCW staff: Post-series initiation case	7	1	36	0.7%
Non-HCW staff: Unvaccinated case	173	63	594	11.9%
Non-HCW staff: Total	1,314	564	4,973	100.0%

HCW: Health care worker
Note: All lab-confirmed cases of COVID-19 are included (i.e., asymptomatic and symptomatic), regardless of severity of illness.
Data Source: CCM/COVax

Severity

Table 2a. Number and proportion of confirmed COVID-19 cases among long-term care home resident cases who were ever hospitalized (including ICU admissions) by vaccination status and surveillance period: Ontario, January 16, 2022 to February 12, 2022

Vaccination status	Reported weeks 3 and 4 : Number of cases ever hospitalized	Reported weeks 3 and 4 : Number of cases	Reported weeks 3 and 4 : %* cases ever hospitalized	Reported weeks 5 and 6: Number of cases ever hospitalized	Reported weeks 5 and 6: Number of cases	Reported weeks 5 and 6: %* cases ever hospitalized	Cumulative cases ever hospitalized since September 1, 2021	Cumulative cases since September 1, 2021	Proportion* of cases ever hospitalized since September 1, 2021
Post-two booster doses case	0	43	0.0%	1	111	0.9%	1	157	0.6%
Post-booster dose case	67	2,287	2.9%	21	875	2.4%	191	6,063	3.2%
Post-series completion case	13	370	3.5%	3	92	3.3%	77	1,400	5.5%
Post-series initiation case	0	27	0.0%	0	7	0.0%	3	70	4.3%
Unvaccinated case	14	314	4.5%	7	154	4.5%	51	913	5.6%
Total	94	3,041	3.1%	32	1,239	2.6%	323	8,603	3.8%

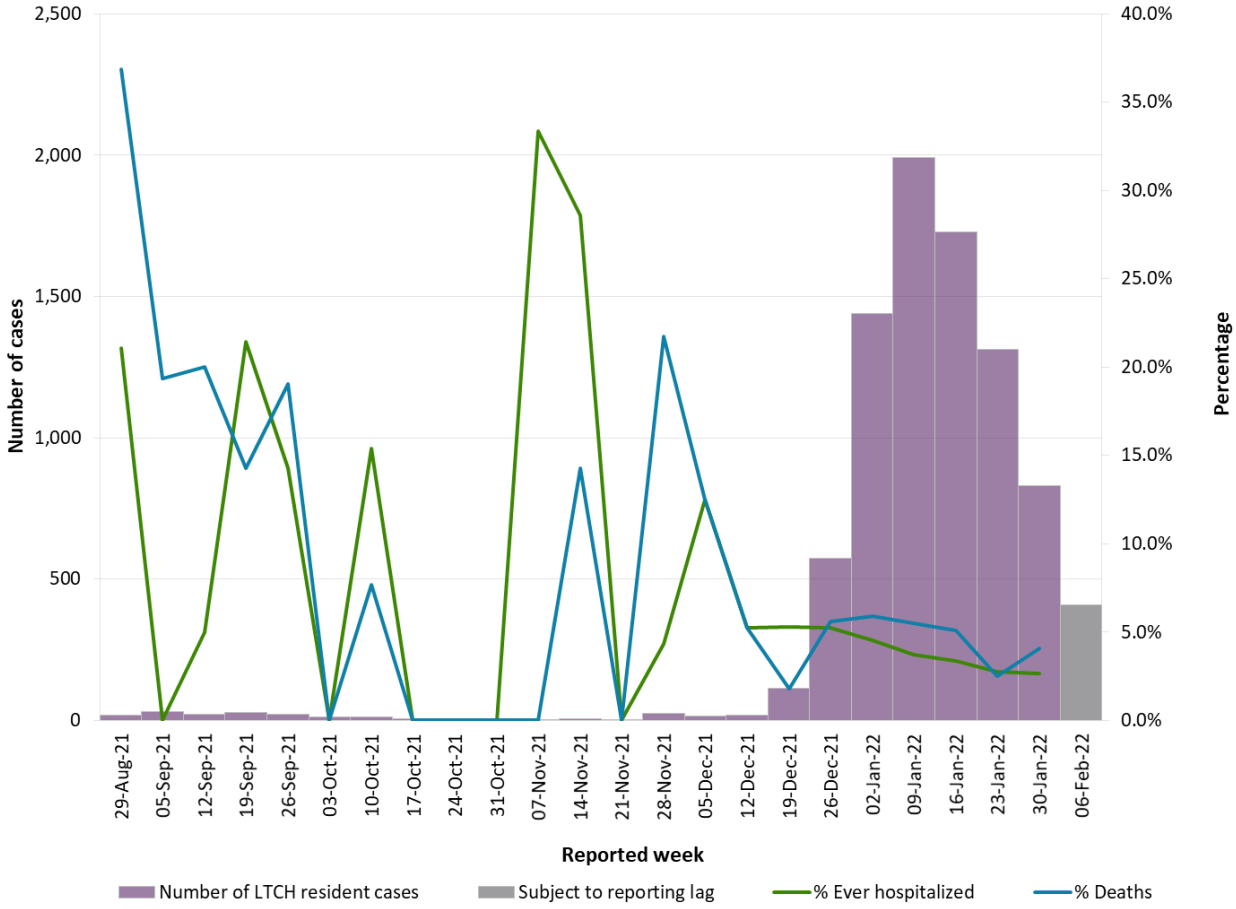
*Percentages were calculated using the total number of cases for each vaccination status among residents as denominators.
Weeks 3 and 4 include the dates from January 16, 2022 to January 29, 2022.
Weeks 5 and 6 include the dates from January 30, 2022 to February 12, 2022.
Data Source: CCM/COVax

Table 2b. Number and proportion of confirmed COVID-19 cases among long-term care home resident cases who died by vaccination status and surveillance period: Ontario, January 16, 2022 to February 12, 2022

Vaccination status	Reported weeks 3 and 4 : Number of cases who died	Reported weeks 3 and 4 : Number of cases	Reported weeks 3 and 4 : %* cases who died	Reported weeks 5 and 6: Number of cases who died	Reported weeks 5 and 6: Number of cases	Reported weeks 5 and 6: %* cases who died	Cumulative cases who died since September 1, 2021	Cumulative cases since September 1, 2021	Proportion* of cases who died since September 1, 2021
Post-two booster doses case	1	43	2.3%	3	111	2.7%	5	157	3.2%
Post-booster dose case	88	2,287	3.8%	32	875	3.7%	271	6,063	4.5%
Post-series completion case	13	370	3.5%	1	92	1.1%	79	1,400	5.6%
Post-series initiation case	0	27	0.0%	0	7	0.0%	2	70	2.9%
Unvaccinated case	19	314	6.1%	4	154	2.6%	63	913	6.9%
Total	121	3,041	4.0%	40	1,239	3.2%	420	8,603	4.9%

*Percentages were calculated using the total number of cases for each vaccination status among residents as denominators.
Weeks 3 and 4 include the dates from January 16, 2022 to January 29, 2022.
Weeks 5 and 6 include the dates from January 30, 2022 to February 12, 2022.
Data Source: CCM/COVax

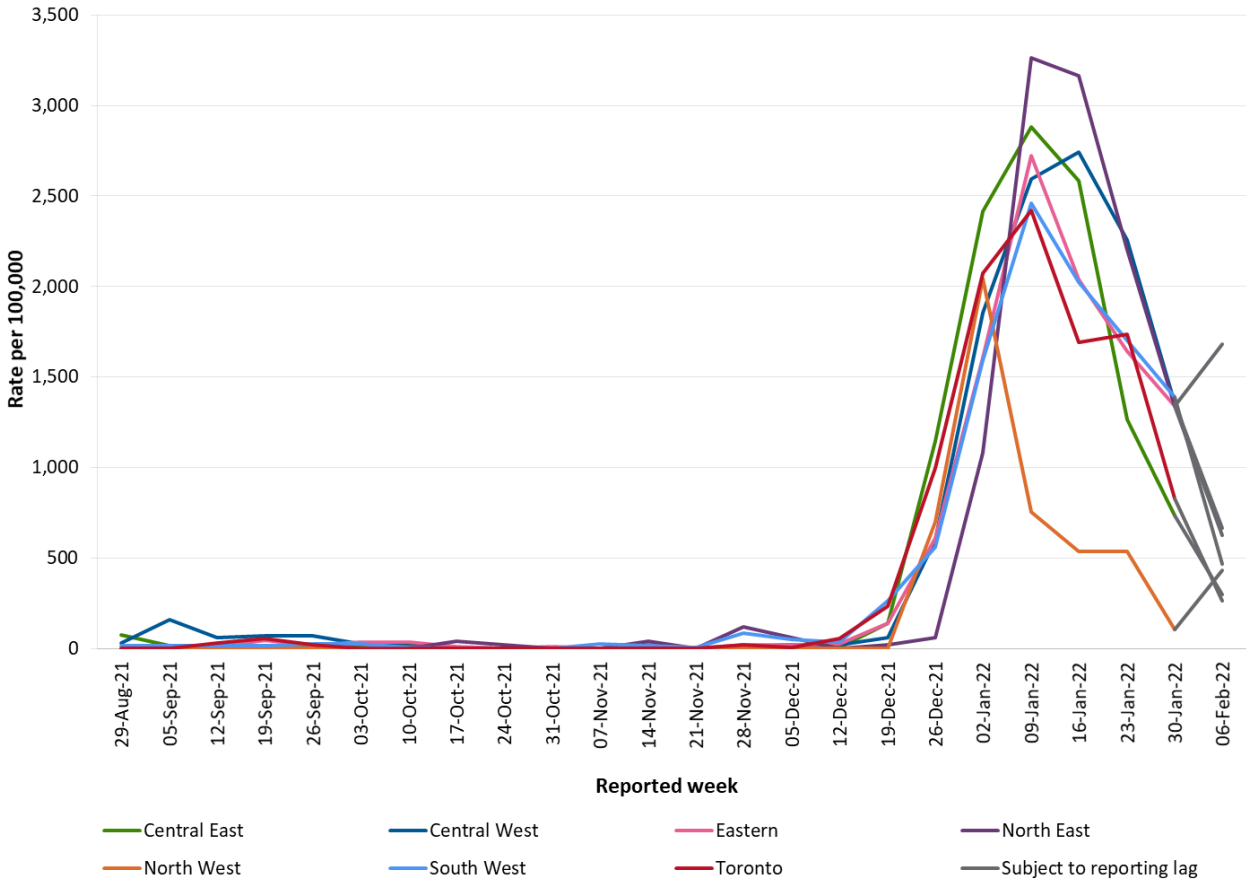
Figure 2: Severity indicators among confirmed COVID-19 long-term care home resident cases by reported week: Ontario, August 29, 2021 to February 12, 2022



Note: Data for cases, cases ever hospitalized and cases that died are presented using the case reported date. The denominator for the percentage calculation is the number of cases reported that week. Ongoing follow-up of cases can result in changes to hospitalization and death percentages in subsequent reports.
Data Source: CCM

Geography

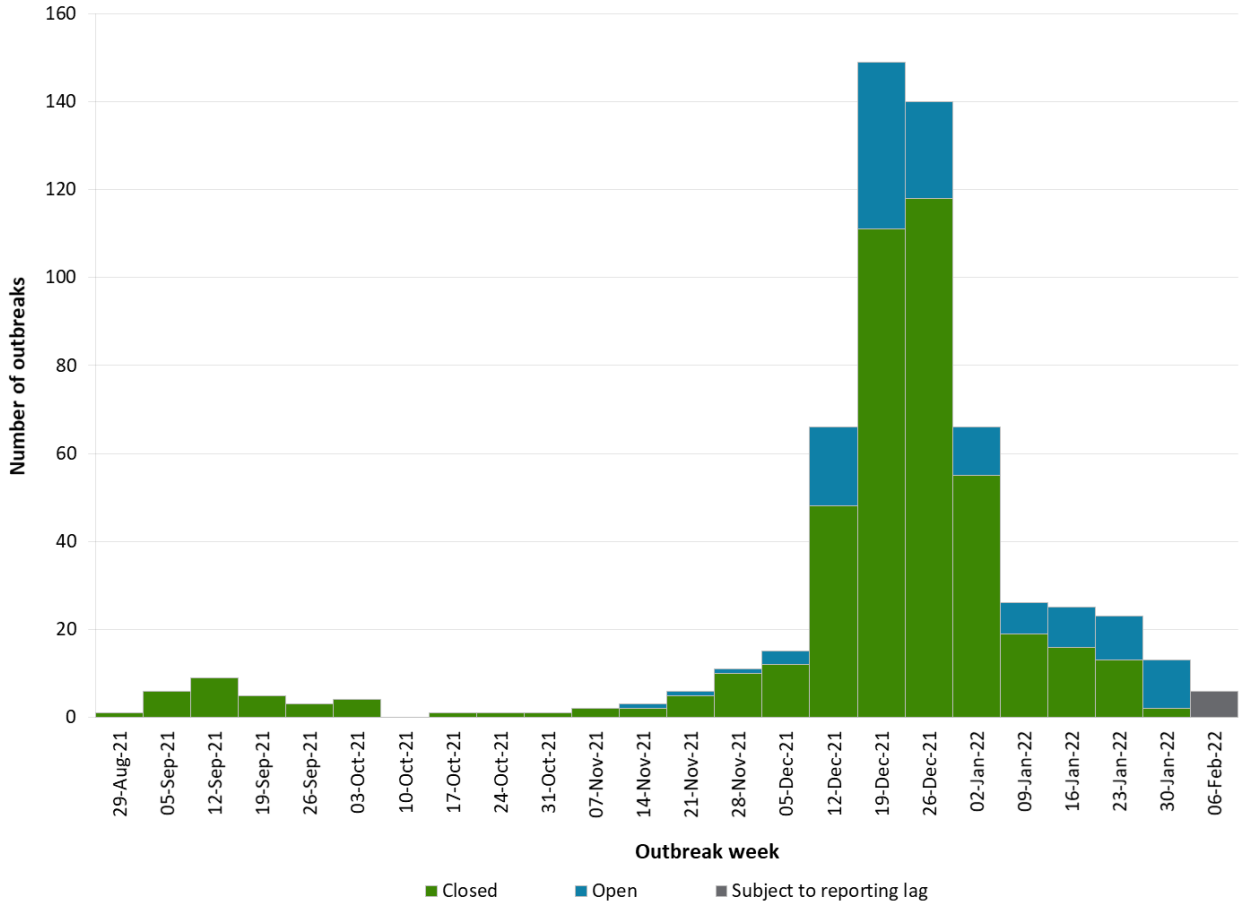
Figure 3: Rate of confirmed COVID-19 long-term care home resident cases per 100,000 population by geographic region and reported week: Ontario, August 29, 2021 to February 12, 2022



Data Source: CCM

Outbreaks

Figure 4: Number of confirmed COVID-19 outbreaks in long-term care home settings by outbreak status and week: Ontario, August 29, 2021 to February 12, 2022



Note: Outbreak week is based on the date of onset of illness in the first case and if unavailable, the date the outbreak was reported, then the date the public health unit created the outbreak. 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'. The definition of a long-term care home outbreak was updated January 10, 2022.
Data Source: CCM

Table 3: Summary of confirmed COVID-19 long-term care home outbreaks: Ontario, January 16, 2022 to February 12, 2022

	Outbreak weeks 3 and 4 (January 16 to January 29, 2022)	Outbreak weeks 5 and 6 (January 30 to February 12, 2022)	Cumulative outbreaks since September 1, 2021
Number of confirmed outbreaks	48	19	590
Confirmed outbreaks with only staff cases (%)	1/47 (2.1%)	1/18 (5.6%)	70/586 (11.9%)
Cases* per outbreak (median; interquartile range)	6 (3-15)	5.5 (4-11)	23.5 (8-51)
Resident cases per outbreak (median; interquartile range)	3 (2-8)	3.5 (1-7)	7 (2-20)
Staff cases per outbreak (median; interquartile range)	1 (0-3)	1 (0-2)	6 (1-15)
Resident deaths per outbreak (median; interquartile range)	0 (0-0)	0 (0-0)	0 (0-1)

* Includes all confirmed cases linked to the confirmed outbreak, including but not limited to residents, staff, volunteers and visitors. Counts included in each category (resident, staff) may be under-reported. If data used to determine staff or resident cases were not entered in CCM, counts will only appear in the total number of cases linked to an outbreak. Outbreak week is based on the date of onset of illness in the first case and if unavailable, the date the outbreak was reported, then the date the public health unit created the outbreak.

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 **February 14, 2022 at 1 p.m**. for cases reported from May 1, 2021 onwards and as of **February 14, 2022 at 9 a.m**. for cases reported up April 30, 2021.

- COVID-19 vaccination data were based on information successfully extracted from the Ontario Ministry of Health's COVaxON application as of **February 14, 2022 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 **February 14, 2022 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.

- Long-term care home resident data for Q1 2021 were sourced from residential care counts provided in the Continuing Care Reporting System (CCRS) eReports as of **January 12, 2022**. Hospital based residential care counts are excluded. Parts of this material are based on data and information compiled and provided by Canadian Institute for Health Information (CIHI). However, the analyses, conclusions, opinions and statements expressed herein are those of the author, and not necessarily those of CIHI.

- 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].

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.

- Provincial rates were calculated using population count data sourced from Statistics Canada as denominators. LTCH resident rates were calculated using resident care count data sourced from CCRS as denominators.

- Lags in CCM data entry due to weekend staffing may result in lower case counts than would otherwise be recorded.

- 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.[1]

- Aggregate case counts reported for long-term care home outbreaks in CCM were not used in this report.

- Cases of confirmed reinfection, as defined in the provincial case definitions, are counted as unique investigations.

- 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.

- Reported weeks were created to align with the Public Health Agency of Canada (PHAC) influenza surveillance weeks.

- ‘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.

- 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.

- 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.

- Data on hospital admissions, ICU admissions and deaths is likely under-reported as these events may occur after the completion of public health follow up of cases and therefore not captured in CCM.

- Recent data on hospital admissions, ICU admissions and deaths should be interpreted with caution due to lags in data entry and reporting lags.

- Hospitalization includes all cases hospitalized (or that had their hospital stay extended) because of COVID-19. It includes cases that have been discharged from hospital as well as cases that are currently hospitalized. Includes Intensive Care Unit (ICU) cases but not emergency room visits. Hospitalizations were identified by a reported hospital admission date or reported ‘Yes’ for hospitalization/ICU.

- 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.

    - If the date of death is missing, the outcome date field is used as a proxy for cases marked as ‘Fatal’ in the outcome field.

- Hospitalization data may be incomplete or missing for records where information was not gathered, reported to public health units or entered within CCM.

- 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.

- The PHUs were categorized into regions as follows:
    - Toronto: Toronto Public Health
    - Central East: Durham Region Health Department, Haliburton, Kawartha, Pine Ridge District Health Unit, Peel Public Health, Peterborough Public Health, Simcoe Muskoka District Health Unit, and York Region Public Health
    - Central West: Brant County Health Unit, City of Hamilton Public Health Services, Haldimand-Norfolk Health Unit, Halton Region Public Health, Niagara Region Public Health, Region of Waterloo Public Health and Emergency Services, and Wellington-Dufferin-Guelph Public Health
    - Eastern: Ottawa Public Health, Eastern Ontario Health Unit, Hastings Prince Edward Public Health, Kingston, Frontenac and Lennox & Addington Public Health, Leeds, Grenville & Lanark District Health Unit, and Renfrew County and District Health Unit
    - North West: Northwestern Health Unit, Thunder Bay District Health Unit
    - North East: Algoma Public Health, North Bay Parry Sound District Health Unit, Porcupine Health Unit, Public Health Sudbury & Districts, and Timiskaming Health Unit
    - South West: Chatham-Kent Public Health, Grey Bruce Health Unit, Huron Perth Public Health, Lambton Public Health, Middlesex-London Health Unit, Southwestern Public Health, and Windsor-Essex County Health Unit
- Outbreaks are declared by the local medical officer of health or their designate in accordance with the Health Protection and Promotion Act and criteria outlined in Ministry guidance documents.[2]
- Open 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'.
- More than one outbreak may be declared in a single location (e.g., long-term care home, retirement home or hospital) based on the assessment of the local public health unit.
- Information on LTC outbreaks reported in CCM may not match the outbreaks that are self-reported by long-term care homes to the Ministry of Long-term care due to differences in the timing of outbreak reporting or differences in outbreak declaration.

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.

- Methods for processing COVaxON vaccine uptake data are described in the Technical Notes of the COVID-19 Vaccine Uptake Report

- For definitions used to describe COVID-19 infection following vaccination, please refer to Confirmed Cases of COVID-19 Following Vaccination in Ontario.

- For additional information and technical notes related to COVID-19 infection following vaccination, please refer to Confirmed Cases of COVID-19 Following Vaccination in Ontario.

References

1. Ontario. Ministry of Health. Case definition – coronavirus disease (COVID-19) [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2021 Sep 16]. Available from: https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_case_definition.pdf

2. Ontario. Ministry of Health. COVID-19: guidance for the health sector [Internet]. Toronto, ON: Queen's Printer for Ontario; 2019 [modified 2021 Aug 26; cited 2021 Sep 16]. Available from: https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_case_definition.pdf

Appendix

Table A1. Confirmed COVID-19 cases and deaths among LTCH residents, by wave: Ontario, February 26, 2020 to February 12, 2022

Wave	Number of LTCH Resident Cases	Number of LTCH Resident Cases who died	Case Fatality Rate (CFR)
Wave 1 (February 26, 2020 to August 31, 2020)	6,003	1,940	32.3%
Wave 2 (September 1, 2020 to February 28, 2021)	9,048	1,991	22%
Wave 3 (March 1, 2021 to July 31, 2021)	408	60	14.7%
Wave 4 (August 1, 2021 to December 14, 2021)	242	44	18.2%
Wave 5 (December 15, 2021 to February 12, 2022)*	8,406	390	4.6%
Total	24,107	4,425	18.4%

*Wave 5 is ongoing and only includes cases up to February 12, 2022.
Note: Cases reported more recently in wave 5 may have fatal outcome after the production of this report. Therefore, the case fatality rate for the time period of wave 5 presented here may increase.
Data Source: CCM

Table A2. Confirmed COVID-19 cases and deaths among LTCH health care workers, by wave: Ontario, February 26, 2020 to February 12, 2022

Wave	Number of LTCH HCW Cases	Number of LTCH HCW Cases who died	Case Fatality Rate (CFR)
Wave 1 (February 26, 2020 to August 31, 2020)	2,636	8	0.3%
Wave 2 (September 1, 2020 to February 28, 2021)	4,335	2	0%
Wave 3 (March 1, 2021 to July 31, 2021)	364	0	0%
Wave 4 (August 1, 2021 to December 14, 2021)	119	0	0%
Wave 5 (December 15, 2021 to February 12, 2022)*	3,056	0	0%
Total	10,510	10	0.1%

HCW: Health care worker
*Wave 5 is ongoing and only includes cases up to Feburary 12, 2022.
Note: Cases reported more recently in wave 5 may have fatal outcome after the production of this report. Therefore, the case fatality rate for the time period of wave 5 presented here may increase.
Data Source: CCM

Table A3. Reported week and corresponding start and end dates

Reported week	Start date	End date
35	August 29, 2021	September 4, 2021
36	September 5, 2021	September 11, 2021
37	September 12, 2021	September 18, 2021
38	September 19, 2021	September 25, 2021
39	September 26, 2021	October 2, 2021
40	October 3, 2021	October 9, 2021

Reported week	Start date	End date
41	October 10, 2021	October 16, 2021
42	October 17, 2021	October 23, 2021
43	October 24, 2021	October 30, 2021
44	October 31, 2021	November 6, 2021
45	November 7, 2021	November 13, 2021
46	November 14, 2021	November 20, 2021
47	November 21, 2021	November 27, 2021
48	November 28, 2021	December 4, 2021
49	December 5, 2021	December 11, 2021
50	December 12, 2021	December 18, 2021
51	December 19, 2021	December 25, 2021
52	December 26, 2021	January 1, 2022
1	January 2, 2022	January 8, 2022
2	January 9, 2022	January 15, 2022
3	January 16, 2022	January 22, 2022
4	January 23, 2022	January 29, 2022
5	January 30, 2022	February 5, 2022
6	February 6, 2022	February 12, 2022
7	February 13, 2022	February 19, 2022
8	February 20, 2022	February 26, 2022
9	February 27, 2022	March 5, 2022
10	March 6, 2022	March 12, 2022
11	March 13, 2022	March 19, 2022
12	March 20, 2022	March 26, 2022
13	March 27, 2022	April 2, 2022

Reported week	Start date	End date
14	April 3, 2022	April 9, 2022
15	April 10, 2022	April 16, 2022
16	April 17, 2022	April 23, 2022
17	April 24, 2022	April 30, 2022
18	May 1, 2022	May 7, 2022
19	May 8, 2022	May 14, 2022
20	May 15, 2022	May 21, 2022
21	May 22, 2022	May 28, 2022
22	May 29, 2022	June 4, 2022
23	June 5, 2022	June 11, 2022
24	June 12, 2022	June 18, 2022
25	June 19, 2022	June 25, 2022
26	June 26, 2022	July 2, 2022

Citation

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