

Enhanced Epidemiological Summary

(ARCHIVED) COVID-19 Outbreaks in Congregate Living Settings: February 26, 2020 to July 16, 2021

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This report includes the most current information available from Public Health Case and Contact Management Solution (CCM) for all public health units (PHUs) in Ontario as of **July 21, 2021**.

Please visit the interactive [Ontario COVID-19 Data Tool](#) to explore other recent COVID-19 data by public health unit, age group, gender, 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.

Purpose and Scope

This report provides a focused analysis on confirmed COVID-19 outbreaks and outbreak-associated cases in congregate living settings (i.e., group homes/supportive housing, shelters, correctional facilities, short-term accommodations, and other congregate settings). Data on outbreaks and associated-cases reported in the first three waves of the pandemic were included; for the purposes of these analyses, the dates used to define each wave are as follows:

- Wave 1: February 26, 2020 to August 31, 2020
- Wave 2: September 1, 2020 to February 28, 2021
- Wave 3: March 1, 2021 to July 16, 2021 (based on available data at time of extraction)

In congregate living settings (CLSs), an outbreak is defined as one laboratory-confirmed case in a resident or staff and is declared by the local medical officer of health or their designate in coordination with the administrator of the congregate living setting.¹

Outbreaks and associated cases in long-term care homes, retirement homes, and hospitals were out of scope for this report.

(ARCHIVED) COVID-19 Outbreaks in Congregate Living Settings

Highlights

Temporal trends

- The number of confirmed COVID-19 outbreaks in CLSs peaked during the weeks of April 5-25, 2020 (wave 1), January 3-23, 2021 (wave 2), and April 4-17, 2021 (wave 3).
- The number of outbreak-associated COVID-19 cases in CLSs peaked during the weeks of April 5-11, 2020 (wave 1), January 3-16, 2021 (wave 2), and April 4-10, 2021 (wave 3).

Outbreaks and outbreak-associated cases

- In wave one, the vast majority (92.7%) of COVID-19 outbreaks occurred in the group home/supportive housing and shelter settings; in waves two and three, this proportion decreased to 78.2% and 77.0%, respectively.
- In wave one, the vast majority (88.0%) of outbreak-associated COVID-19 cases occurred in the group home/supportive housing and shelter settings; in waves two and three, this proportion decreased to 61.8% and 60.0%, respectively.
- In wave two, correctional facilities accounted for 22.2% of outbreak-associated COVID-19 cases despite only representing 4.8% of COVID-19 outbreaks in CLSs during this time.
- In wave one, 39.7% of COVID-19 outbreaks reported only one associated case; this proportion decreased to 31.6% in both waves two and three. Across all three waves, approximately two-thirds of all COVID-19 outbreaks reported less than five associated cases (65.6%, 68.5% and 66.2% in waves one, two and three, respectively).

Age and sex

- In all three waves, persons aged 20-59 years accounted for the majority of outbreak-associated cases; this proportion increased with each wave (62.6%, 73.5%, and 91.7%, in waves one, two and three, respectively), with the large difference between wave 2 and 3 likely associated with increasing vaccination coverage among older adults (≥ 60 years of age) starting towards the end of wave two.
- In waves one and three, females consistently accounted for more outbreak-associated cases across all age groups, with the exception of those less than 20 years of age. In wave two, however, males outnumbered females across all age groups, with the exception of those less than 20 years of age.

Geography

- In wave one, only two public health units (PHUs) reported an outbreak-associated case rate exceeding 10 per 100,000 population; in waves two and three, this number increased to 23 and 22 PHUs, respectively.
- In wave two, one PHU (Thunder Bay District Health Unit) reported an outbreak-associated case rate exceeding 100 per 100,000 population* (172.6); in wave three, two PHUs (Haliburton,

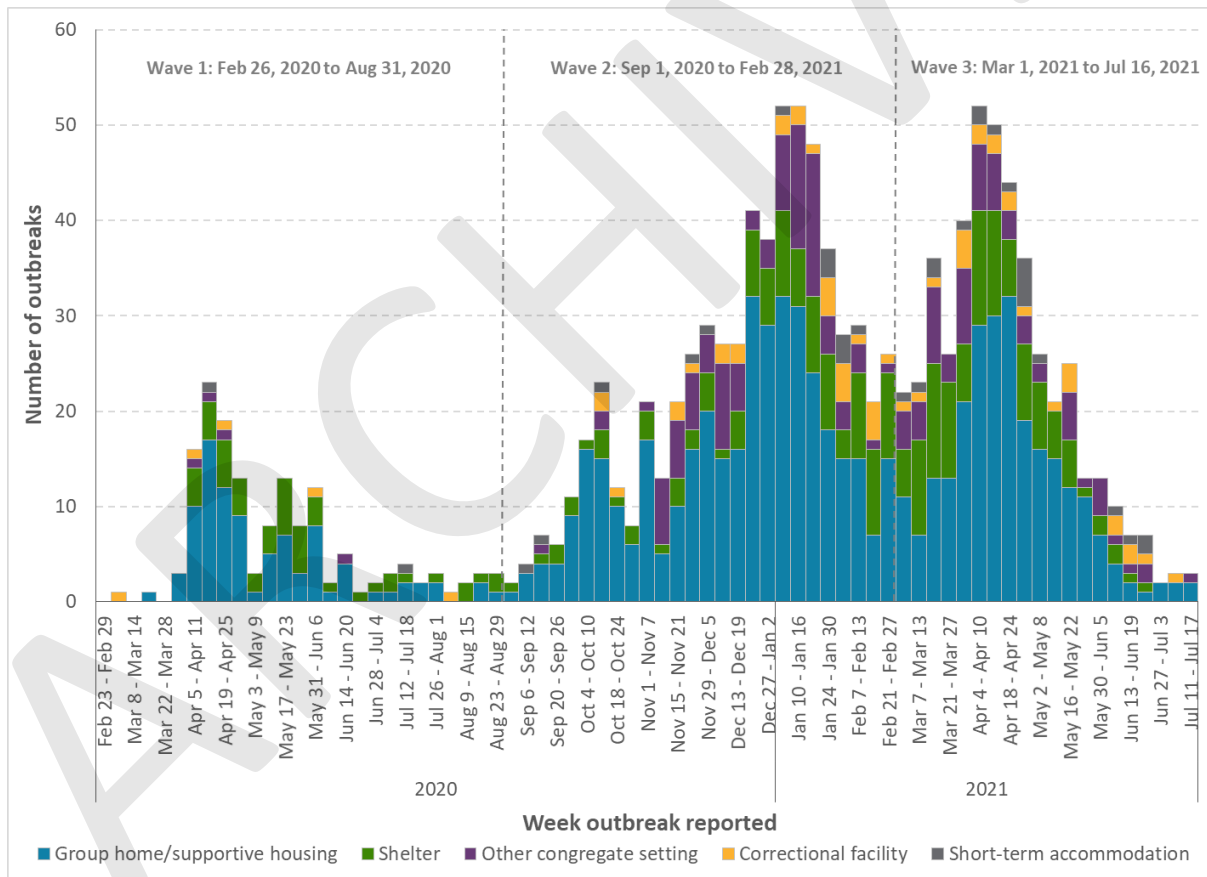
Kawartha, Pine Ridge District Health Unit and Porcupine Health Unit) reported an outbreak-associated case rate exceeding 100, per 100,000 population (101.1 and 110.3, respectively).
 *Note: rates were calculated using the total population for each PHU as the denominator (i.e., not the total population of those in CLSs) and should thus be interpreted with caution.

Severity and outcome

- In total, 97 fatalities occurred among outbreak-associated COVID-19 outbreaks in congregate living settings, representing a case fatality rate of 1.6% (22/1,353) in wave one, 0.9% (46/5,270) in wave two, and 0.9% (29/3,221) in wave three; over half (59.8%; 58/97) of these fatalities occurred among those in group home/supportive housing settings.

Temporal Trends

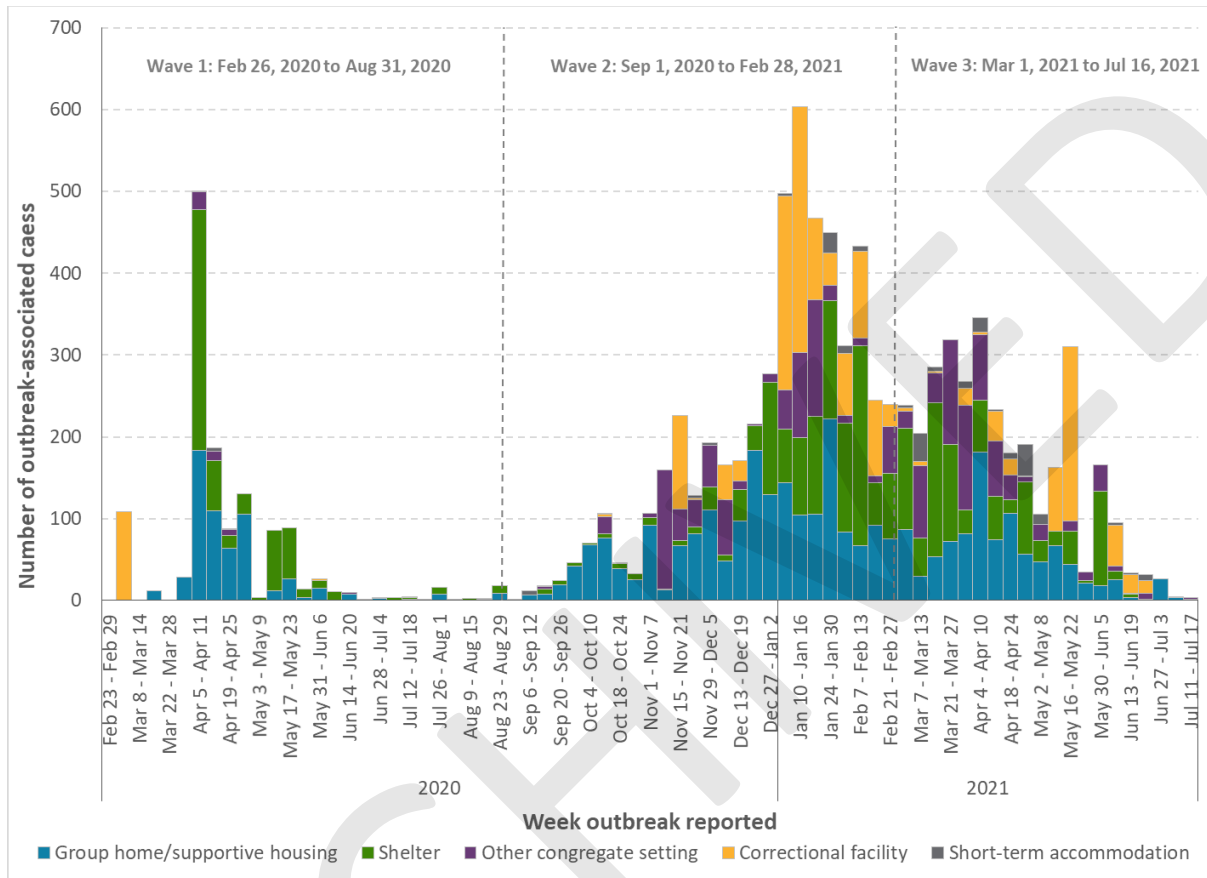
Figure 1. Number of COVID-19 outbreaks by congregate living setting type and week outbreak reported: Ontario, wave 1 (n=151), wave 2 (n=629), and wave 3 (n=456)



Note: Data for the 'Week Outbreak Reported' of July 11-July 17 only includes data up until July 16 and was extracted July 21, so case counts may be incomplete due to lags in data entry.

Data source: CCM

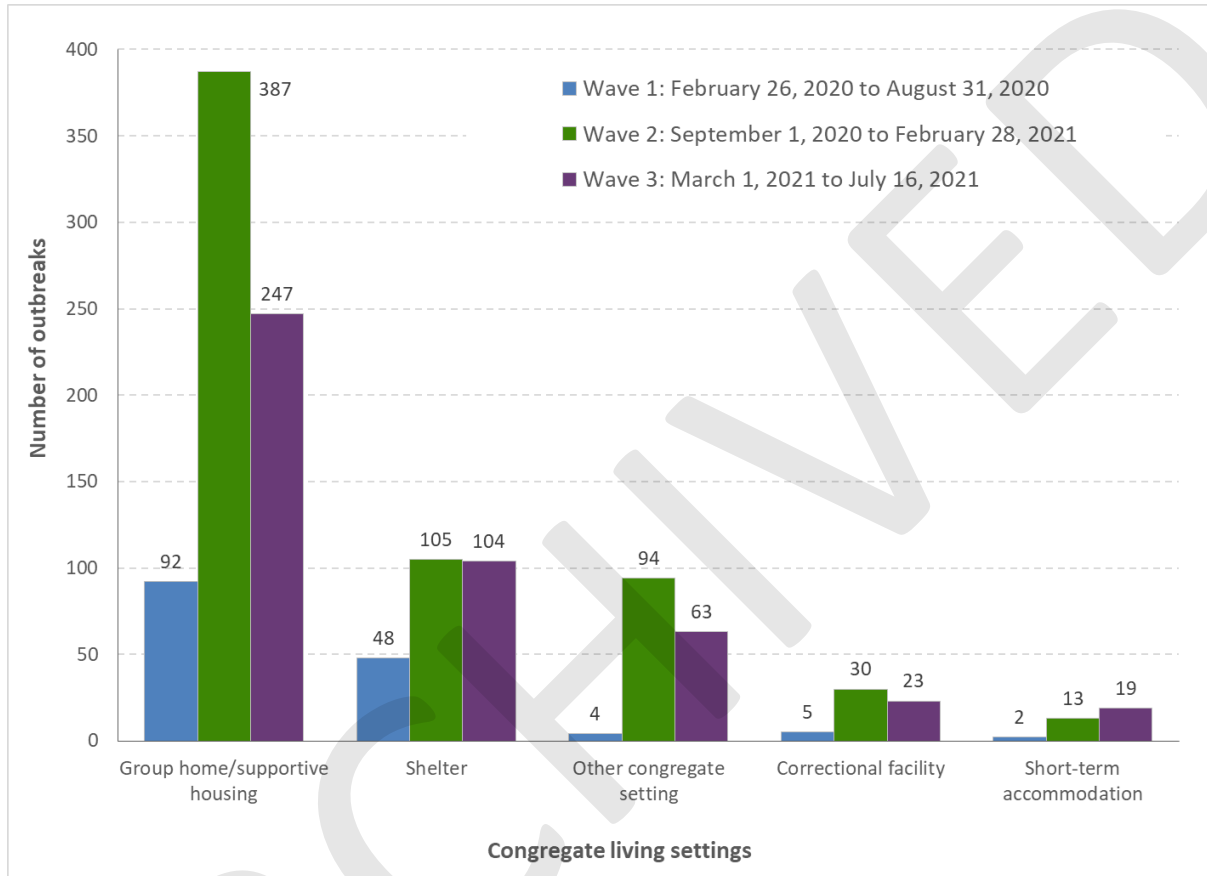
Figure 2. Number of confirmed COVID-19 outbreak-associated cases by congregate living setting type and week outbreak reported: Ontario, wave 1 (n=1,353), wave 2 (n=5,270), and wave 3 (3,221)



Data source: CCM

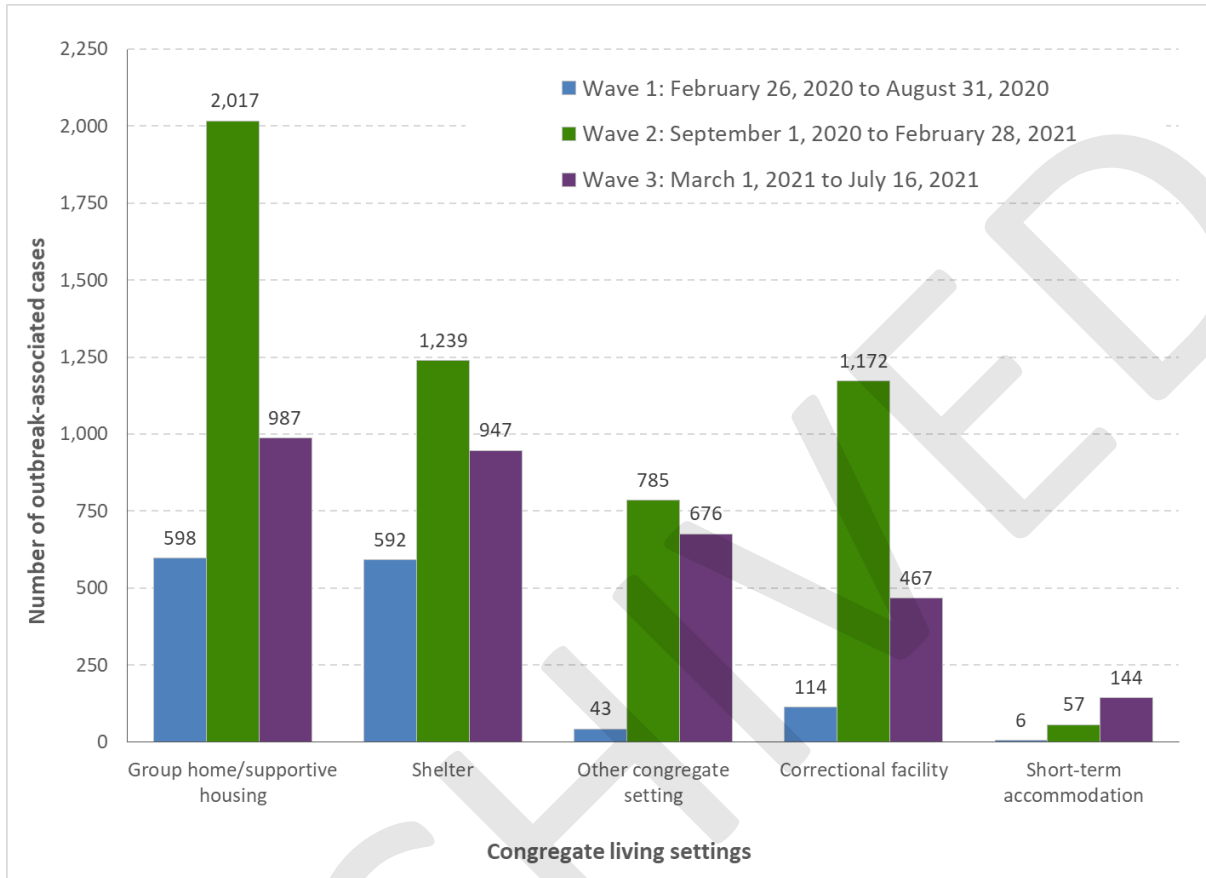
Outbreaks and Outbreak-Associated Cases

Figure 3. Number of COVID-19 outbreaks by congregate living setting type: Ontario, wave 1 (n=151), wave 2 (n=629), and wave 3 (n=456)



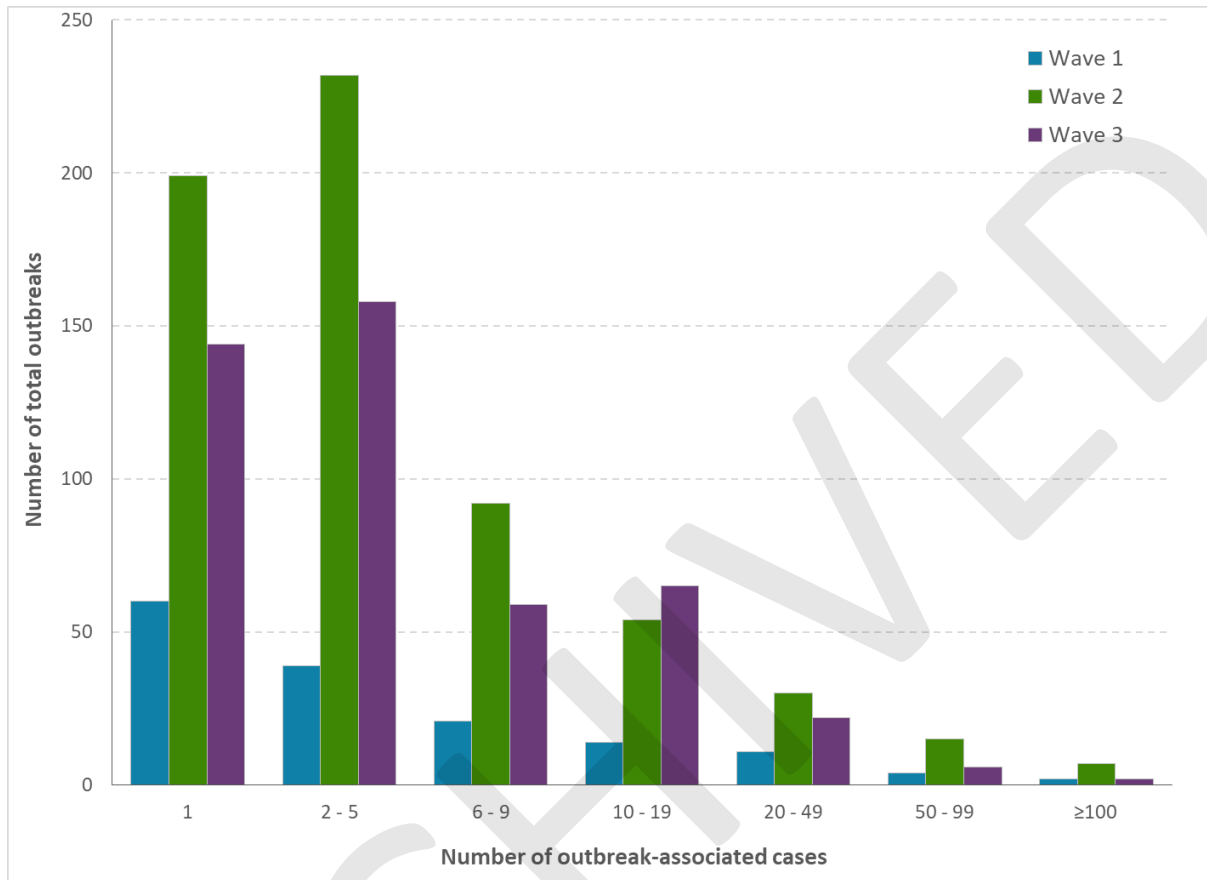
Data source: CCM

Figure 4. Number of confirmed COVID-19 outbreak-associated cases by congregate living setting type: Ontario, wave 1 (n=1,353), wave 2 (n=5,270), and wave 3 (n=3,221)



Data source: CCM

Figure 5. Number and percentage of total COVID-19 outbreaks in congregate living settings by total number of confirmed cases linked to each outbreak and wave: Ontario



Data source: CCM

Table 1. Number of COVID-19 outbreaks and median number and interquartile range (IQR) of outbreak-associated cases per outbreak by congregate living setting type and wave

Congregate living setting	Wave 1: Number of outbreaks	Wave 1: Median (IQR) number of cases per outbreak	Wave 2: Number of outbreaks	Wave 2: Median (IQR) number of cases per outbreak	Wave 3: Number of outbreaks	Wave 3: Median (IQR) number of cases per outbreak
Group home/supportive housing	92	2 (1 – 8)	387	3 (1 – 6)	247	2 (1 – 5)
Shelter	48	2 (1 – 8)	105	3 (2 – 8)	104	4 (1.8 – 8)
Other congregate setting*	4	9.5 (6.5 – 13)	94	3 (1 – 8)	63	7 (2 – 12.5)
Correctional facility	5	1 (1 – 2)	30	12 (2 – 47.5)	23	5 (2 – 18.5)
Short-term accommodation	2	3 (2 – 4)	13	4 (2 – 6)	19	4 (2.5 – 11)

*Note: Other congregate setting includes work camps, college/university residences, hospice, and other communal living facilities.

Data source: CCM

Table 2. Number of COVID-19 outbreaks and median duration (days) and interquartile range (IQR) of COVID-19 outbreaks by congregate living setting type and wave

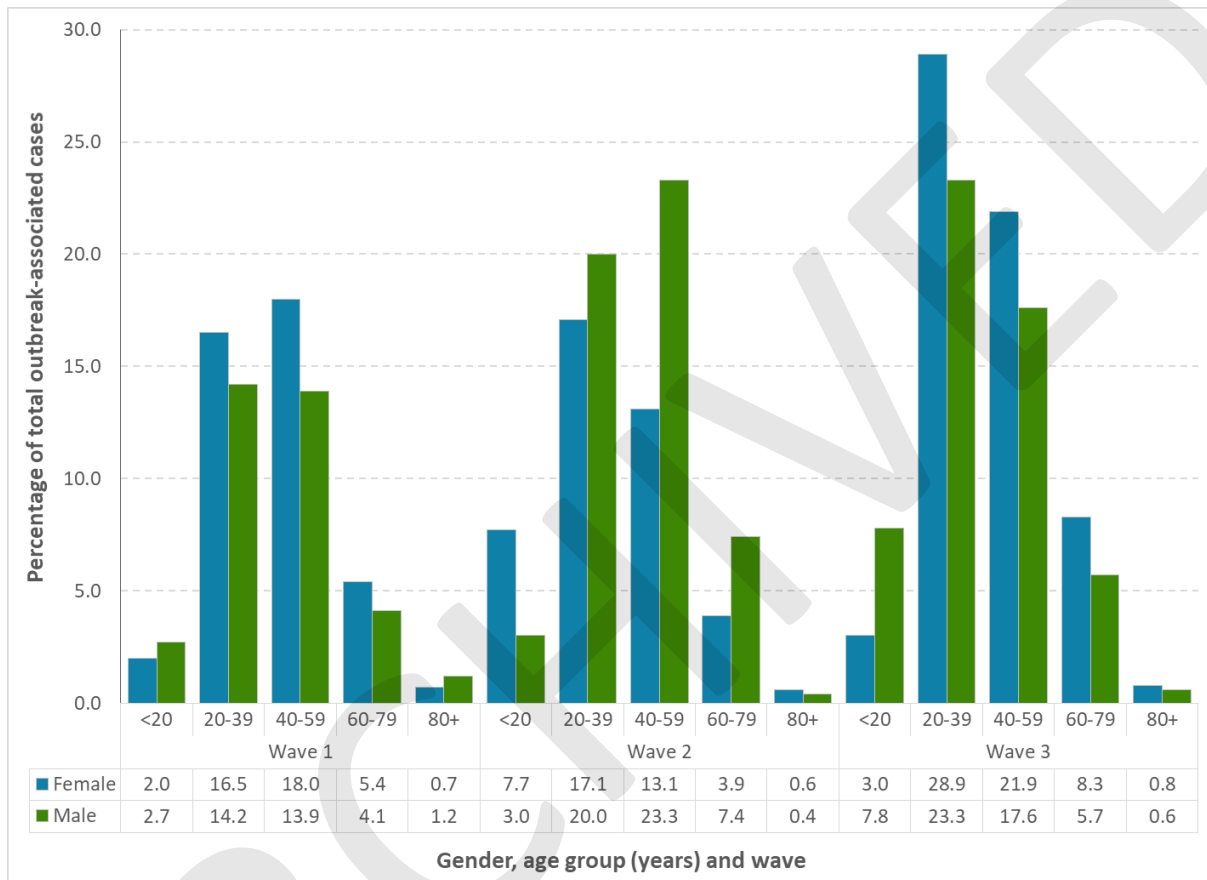
Congregate living setting	Wave 1: Number of outbreaks	Wave 1: Median (IQR) duration of outbreak in days	Wave 2: Number of outbreaks	Wave 2: Median (IQR) duration of outbreak in days	Wave 3: Number of outbreaks	Wave 3: Median (IQR) duration of outbreak in days
Group home/supportive housing	92	6 (0 – 14)	386	6 (0 – 12)	243	4 (0 – 9)
Shelter	48	4.5 (0 – 14.5)	105	9 (1 – 17)	103	9 (2 – 18)
Other congregate setting*	3	4 (2 – 6)	94	6 (1 – 11)	62	6 (2 – 13.5)
Correctional facility	5	0 (0 – 2)	30	12.5 (2.3 – 34.3)	23	10 (4 – 19)
Short-term accommodation	2	5.5 (2.8 – 8.3)	13	9 (4 – 16)	19	10 (6 – 13)

Note: Excludes eight ongoing outbreaks (i.e., outbreaks that remain ‘OPEN’ in CCM without a ‘Declared Over Date’ entered). *Other congregate setting includes work camps, college/university residences, hospice, and other communal living facilities.

Data source: CCM

Gender and Age Group (Years)

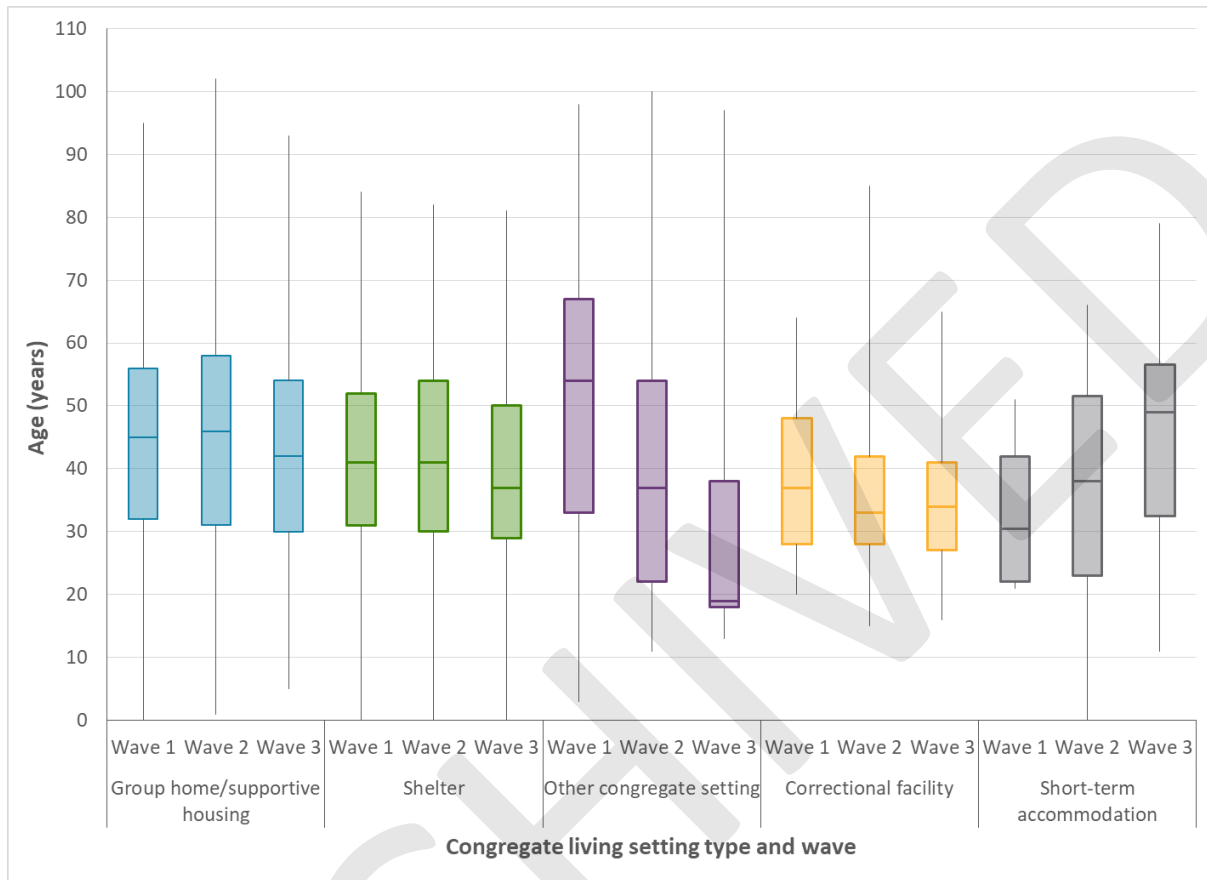
Figure 6. Percentage of total COVID-19 outbreak-associated cases in congregate living settings by gender, age group (years) and wave



Note: Not all cases have an age and/or gender reported.

Data source: CCM

Figure 7. Median age (years) and interquartile range of COVID-19 outbreak-associated cases by congregate living settings and wave

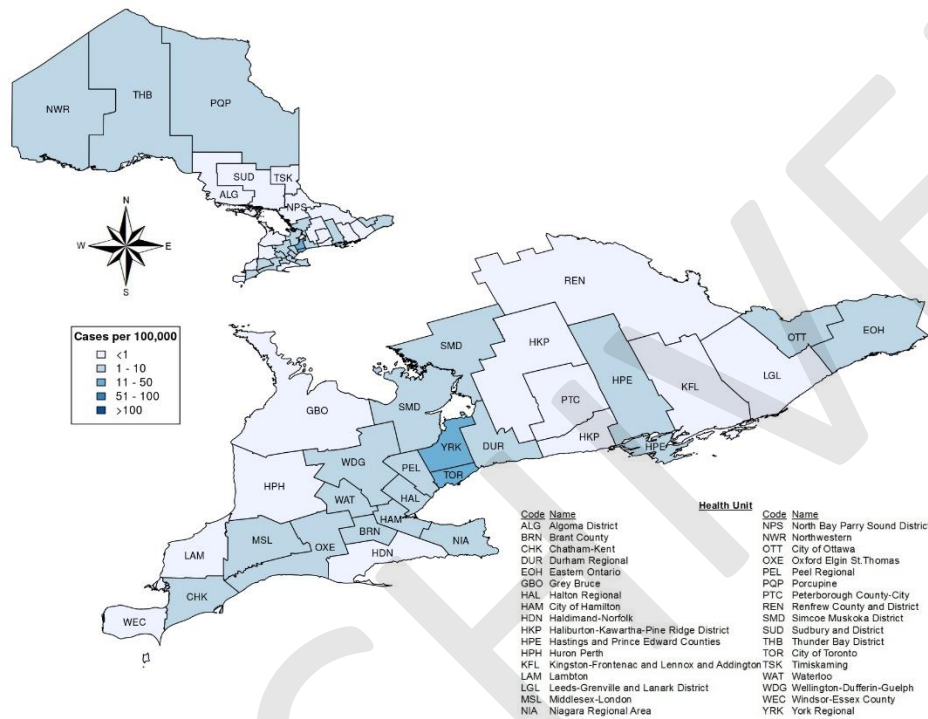


Note: Not all cases have an age reported. See [Appendix A](#) for case counts by age group (years) and gender for each congregate living setting type.

Data source: CCM

Geography

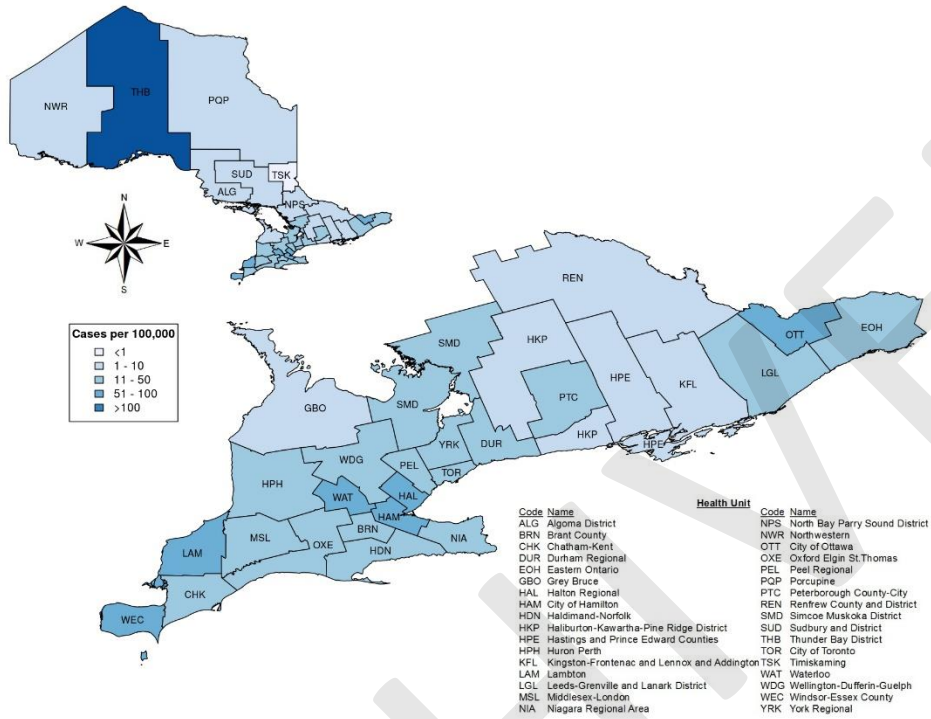
Figure 8: Rate of COVID-19 outbreak-associated cases (per 100,000 population*) in congregate living settings by public health unit: Ontario, wave 1 (February 26, 2020 to August 31, 2020)



***Note:** The total number of congregate living settings and population denominators for congregate living settings for each public health unit are unavailable; as a result, these rates have been calculated using the total population for each public health unit as the denominator and should be interpreted with caution.

Data source: CCM

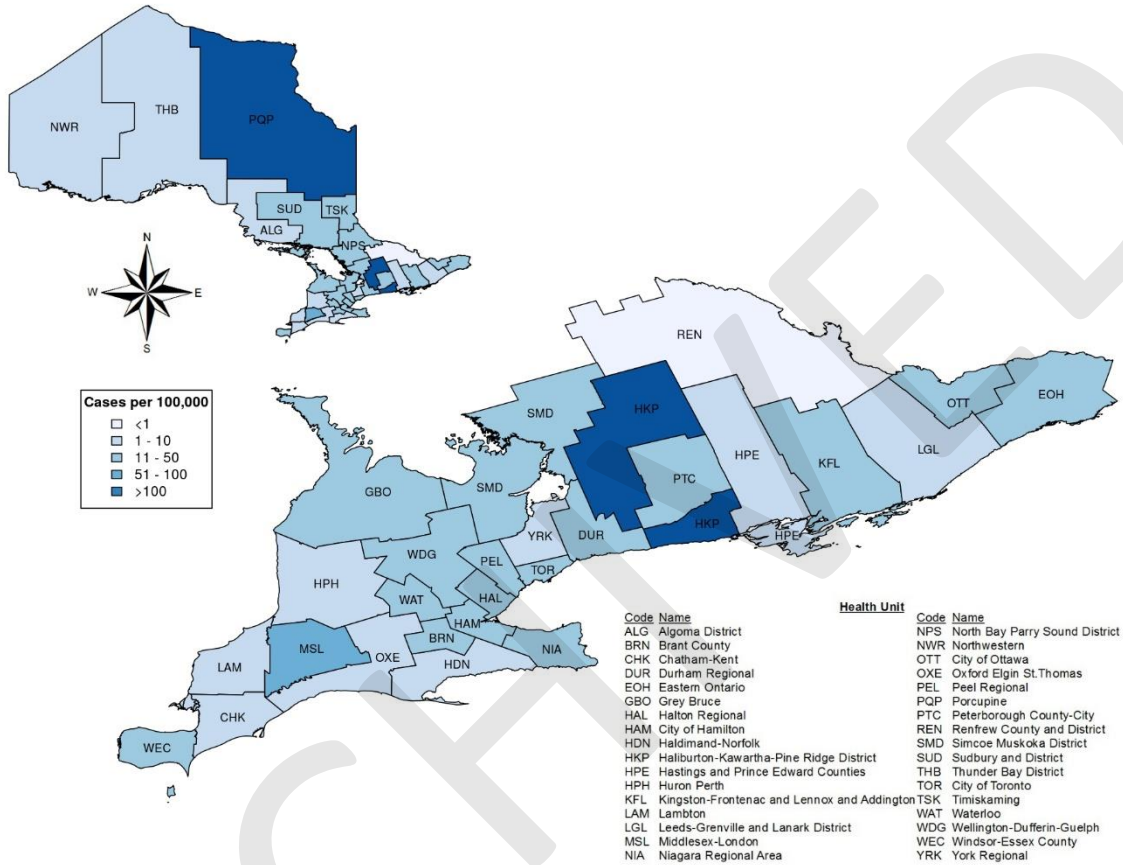
Figure 9: Rate of COVID-19 outbreak-associated cases (per 100,000 population*) in congregate living settings by public health unit: Ontario, wave 2 (September 1, 2020 to February 28, 2021)



***Note:** The total number of congregate living settings and population denominators for congregate living settings for each public health unit are unavailable; as a result, these rates have been calculated using the total population for each public health unit as the denominator and should be interpreted with caution.

Data source: CCM

Figure 10: Rate of COVID-19 outbreak-associated cases (per 100,000 population*) in congregate living settings by public health unit: Ontario, wave 3 (March 1, 2021 to July 16, 2021)



***Note:** The total number of congregate living settings and population denominators for congregate living settings for each public health unit are unavailable; as a result, these rates have been calculated using the total population for each public health unit as the denominator and should be interpreted with caution.

Data source: CCM

Severity and Outcome

Table 3: Number and percentage of COVID-19 outbreak-associated cases ever hospitalized, ever in intensive care unit (ICU), and with fatal outcome by congregate living setting type and wave

Congregate living setting	Wave 1: Number (%) ever hospitalized	Wave 1: Number (%) ever in ICU	Wave 1: Number (%) with fatal outcome	Wave 2: Number (%) ever hospitalized	Wave 2: Number (%) ever in ICU	Wave 2: Number (%) with fatal outcome	Wave 3: Number (%) ever hospitalized	Wave 3: Number (%) ever in ICU	Wave 3: Number (%) with fatal outcome
Group home/ supportive housing	64 (10.7)	12 (2.0)	12 (2.0)	124 (6.1)	27 (1.3)	29 (1.4)	73 (7.4)	12 (1.2)	17 (1.7)
Shelter	92 (15.5)	4 (0.7)	3 (0.5)	57 (4.6)	7 (0.6)	5 (0.4)	71 (7.5)	10 (1.1)	5 (0.5)
Other congregate setting*	6 (14.0)	1 (2.3)	7 (16.3)	41 (5.2)	7 (0.9)	11 (1.4)	23 (3.4)	9 (1.3)	7 (1.0)
Correctional facility	3 (2.6)	0 (0.0)	0 (0.0)	16 (1.4)	5 (0.4)	1 (0.1)	8 (1.7)	2 (0.4)	0 (0.0)
Short-term accommodation	0 (0.0)	0 (0.0)	0 (0.0)	2 (3.5)	1 (1.8)	0 (0.0)	5 (3.5)	2 (1.4)	0 (0.0)
Total	165 (12.2)	17 (1.3)	22 (1.6)	240 (4.6)	47 (0.9)	46 (0.9)	180 (5.6)	35 (1.1)	29 (0.9)

*Note: Other congregate setting includes work camps, college/university residences, hospice, and other communal living facilities.

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 **July 21, 2021 at 1 p.m.** for cases reported from February 26, 2021 onwards and as of **July 19, 2021 at 9 a.m.** for cases reported up to January 31, 2021.
- CCM is a dynamic disease reporting system, which allows ongoing updates to data previously entered. As a result, data extracted from CCM represent a snapshot at the time of extraction and may differ from previous or subsequent reports.
- Ontario population projection data for 2020 were sourced from Ministry, IntelliHEALTH Ontario. Data were extracted on **November 26, 2019**.
- COVID-19 test data were based on information from the Provincial COVID-19 Diagnostics Network, reported by member microbiology laboratories.

Data Caveats

- Outbreaks in congregate living settings are defined as one laboratory-confirmed case in a resident or staff and is declared by the local medical officer of health or their designate in coordination with the administrator of the congregate living setting.
 - Only confirmed outbreaks are included in this report.
 - All congregate settings outbreaks reported as confirmed in CCM were included in these analyses regardless of whether or not the case data in CCM supported the outbreaks' classification. Some confirmed outbreaks presented in this report may have zero cases recorded in CCM at the time of writing.
- These data only represent cases reported to public health units and recorded in CCM. As a result, all counts will be 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.
- 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 reported counts from CCM.
- 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 assay.

- 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.
- Case reported week is the date the case was reported to the public health unit.
 - Outbreak reported week uses the date the public health unit reported the outbreak. If this date is unavailable, the date the public health unit created the outbreak is used.
 - Reported weeks were created to align with the Public Health Agency of Canada's (PHAC) influenza surveillance weeks.
- Cases with an unknown or missing ages were excluded from age-specific analyses.
- 'Outbreak-associated' cases includes cases reported in CCM that are linked to an outbreak in one of the defined congregate living settings included in this report (Group home/supportive housing, Shelter, Other congregate setting, Correctional facility, Short-term accommodation) that met the definition of a congregate living setting outbreak. This includes cases that may not have their likely source of acquisition reported as 'outbreak-associated'.
- Hospitalization includes all cases for which a hospital admission date was reported 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.
- Intensive care unit (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.
- Case counts by geography are 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-PHO (to signify a case that is not a resident of Ontario) have been excluded from the analyses.
- 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.

References

1. Ontario. Ministry of Health. COVID-19 guidance: congregate living for vulnerable populations [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2021 July 2]. Available from: https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_congregate_living_guidance.pdf

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Appendix A

Table A.1. COVID-19 outbreak-associated cases in group homes/supportive housing settings by gender, age group (years), and wave

Age Group (years)	Wave 1: Number (%) female	Wave 1: Number (%) male	Wave 1: Number (%) Total	Wave 2: Number (%) female	Wave 2: Number (%) male	Wave 2: Number (%) Total	Wave 3: Number (%) female	Wave 3: Number (%) male	Wave 3: Number (%) Total
< 20	10 (3.3)	16 (6.1)	43 (7.2)	20 (1.9)	47 (4.8)	67 (3.3)	11 (2.1)	37 (7.9)	48 (4.9)
20 – 39	99 (32.5)	86 (32.8)	191 (31.9)	389 (37.9)	312 (31.8)	704 (34.9)	226 (44.1)	159 (34.0)	387 (39.2)
40 – 59	142 (46.6)	115 (43.9)	262 (43.8)	436 (42.5)	375 (38.2)	814 (40.4)	200 (39.0)	186 (39.8)	391 (39.6)
60 – 79	49 (16.1)	44 (16.8)	96 (16.1)	142 (13.8)	221 (22.5)	366 (18.1)	61 (11.9)	74 (15.8)	135 (13.7)
≥ 80	5 (1.6)	1 (0.4)	6 (1.0)	40 (3.9)	26 (2.7)	66 (3.3)	15 (2.9)	11 (2.4)	26 (2.6)
Total	305 (100.0)	262 (100.0)	598 (100.0)	1,027 (100.0)	981 (100.0)	2,017 (100.0)	513 (100.0)	467 (100.0)	987 (100.0)

Note: Totals may not add up to 100% because not all cases have an age and/or gender entered in CCM.

Data source: CCM

Table A.2. COVID-19 outbreak-associated cases in shelter settings by gender, age group (years), and wave

Age Group (years)	Wave 1: Number (%) female	Wave 1: Number (%) male	Wave 1: Number (%) Total	Wave 2: Number (%) female	Wave 2: Number (%) male	Wave 2: Number (%) Total	Wave 3: Number (%) female	Wave 3: Number (%) male	Wave 3: Number (%) Total
< 20	15 (6.5)	24 (6.9)	43 (7.3)	26 (7.8)	18 (2.0)	50 (4.0)	45 (11.1)	23 (4.6)	74 (7.8)
20 – 39	113 (48.9)	119 (34.3)	236 (39.9)	173 (51.6)	332 (37.7)	514 (41.5)	216 (53.1)	219 (44.2)	453 (47.8)
40 – 59	85 (36.8)	153 (44.1)	244 (41.2)	115 (34.3)	398 (45.2)	518 (41.8)	120 (29.5)	196 (39.6)	333 (35.2)
60 – 79	18 (7.8)	46 (13.3)	64 (10.8)	20 (6.0)	131 (14.9)	153 (12.3)	24 (5.9)	55 (11.1)	83 (8.8)
≥ 80	0 (0.0)	5 (1.4)	5 (0.8)	1 (0.3)	2 (0.2)	3 (0.2)	2 (0.5)	2 (0.4)	4 (0.4)
Total	231 (100.0)	347 (100.0)	592 (100.0)	335 (100.0)	881 (100.0)	1,239 (100.0)	407 (100.0)	495 (100.0)	947 (100.0)

Note: Totals may not add up to 100% because not all cases have an age and/or gender entered in CCM.

Data source: CCM

Table A.3. COVID-19 outbreak-associated cases in other congregate living settings by gender, age group (years), and wave

Age Group (years)	Wave 1: Number (%) female	Wave 1: Number (%) male	Wave 1: Number (%) Total	Wave 2: Number (%) female	Wave 2: Number (%) male	Wave 2: Number (%) Total	Wave 3: Number (%) female	Wave 3: Number (%) male	Wave 3: Number (%) Total
< 20	2 (6.7)	1 (7.7)	3 (7.0)	89 (22.9)	68 (17.7)	164 (20.9)	190 (55.7)	179 (55.1)	376 (55.6)
20 – 39	7 (23.3)	3 (23.1)	10 (23.3)	101 (26.0)	159 (41.3)	260 (33.1)	76 (22.3)	63 (19.4)	142 (21.0)
40 – 59	12 (40.0)	3 (23.1)	15 (34.9)	125 (32.2)	96 (24.9)	224 (28.5)	51 (15.0)	49 (15.1)	100 (14.8)
60 – 79	5 (16.7)	6 (46.2)	11 (25.6)	48 (12.4)	52 (13.5)	101 (12.9)	23 (6.7)	29 (8.9)	52 (7.7)
≥ 80	4 (13.3)	0 (0.0)	4 (9.3)	24 (6.2)	10 (2.6)	34 (4.3)	1 (0.3)	5 (1.5)	6 (0.9)
Total	30 (100.0)	13 (100.0)	43 (100.0)	388 (100.0)	385 (100.0)	785 (100.0)	341 (100.0)	325 (100.0)	676 (100.0)

Note: Totals may not add up to 100% because not all cases have an age and/or gender entered in CCM.

Data source: CCM

Table A.4. COVID-19 outbreak-associated cases in correctional facility settings by gender, age group (years), and wave

Age Group (years)	Wave 1: Number (%) female	Wave 1: Number (%) male	Wave 1: Number (%) Total	Wave 2: Number (%) female	Wave 2: Number (%) male	Wave 2: Number (%) Total	Wave 3: Number (%) female	Wave 3: Number (%) male	Wave 3: Number (%) Total
< 20	1 (14.3)	61 (57.0)	62 (54.4)	0 (0.0)	19 (1.8)	19 (1.6)	0 (0.0)	11 (2.7)	11 (2.4)
20 – 39	5 (71.4)	42 (39.3)	47 (41.2)	72 (60.0)	713 (68.4)	789 (67.3)	14 (50.0)	284 (68.6)	317 (67.9)
40 – 59	1 (14.3)	4 (3.7)	5 (4.4)	44 (36.7)	277 (26.6)	326 (27.8)	12 (42.9)	106 (25.6)	124 (26.6)
60 – 79	0 (0.0)	0 (0.0)	0 (0.0)	4 (3.3)	32 (3.1)	36 (3.1)	2 (7.1)	13 (3.1)	15 (3.2)
≥ 80	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.2)	2 (0.2)	0 (0.0)	0 (0.0)	0 (0.0)
Total	7 (100.0)	107 (100.0)	114 (100.0)	120 (100.0)	1,043 (100.0)	1,172 (100.0)	28 (100.0)	414 (100.0)	467 (100.0)

Note: Totals may not add up to 100% because not all cases have an age and/or gender entered in CCM.

Data source: CCM

Table A.5. COVID-19 outbreak-associated cases in short-term accommodation settings by gender, age group (years), and wave

Age Group (years)	Wave 1: Number (%) female	Wave 1: Number (%) male	Wave 1: Number (%) Total	Wave 2: Number (%) female	Wave 2: Number (%) male	Wave 2: Number (%) Total	Wave 3: Number (%) female	Wave 3: Number (%) male	Wave 3: Number (%) Total
< 20	0 (0.0)	0 (0.0)	0 (0.0)	6 (16.7)	4 (19.0)	10 (17.5)	3 (4.0)	1 (1.4)	4 (2.8)
20 – 39	3 (100.0)	1 (33.3)	4 (66.7)	14 (38.9)	7 (33.3)	21 (36.8)	18 (24.0)	25 (36.2)	43 (29.9)
40 – 59	0 (0.0)	2 (66.7)	2 (33.3)	12 (33.3)	8 (38.1)	20 (35.1)	39 (52.0)	31 (44.9)	70 (48.6)
60 – 79	0 (0.0)	0 (0.0)	0 (0.0)	4 (11.1)	1 (4.8)	5 (8.8)	15 (20.0)	12 (17.4)	27 (18.8)
≥ 80	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (4.8)	1 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)
Total	3 (100.0)	3 (100.0)	6 (100.0)	36 (100.0)	21 (100.0)	57 (100.0)	75 (100.0)	69 (100.0)	144 (100.0)

Note: Totals may not add up to 100% because not all cases have an age and/or gender entered in CCM.

Data source: CCM

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Enhanced epidemiological summary: COVID-19 outbreaks in congregate living settings: February 26, 2020 to July 16, 2021. Toronto, ON: Queen's Printer for Ontario; 2021.

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For Further Information

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Public Health Ontario

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