COVID-19 Epidemiology Weekly Supplement

OTTAWA PUBLIC HEALTH. Report compiled on July 29, 2020, 11:00 am

Contents

Purpose

This Weekly Supplement provides an epidemiologic summary of COVID-19 activity in Ottawa to date. The report includes the most current information available from the COVID-19 Ottawa Database (COD) and the integrated Public Health Information System (iPHIS) as of 2:00 p.m. July 28, 2020.

Please visit the Ottawa COVID-19 Dashboard for additional information on cases and deaths, outbreaks and core indicators for COVID-19 monitoring.

Summary

- As of 2:00 p.m. on July 28, 2020, OPH is investigating **2,481** lab-confirmed cases among Ottawa residents.
- Over the past week, there has been a continued surge in the number and rate of confirmed COVID-19 infections among children, youth, and young-middle age adults (ages 0-59 years).
- No source of infection was identified for 23% of the 255 non-institutionalized cases with episode dates during July 13 – July 26; these cases are considered community-acquired.
- Females have a higher rate (275 per 100,000) of confirmed COVID-19 infections than males (194 per 100,000).
- Over the past two weeks, there has been an increase in hospitalizations including the first hospitalization among residents age 10-19. A total of 256 (10%) Ottawa residents with confirmed COVID-19 have been hospitalized, including 63 (3%) who were admitted to the ICU.
- A new death was reported for the first time since June 25. There have been **264 deaths** in total.
- There has been an increase in the number of institutional outbreaks since July 9 including 3 new outbreaks in childcare centres in the past 10 days. There are 10 ongoing outbreaks in institutions.

Cases

Table 1. Weekly change in cases of confirmed COVID-19 among Ottawa residents, by age

Week	Measure (Rates are per 100,000 population)	Age 0-19 years	20-39 years	40-59 years	60-79 years	80+ years	Total
June 29 to July 5	Cases	6	15	8	2	1	32
	Rate	2.7	4.7	2.9	1.0	2.4	3.0
July 6 to July 12	Cases	9	22	10	2	1	44
	Rate	4.0	6.9	3.6	1.0	2.4	4.2
July 13 to July 19	Cases	18	47	23	7	0	95
	Rate	8.1	14.7	8.4	3.6	0.0	9.0
July 20 to July 26	Cases	48	81	50	11	2	192
	Rate	21.5	25.3	18.2	5.6	4.7	18.2
	Change in cases from the previous week				Δ 102%		

Notes:

1. Data on cases are from the COD as of 2:00 p.m. on July 28, 2020,
2. Case counts are presented by reported date. Counts from the latest week should be interpreted with caution due to potential lags in reporting.

Figure 1a. Cumulative rates of confirmed COVID-19 cases among Ottawa residents (n=2,481) by age group, all ages

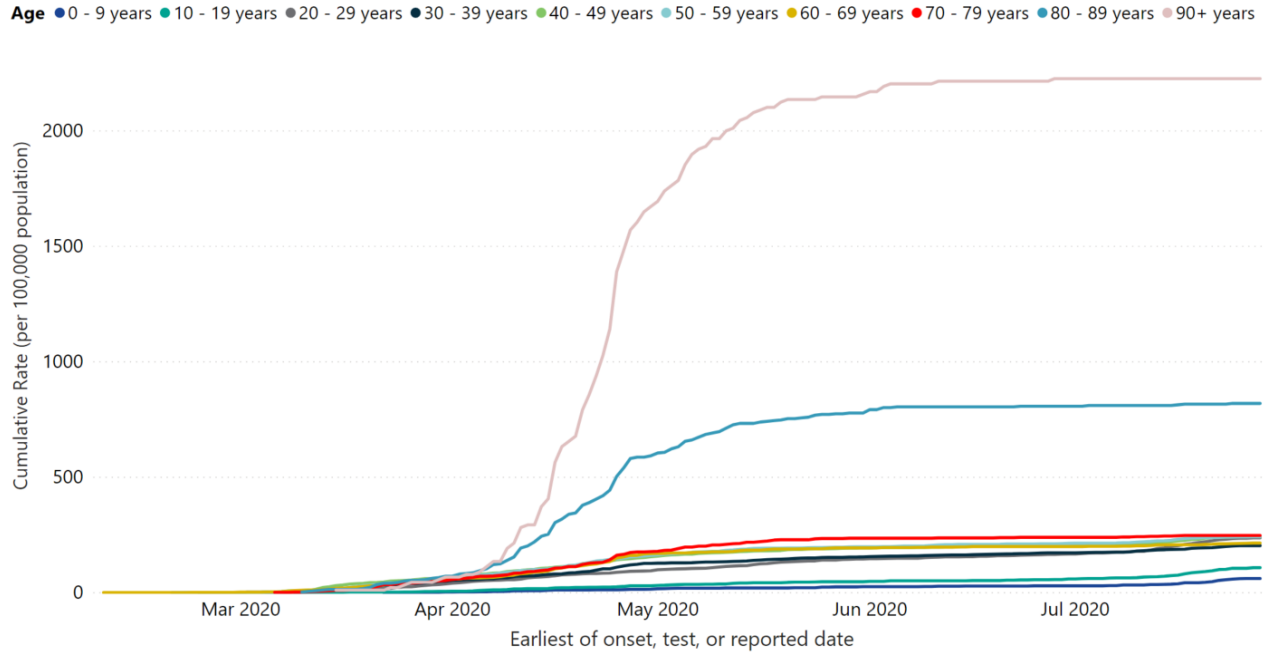
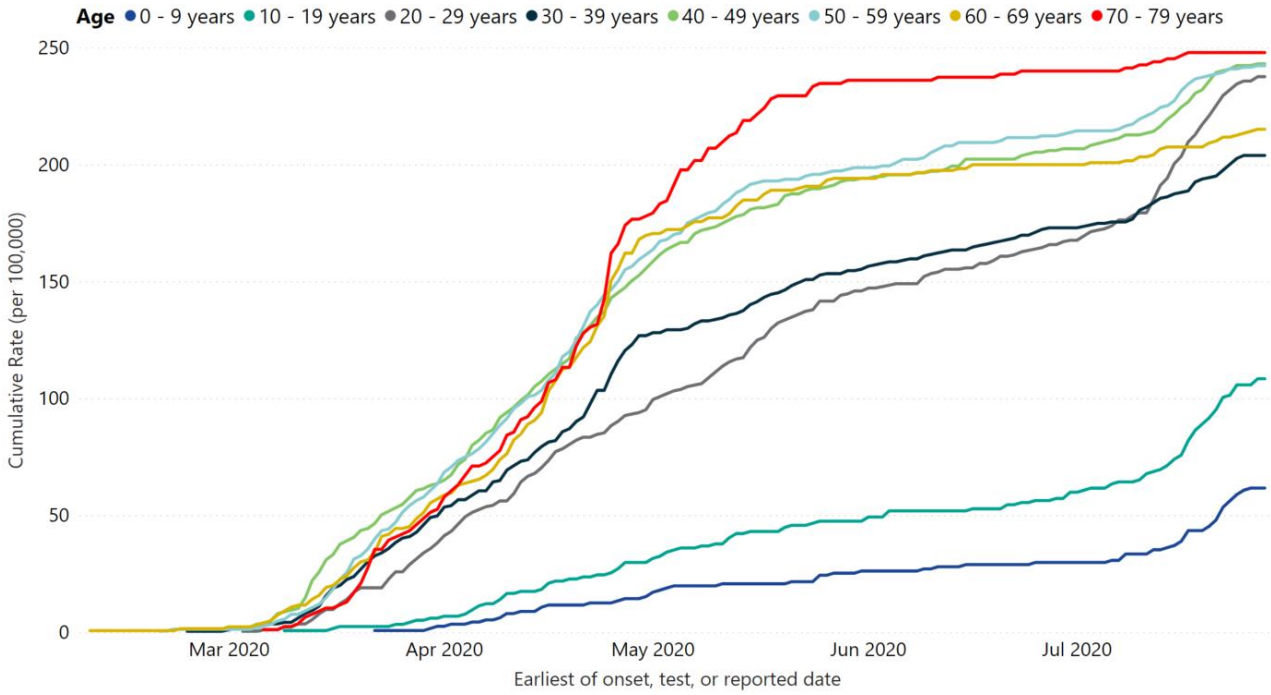


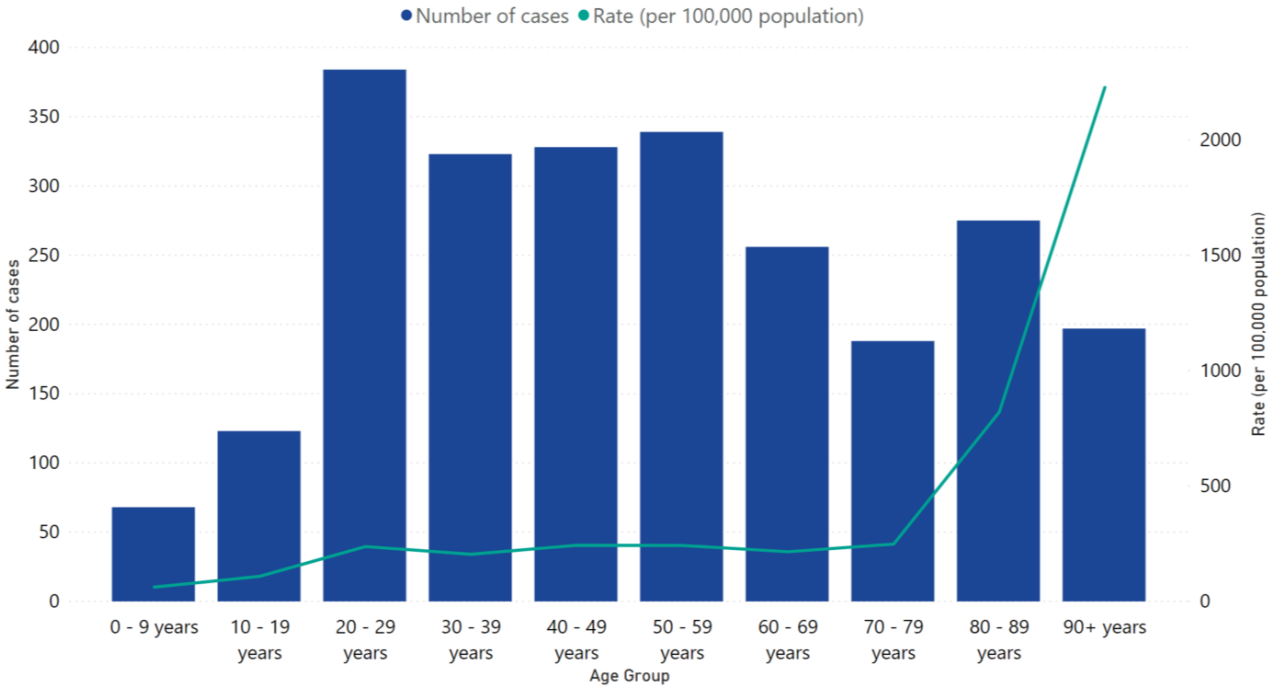
Figure 1b. Cumulative rates of confirmed COVID-19 cases among Ottawa residents age 0-79 years (n=2,009), by age group



Notes:

1. Confirmed cases are those with a confirmed COVID-19 laboratory result as per the Ministry of Health Public health management of cases and contacts of COVID-19 in Ontario. June 23, 2020 version 8.0.
2. Rates per 100,000 were calculated using Ottawa population projection data for 2020 from Ontario Ministry of Health, IntelliHEALTH Ontario, extracted on November 26, 2019.

Figure 1. Ottawa residents with confirmed COVID-19 (n=2,481), by age group



Notes:

1. Data on cases are from the COD as of 2:00 p.m. on July 28, 2020.
2. Confirmed cases are those with a confirmed COVID-19 laboratory result as per the Ministry of Health Public health management of cases and contacts of COVID-19 in Ontario. June 23, 2020 version 8.0.
3. Rates per 100,000 were calculated using Ottawa population projection data for 2020 from Ontario Ministry of Health, IntelliHEALTH Ontario, extracted on November 26, 2019.

Table 2. Ottawa residents with confirmed COVID-19 (n=2,481), by gender

Gender	Number of cases (%)	Rate (per 100,000 population)
Female	1,479 (60%)	275
Male	1,002 (40%)	194
Unknown	0	-

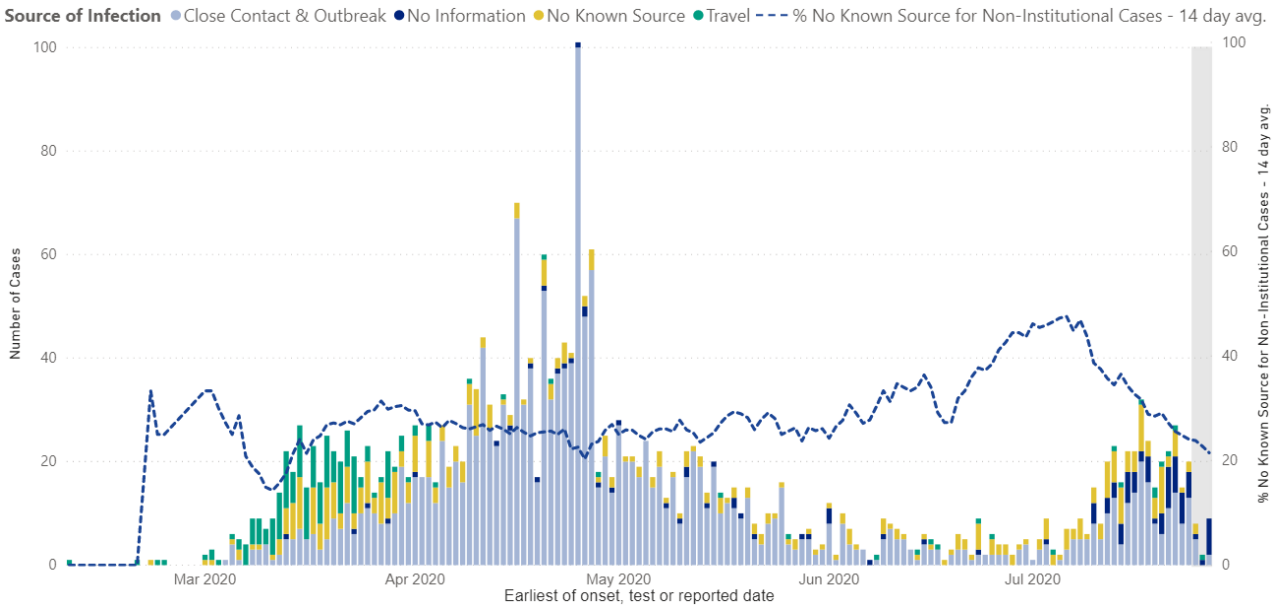
Notes:

1. Data on cases are from the COD as of 2:00 p.m. on July 28, 2020.
2. Confirmed cases are those with a confirmed COVID-19 laboratory result as per the Ministry of Health Public health management of cases and contacts of COVID-19 in Ontario. June 23, 2020 version 8.0.
3. Rates per 100,000 were calculated using Ottawa population projection data for 2020 from Ontario Ministry of Health, IntelliHEALTH Ontario, extracted on November 26, 2019.

Source of infection

No source was identified for 23% of the 255 non-institutionalized cases with episode dates during July 13 – July 26.

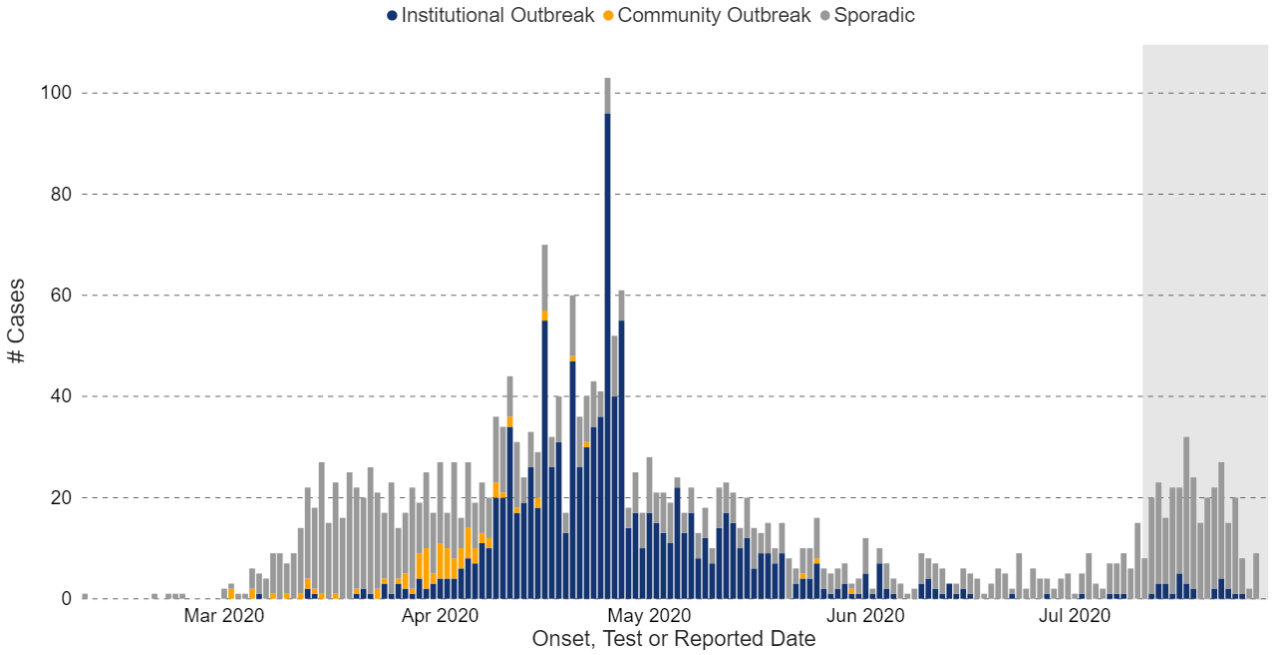
Figure 3. Epidemiological curve of Ottawa residents with confirmed COVID-19, by the earliest of onset, test and reported date, by source of infection (n=2,481)



Notes:

1. Data are from the COD as of 2:00 pm on July 28, 2020.
2. Source of infection is allocated using a hierarchy: Related to travel prior to April 1, 2020 > Close contact of a known case or part of a community or institutional outbreak > Related to travel since April 1, 2020 > No known source of infection > Missing.
3. The percent of cases with unknown source, during the current day and previous 13 days, is calculated as the number of cases with no known source among cases whose source of infection is not an institutional outbreak. It is a rolling average of the 14 days ending on a given day.
4. The percent of cases with no known source is unstable during time periods with few cases.
5. As cases are investigated and more information is available, the distribution of cases by date and source of infection is updated.
6. The distribution of the source of infection among confirmed cases is impacted by the provincial guidance on testing.
7. Confirmed cases are those with a confirmed COVID-19 laboratory result as per the Ministry of Health Public health management of cases and contacts of COVID-19 in Ontario. June 23, 2020 version 8.0.
8. Surveillance testing for COVID-19 began in long term care facilities on April 25, 2020.
9. The number of reported cases underestimates the actual number of infections. Information on overall infection rates in Canada will not be available until large studies on COVID-19 antibody presence in blood serum are conducted. Based on available information, the actual number of infections may lie from 5 to 30 times or more than the reported number of cases.

Figure 4. Epidemiological curve of Ottawa residents with confirmed COVID-19, by the EARLIEST of onset, test and reported date, by outbreak association† (n=2,481)



Notes:

1. Data are from the COD as of 2:00 p.m. on July 28, 2020.
2. As the case is investigated and more information is available, the dates in the graph are updated.
3. Confirmed cases are those with a confirmed COVID-19 laboratory result as per the Ministry of Health Public health management of cases and contacts of COVID-19 in Ontario. June 23, 2020 version 8.0.
4. †Cases are associated with a specific, isolated community outbreak; a healthcare institutional outbreak; or no known outbreak (i.e., sporadic).
5. A patient's exposure may have occurred up to 14 days prior to onset of symptoms.
6. *Symptomatic cases occurring in approximately the last 14 days are likely under-reported due to the time for individuals to seek medical assessment, availability of testing, and receipt of test results.
7. Healthcare institutions include long term care facilities, retirement homes, and hospitals.
8. § Surveillance testing for COVID-19 began in long term care facilities on April 25, 2020.
9. The number of reported confirmed community cases underestimates the actual number of infections. Information on overall infection rates in Canada will not be available until large studies on COVID-19 antibody presence in blood serum are conducted. Based on available information, the actual number of infections may lie from 5 to 30 times or more than the reported number of cases.[1]

[1] Richterich P. Severe underestimation of COVID-19 case numbers: Effect of epidemic growth rate and test restrictions. *medRxiv.* April 2020: 2020.04.13. doi.org/10.1101/2020.04.13.20064220

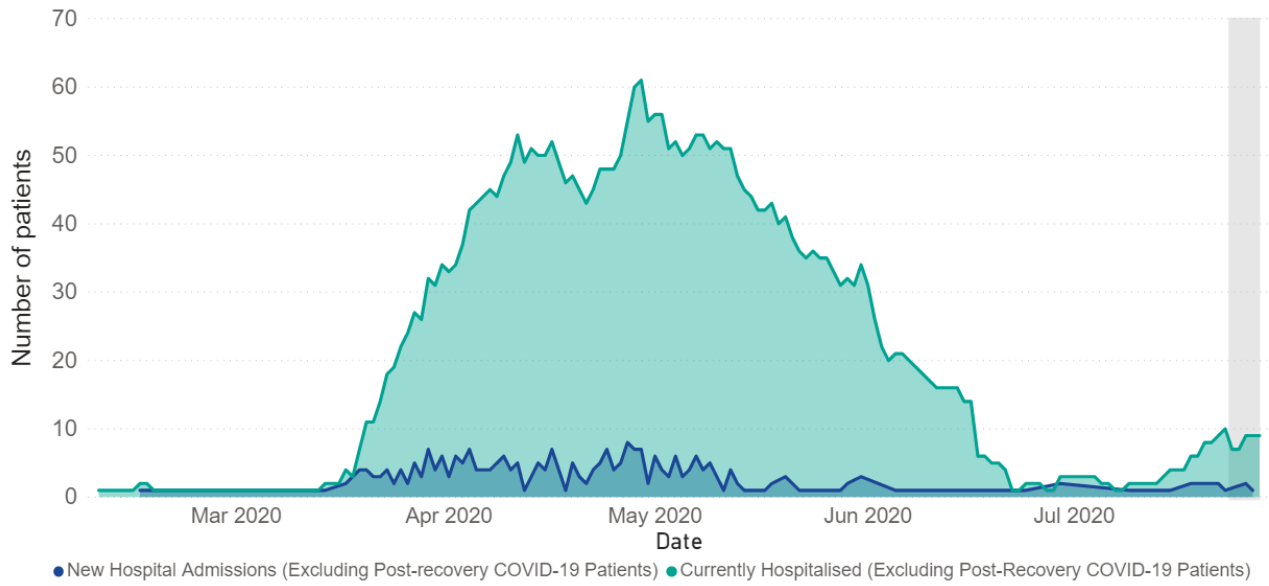
Severity of Cases

The data in Figure 4 present information about Ottawa residents with COVID-19 who have been admitted to hospitals in Ottawa. These indicators help us monitor the level and severity of infection within the City.

The number of hospital admissions recorded in the past 3-5 days should be considered preliminary as hospital data are still being received and entered for this time period.

This measure is intended to be an indicator of hospitalizations from new COVID-19 infections. Therefore, the data do not include hospitalizations for Ottawa residents with confirmed COVID-19 whose COVID-19 infection was deemed resolved and are subsequently hospitalized, due to sequelae (lingering effects) of COVID-19 or reasons other than COVID-19.

Figure 5. Number of Ottawa residents with confirmed COVID-19 newly admitted to hospital and number currently hospitalized, by day



Notes:

1. Data are from the COD as of 2:00 p.m. on July 28, 2020. Confirmed cases are those with a confirmed COVID-19 laboratory result as per the Ministry of Health Public health management of cases and contacts of COVID-19 in Ontario. June 23, 2020 version 8.0.
2. The light green curve represents the number of COVID-19 patients hospitalized. The dark blue curve represents the number of newly hospitalized COVID-19 patients.
3. This measure is intended to be an indicator of hospitalizations from new COVID-19 infections. Therefore, the data do not include hospitalizations for Ottawa residents with confirmed COVID-19 whose COVID-19 infection was deemed resolved and are subsequently hospitalized, due to sequelae (lingering effects) of COVID-19 or reasons other than COVID-19.
4. New admissions, discharges, deaths, and data entry lags contribute to daily fluctuations in the number of patients currently in hospital making comparisons to the previous day difficult. New hospital admissions and counts of currently in hospital may lag and are subject to change as the hospitalization information is tied to case investigation. Comparisons should not be made between the number of patients currently in hospital and new hospital admissions since hospitalization information is only updated once a patient's COVID-19 infection is confirmed. Admission information would then be updated retrospectively. For example, there can be a delay between when a patient is admitted to hospital, tested for COVID-19, and receive test results. If positive results are received, a case investigation begins and their hospitalization information is updated, resulting in a lag in the newly admitted and currently hospitalized information.

Table 3. Age of Ottawa residents with confirmed COVID-19 that have been hospitalized (cumulative) and in intensive care (cumulative) (n=2,481)

Measure	Hospitalizations (% of cases within age group)	ICU Admissions (% of cases within age group)	Deaths (% of cases within age group)
Age Group			
0 to 9 years	0	0	0
10 to 19 years	1 (<1%)	1 (<1%)	0
20 to 29 years	4 (1%)	0	0
30 to 39 years	13 (4%)	4 (1%)	1 (<1%)
40 to 49 years	17 (5%)	6 (2%)	1 (<1%)
50 to 59 years	44 (13%)	18 (5%)	7 (2%)
60 to 69 years	54 (21%)	15 (6%)	19 (7%)
70 to 79 years	49 (26%)	12 (6%)	38 (20%)
80 to 89 years	49 (18%)	6 (2%)	106 (39%)
90+ years	25 (13%)	1 (<1%)	92 (47%)
Unknown	0	0	0
Median age	69 years	63 years	87 years
Age range	16 – 102 years	16 – 90 years	39 – 105 years
Total	**256 (10%)**	**63 (3%)**	**264 (11%)**

Notes:

1. Data are from the COD as of 2:00 p.m. on July 28, 2020.
2. This measure is intended to be an indicator of hospitalizations from new COVID-19 infections. Therefore, the data do not include hospitalizations for Ottawa residents with confirmed COVID-19 whose COVID-19 infection was deemed resolved and are subsequently hospitalized, due to sequelae (lingering effects) of COVID-19 or reasons other than COVID-19.
3. The percent of hospitalizations, ICU admissions, and deaths by age group uses the number of cases for each age group as the denominator.

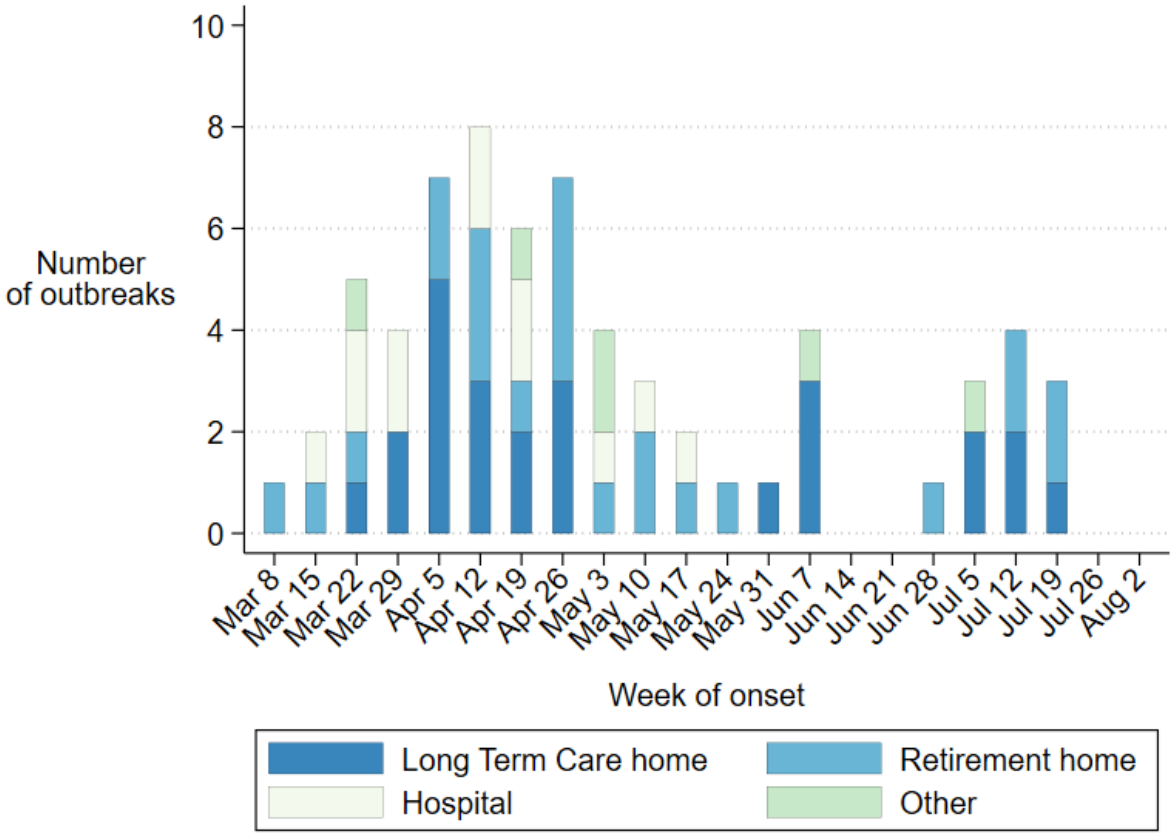
Table 4. COVID-19 volume of Ottawa residents in Ottawa hospitals

Measure	July 28, 2020	7-day median	30-day median
Currently hospitalized	10	10	3
Newly hospitalized*	1	1	0
Currently in intensive care	4	3	1

Notes:

1. Data are from the COD as of 2:00 p.m. on July 28, 2020.
2. Ottawa hospitals reporting inpatient data include The Children's Hospital of Eastern Ontario, The Ottawa Hospital, Queensway Carleton Hospital, Hôpital Montfort, The University of Ottawa Heart Institute, The Royal Ottawa, and Bruyère Continuing Care.
3. Ottawa hospitals reporting intensive care data include The Children's Hospital of Eastern Ontario, The Ottawa Hospital, Queensway Carleton Hospital, Hôpital Montfort and The University of Ottawa Heart Institute.
4. *Newly hospitalized refers to most current day for which data are available.

Figure 6. Total number of COVID-19 outbreaks in Ottawa healthcare institutions[4]



Notes:
1. Data are from iPHIS as of 2:00 pm on July 28, 2020.
2. 60 outbreaks are closed and 7 are active in Ottawa healthcare institutions. Investigation and data entry are ongoing.
3. These outbreaks reflect the definitions at the time they were declared open.
4. Healthcare institutions include long-term care homes, retirement homes, public hospitals, and other institutions (e.g. group homes, shelters, assisted living).

There are 3 ongoing and 8 closed outbreaks in other settings in Ottawa.

Table 5. Confirmed outbreaks of COVID-19 in other settings in Ottawa

Setting	Ongoing Outbreaks	Closed Outbreaks	Cases	Deaths
Daycare	3	0	8	0
Workplace	0	7	72	1
Residential	0	1	14	0
Total	**3**	**8**	**86**	**1**

Notes:
1. Data are from the COD as of 2:00 p.m. on July 28, 2020.
2. In workplace settings, the occurrence of two or more cases of laboratory-confirmed COVID-19 with an epidemiological link (i.e., there is reasonable probability of acquisition in the workplace) is considered an outbreak.

Please use the following citation when referencing this document:

Ottawa Public Health. COVID-19 Epidemiology Weekly Supplement. July 29, 2020. Ottawa (ON): Ottawa Public Health; 2020.

For further information about COVID-19 in Ottawa, visit ottawapublichealth.ca.

Data Tables

Data table for Figure 2 (Age of Ottawa residents with confirmed COVID-19)

Age	Number of Cases	Population	Rate (per 100,000)
0-9 years	68	109,973	62
10-19 years	123	113,243	109
20 to 29 years	384	161,498	238
30 to 39 years	323	158,259	204
40 to 49 years	328	134,815	243
50 to 59 years	339	139,786	243
60 to 69 years	256	118,913	215
70 to 79 years	188	75,781	248
80 to 89 years	275	33,540	820
90+ years	197	8,848	2,226
Total	**2,481**	**1,054,656**	**235**

Data table for Figures 1a and 1b are available on Open Ottawa (Excel file).
Data table for Figure 3 are available on Open Ottawa (csv file).
Data table for Figure 4 are available on Open Ottawa (csv file).
Data table for Figure 5 are available on Open Ottawa (csv file).
Data table for Figure 6 are available on Open Ottawa (csv file).