



COVID-19 Epidemiology Update

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

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Purpose

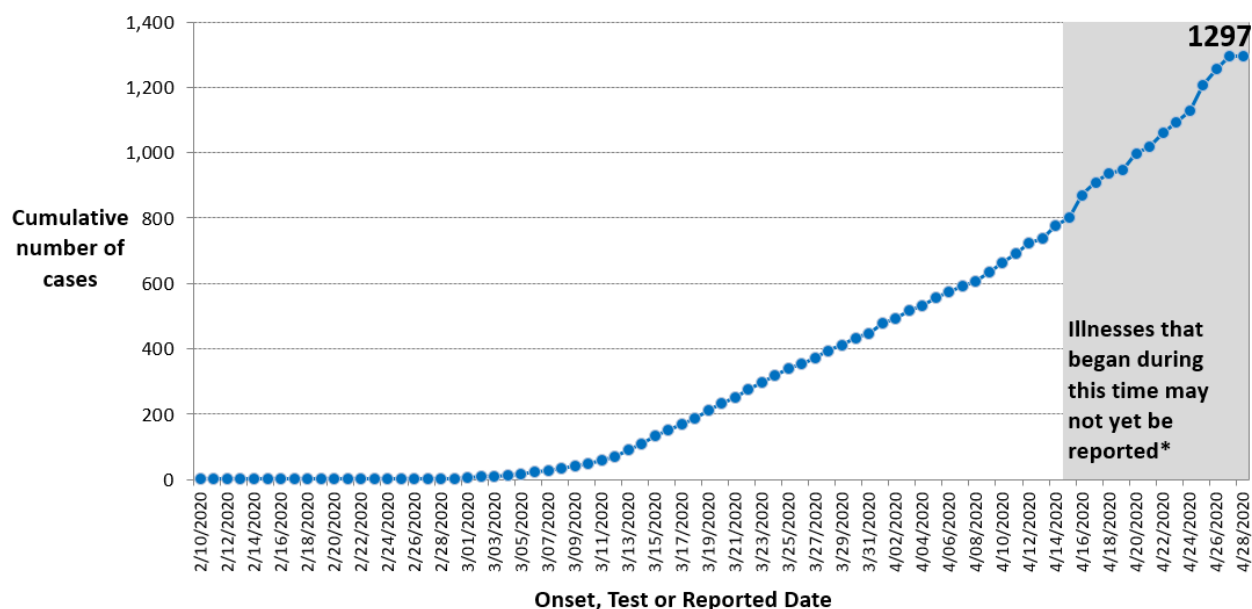
This daily report provides an epidemiologic summary of COVID-19 activity in Ottawa to date. The report includes the most current information available from the integrated Public Health Information System (iPHIS) and a chart review of COVID-19 cases as of 4:00 p.m. April 28, 2020.

Summary

- 1,297 laboratory-confirmed cases, including 76 deaths, have been reported in Ottawa.
- This includes 76 new cases and 5 new deaths since the previous report.
- 10% of cases have been hospitalized (cumulative), including 3% in intensive care (cumulative).
- The median age of cases is 56 years (range, 4 months to 105 years).
- There are 23 ongoing outbreaks in [institutions](#).
- The most common reported exposure settings for cases include: 65% with close contact with a case only, 14% with no travel and no known contact with a case, 10% with travel only, and 7% with exposure information pending.

Cases Over Time

Figure 1. Cumulative epidemiological curve of Ottawa residents with confirmed COVID-19, by the EARLIEST of onset date, test and reported date



Notes:

1. Data are from iPHIS and a chart review of individuals with COVID-19 -positive laboratory results as of 4:00 p.m. on April 28, 2020.
2. The onset date is the earliest of symptom onset, laboratory testing, and reporting dates. This means that in the graphs, cases are shown based on when the person's symptoms started, or if that is not known, the date that they were tested. If the test date is not known, the date that the case was reported to public health is used. 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. March 25, 2020 version 6.0.
4. A patient's exposure may have occurred up to 14 days prior to onset of symptoms.
5. *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.



Figure 2. Epidemiological curve of Ottawa residents with confirmed COVID-19, by the EARLIEST of onset, test and reported date, by outbreak association† (n=1,297)

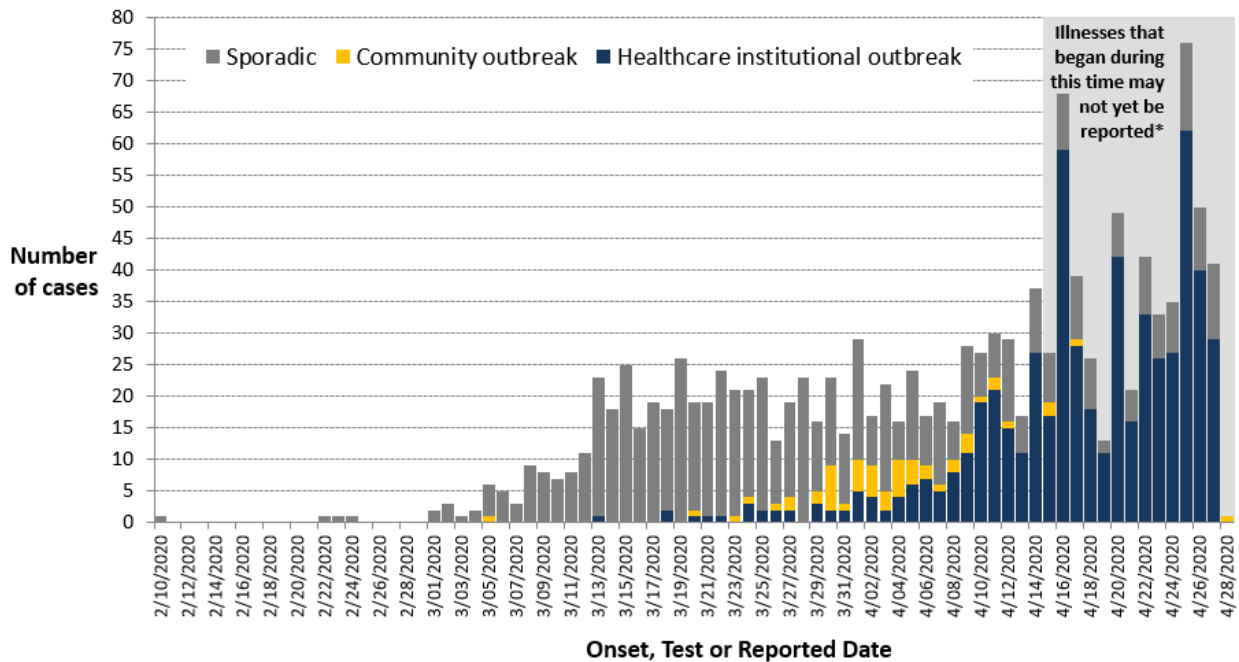
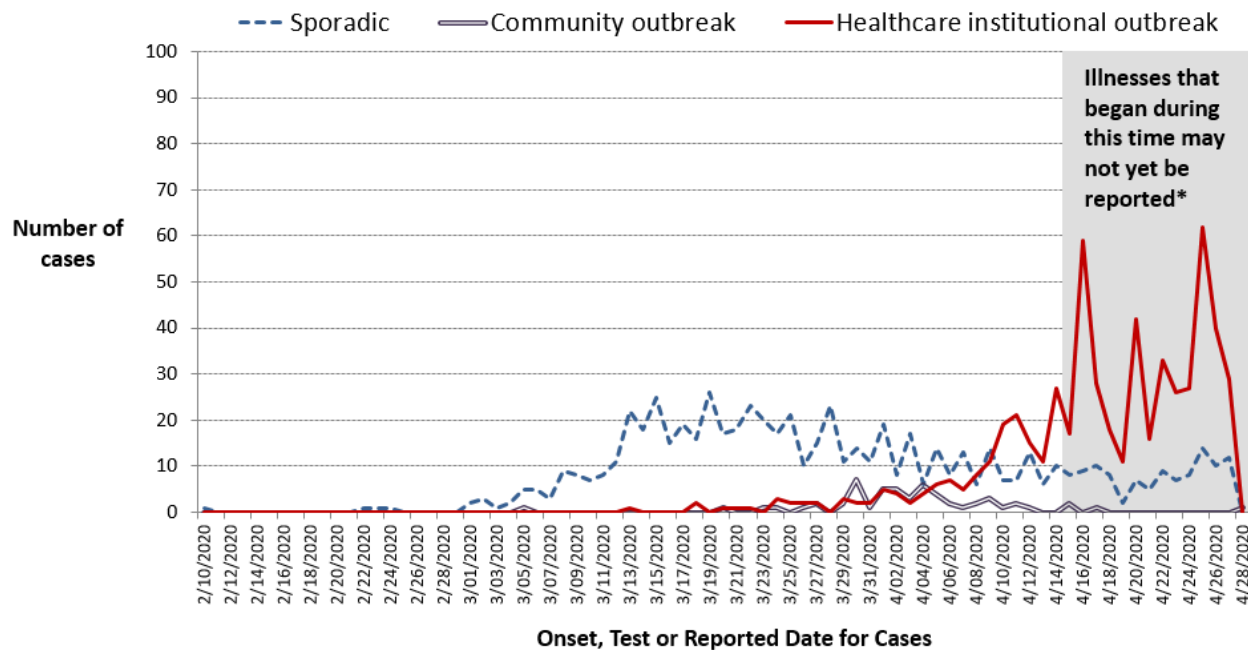


Figure 3. Epidemiological curve of Ottawa residents with confirmed COVID-19, by the EARLIEST of onset, test and reported date, by outbreak association† (n=1,297)



Notes:

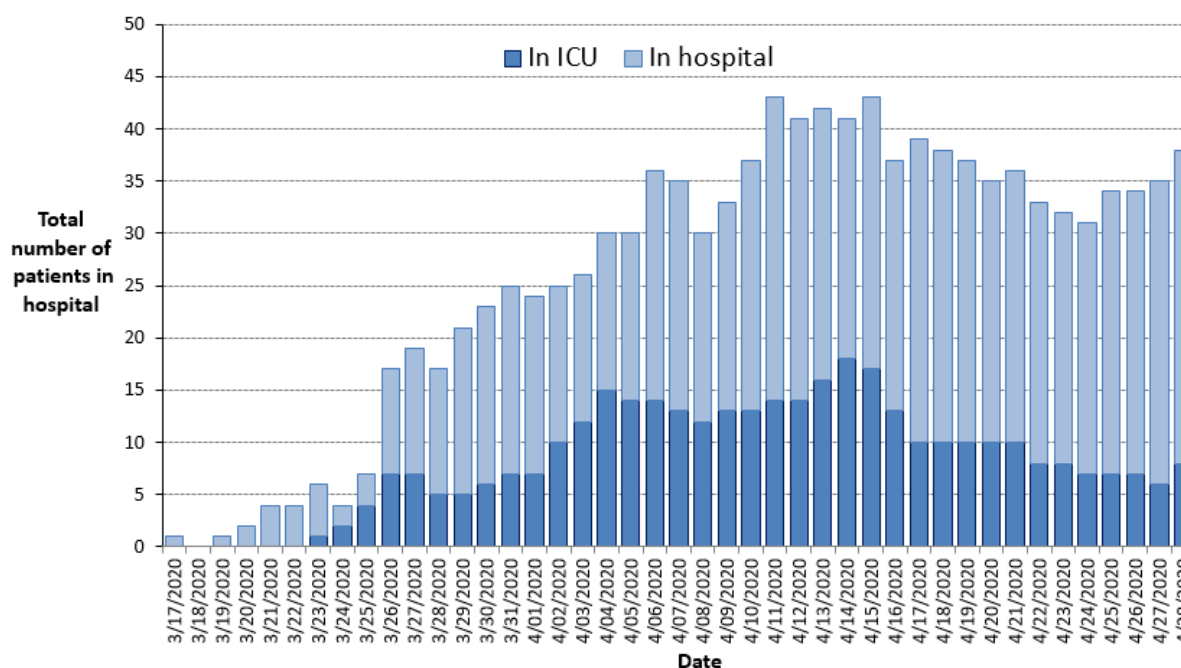
1. Data are from iPHIS and a chart review of individuals with COVID-19 -positive laboratory results as of 4:00 p.m. on April 28, 2020.
2. The onset date is the earliest of symptom onset, laboratory testing, and reporting dates. This means that in the graphs, cases are shown based on when the person's symptoms started, or if that is not known, the date that they were tested. If the test date is not known, the date that the case was reported to public health is used. 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. March 25, 2020 version 6.0.
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. The province has had to limit testing to priority groups. Since only a small fraction of all the persons who were infected with the COVID-19 virus were tested, 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

Figure 4. Ottawa residents with confirmed COVID-19 currently in hospital or intensive care, by day



Notes:

1. Data are taken from chart review of individuals with CoV-positive laboratory results, consulted at 4:00 pm on April 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. March 25, 2020 version 6.0.
3. The dark blue bars represent the number of patients currently in the ICU. The light blue bars represent the number of patients currently in hospital (excluding patients in the ICU).

Table 1. Severity of disease for Ottawa residents with confirmed COVID-19

Measure	Number	Percentage
All cases	1,297	
Cumulative hospitalized	126	10%
Currently in hospital	38	3%
Cumulative intensive care	39	3%
Currently in intensive care	8	<1%
Deaths	76	6%
Resolved ⁴	548	42%

Notes:

1. Data are taken from chart review of individuals with CoV-positive laboratory results, consulted at 4:00 p.m. on April 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. March 25, 2020 version 6.0.
3. Intensive care patients are a subset of hospitalized patients.
4. Resolved cases are persons whose symptoms have resolved and who have been discharged from isolation as per the Ministry of Health Public Health Guidance on Testing and Clearing Cases. March 26, 2020. version 2.0.



Case Characteristics

Table 2. Age, gender and occupation (health care worker or first responder) of Ottawa residents with confirmed COVID-19

Measure	Number	Percentage
Case count	1,297	-
Change from previous report	76	6% increase
Age, median (range)	56 years (4m-105y)	-
Age		
<5 years	8	1%
5 to 19 years	36	3%
20 to 44 years	388	30%
45 to 64 years	401	31%
65 years and older	464	36%
Unknown	0	0%
Gender		
Female	746	58%
Male	551	42%
Unknown	0	0%
Health care workers and first responders	260	20%

Notes:

1. Data are from iPHIS and a chart review of individuals with COVID-19 -positive laboratory results as of 4:00 p.m. on April 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. March 25, 2020 version 6.0.



Table 3. Age of Ottawa residents with confirmed COVID-19 that have been hospitalized (cumulative) and in intensive care (cumulative) (n=1,297)

Measure	Cumulative Hospitalized		Cumulative Intensive Care	
	Number	Percentage	Number	Percentage
Case count	126	10%	39	3%
Age, median (range)	64 years (29 to 98)		61 years (37 to 83)	
Age				
<5 years	0	0%	0	0%
5 to 19 years	0	0%	0	0%
20 to 44 years	14	11%	5	13%
45 to 64 years	50	40%	17	44%
65 years and older	62	49%	17	44%

Notes:

1. Data are taken from chart review of individuals with CoV-positive laboratory results, consulted at 4:00 p.m. on April 28, 2020.
2. Intensive care patients are a subset of hospitalized patients.
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. March 25, 2020 version 6.0.

Exposure Settings

Table 4. Exposures of Ottawa residents with confirmed COVID-19

Exposure	Number	Percentage
Travel only	126	10%
Travel and contact with a case	51	4%
Contact with a case only	840	65%
No travel and no known contact with a known case	183	14%
Undetermined/pending	97	7%
TOTAL	1,297	

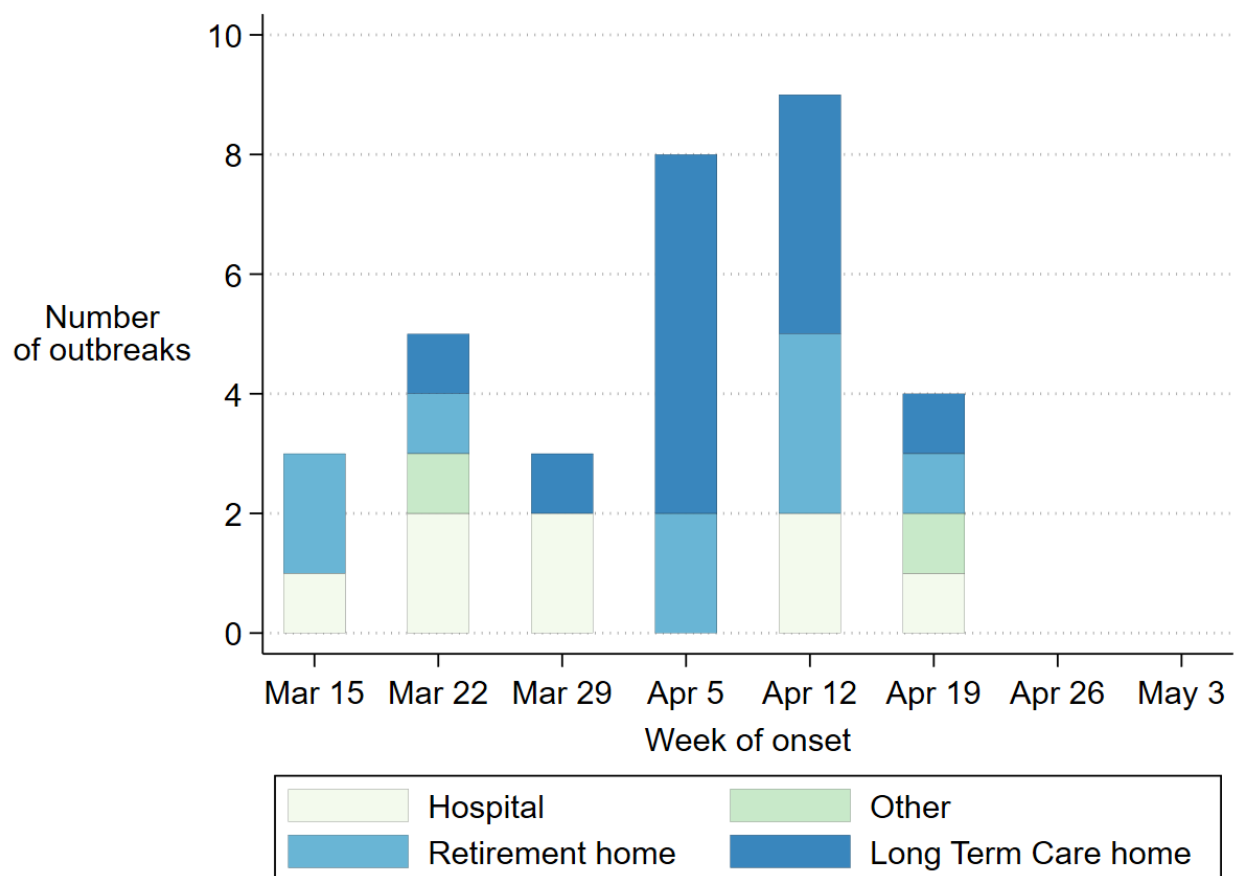
Notes:

1. Data as of 4:00 p.m. on April 28, 2020. Investigations are ongoing.
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. March 25, 2020 version 6.0.



Outbreaks

Figure 5. Total number of COVID-19 outbreaks in Ottawa institutions²



Notes:

1. Data as of 4:00 pm on April 28, 2020.
2. Nine outbreaks are closed and 23 are active. Investigation and data entry are ongoing.
3. One retirement home outbreak (Stirling Park) reported in the April 24-25 reports has been removed because it did not have a lab-confirmed case.
4. Institutions include long-term care homes, retirement homes, group homes (other) and public hospitals.



Data Notes & Sources

Data extracted represent a snapshot at the time of extraction and may differ in previous or subsequent reports. These data sources are used:

- 1) Case information
 - a. Ontario Ministry of Health, integrated Public Health Information System (iPHIS), extracted by Ottawa Public Health at 4:00 p.m. each day. iPHIS is a dynamic disease reporting system that allows for ongoing updates to data previously entered. Data extracted from the iPHIS database represent a snapshot at the time of extraction and can be different in previous or subsequent reports.
 - b. OPH Public Health Medical Unit case management chart review

Please use the following citation when referencing this document:

Ottawa Public Health. COVID-19 Epidemiology Update. April 29, 2020. Ottawa (ON): Ottawa Public Health; 2020.

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



Data Tables

Data Table for Figures 1

Earliest of Onset, Test or Reported Date	Cumulative Number of Ottawa Residents with Confirmed COVID-19
2/10/2020	1
2/11/2020	1
2/12/2020	1
2/13/2020	1
2/14/2020	1
2/15/2020	1
2/16/2020	1
2/17/2020	1
2/18/2020	1
2/19/2020	1
2/20/2020	1
2/21/2020	1
2/22/2020	2
2/23/2020	3
2/24/2020	4
2/25/2020	4
2/26/2020	4
2/27/2020	4
2/28/2020	4
2/29/2020	4
3/01/2020	6
3/02/2020	9
3/03/2020	10
3/04/2020	12
3/05/2020	18
3/06/2020	23
3/07/2020	26
3/08/2020	35
3/09/2020	43
3/10/2020	50



Earliest of Onset, Test or Reported Date	Cumulative Number of Ottawa Residents with Confirmed COVID-19
3/11/2020	58
3/12/2020	69
3/13/2020	92
3/14/2020	110
3/15/2020	135
3/16/2020	150
3/17/2020	169
3/18/2020	187
3/19/2020	213
3/20/2020	232
3/21/2020	251
3/22/2020	275
3/23/2020	296
3/24/2020	317
3/25/2020	340
3/26/2020	353
3/27/2020	372
3/28/2020	395
3/29/2020	411
3/30/2020	434
3/31/2020	448
4/01/2020	477
4/02/2020	494
4/03/2020	516
4/04/2020	532
4/05/2020	556
4/06/2020	573
4/07/2020	592
4/08/2020	608
4/09/2020	636
4/10/2020	663
4/11/2020	693



Earliest of Onset, Test or Reported Date	Cumulative Number of Ottawa Residents with Confirmed COVID-19
4/12/2020	722
4/13/2020	739
4/14/2020	776
4/15/2020	803
4/16/2020	871
4/17/2020	910
4/18/2020	936
4/19/2020	949
4/20/2020	998
4/21/2020	1019
4/22/2020	1061
4/23/2020	1094
4/24/2020	1129
4/25/2020	1205
4/26/2020	1255
4/27/2020	1296
4/28/2020	1297



Data table for Figure 2 and Figure 3

Earliest of Onset, Test or Reported Date	Daily Total of Sporadic COVID-19 Cases	Daily Total of COVID-19 Cases Linked to Community Outbreaks	Daily Total of COVID-19 Cases Linked to Outbreaks in Health Care Institutions	Daily Total of Ottawa Residents with Confirmed COVID-19
2/10/2020	1	0	0	1
2/11/2020	0	0	0	0
2/12/2020	0	0	0	0
2/13/2020	0	0	0	0
2/14/2020	0	0	0	0
2/15/2020	0	0	0	0
2/16/2020	0	0	0	0
2/17/2020	0	0	0	0
2/18/2020	0	0	0	0
2/19/2020	0	0	0	0
2/20/2020	0	0	0	0
2/21/2020	0	0	0	0
2/22/2020	1	0	0	1
2/23/2020	1	0	0	1
2/24/2020	1	0	0	1
2/25/2020	0	0	0	0
2/26/2020	0	0	0	0
2/27/2020	0	0	0	0
2/28/2020	0	0	0	0
2/29/2020	0	0	0	0
3/01/2020	2	0	0	2
3/02/2020	3	0	0	3
3/03/2020	1	0	0	1
3/04/2020	2	0	0	2
3/05/2020	5	1	0	6
3/06/2020	5	0	0	5
3/07/2020	3	0	0	3
3/08/2020	9	0	0	9
3/09/2020	8	0	0	8



Earliest of Onset, Test or Reported Date	Daily Total of Sporadic COVID-19 Cases	Daily Total of COVID-19 Cases Linked to Community Outbreaks	Daily Total of COVID-19 Cases Linked to Outbreaks in Health Care Institutions	Daily Total of Ottawa Residents with Confirmed COVID-19
3/10/2020	7	0	0	7
3/11/2020	8	0	0	8
3/12/2020	11	0	0	11
3/13/2020	22	0	1	23
3/14/2020	18	0	0	18
3/15/2020	25	0	0	25
3/16/2020	15	0	0	15
3/17/2020	19	0	0	19
3/18/2020	16	0	2	18
3/19/2020	26	0	0	26
3/20/2020	17	1	1	19
3/21/2020	18	0	1	19
3/22/2020	23	0	1	24
3/23/2020	20	1	0	21
3/24/2020	17	1	3	21
3/25/2020	21	0	2	23
3/26/2020	10	1	2	13
3/27/2020	15	2	2	19
3/28/2020	23	0	0	23
3/29/2020	11	2	3	16
3/30/2020	14	7	2	23
3/31/2020	11	1	2	14
4/01/2020	19	5	5	29
4/02/2020	8	5	4	17
4/03/2020	17	3	2	22
4/04/2020	6	6	4	16
4/05/2020	14	4	6	24
4/06/2020	8	2	7	17
4/07/2020	13	1	5	19
4/08/2020	6	2	8	16



Earliest of Onset, Test or Reported Date	Daily Total of Sporadic COVID-19 Cases	Daily Total of COVID-19 Cases Linked to Community Outbreaks	Daily Total of COVID-19 Cases Linked to Outbreaks in Health Care Institutions	Daily Total of Ottawa Residents with Confirmed COVID-19
4/09/2020	14	3	11	28
4/10/2020	7	1	19	27
4/11/2020	7	2	21	30
4/12/2020	13	1	15	29
4/13/2020	6	0	11	17
4/14/2020	10	0	27	37
4/15/2020	8	2	17	27
4/16/2020	9	0	59	68
4/17/2020	10	1	28	39
4/18/2020	8	0	18	26
4/19/2020	2	0	11	13
4/20/2020	7	0	42	49
4/21/2020	5	0	16	21
4/22/2020	9	0	33	42
4/23/2020	7	0	26	33
4/24/2020	8	0	27	35
4/25/2020	14	0	62	76
4/26/2020	10	0	40	50
4/27/2020	12	0	29	41
4/28/2020	0	1	0	1



Data Table for Figure 4

Date	Number of Ottawa residents with confirmed COVID-19 in hospital, excluding ICU	Number of Ottawa residents with confirmed COVID-19 in ICU	Number of Ottawa residents with confirmed COVID-19 in hospital, including ICU
3/17/2020	1	0	1
3/18/2020	0	0	0
3/19/2020	1	0	1
3/20/2020	2	0	2
3/21/2020	4	0	4
3/22/2020	4	0	4
3/23/2020	5	1	6
3/24/2020	2	2	5
3/25/2020	3	4	7
3/26/2020	10	7	17
3/27/2020	12	7	19
3/28/2020	12	5	18
3/29/2020	16	5	21
3/30/2020	17	6	23
3/31/2020	18	7	25
4/01/2020	17	7	24
4/02/2020	15	10	25
4/03/2020	14	12	26
4/04/2020	15	15	30
4/05/2020	16	14	30
4/06/2020	22	14	36
4/07/2020	22	13	35
4/08/2020	18	12	30
4/09/2020	20	13	33
4/10/2020	24	13	37
4/11/2020	29	14	43
4/12/2020	27	14	41
4/13/2020	26	16	42
4/14/2020	23	18	41
4/15/2020	26	17	43



Date	Number of Ottawa residents with confirmed COVID-19 in hospital, excluding ICU	Number of Ottawa residents with confirmed COVID-19 in ICU	Number of Ottawa residents with confirmed COVID-19 in hospital, including ICU
4/16/2020	24	13	37
4/17/2020	29	10	39
4/18/2020	28	10	38
4/19/2020	27	10	37
4/20/2020	25	10	35
4/21/2020	26	10	36
4/22/2020	25	8	33
4/23/2020	24	8	32
4/24/2020	24	7	31
4/25/2020	27	7	34
4/26/2020	27	7	34
4/27/2020	29	6	35
4/28/2020	30	8	38



Data Table for Figure 5

Week of symptom onset	Number of outbreaks in Ottawa hospitals	Number of outbreaks in other Ottawa institutions	Number of outbreaks in Ottawa retirement homes	Number of outbreaks in long-term care/ nursing homes in Ottawa
Mar 15	1	0	2	0
Mar 22	2	1	1	1
Mar 29	2	0	0	1
Apr 05	0	0	2	6
Apr 12	2	0	3	4
Apr 19	1	1	1	1
Apr 26	0	0	0	0
May 03				
May 10				
May 17				
May 24				
May 31				
Jun 07				
Jun 14				
Jun 21				
Jun 28				
Jul 05				
Jul 12				
Jul 19				
Jul 26				
Aug 02				
Aug 09				
Aug 16				
Aug 23				

