

Coronavirus Disease 2019 (COVID-19)

DAILY EPIDEMIOLOGY UPDATE

Updated: May 3, 2020, 11:00 AM ET

Highlights

Canada

- **57 148 (+1 576) cases**, including **3 606 (+160) deaths**, have been reported in Canada (overall case fatality rate of 6.3%).
- At least **893 490** people have been tested to date for COVID-19 in Canada, which corresponds to a test rate of **23 770** per million population.
 - At least **31 410** new people have been tested since the last report.
- The epidemiological summary is based on detailed case information for 30 721 cases received by the Public Health Agency of Canada (PHAC), which represents **54% of all reported COVID-19 cases in Canada (N=57 148)**.
 - The highest proportion of cases occurred among individuals 40-59 years of age (32%) followed by those 20-39 years of age (26%); 5% of cases are individuals ≤ 19 years of age.
 - 55% of cases are female.
- **Hospitalizations:**
 - Information on whether someone was admitted to hospital is reported for **20 065** cases.
 - Among these, 3 148 (16%) of cases were hospitalized, including 753 (24%) of the hospitalized cases admitted to the ICU.
 - Cases 60 years of age or older represent the highest proportion of hospitalizations (66%) and ICU admissions (63%).
 - Male cases appear to have a somewhat higher risk of hospitalization (1.4 times) and ICU admission (2.0 times) when compared to female cases.

International

- The United States is reporting the highest number of cases, followed by Spain, Italy, the United Kingdom, Germany, and France.

Data Notes

As of May 3, 2020, 11:00 AM ET, detailed data on cases have been received by PHAC for 54% (**n=30 721**) of all reported COVID-19 cases in Canada. Limitations of these data:

- Data are and may have missing values.
- Data may not be routinely updated by province and territories (P/Ts).
- PHAC does not receive routine updates on patient status.

PHAC's National Microbiology Laboratory collects national and PT laboratory testing information. Limitations of these data include:

- Testing practices vary by P/T and have changed over time, which may affect counts.
- Laboratory testing counts may be underestimated due to reporting delays and may not include additional sentinel surveillance or other testing performed.

Canadian epidemiology

As of May 3, 2020, 11:00 AM ET, **57 148 (+1 576) cases** of COVID-19, including **3 606 (+160) deaths**, have been reported in Canada (overall case fatality rate of 6.3%).

At least **893 490** people have been tested for COVID-19 in Canada (**Table 1**). This corresponds to a test rate of **23 770** per million population.

- At least **31 410** new people have been tested since the last report.
- The cumulative percent positivity is approximately 7%
- The seven day average percent positivity from April 27 to May 3 is approximately 6%

Table 1: Summary of COVID-19 cases reported in Canada by location

Location	Total Cases	New cases	Recovered	% Recovered	Total deaths	People tested*	New Tests	People tested per 1, 000, 000 pop'n
BC	2 171	26	1 376	63%	114	81 061	3 157	15 984
AB	5 670	97	2 534	45%	94	148 757	3 337	34 030
SK	421	6	302	72%	6	29 498	651	25 116
MB	280	1	236	84%	6	25 736	761	18 793
ON	17 553	434	12 005	68%	1 216	316 796	16 586	21 748
QC	29 656	1 008	6 965	23%	2 136	230 864	6 033	27 209
NL	259	0	231	89%	3	8 819	103	16 909
NB	118	0	118	100%	0	14 559	307	18 742
NS	963	4	609	63%	31	31 192	418	32 111
PE	27	0	24	89%	0	3 086	0	19 663
YK	11	0	11	100%	0	1 019	20	24 942
NT	5	0	5	100%	0	1 682	37	37 523
NU	1	0	0	0%	0	421	0	10 856
Repatriated travellers*	13	0	Unknown	Unknown	0	0	0	0
Total	57 148	1 576	24 416	43%	3 606	893 490	31 410	23 770

*For provinces and territories which report the number of tests completed, mathematical formula is used to estimate the number of unique people tested.

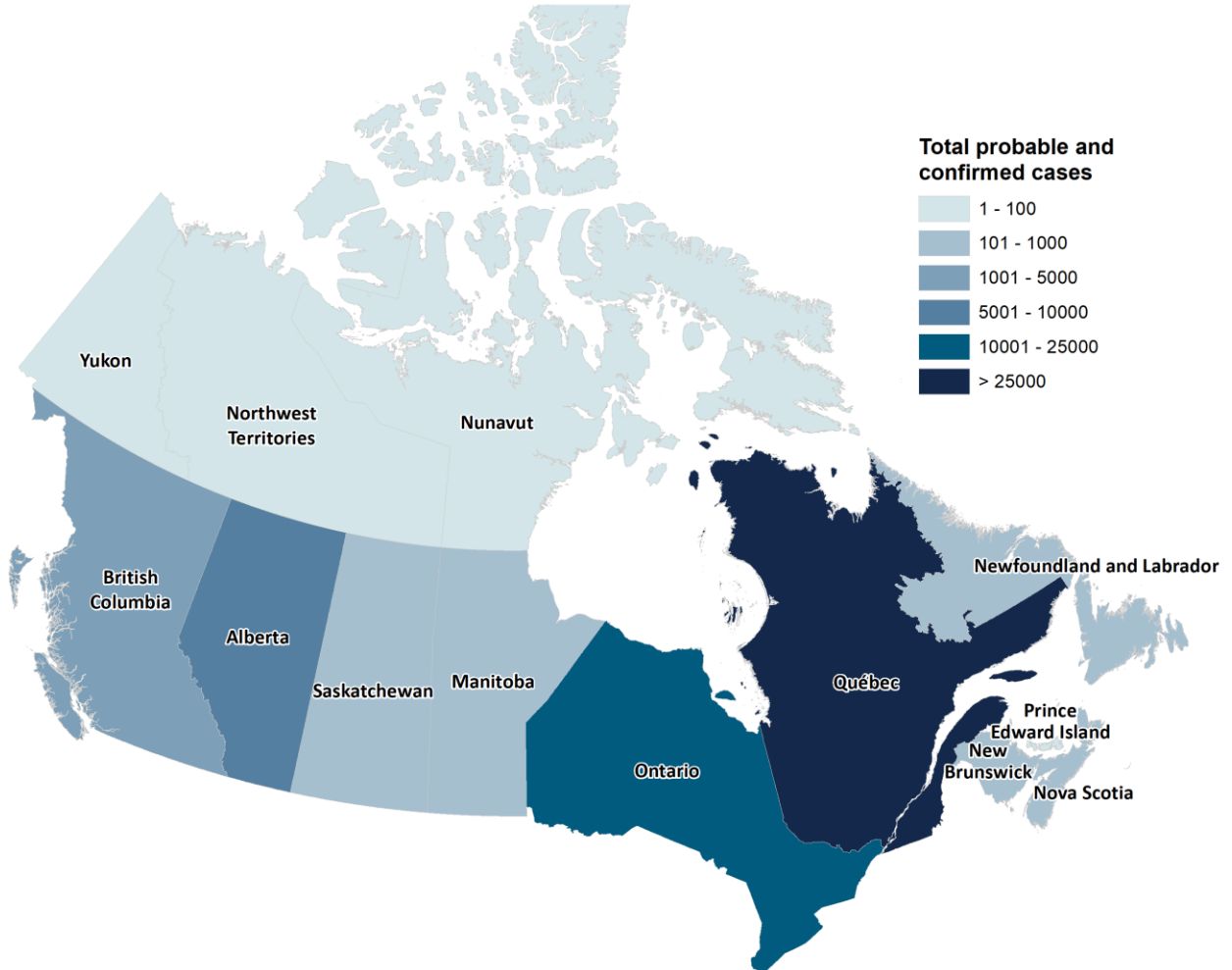
* Repatriated travellers refer to the Grand Princess cruise ship travellers who were under quarantine in Trenton. Update on their status is not available.

Notes: (1) New cases and tests are those reported since the previous report. (2) Laboratory testing numbers may be underestimated due to reporting delays and may not include additional sentinel surveillance or other testing conducted in the P/T.

The geographic distribution of cases by province/territory (P/T) are captured in **Figure 1**.

Quebec is reporting the highest number of cases, 29 656, followed by 17 553 in Ontario, 5 670 in Alberta and 2 171 in British Columbia.

Figure 1. Map of COVID-19 cases reported in Canada by province/territory (N=56 714)



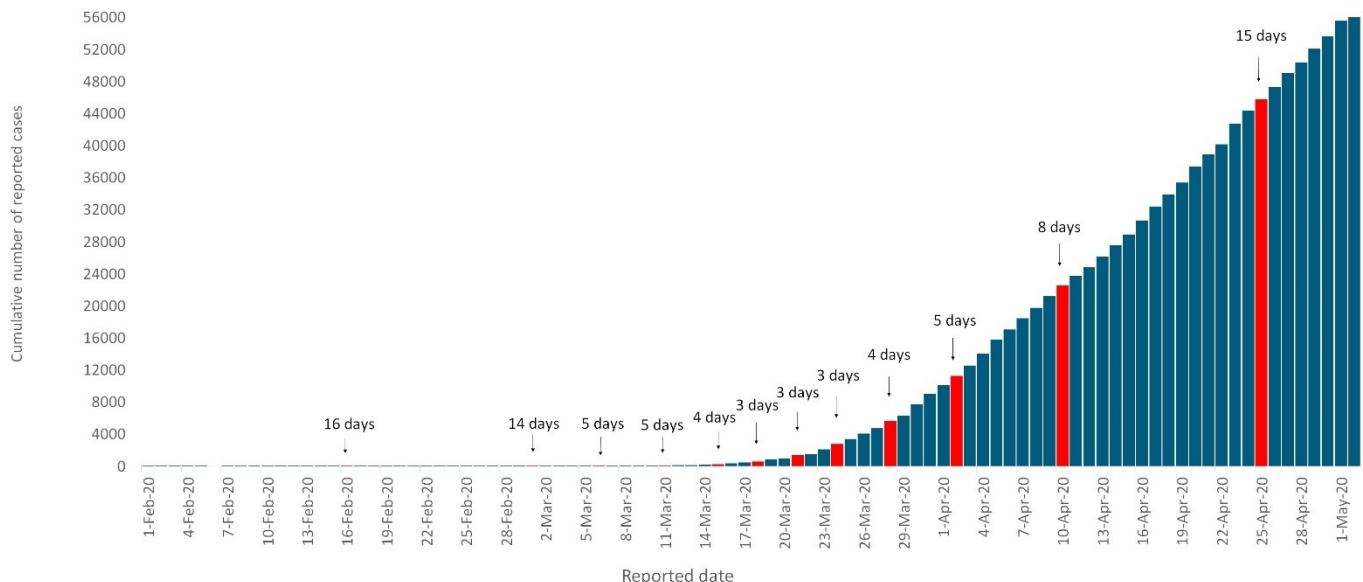
Data source: Surveillance and Risk Assessment Epidemiology Update. Map Created by NML Geomatics

The distribution of cumulative number of cases by report date (using publicly available P/T data) can be seen in **Figure 2**.

The epidemic doubling period of COVID-19 cases in Canada, defined as the number of days between doubling of cumulative case counts, is marked with red bars.

- Recently, Canada's rate of growth of COVID-19 cases has decreased and during the period of April 11 to 25th, the doubling time was 15 days.

Figure 2. Doubling time of cumulative number of reported COVID-19 cases in Canada by date of report (N=57 148)

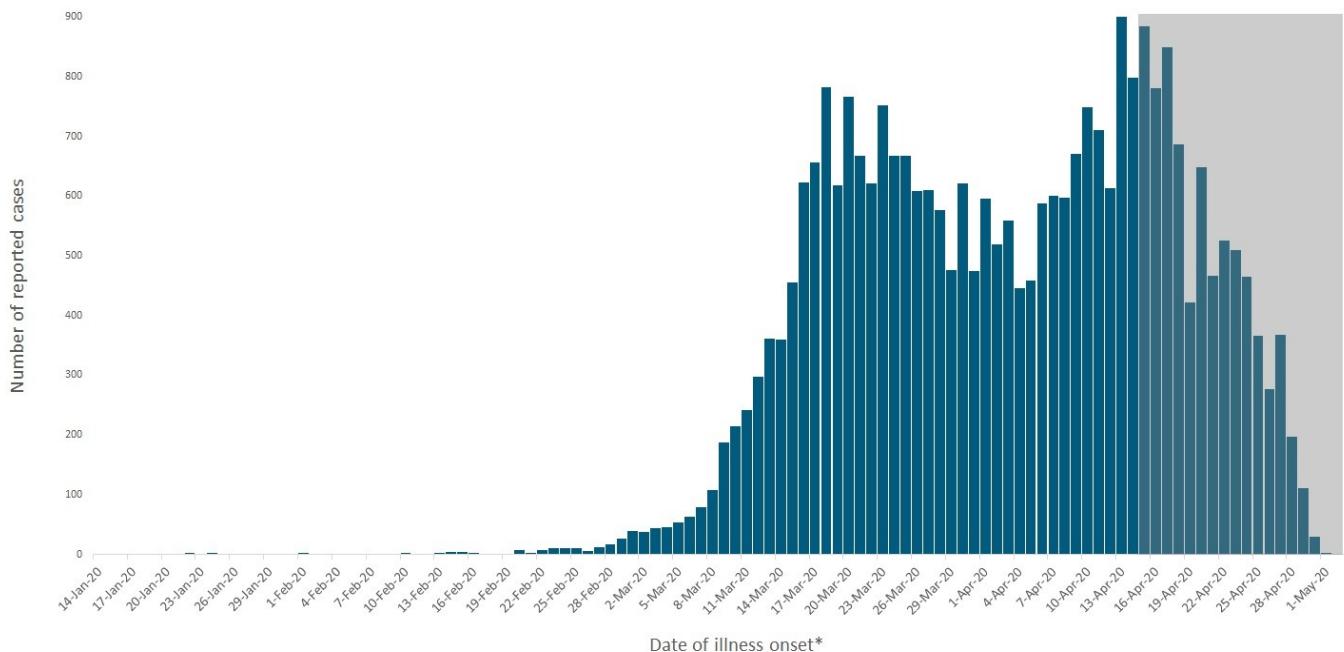


This section of the epidemiology update is based on the detailed case information received by PHAC for 30 721 cases. Not all data fields are complete for all cases.

Temporal Distribution

A summary of the distribution of cases by date of illness onset can be found in **Figure 3**.

Figure 3. New COVID-19 cases in Canada by date of illness onset (n=29 402)



*If date of illness onset was not available the earliest of the following dates was used as an estimate in the following order: Specimen Collection Date, and Laboratory Testing Date.

Note: The shaded area represents a period of time (lag time) where it is expected that cases have occurred but have not yet been reported nationally

Demographic Distribution

A summary of the demographics can be found in **Table 2**.

- The highest proportion of cases are among those aged 40-59 years (32%), followed by those aged 20-39 years (26%); 5% of cases have occurred in individuals ≤ 19 years of age
- 55% of cases were reported among females

Table 2. Demographic characteristics of COVID-19 cases reported in Canada

Characteristics		
Age (in years)		
Median	52	
Range	0-111	
Age groups	n=30 185	
≤ 19	1 538	(5%)
20-39	7 768	(26%)
40-59	9 791	(32%)
60-79	6 191	(21%)
80+	4 897	(16%)
Gender	n=30 470	
Female	16 863	(55%)
Male	13 596	(45%)
Other	11	(<1%)

Clinical Presentations and Outcome

A summary of the clinical presentations can be found in **Table 3**.

- The date of symptom onset for cases ranges from January 15, 2020, to May 1, 2020.
- The most common symptoms reported are cough, headache, and general weakness.
- 540 cases have been clinically or radiologically diagnosed with pneumonia. Of those diagnosed with pneumonia, 57% are cases aged ≥ 60 years, and 41% are aged 60-79 years.
- The most commonly reported pre-existing health conditions were cardiac disease, respiratory disease, and diabetes.

Table 3. Clinical presentation summary of COVID-19 cases reported in Canada

Clinical Presentations*		
Pre-Existing Conditions		
n= 8 269		
Cardiac	1,053	(13%)
Respiratory disease	1,016	(12%)
Diabetes	780	(9%)
Other	1 584	(19%)
Symptoms		
n=8 283		
Cough	6 121	(74%)
Headache	4 634	(56%)
Weakness	4 531	(55%)
Complications		
n=4 060		
Pneumonia	540	(13%)
Dyspnea	310	(8%)
Abnormal lung auscultation	269	(7%)
Other	117	(3%)

*The three most commonly reported pre-existing conditions, symptoms, and complications above are not mutually exclusive, and therefore may not sum to 100%.

Case severity

Of the 20 065 cases with hospitalization data reported, 3 148 cases (16%) reported hospitalization, including 753 (24%) admitted to the ICU (**Table 4**).

- Those aged ≥ 60 years have the highest proportion of reported hospitalizations (66%), ICU admissions (63%), and deaths (95%).
- Among cases ≤ 19 years of age, there were 22 reported hospitalizations and 2 ICU admissions.
- Of the 3 148 cases that were hospitalized, 74% reported one or more pre-existing conditions.

Table 4. Summary of severe cases of COVID-19 reported in Canada with detailed case information

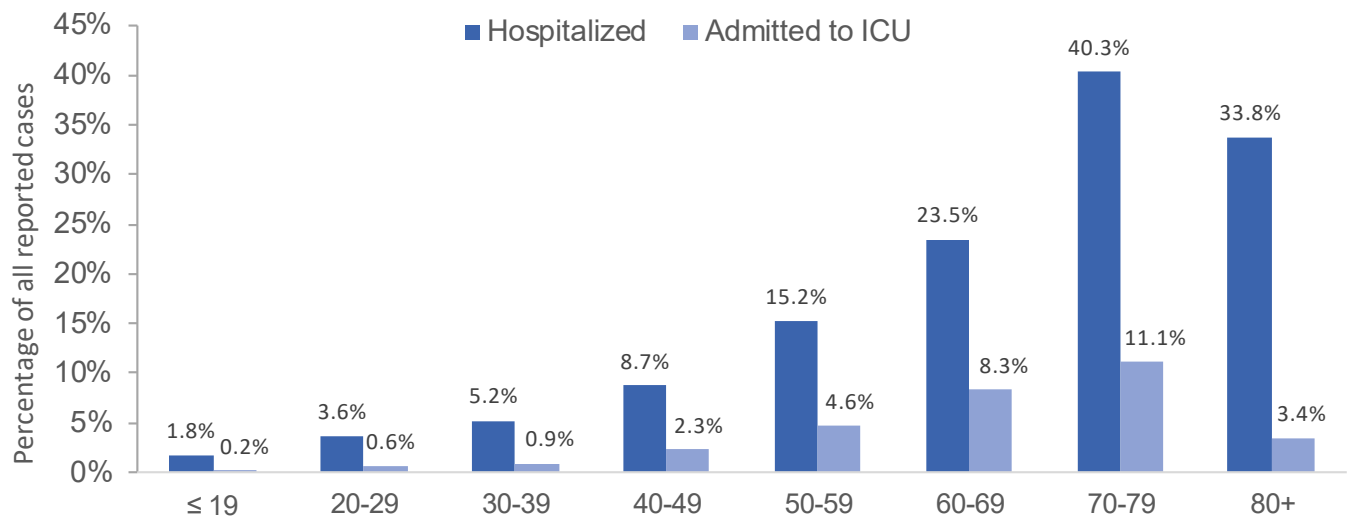
Case Severity						
Overall Summary Hospitalizations						
Hospitalizations			3 148/ 20 065		(16%)	
Hospitalizations in ICU			753/ 3 148		(24%)	
Hospitalizations requiring mechanical ventilation			159/ 3 148		(5%)	
All Hospitalizations			Admitted to ICU		Deceased	
Age groups						
≤ 19	22	(1%)	2	(<1%)	0	(0%)
20-39	235	(8%)	41	(6%)	11	(1%)
40-59	795	(26%)	229	(31%)	59	(4%)
60-79	1 238	(40%)	386	(52%)	372	(27%)
80+	810	(26%)	82	(11%)	946	(68%)
Total	3 100	(100%)	740	(100%)	1 388	(100%)
Gender						
Female	1 407	(45%)	272	(36%)	720	(52%)
Male	1 729	(55%)	479	(64%)	662	(48%)
Other	1	(<1%)				
Total	3 137	(100%)	751	(100%)	1 382	(100%)

Note: Hospitalizations may include admission to hospital and emergency room. Patients requiring mechanical ventilation are classified as hospitalized although ventilation may occur in other settings. ICU refers to Intensive Care Unit. PHAC does not receive routine updates on patient status.

Of the 19 586 cases with information on hospitalization status and age, the proportion of cases hospitalized and admitted to ICU are described by age group in **Figure 4**.

- Of all COVID-19 cases ≥ 60 years of age that have reported detailed case information (n=6 500), 2 048 (32%) have been hospitalized and 468 (7%) have been admitted to the ICU.

Figure 4. By age group, the percentage of COVID-19 cases with detailed case information that are hospitalized and admitted to ICU in Canada (n=19 586)

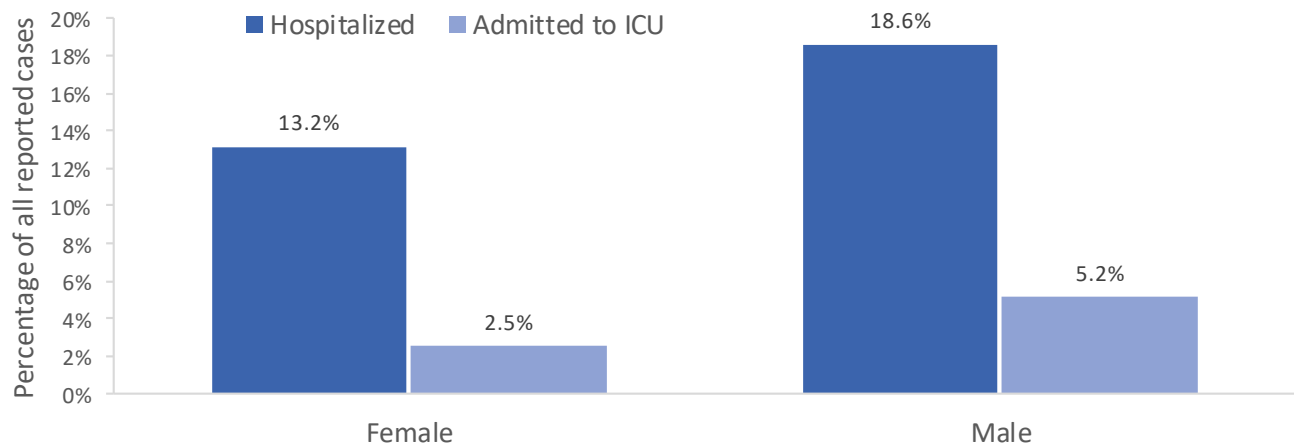


Of the 19 991 cases with information on hospitalization status and gender, the proportion of cases hospitalized and admitted to ICU, are described by gender in **Figure 5**.

- Male cases appear to have a somewhat higher risk of hospitalization (1.4 times), and ICU admission (2.0 times) compared to female cases.*

*Please note that this information has not been tested for statistical significance and is only based on a portion of all cases.

Figure 5. By gender, the percentage of COVID-19 cases with detailed case information that are hospitalized and admitted to ICU in Canada (n=19 991)

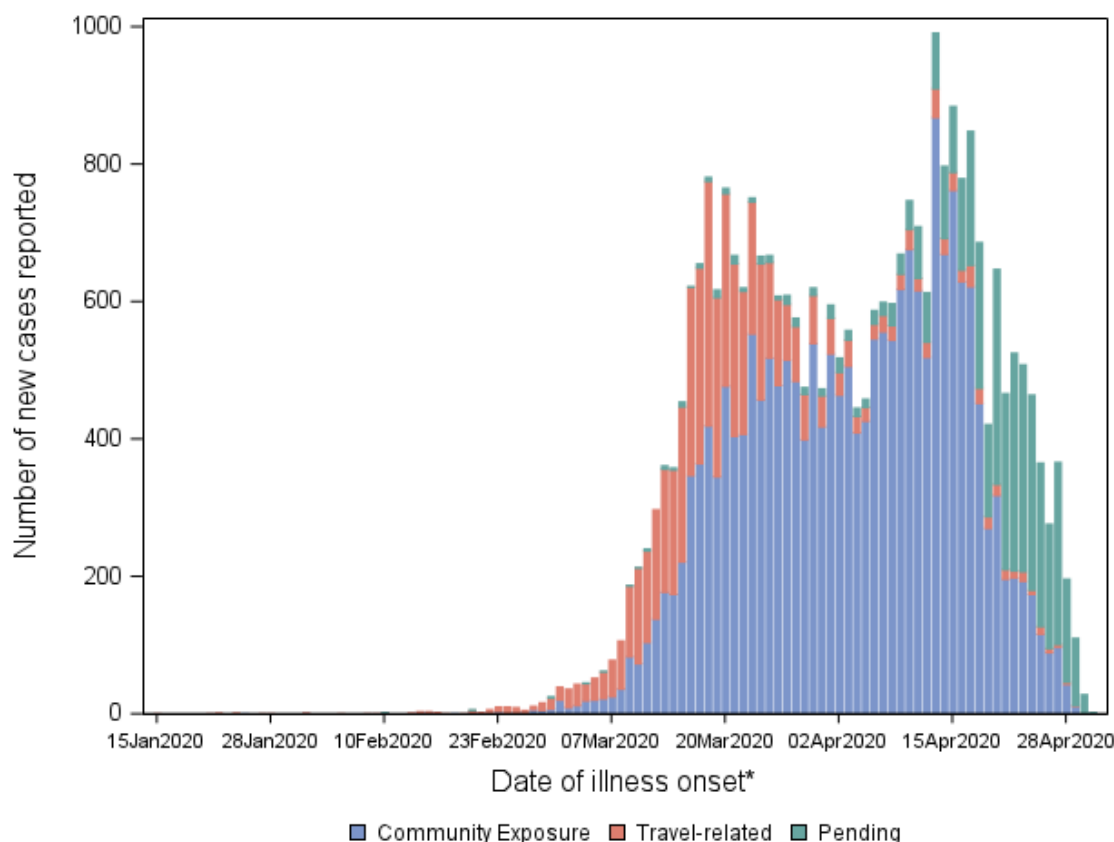


Exposure History

A summary of the exposure history of cases can be found in **Figure 6** and **Table 5**.

- The number of cases related to community transmission surpassed travel-related cases on March 15 2020

Figure 6. Number of newly reported COVID-19 cases in Canada by possible exposure category (n=29 402)



*Episode date corresponds to the earliest date reported according to the following order: Symptom Onset Date, Specimen Collection Date, and Laboratory Testing Date. Cases that do not include any of these date types have been excluded from the curve.

Table 5. Possible exposure setting of COVID-19 cases reported in Canada

Possible Exposure Setting		n= 30 721	
Travel-Related		n=5 152	17%
History of international travel	4 052		79%
Close contact of an international traveller	1 100		21%
Community-Related		n=21 468	70%
Case exposed in a healthcare facility*	4 088		19%
Case lives in a long-term care facility	480		2%
Close contact with case in a household	816		4%
Close contact with case in a workplace‡	207		1%
Case attends/works at a school or daycare	206		1%
Case has no known exposures†	15 671		73%
Pending		n=4 101	13%

*Includes healthcare workers and exposure in health care setting

‡ Excludes healthcare settings

† Includes community transmission where specific setting was not reported as well as cases where no clear exposure setting was reported

FluWatchers

FluWatchers is an online health surveillance system that helps track the spread of flu-like illness across Canada.

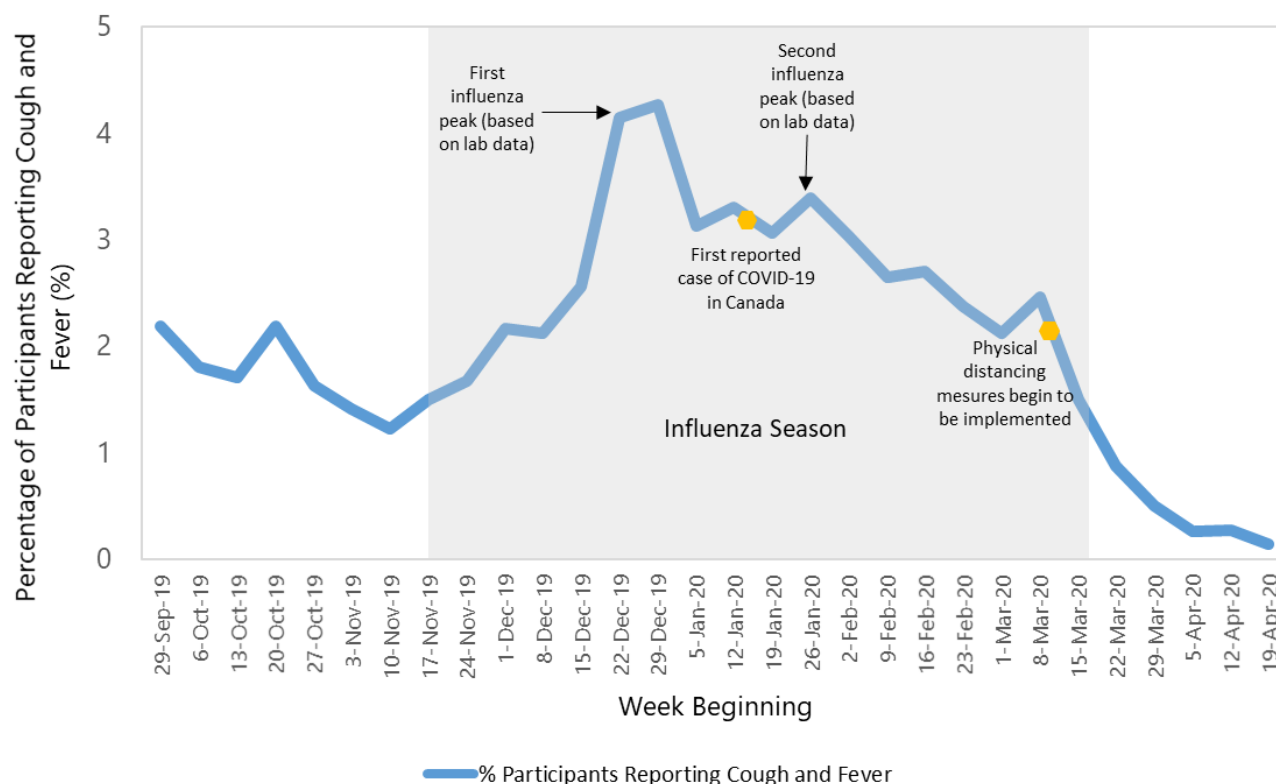
FluWatchers normally track the flu, but with the COVID-19 pandemic, we are shifting our focus to tracking COVID-19 over the spring and summer months. The FluWatchers program relies on Canadian volunteers to report each week.

In the week of April 19, 2020, 9 750 participants reported into the FluWatchers program. A total of 15 participants (0.2%) reported cough and fever.

Among the 15 participants reporting cough and fever:

- 9 (60%) sought medical attention
- 3 (20%) were tested
 - 1 test was positive for COVID-19 and 2 test results were negative

Figure 7: Percentage of FluWatchers Participants Reporting Cough and Fever (N=9 750 the week of April 19, 2020)



International

- The United States is the epicentre of the global pandemic (**Table 6**).
 - There are 1 133 069 cases and 66 385 deaths (CFR of 5.9%) reported in the United States as of May 3, 2020, at 8:00 AM⁷.
 - Further information on the situation in the US can be found on [US CDC website](#) and in their weekly [COVID-19 surveillance report](#).
- 210 countries/jurisdictions outside mainland China have reported cases of COVID-19.
- The United States is reporting the highest number of cases, followed by Spain, Italy, the United Kingdom, Germany, and France.
- Up-to-date country-specific risk levels may be found on [travel health notices](#).

Table 6. Global number* of reported COVID-19 cases, May 3, 2020, 8:00 AM ET

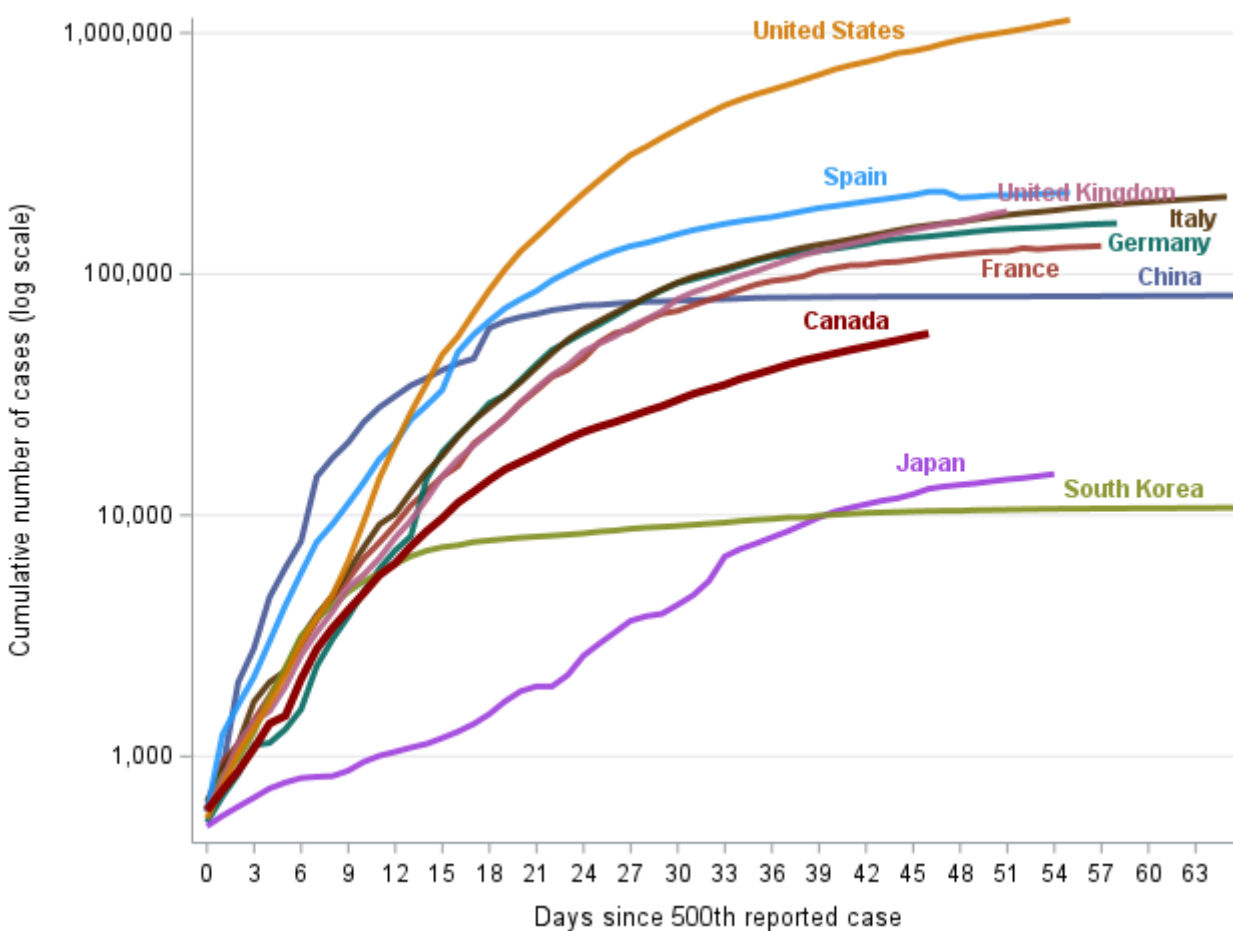
Location	Total cases	New cases	Total deaths	New deaths
Globally	3 390 536	81 179	243 523	4 816
USA	1 133 069	28 908	66 385	1 317
Mainland China	82 877	2	4 633	0

*Information Sources: ECDC Situation update, Hong Kong Centre for Health Protection, Chinese Center for Disease Control and Prevention, Spain MOH, Germany MOH, France MOH, Italy MOH, and Johns Hopkins Resource Center.

A summary of the cumulative cases of COVID-19 in Canada compared to other countries by date of report can be seen in **Figure 8**.

- Data reported in the coming days and weeks will continue to be critical in determining the trajectory of Canada's epidemic.

Figure 8. Cumulative cases of COVID-19 in Canada compared to other countries by date of report



Note: At this time, results from international comparisons should be interpreted with caution. The number of tests conducted and indications for testing by country all have a large influence on total reported case counts. Therefore, the data displayed does not necessarily represent the true size of outbreak within each country.