Coronavirus Disease 2019 (COVID-19)

DAILY EPIDEMIOLOGY UPDATE

Updated: April 25, 2020, 11:00 AM ET

Highlights

Canada

- **44 363 (+1 614) cases,** including **2 350 (+153) deaths,** have been reported in Canada (overall case fatality rate of 5.3%).

- At least **669 558** people have been tested to date for COVID-19 in Canada, which corresponds to a test rate of **17 812** per million population.
    - The cumulative percent positivity is 6.8%.
    - The weekly percent positivity from April 13 to April 19 is 9.1%.

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

- The epidemiological summary is based on detailed case information received for **58% of reported COVID-19 cases (N= 25 850)*** in Canada.
    - **Age and gender:**
        - The highest proportion of cases occurred among individuals 40-59 years of age (33%) followed by those 20-39 years of age (25%).
        - Only 5% of cases are individuals ≤ 19 years of age.
        - 55% of cases are female.

    - **Hospitalizations**:
        - Hospitalization data are available for 15 858 cases with detailed case information.
            - Among these, 2 696 have been hospitalized, including 673 in ICU.
        - While 37% of the cases were 60 years of age and older, this age group represents the highest proportion of hospitalizations (66%) and ICU admissions (64%).
        - 16 hospitalizations and two admissions to ICU were reported in individuals ≤ 19 years of age.
        - Male cases appear to have a somewhat higher risk of hospitalization, and ICU admission compared to female cases.

International

- 208 countries/jurisdictions have reported cases of COVID-19.
- The United States is reporting the highest number of cases, followed by Spain, Italy, Germany, the United Kingdom, and France.

*Data Notes

As of April 25, 2020, 11:00 AM ET, detailed data on cases have been received for **25 850 cases** (58% of reported cases). Data on these cases are preliminary and may have missing values for characteristics of interest.

Provinces and territories may not routinely update detailed data. Data on hospitalization status is known for 61% of cases with detailed case information. PHAC does not receive routine updates on patient status.

Testing practices vary by province/territory and have changed over time, which can affect case counts. Laboratory testing numbers may be an underestimate due to reporting delays and may not include additional sentinel surveillance or other testing performed.

Canadian epidemiology

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

Location	Total Cases	Total Confirmed	Total Probable	Total Deaths	New cases	% change	Recovered	% Recovered	People tested per 1 000 000	People Tested
BC	1 853	1 853	0	98	29	2%	1 114	60%	12 430	63 039
AB	4 017	4 017	0	72	297	8%	1 397	35%	26 733	116 859
SK	341	341	0	4	10	3%	280	82%	21 880	25 697
MB	263	252	11	6	1	0%	196	75%	15 860	21 720
ON	13 995	13 995	0	811	476	4%	7 509	54%	13 749	200 270
QC	22 616	22 616	0	1 340	778	4%	4 724	21%	22 483	190 765
NL	256	256	0	3	0	0%	207	81%	14 058	7 332
NB	118	118	0	0	0	0%	107	91%	15 713	12 206
NS	850	850	0	16	23	3%	392	46%	27 095	26 320
PE	26	26	0	0	0	0%	24	92%	16 337	2 564
YK	11	11	0	0	0	0%	8	73%	21 736	888
NT	5	5	0	0	0	0%	5	100%	34 288	1 537
NU	0	0	0	0	0	0%	0	0%	9 309	361
Repatriated travellers*	13	13	0	0	0	0%	Unknown	Unknown	0	0
Total	**44 364**	**44 353**	**11**	**2 350**	**1 614**	**4%**	**15 963**	**36%**	**17 812**	**669 558**

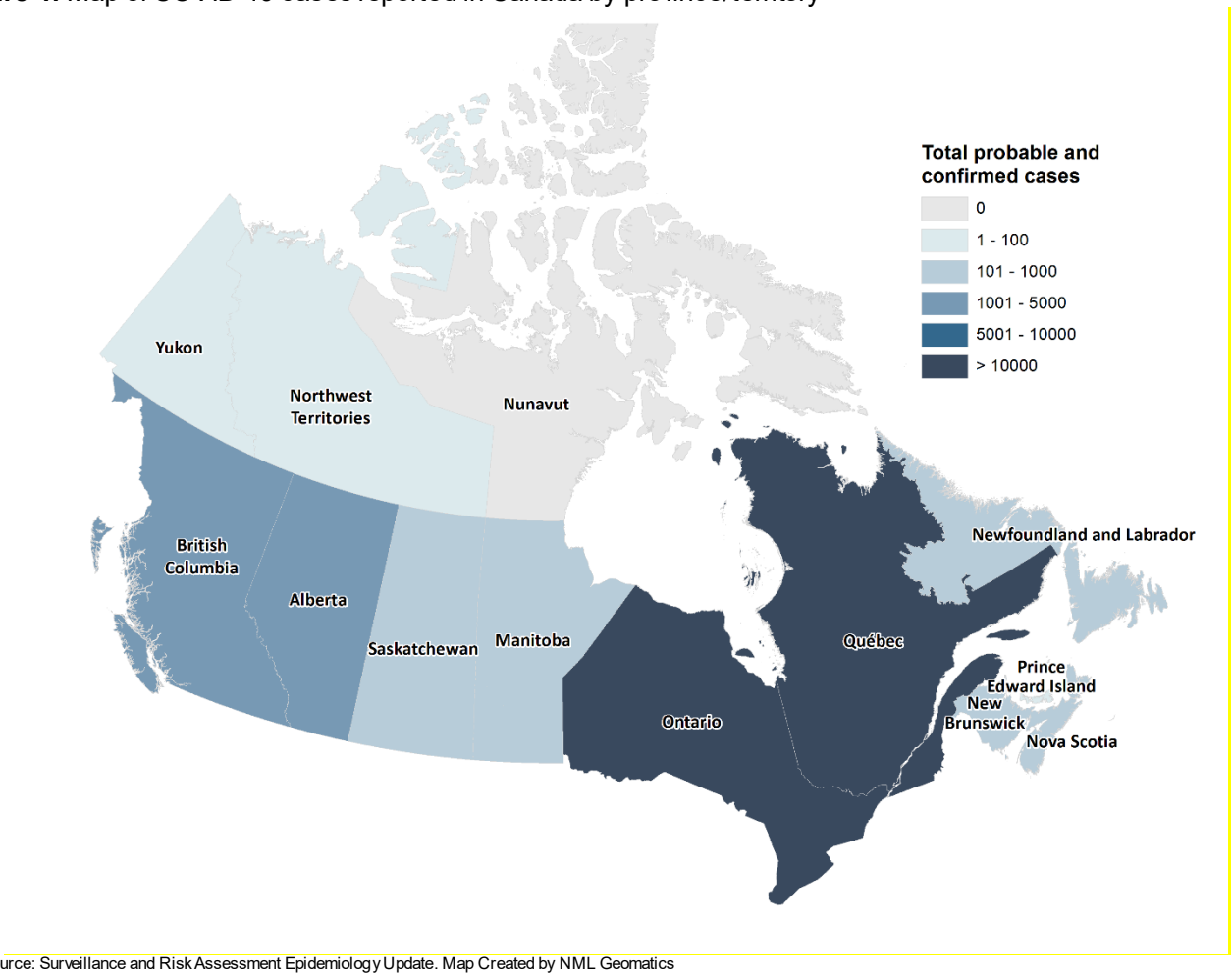
** Repatriated travellers refer to the Grand Princess cruise ship travellers who were under quarantine in Trenton. Update on their status is not available.*
***Notes:** New cases are those reported since the previous report. Probable cases have tested positive at a provincial laboratory and are awaiting confirmatory testing results from the National Microbiology Laboratory. Laboratory testing numbers may represent an underestimation due to reporting delays and may not include additional sentinel surveillance or other testing conducted in the P/T.*

At least **669 558** people have been tested for COVID-19 in Canada. This corresponds to a test rate of **17 812** per million population.

- The cumulative percent positivity is 6.8%.
- The weekly percent positivity from April 13 to April 19 is 9.1%.*

*The weekly percent positivity will be updated in reports published on Mondays for the previous 7 days.

Figure 1. Map of COVID-19 cases reported in Canada by province/territory



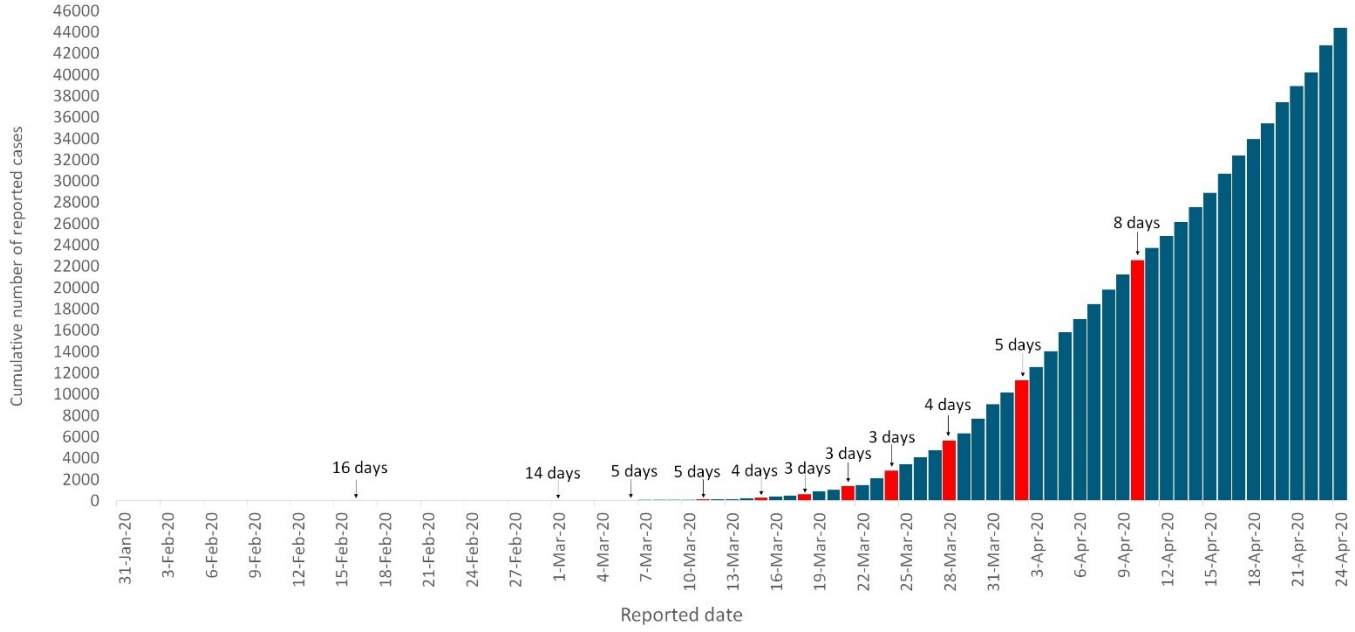
Data source: Surveillance and Risk Assessment Epidemiology Update. Map Created by NML Geomatics

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.

- The rate of doubling of reported cases in Canada has changed from doubling about every 3-4 days in the period March 12 to 28 to doubling approximately every 5-8 days during the period March 29 to April 10.
- More recently, Canada's rate of growth of COVID-19 cases has decreased and the current rate of doubling is greater than 14 days.

Figure 2. Doubling time of cumulative number of reported COVID-19 cases in Canada by date of report



FluWatchers

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

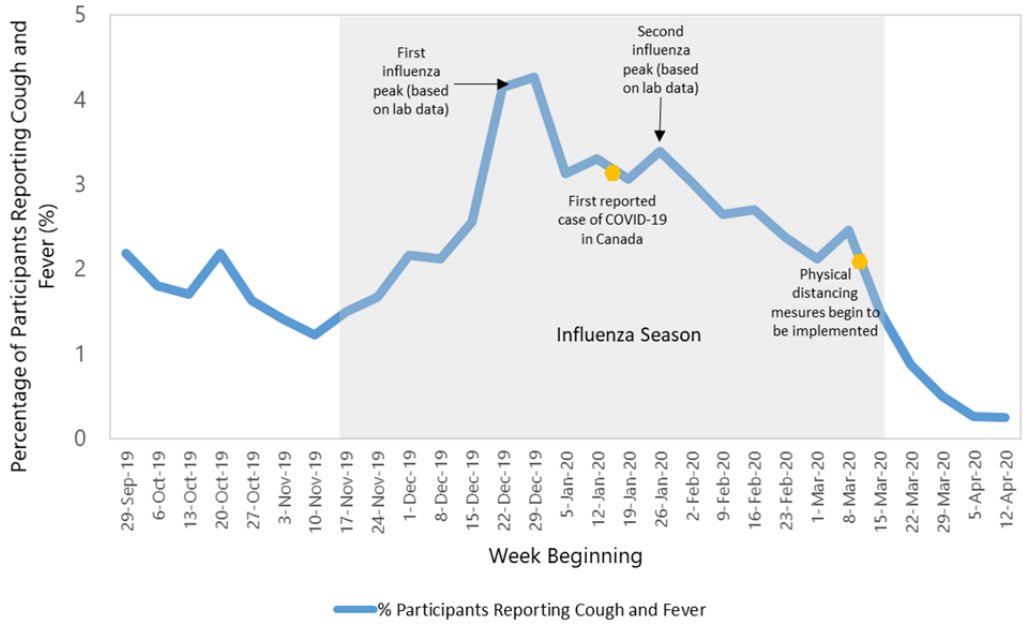
FluWatchers normally track the flu, but with the COVID-19 pandemic, we are shifting our focus to tracking COVID-19 over the spring and summer months. The FluWatchers program relies on Canadian volunteers to report each week.

In the week of April 12, 2020, 9 484 participants reported into the FluWatchers program. A total of 24 participants (0.3%) reported cough and fever.

Among the 24 participants reporting cough and fever:

- 10 (42%) sought medical attention
- 5 (20%) were tested
    - 1 test was positive for COVID-19 and 4 test results were negative

Figure 3: Percentage of FluWatchers Participants Reporting Cough and Fever (N=9 484 the week of April 12, 2020)

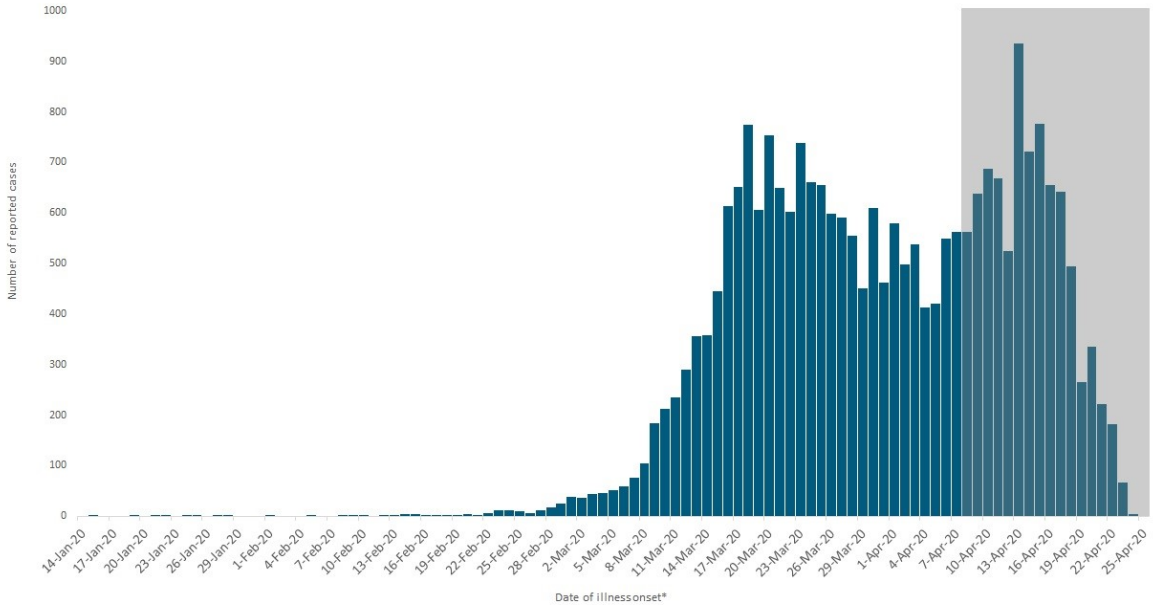


This section of the epidemiology update is based on more detailed case information provided by provinces/territories (N=25 850). The number of cases for which we have information varies by characteristic of interest.

Temporal Distribution

A summary of the distribution of cases by week of illness onset can be found in **Figure 4**.

Figure 4. New COVID-19 cases in Canada by date of illness onset (n=24 606)



*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 of reported cases can be found in **Table 2**.

- The highest proportion of cases are among those aged 40-59 years (33%), followed by those aged 20-39 years (25%)
- 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=	25 314
≤ 19	1 228	(5%)
20-39	6 454	(25%)
40-59	8 255	(33%)
60-79	5 357	(21%)
80+	4 020	(16%)
Gender	n=	25 628
Female	14 163	(55%)
Male	11 453	(45%)
Other	12	(<1%)

Clinical Presentations and outcome

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

- The date of symptom onset for cases ranged from January 15, 2020, to April 24, 2020.
- Cough, headache, and general weakness are the most common symptoms reported.
- 508 cases have been clinically or radiologically diagnosed with pneumonia. Of those who reported age, 56% are cases 60 years of age and over with individuals 60-79 representing 42%.
- 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=**	**7 859**
Cardiac	973	(12%)
Respiratory disease	964	(12%)
Diabetes	726	(9%)
Other	1 508	(19%)
Symptoms	**n=**	**7 853**
Cough	5 853	(75%)
Headache	4 459	(57%)
Weakness	4 363	(56%)
Complications	**n=**	**3 874**
Pneumonia	508	(13%)
Dyspnea	303	(8%)
Abnormal lung auscultation	265	(7%)
Other	270	(7%)

Case severity

A total of 2 696 cases (n=15 858) have been hospitalized, including 673 in ICU (**Table 4**).

- 66% of all reported hospitalizations, 64% of all reported ICU admissions, and 94% of deaths occurred among those aged ≥ 60 years.
- 16 hospitalizations and two ICU admissions were reported in individuals ≤ 19 years of age.
- 74% of hospitalized cases reported having one or more pre-existing conditions.

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

Severe Cases						
Overall Summary Hospitalizations			n=15 858			
Hospitalizations			2 696	(17%)		
Hospitalizations in ICU			673/ 2 696	(25%)		
Hospitalizations requiring mechanical ventilation			153/ 2 696	(6%)		
Breakdown by:	**All Hospitalizations**		**Admitted to ICU**		**Deceased**	
Age groups						
≤ 19	16	(1%)	2	(0%)	0	(0%)
20-39	204	(8%)	37	(6%)	7	(1%)
40-59	689	(26%)	203	(31%)	44	(4%)
60-79	1 079	(41%)	348	(53%)	280	(28%)
80+	660	(25%)	70	(11%)	652	(66%)
Total	**2 648**	**(100%)**	**660**	**(100%)**	**983**	**(100%)**
Gender						
Female	1 186	(44%)	232	(35%)	486	(50%)
Male	1 498	(56%)	438	(65%)	492	(50%)
Other	2	(<1%)	1	(<1%)		
Total	**2 686**	**(100%)**	**671**	**(100%)**	**978**	**(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.

Case severity by age group and by gender is presented in **Figure 5** and **Figure 6**, respectively.

- Of cases ≥ 60 years of age, 35% have required hospitalization and 8% have been admitted to the ICU.
    - Cases 70 to 79 year olds have been hospitalized at the highest percentage (43%) and admitted to the ICU at the highest percentage (12%).
- Male cases appear to have a somewhat higher risk of hospitalization (1.4 times), and ICU admission (2.1 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. Percent of COVID-19 cases hospitalized and admitted to ICU by age group in Canada (n= 15 381)

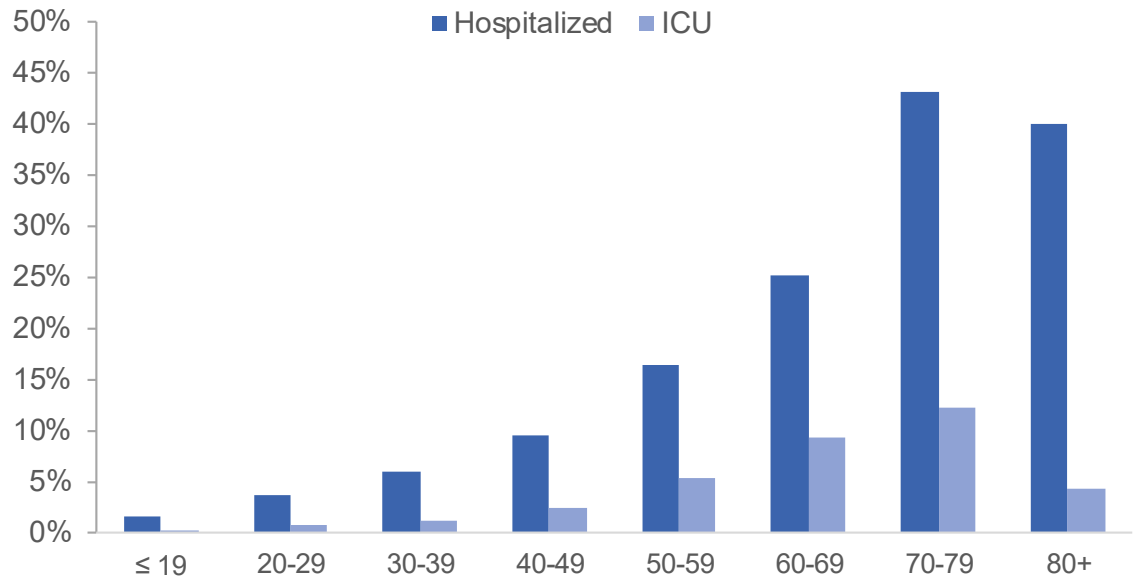
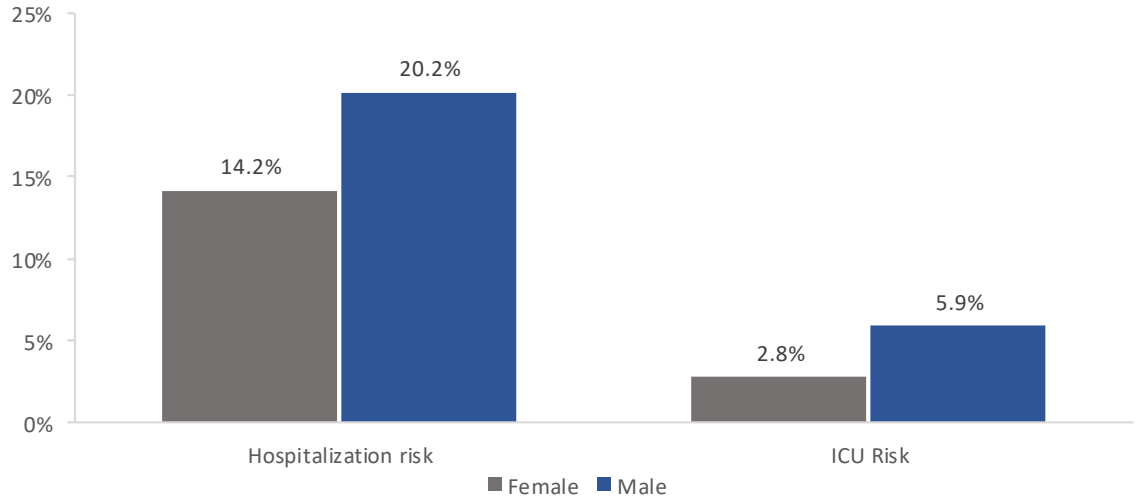


Figure 6. Percent of COVID-19 cases hospitalized and admitted to ICU by gender in Canada (n= 15 794)

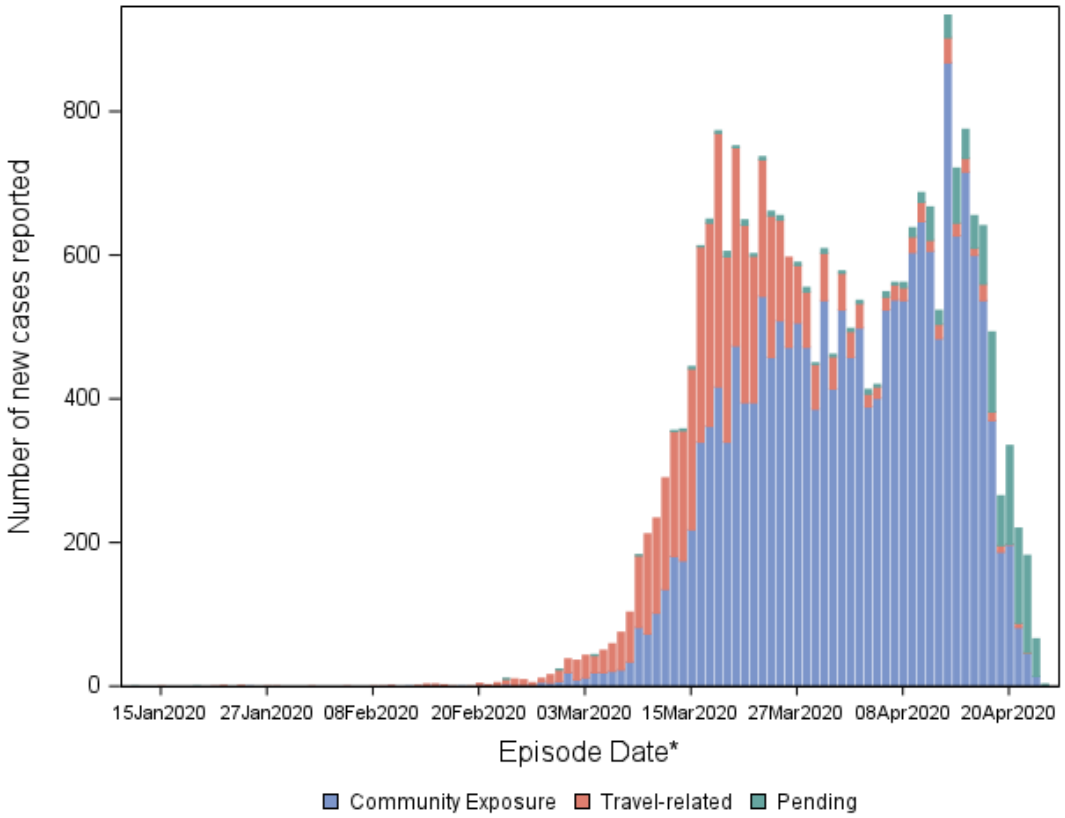


Exposure History

A summary of the exposure history of cases can be found in **Figure 7** and **Table 5.**

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

Figure 7. Number of newly reported COVID-19 cases in Canada by possible exposure category (n= 24 606)



*Episode date corresponds to the earliest date reported according to the following order: Symptom Onset Date, Specimen Collection Date, 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=25 850**	
Travel-Related	**n=4 936**	**19%**
History of international travel	3 969	80%
Close contact of an international traveller	967	20%
Community-Related	**n=19 732**	**76%**
Case exposed in a healthcare facility*	3 244	16%
Case lives in a long-term care facility	458	2%
Close contact with case in a household	835	4%
Close contact with case in a workplace¥	208	1%
Case attends/works at a school or daycare	136	1%
Case has no known exposures†	14 851	75%
Pending	**n=1 182**	**5%**

*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

International

- The United States is the epicentre of the global pandemic (**Table 6**).
  - There are 905 333 cases and 51 949 deaths (CFR of 5.7%) reported in the United States as of April 25, 2020, at 8:00 AM*.
  - Further information on the situation in the US can be found on US CDC website and in their weekly COVID-19 surveillance report.

- 208 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, Germany, the United Kingdom, 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, April 25, 2020, 8:00 AM ET

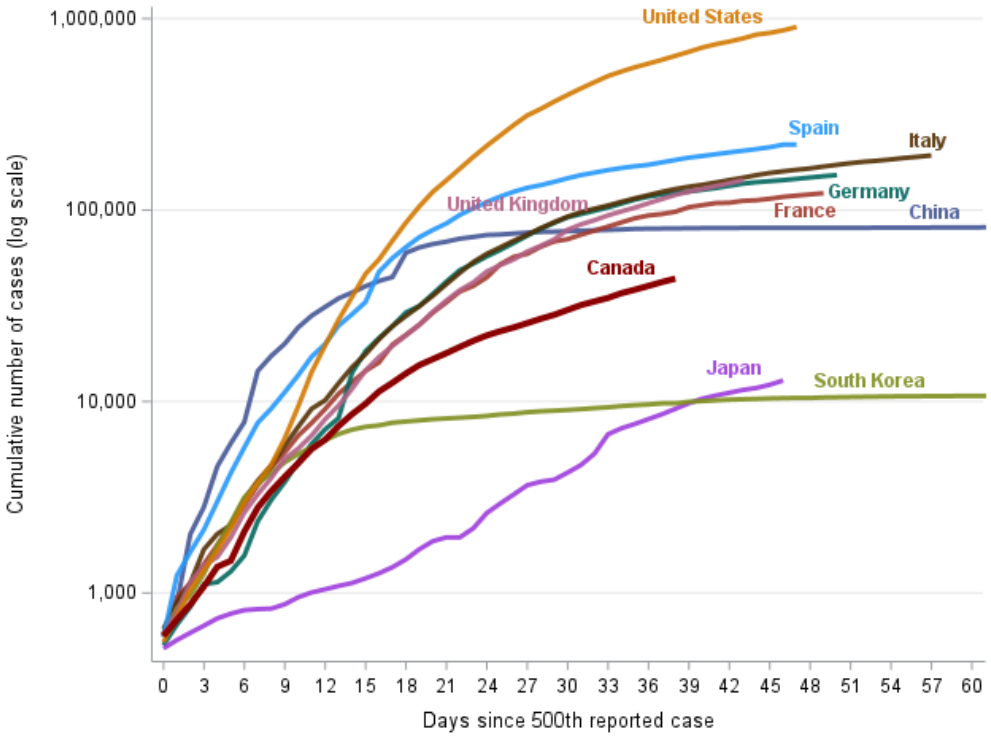
Location	Total cases	New cases	Total deaths	New deaths
Globally	2 759 572	84 675	196 639	6 035
USA	905 333	36 161	51 949	1 986
Mainland China	82 816	12	4 632	0

***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.*