Coronavirus Disease 2019 (COVID-19)

DAILY EPIDEMIOLOGY UPDATE

Updated: April 13, 2020, 11:00 AM ET

Highlights

Canada

- **24 804 cases including 734 deaths** have been reported in Canada (overall case fatality rate of 3.0 %).
- **428 920** people have been tested for COVID-19 in Canada, which corresponds to a test rate of 11 411 per million population. The percent positivity is 5.7%.
- 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 case report forms received for **62% of reported cases (N= 15 482)***
  - **Age and gender:**
    - The highest proportion of cases occurred in individuals 40-59 years of age (34%) followed by those 20-39 years of age (27%).
    - Only 5% of cases have occurred in individuals ≤ 19 years of age.
    - 53% of cases were reported among females.
  - **Hospitalizations**:
    - Hospitalization data are available for 9 413 cases with completed case report forms.
      - Among these, 1 687 have been hospitalized, including 455 in ICU.
    - While 33% of the cases are 60 years of age and older, this age group represents the highest proportion of hospitalizations (64%) and ICU admissions (63%).
    - 10 hospitalizations and one admission to ICU were reported in individuals ≤ 19 years of age.

International

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

*Data Notes

As of April 13, 2020 11:00 AM ET, detailed data on cases have been received for **15 482 cases** (62% 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 completed case report forms. 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

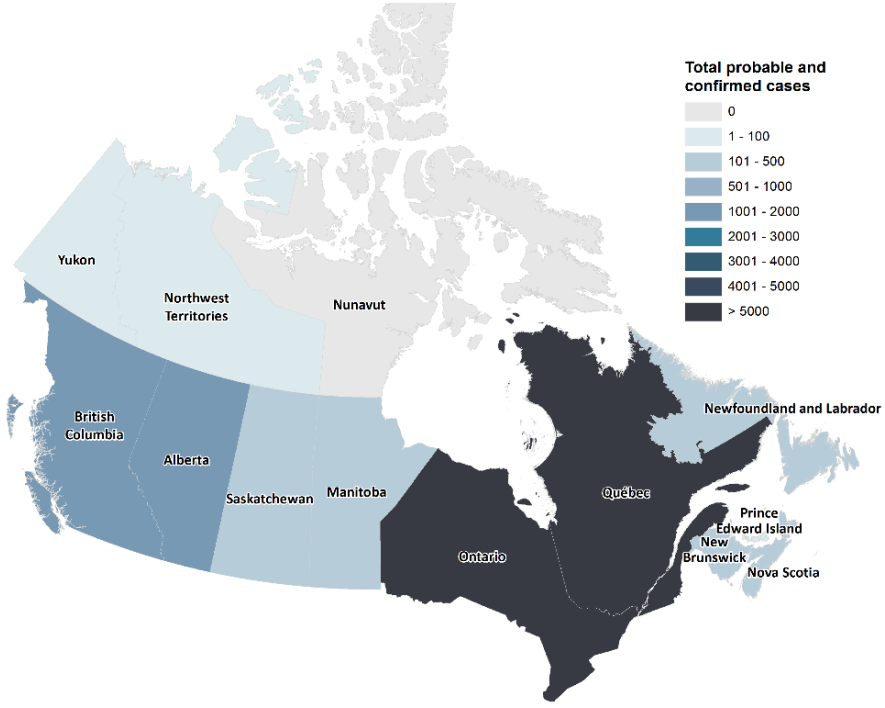
Location	Total Cases	Total Confirmed	Total Probable	Total Deaths	New cases	% change	Recovered	% Recovered	People tested per 1 000 000	People Tested
BC	1 445	1 445	0	58	0	0%	905	63%	9 536	48 360
AB	1 651	1 651	0	44	82	5%	823	50%	17 091	74 709
SK	298	296	2	4	9	3%	164	55%	16 173	18 995
MB	242	226	16	4	-1¥	0%	96	40%	12 462	17 066
ON	7 470	7 470	0	291	421	6%	3 357	45%	7 193	104 784
QC	12 846	12 846	0	328	554	5%	1 745	14%	15 506	131 570
NL	242	242	0	3	1	0%	129	53%	9 389	4 897
NB	114	114	0	0	2	2%	70	61%	10 145	7 881
NS	445	445	0	2	17	4%	97	22%	17 035	16 548
PE	25	25	0	0	0	0%	17	68%	10 481	1 645
YK	8	8	0	0	0	0%	4	50%	19 949	815
NT	5	5	0	0	0	0%	1	20%	30 920	1 386
NU	0	0	0	0	0	0%	0	0%	6 808	264
Repatriated travellers	13	13	0	0	0	0%	0	0%	0	0
Total	**24 804**	**24 786**	**18**	**734**	**1 085**	**5%**	**7 408**	**30%**	**11 411**	**428 920**

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. ¥One probable case has been determined to be a false positive.*

A total of **428 920** people have been tested for COVID-19 in Canada. This corresponds to a test rate of 11 411 per million population.

- Percent positivity is 5.7%

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



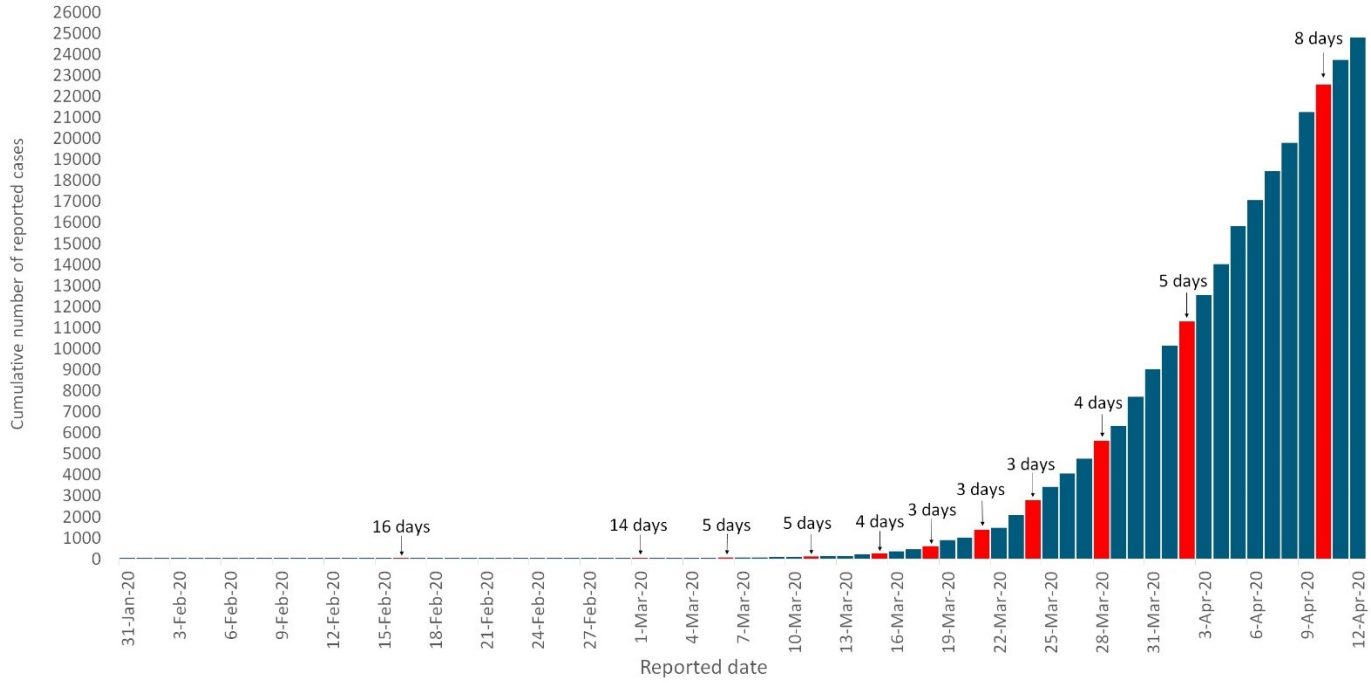
Data source: Surveillance and Risk Assessment, Epidemiology Update. Map Created by NML, Geomatics

The distribution of cumulative number of cases by report date (using publicly available PT 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 15 to 28 to doubling approximately every 5-8 days during the period March 29 to April 11.

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

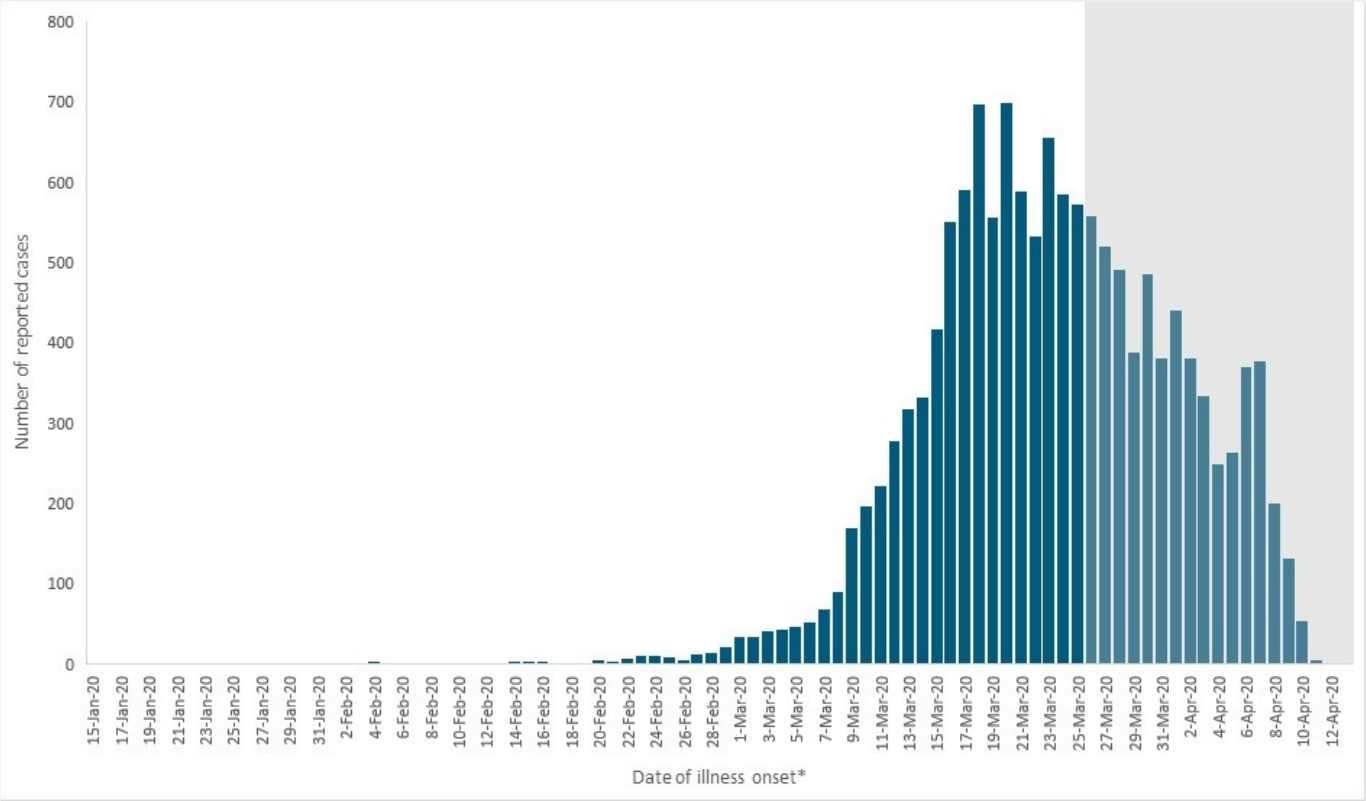


Please note that this section onwards of the epidemiology update is based on limited data from provincial/territorial case report forms (N=15 482). The "n" in the following figures refers to the subset of cases for which we have information for a characteristic of interest, among all those with case report forms submitted ("N").

Temporal Distribution

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

Figure 3. New COVID-19 cases in Canada by date of illness onset (n=14 151)



*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. The 'n' refers to the number of case report forms that have an illness onset, specimen collection or laboratory testing date.

Demographic Distribution

A summary of the demographics of reported cases can be found in **Table 2** and **Figure 4**.

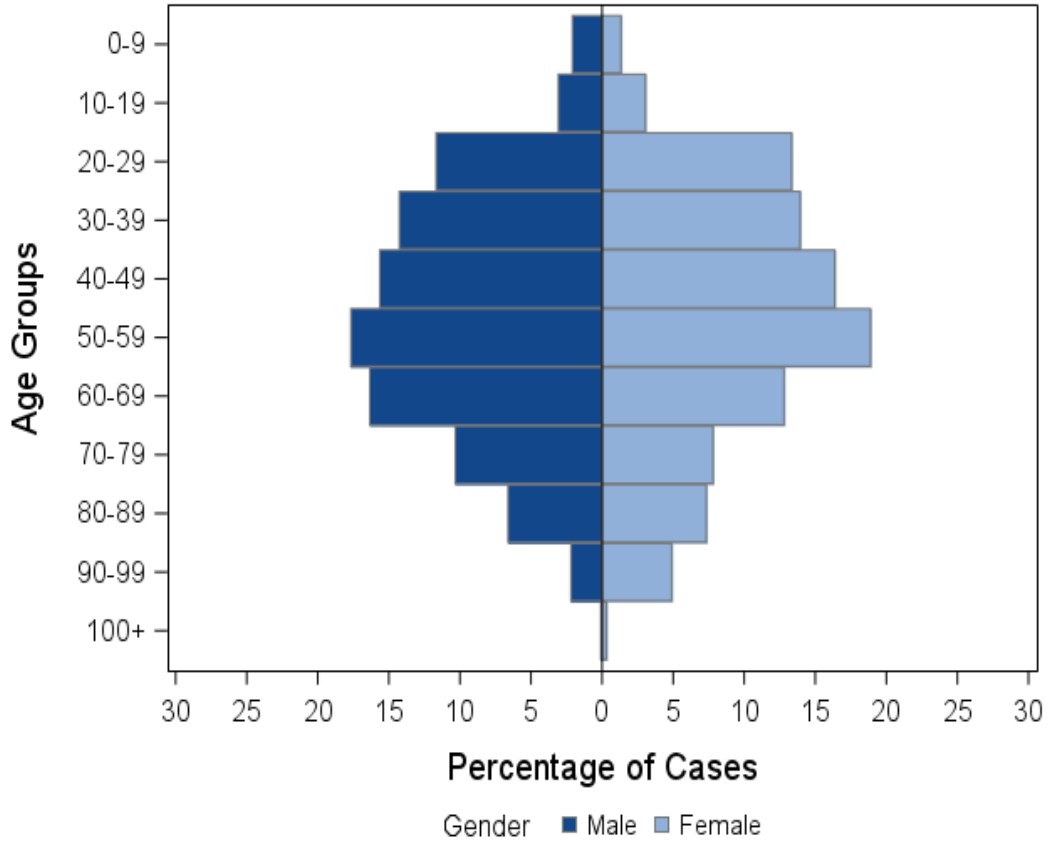
- The highest proportion of cases are among those aged 40-59 years (34%), followed by those aged 20-39 years (27%)
  - 5% of cases have occurred in individuals ≤ 19 years of age
  - 53% of cases were reported among females

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

Characteristics		
Median	51	
Range	0-107	
Age groups	n=	14 940
≤ 19	721	(5%)
20-39	4 011	(27%)
40-59	5 089	(34%)
60-79	3 477	(23%)
80+	1 642	(11%)
Gender	n=	15 355
Female	8 213	(53%)
Male	7 133	(46%)
Other	9	(0%)

Note: The 'n' refers to the number of case report forms in which we have known information for the characteristic of interest.

Figure 4. Age and sex distribution of COVID-19 cases reported in Canada



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 10, 2020.

- Cough, headache and general weakness are the most common symptoms reported.
- 361 cases have been clinically or radiologically diagnosed with pneumonia. Of those who reported age, 54% are cases 60 years of age and over, with individuals 60-79 representing 42%.
- The most commonly reported pre-existing health conditions were respiratory disease, cardiac disease, and diabetes.

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

Clinical Presentations		
Symptoms	n=	6 839
Cough	5 122	(75%)
Headache	3 969	(58%)
Weakness	3 988	(58%)
Pre-Existing Conditions	n=	6 692
Respiratory disease	790	(12%)
Cardiac	746	(11%)
Diabetes	580	(9%)
Other	1 367	(20%)
Complications	n=	3 393
Pneumonia	361	(11%)
Dyspnea	258	(8%)
Abnormal lung auscultation	236	(7%)
Other	328	(10%)

Note: The 'n' refers to the number of case report forms in which we have known information for the characteristic of interest.

Case severity

A total of 1 687 cases have been hospitalized including 455 in ICU (**Table 4, Figure 5, and Figure 6**).

- 64% of all reported hospitalizations, 63% of all reported ICU admissions, and 94% of deaths occurred among those aged ≥ 60 years.
    - The highest proportion of hospitalizations (42%) and ICU admissions (53%) are reported among those aged 60-79 years.
- 10 hospitalizations and one ICU admission were reported in individuals ≤ 19 years of age.
- Males represented a higher proportion of hospitalizations (56%) and ICU admissions (65%) than females.
- 75% of hospitalized cases reported having one or more pre-existing conditions.

Table 4. Summary of severe cases of COVID-19 reported in Canada with a submitted case report form

Severe Cases						
Overall Summary Hospitalizations			n=9 413			
Hospitalizations			1 687	(18%)		
Hospitalizations in ICU			455/1 687	(27%)		
Hospitalizations requiring mechanical ventilation			119/1 687	(7%)		
Breakdown by:	**All Hospitalizations**		**Admitted to ICU**		**Deceased**	
Age groups						
≤ 19	10	(1%)	1	(0%)	0	(0%)
20-39	120	(7%)	24	(5%)	4	(1%)
40-59	448	(27%)	136	(31%)	20	(6%)
60-79	695	(42%)	235	(53%)	109	(31%)
80+	364	(22%)	45	(10%)	223	(63%)
Total	**1 637**	**(100%)**	**441**	**(100%)**	**356**	**(100%)**
Gender						
Female	732	(44%)	160	(35%)	171	(48%)
Male	944	(56%)	293	(65%)	186	(52%)
Other	1	(0%)				
Total	**1 677**	**(100%)**	**453**	**(100%)**	**357**	**(100%)**

Note: Hospitalizations 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. The 'n' refers to the number of case report forms in which we have known information for the characteristic of interest. ¥Age information on submitted case reports were corrected yesterday which accounts for why the number of hospitalizations in this age group decreased.

Figure 5. Age and sex distribution of hospitalized COVID-19 cases reported in Canada

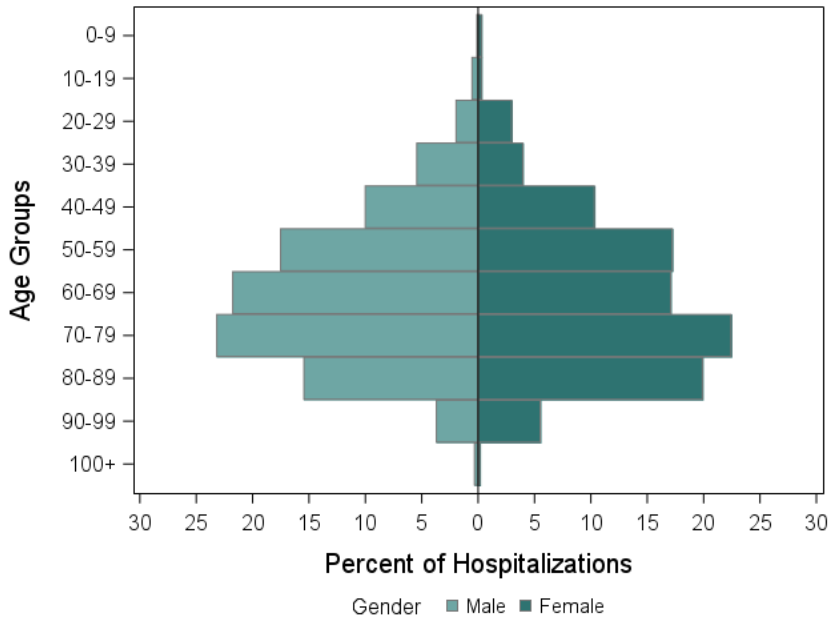
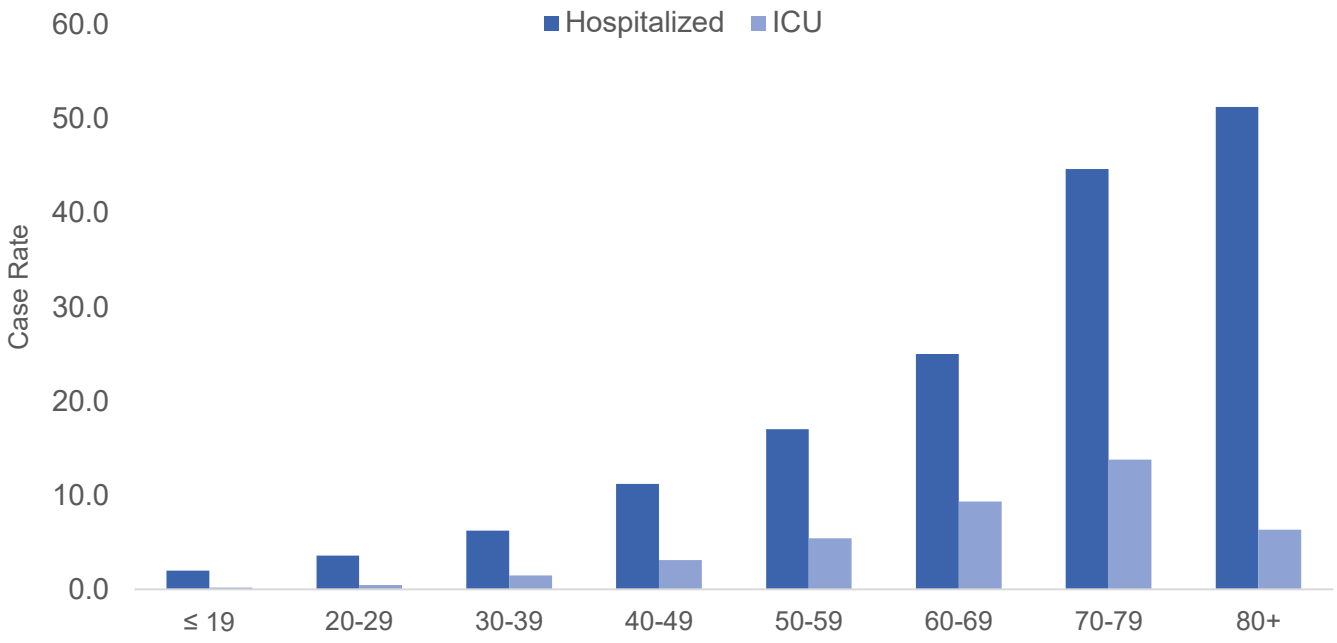


Figure 6: Hospitalization and ICU admission rates, by age group, of COVID-19 cases in Canada (n=8 872)



Note: The 'n' refers to the number of case report forms in which we have known information for the characteristic of interest.

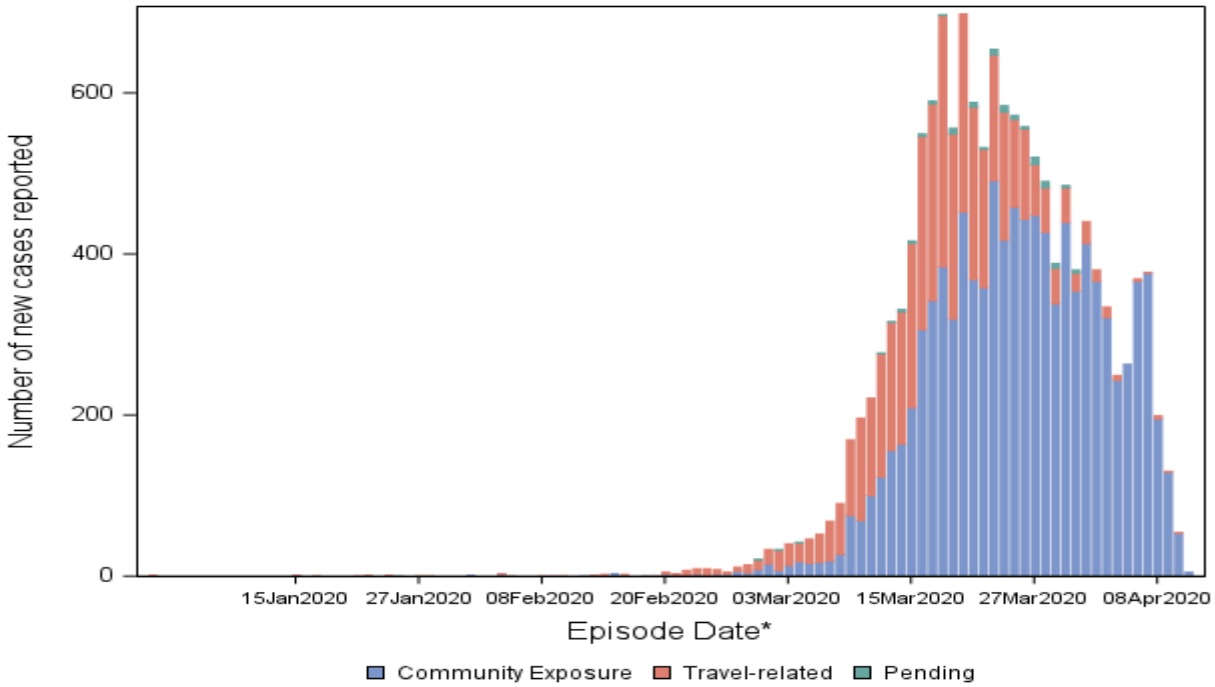
- Of cases ≥ 60 years of age, 37% have required hospitalization and 10% have been admitted to the ICU.
    - Cases ≥80 years of age have been hospitalized at the highest rate (51%) and cases 70-79 years of age have been admitted to the ICU at the highest rate (14%).

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=14 151)



*Episode date corresponds to the earliest date reported according to the following order: Symptom Onset Date, Specimen Collection Date, Laboratory Testing Date, Date reported to the province/territory or Date reported to PHAC. 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=15 482**	
Travel-Related	n=4 068	26%
History of international travel	3 454	85%
Close contact of an international traveller	614	15%
Community-Related	n=11 320	73%
Case lives in a long-term care facility*	316	2.8%
Case exposed in a healthcare facility	1 550	14%
Case attends/works at a school or daycare	133	1%
Close contact with case in a household	851	8%
Close contact with case in a workplace¥	211	2%
Case has no known exposures†	8 259	73%
Pending	n=94	1%

*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 now the epicentre of the global pandemic (**Table 6**).
    - There are 557 590 cases and 22 109 deaths (CFR of 4.0%) reported in the United States as of April 13, 2020 at 8:00 AM*.
    - As of April 12, 2020, the US CDC and US public health labs have reported testing 289 548 specimens.
    - Further information on 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.
    - Five countries (United States, Spain, Italy, Germany, and France) make up the majority of international cases outside of mainland China.
- Up-to-date country-specific risk levels may be found on travel health notices.

Table 6. Global number* of reported COVID-19 cases, April 13, 2020, 8:00 AM ET

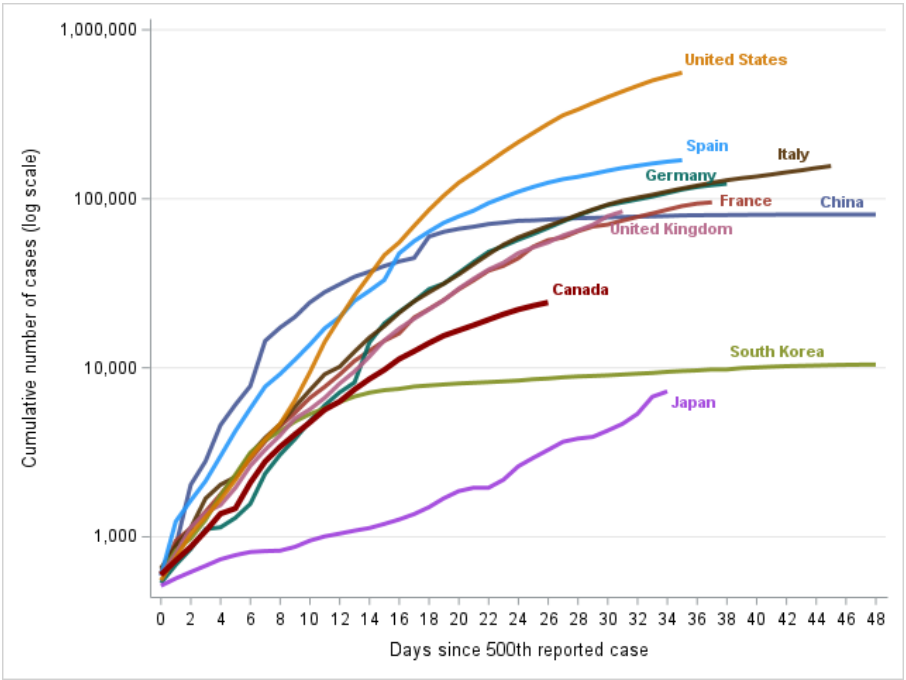
Location	Total cases	New cases	Total deaths	New deaths
Globally	1 810 833	71 670	114 031	5 106
USA	557 590	27 584	22 109	1 501
Mainland China	82 160	108	3 341	2

***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 John 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.*