

Coronavirus Disease 2019 (COVID-19)

DAILY EPIDEMIOLOGY UPDATE

Updated: April 5, 2020, 11:00 AM EST

Highlights

Canada

- **14,426 cases including 258 deaths** have been reported in Canada (overall case fatality rate of 1.8%).
- **323,297** people have been tested for COVID-19 in Canada which corresponds to a test rate of 8,601 per million population. The percent positivity is 4.7%.
- Data reported in the coming days and weeks will continue to be critical in determining the trajectory of Canada's epidemic.
- Further information on real-time distribution of cases and deaths can be found in the [interactive map of COVID-19 in Canada](#).
- The epidemiological summary is based on case report forms received for **60% of reported cases (n= 8 614)***
 - **Age and gender:**
 - The highest proportion of cases are being reported among people 40-59 years of age (35%), followed by those 20-39 years of age (28%) and 60-79 years of age (24%).
 - A small proportion of cases (5%) have been reported among people ≤ 19 years of age.
 - 52% of cases were reported among females.
 - **Hospitalizations:**
 - Hospitalization data are available for 4,378 cases with completed case report forms.
 - among these, 690 have been hospitalized, including 202 in ICU
 - While 32% of the cases are 60 years of age and older, this age group represents the highest proportion of hospitalizations (61%) and ICU admissions (60%).
 - Nine hospitalizations and one admission to ICU were reported in individuals ≤ 19 years of age.

International

- 205 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 5, 2020 11:00 AM ET, detailed data on cases have been received for **8,614 cases** (60% of reported cases). Data on these cases are preliminary and may have missing values.

Provinces and territories may not routinely update detailed data. Data on hospitalization status is unknown for 51% of all cases. 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, April 5, 2020, 11:00 AM EST.

Location	Total Cases	Total Confirmed	Total Probable	Total Deaths	New cases	% change	Recovered	% Recovered	People tested per 1,000,000	People Tested
BC	1,203	1,203	0	38	29	2%	704	59%	8,194	41,556
AB	1,181	1,181	0	20	106	10%	240	20%	14,302	62,520
SK	231	231	0	3	11	5%	55	24%	11,116	13,055
MB	194	172	22	2	12	7%	17	9%	8,902	12,191
ON	4,038	4,038	0	119	783	24%	1,449	36%	5,219	76,027
QC	6,997	6,997	0	75	896	15%	0	0%	11,309	95,955
NL	203	203	0	1	20	11%	11	5%	10,273	5,358
NB	98	98	0	0	3	3%	28	29%	4,578	3,556
NS	236	236	0	0	29	14%	50	21%	10,381	10,084
PE	22	22	0	0	0	0%	6	27%	5,346	839
YK	6	6	0	0	0	0%	4	67%	18,725	765
NT	4	4	0	0	0	0%	1	25%	26,079	1,169
NU	0	0	0	0	0	0%	0		5,725	222
Repatriated travellers	13	13	0	0	0	0%	0	0%		
Total	14,426	14,404	22	258	1,889	15%	2,565	17.8%	8,601	323,297

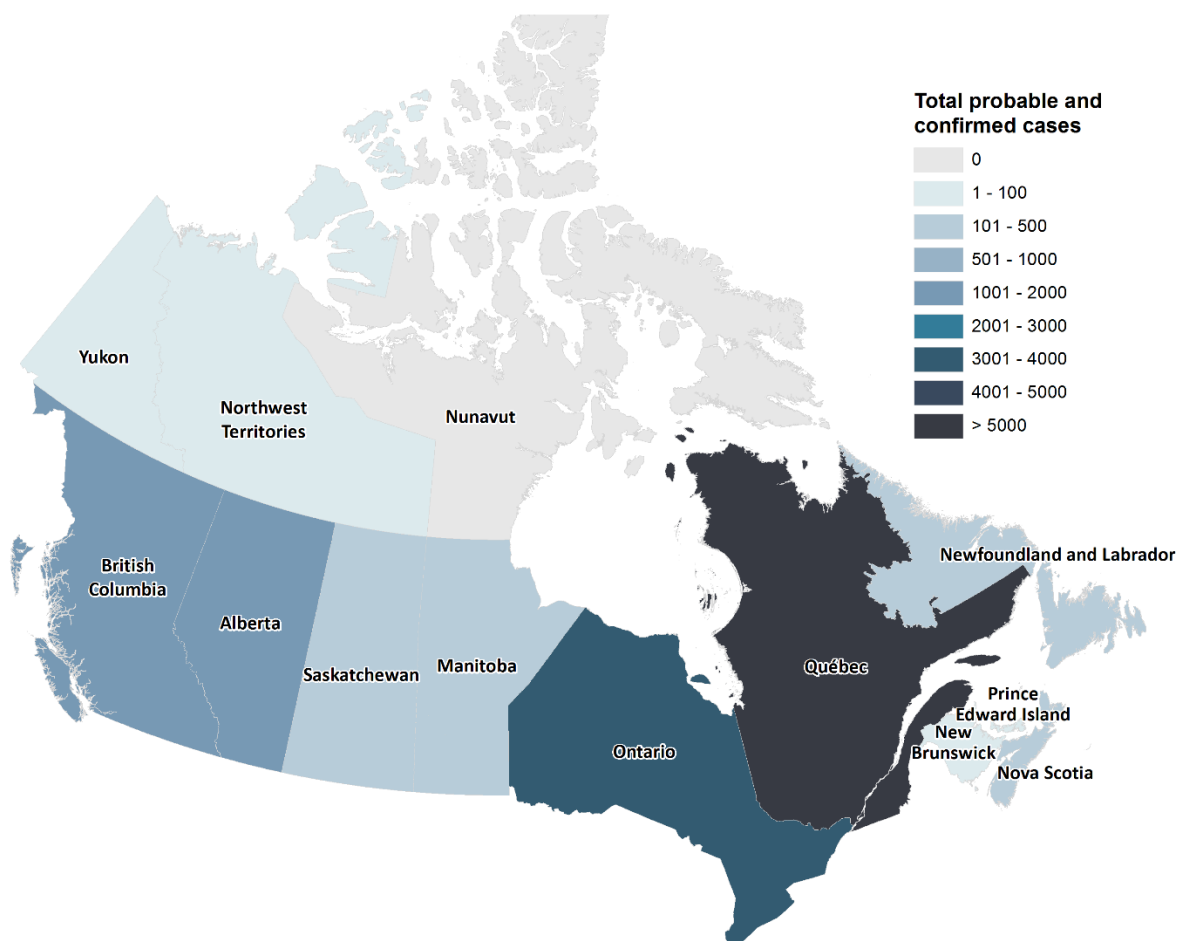
Notes: New cases are those reported since the previous report. Probable cases have tested positive at a provincial laboratory and are awaiting confirmatory testing results from the National Microbiology Laboratory. Laboratory testing numbers may represent an underestimation due to reporting delays and may not include additional sentinel surveillance or other testing conducted in the P/T. For QC, the significant increase in confirmed cases is explained by the fact that since March 22, 2020, cases tested positive by hospital laboratories are now considered confirmed. They no longer need validation by the Laboratoire de santé publique du Québec (LSPQ).

A total of 323,297 people have been tested for COVID-19 in Canada. This corresponds to a test rate of 8,601 per million population.

- Testing volumes vary across the country.
- Percent positivity is 4.7%.

Real-time data on the distribution of cases and deaths in Canada can be found in the [interactive map of COVID-19](#).

Figure 1. Map of COVID-19 cases reported in Canada by province/territory, April 5, 2020, 8:00 AM EST (n=14,018)

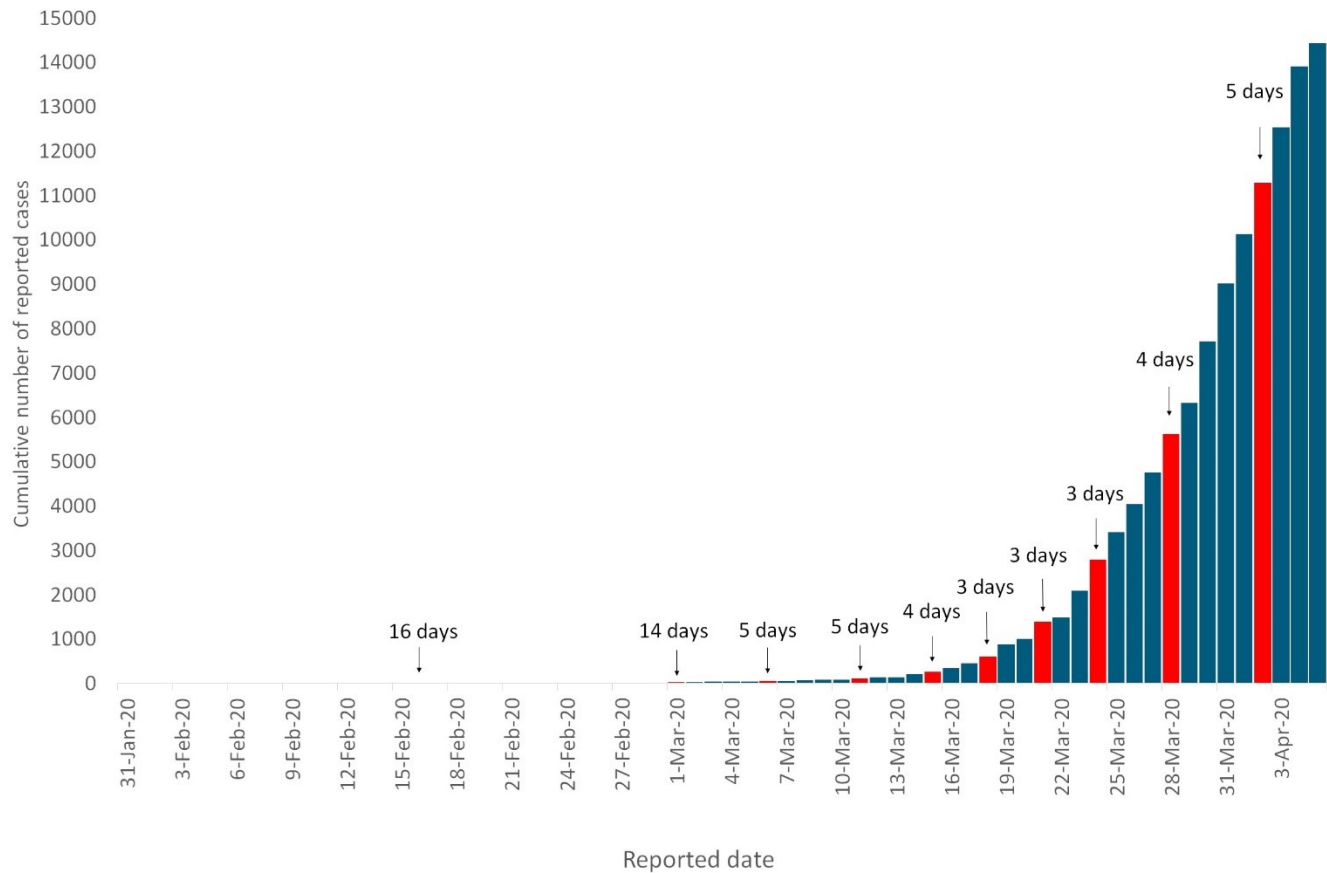


Data source: Surveillance and Risk Assessment, Epidemiology Update. Map Created by NML, Geomatics

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.
 - Reported cases double at a rate of every three to five days since March 1.

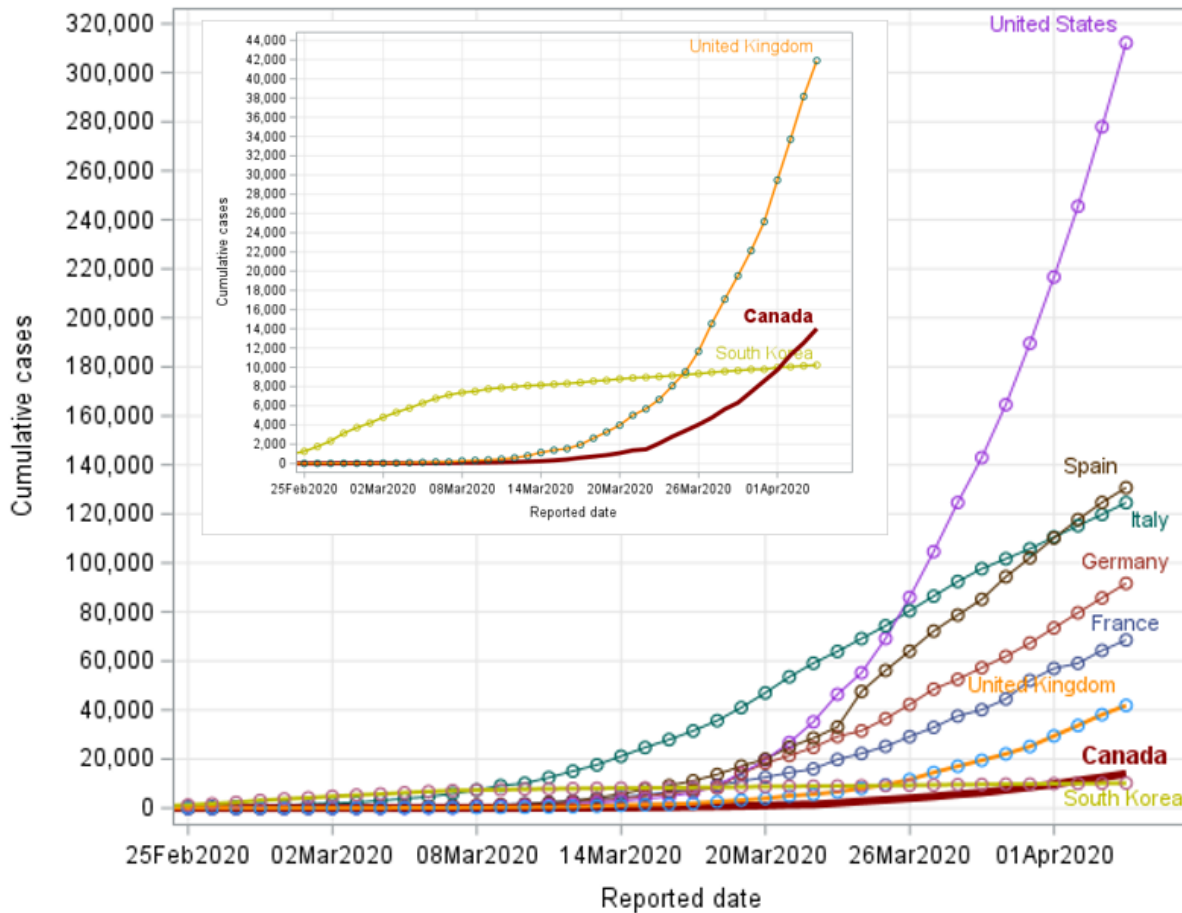
Figure 2. Doubling time of cumulative number of reported COVID-19 cases in Canada by date of report, April 5, 2020, 11:00 AM EST (n=14,426)



A summary of the cumulative cases of COVID-19 in Canada compared to other countries by date of report can be seen in **Figure 3**.

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

Figure 3. Cumulative cases of COVID-19 in Canada compared to other countries by date of report, April 5, 2020, 11:00 AM EST.



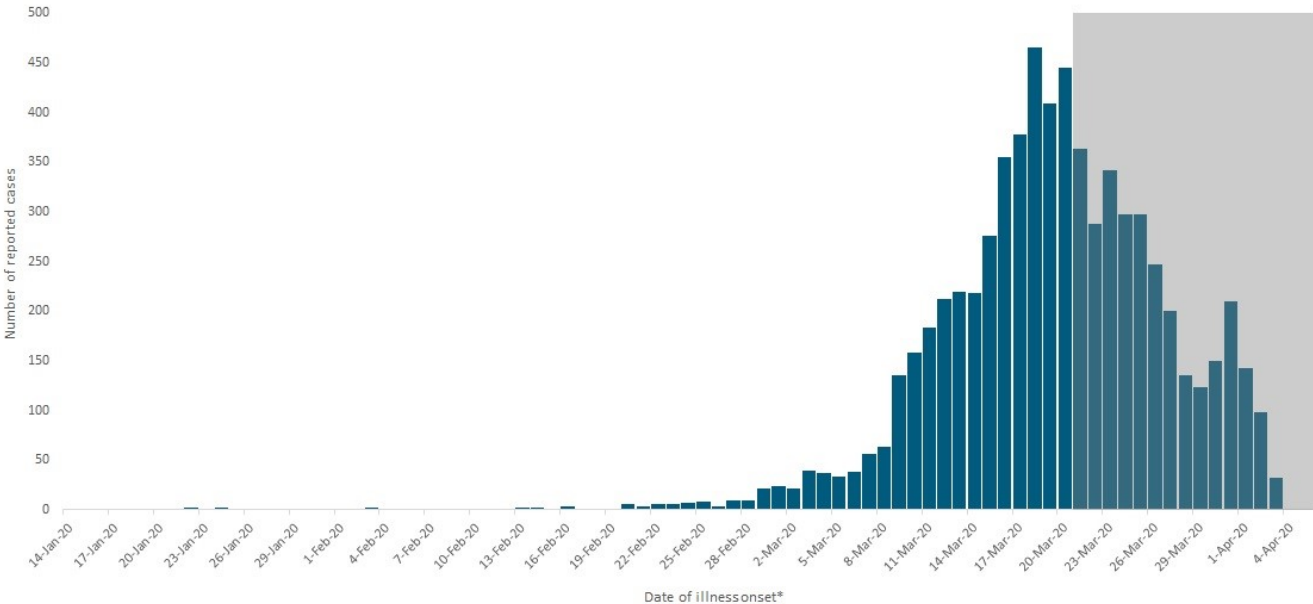
Note: At this time, results from international comparisons should be interpreted with caution. The number of tests conducted and indications for testing by country all have a large influence on total reported case counts. Therefore, the data displayed does not necessarily represent the true size of outbreak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

Please note that this section onwards of the epidemiology update is based on limited data from provincial/territorial case report forms (n=8,614).

Temporal Distribution

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

Figure 4. New COVID-19 cases in Canada by date of symptom onset, April 5, 2020, 11:00 AM EST (n=6,799)



*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.

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

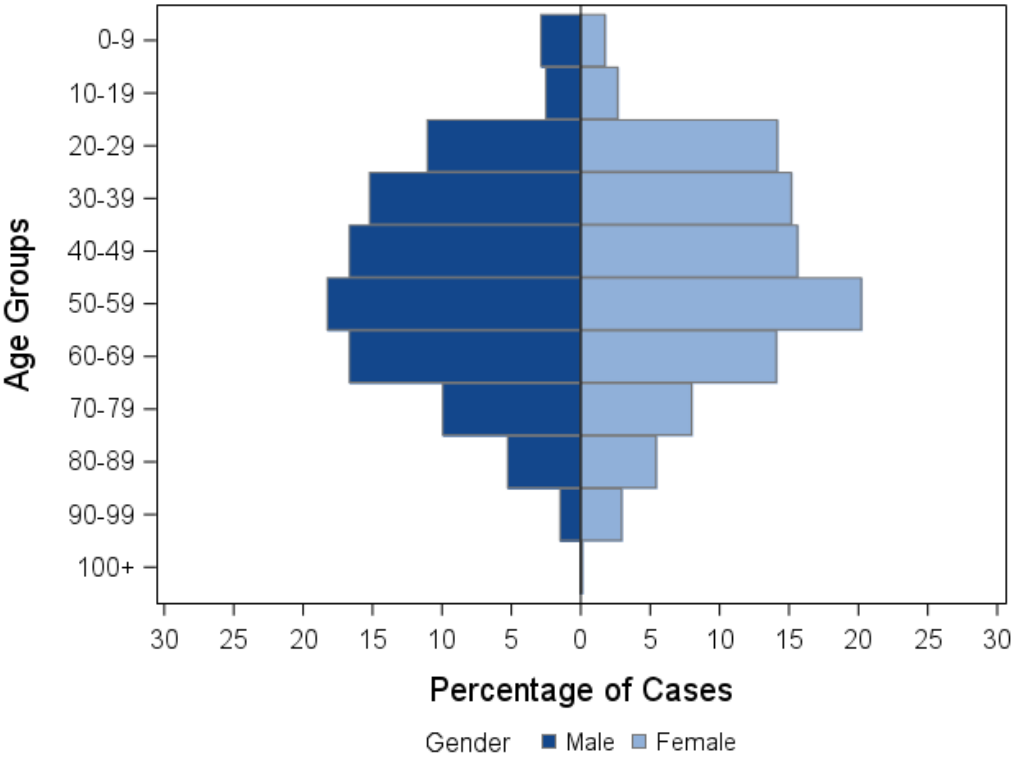
A summary of the demographics of reported cases can be found in **Table 2** and **Figure 5**.

- The highest proportion of cases occurred in individuals 40-59 years of age (35%), followed by those 20-39 years of age (28%) and 60-79 years of age (24%).
- Only 5% of cases have occurred in individuals ≤ 19 years of age.
- 52% of cases were reported among females.

Table 2. Demographic characteristics of COVID-19 cases reported in Canada, April 5, 2020, 11:00 AM EST

Characteristics		
Demographics		n=8,614
Age (in years)		
	Median	50
	Range	0-105
Age groups		n=8,244
	≤ 19	401 (5%)
	20-39	2298 (28%)
	40-59	2915 (35%)
	60-79	1995 (24%)
	80+	635 (8%)
Gender		N=8,557
	Female	4,442 (52%)
	Male	4,114 (48%)

Figure 5. Age and sex distribution of COVID-19 cases reported in Canada, April 5, 2020, 11:00 AM EST (n=8,205)



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 3, 2020.

- Cough, headache and general weakness are the most common symptoms reported.
- 241 cases have been clinically or radiologically diagnosed with pneumonia. Of those who reported age, 56% are individuals 60 years of age and over, with individuals 60-79 representing 45%.
- The most commonly reported pre-existing health conditions amongst cases were respiratory disease, cardiac disease, and diabetes.
- Thirty seven cases have occurred in pregnant women.

Table 3. Clinical presentation summary of COVID-19 cases reported in Canada, April 5, 2020, 11:00 AM EST

Clinical Presentations			
Symptoms		n=3,664	
	Cough	2,826	(77%)
	Headache	2,078	(57%)
	General weakness	2,040	(56%)
Pre-Existing Conditions		n=3,588	
	Respiratory disease	432	(12%)
	Cardiac	378	(11%)
	Diabetes	302	(8%)
	Other	705	(20%)
Complications		n=2,155	
	Pneumonia	241	(11%)
	Dyspnea	147	(7%)
	Abnormal lung auscultation	137	(6%)
	Other	286	(13%)

Case severity (based on data available for 4,378 (51%) of all cases)

A total of 690 cases have been hospitalized including 202 in ICU (**Table 4, Figure 6, and Figure 7**).

- 61% of all reported hospitalizations, 60% of all reported ICU admissions, and 90% of deaths occurred among individuals ≥ 60 years of age.
 - The highest proportion of hospitalizations (41%) and ICU admissions (49%) are reported among individuals 60-79 years of age.
- Nine hospitalizations and one ICU admission were reported in individuals ≤ 19 years of age.
- Males represented a higher proportion of hospitalizations (57%) and ICU admissions (63%) than females.
- 72% of hospitalized cases reported having one or more pre-existing conditions.
- Of individuals ≥ 60 years of age, 32% have required hospitalization and 9% have been admitted to the ICU.
 - Individuals ≥ 80 years of age have been hospitalized at the highest rate (51%) and individuals 70-79 years of age have been admitted to the ICU at the highest rate (38%).

Table 4. Summary of severe cases of COVID-19 reported in Canada with a submitted case report form, April 5, 2020, 11:00 AM EST.

Severe Cases					
Overall Summary Hospitalizations			n=4,378		
Hospitalizations*			690 (16%)		
Hospitalizations in ICU			202/690 (29%)		
Hospitalizations requiring mechanical ventilation*			79/690 (11%)		
Breakdown by:	Hospitalizations		Admitted to ICU		Deceased
Age groups					
≤ 19	9	(1%)	1	(1%)	0 (0%)
20-39	60	(9%)	13	(7%)	3 (4%)
40-59	191	(29%)	61	(32%)	5 (6%)
60-79	266	(41%)	94	(49%)	24 (30%)
80+	129	(20%)	21	(11%)	50 (60%)
Total	655	(100%)	190	(100%)	83 (100%)
Gender					
Female	298	(43%)	74	(37%)	36 (44%)
Male	388	(57%)	128	(63%)	46 (56%)
Total	686	(100%)	202	(100%)	82 (100%)

*Hospitalizations include admission to hospital and emergency room

*Patients requiring mechanical ventilation are classified as hospitalized, although ventilation may occur in other settings.

Note: ICU refers to Intensive Care Unit. PHAC does not receive routine updates on patient status.

Figure 6: Percentage of COVID-19 cases reported by age that are hospitalized in Canada, April 5, 2020, 11:00AM (n=4,051).

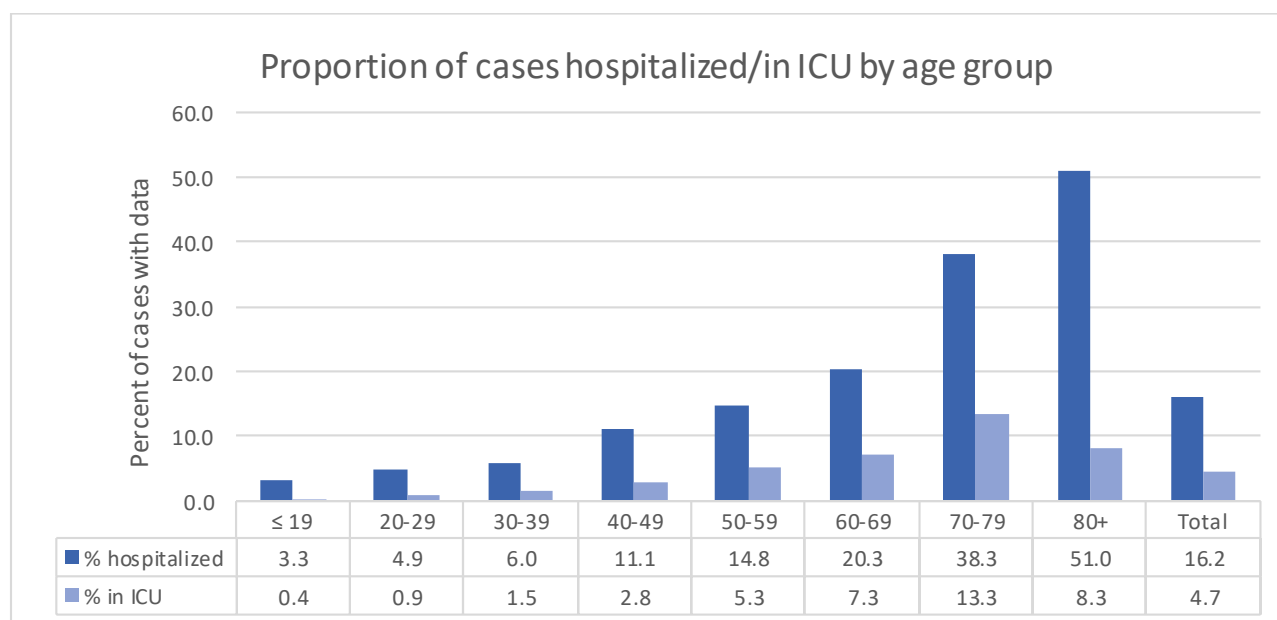
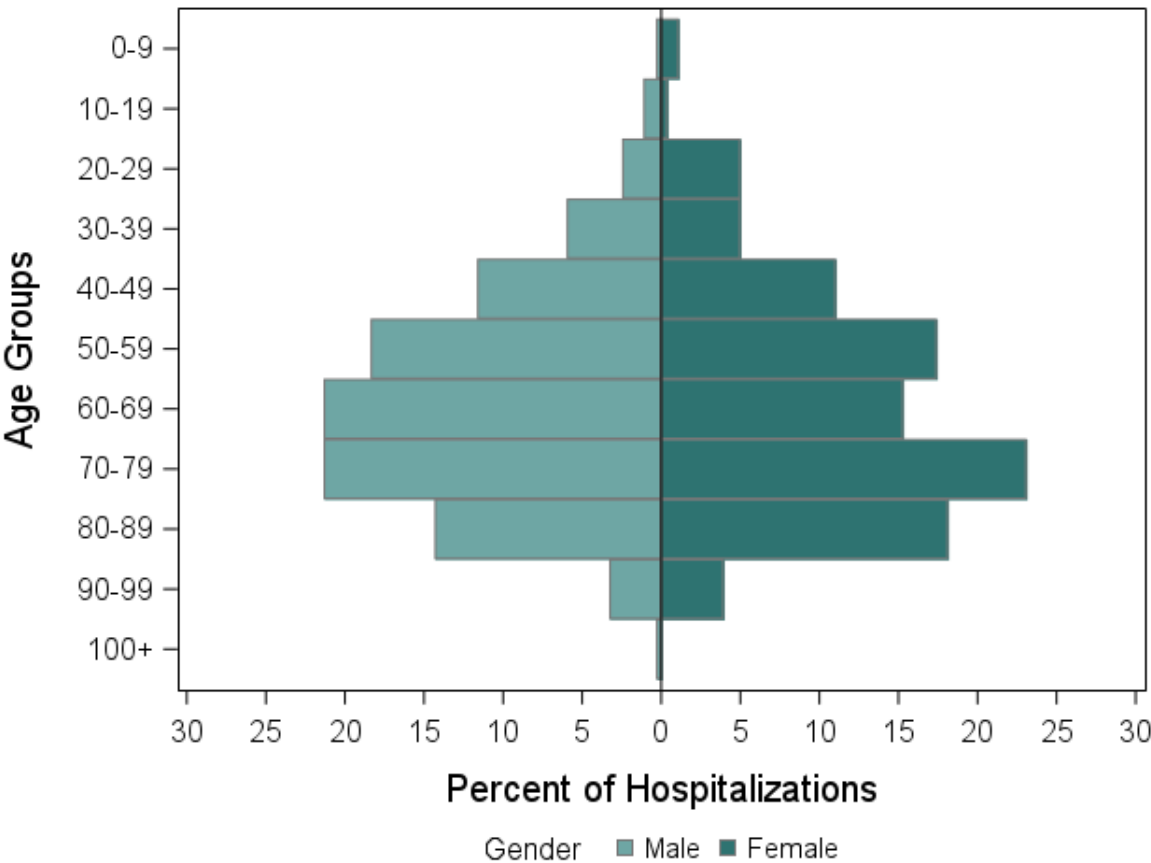


Figure 7. Age and sex distribution of hospitalized COVID-19 cases reported in Canada, April 5, 2020, 11:00 AM EST (n=653)

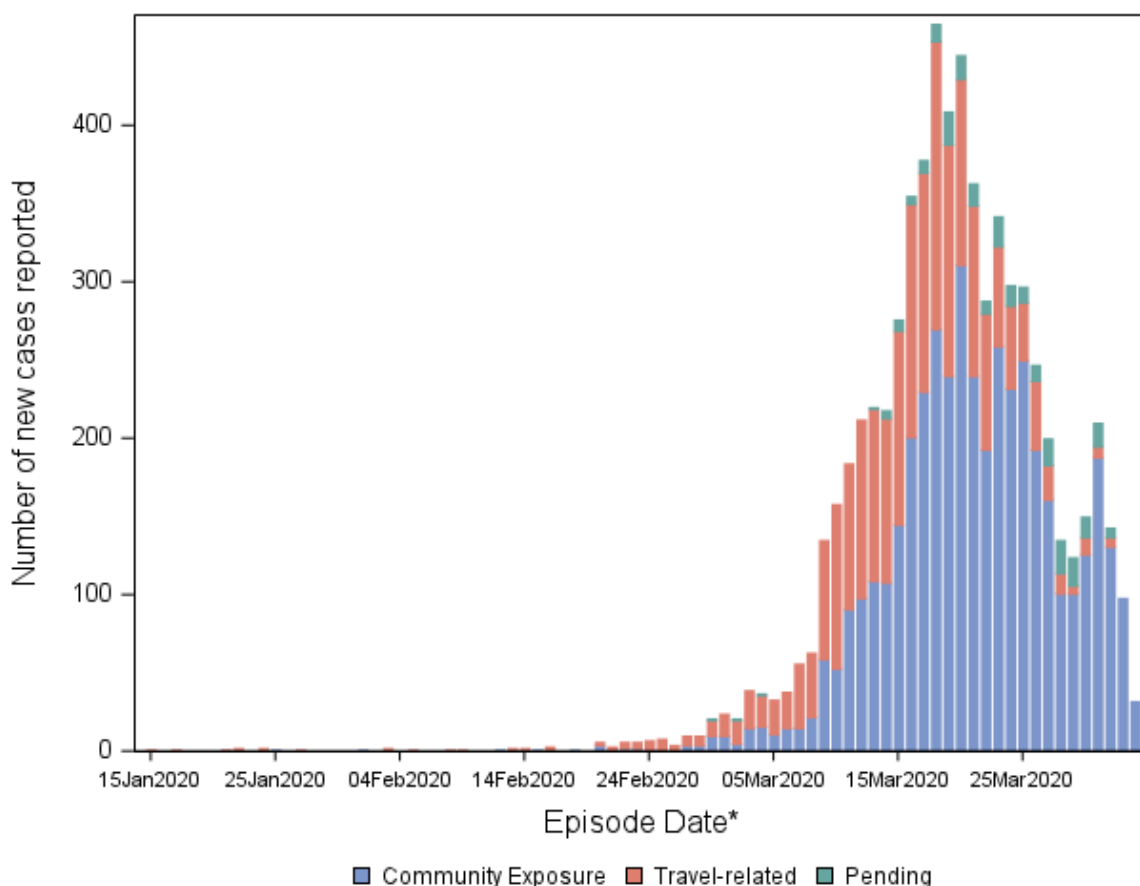


Exposure History

A summary of the exposure history of cases can be found in **Figure 8** and **Table 5**.

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

Figure 8. Number of newly reported COVID-19 cases in Canada by possible exposure category, April 5, 2020, 11:00 AM EST (n=8,614)



*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, April 5, 2020, 11:00 AM EST.

Possible Exposure Setting		n=8,614	
Travel-Related		n=2,376	28%
History of international travel		2,078	87%
Close contact of an international traveller		298	13%
Community		n=5,979	69%
Case exposed in a healthcare facility*		681	11%
Close contact with case in a household		294	5%
Case lives in a long-term care facility		92	2%
Close contact with case in a workplace		72	1%
Case attends/works at a school or daycare		56	1%
Case has no known exposures		4,784	80%
Pending		n=259	3%

*Includes healthcare workers and exposure in health care setting

United States

There are 312,245 cases and 8,503 deaths (overall case fatality rate of 2.7%) reported in the United States as of April 5, 2020 at 8:00 AM*.

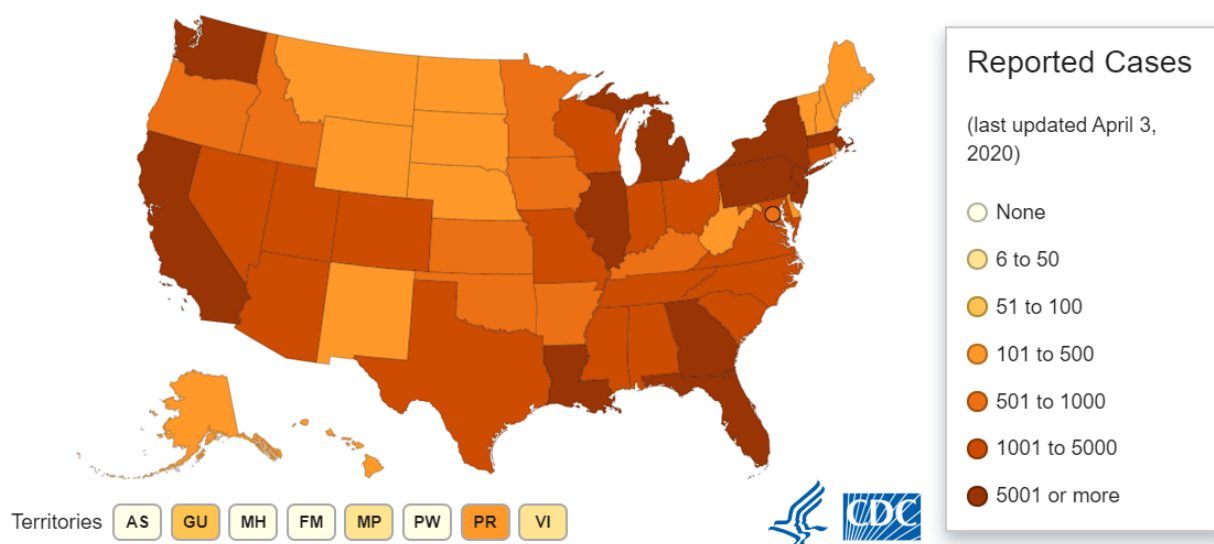
The [US CDC](#) has information on 277, 205 cases (6,593 deaths) reported from 55 jurisdictions (50 states, District of Columbia, Puerto Rico, Guam, Northern Marianas, and US Virgin Islands).

- Exposure details are known for 5,713 cases[‡]:
 - Travel-related: 1,388
 - Close contact: 4,325
- [New York State](#) accounts for 33% and [New Jersey](#) accounts for 9% of cases in the US[‡].
- 85% of jurisdictions reporting cases are reporting community transmission.
- As of April 4, 2020, the [US CDC and US public health labs](#) have reported testing 191,183 specimens.

*Information source: Numbers retrieved from Johns Hopkins Coronavirus Resource Center.

‡ Some information from the US CDC has not been updated since April 3rd.

Figure 9. States reporting cases of COVID-19, April 5, 2020, 11:00 AM EST



Source: US CDC website

International

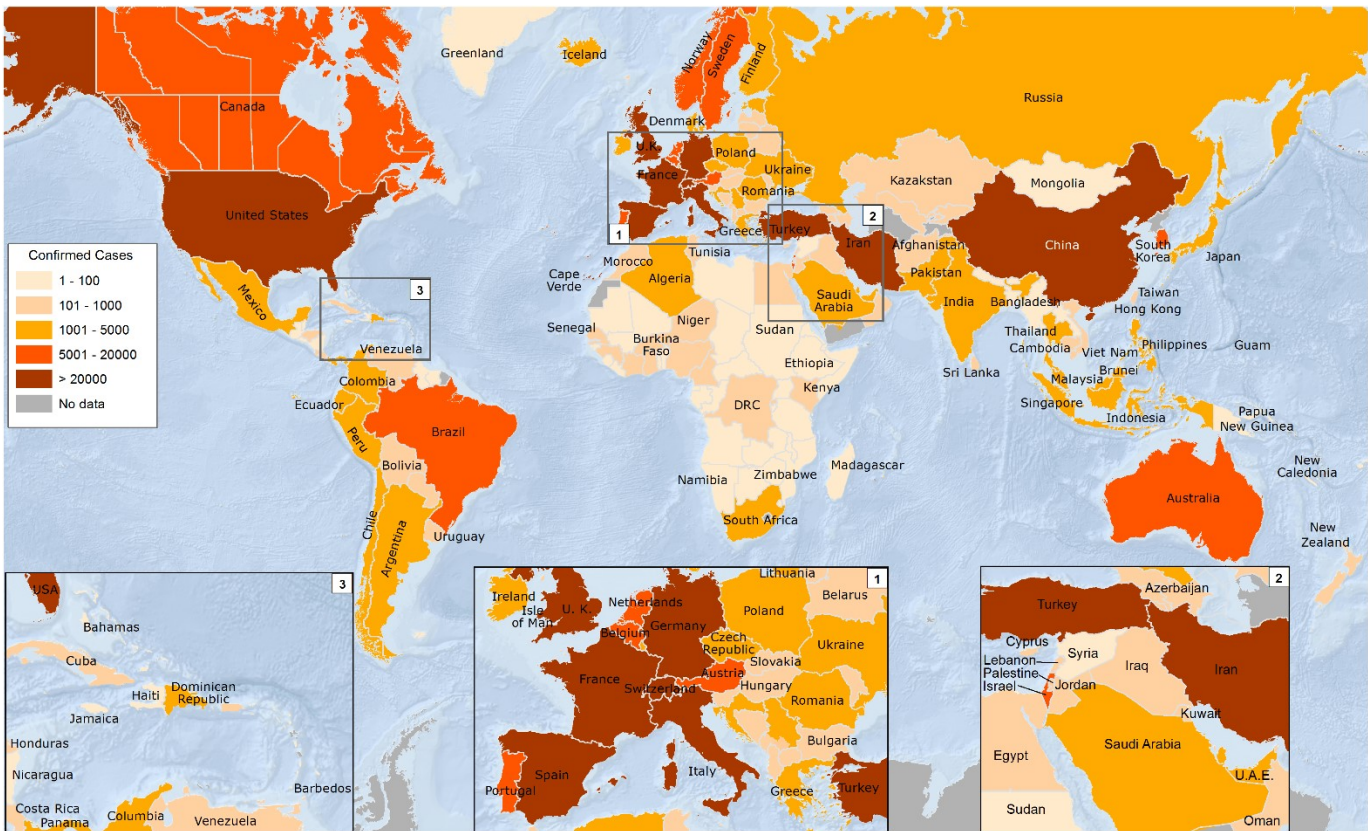
- The United States is now the epicentre of the global pandemic (**Table 6**).
- 205 countries/jurisdictions outside mainland China have reported cases of COVID-19 (**Figure 10**).
 - Five countries (United States, Spain, Italy, Germany, and France) make up the majority of international cases outside of mainland China.

Table 6. Global number* of reported COVID-19 cases, April 5, 2020, 11:00 AM EST.

Location	Total cases	New cases	Total deaths	New deaths
Globally	1,183,305	82,839	65,227	5,843
USA	312,237	34,272	8,501	1,344
China	81,669	30	3,329	3

*Information Sources: Hong Kong Centre for Health Protection, Chinese Center for Disease Control and Prevention, Health Commission of Hubei Province, Iran MOH, Spain MOH, Germany MOH, France MOH, Norway MOH, Netherland MOH, Italy MOH, US CDC, and ECDC Situation update.

Figure 10. Global distribution* of confirmed cases of COVID-19, April 5, 2020, 8:00 AM EST.



***Information Sources:** Hong Kong Centre for Health Protection, Chinese Center for Disease Control and Prevention, Health Commission of Hubei Province, Iran MOH, Spain MOH, Germany MOH, France MOH, Norway MOH, Netherland MOH, Italy MOH, US CDC, and ECDC Situation update.

Up-to-date country-specific risk levels may be found on [travel health notices](#).