

Coronavirus Disease 2019 (COVID-19)

DAILY EPIDEMIOLOGY UPDATE

Updated: March 29, 2020, 11:00 AM EST

Highlights

Canada

- **5,655 cases including 61 deaths** have been reported in Canada (overall case fatality rate of 1.1%).
- **205,097** people have been tested for COVID-19 in Canada which corresponds to a test rate of 5,456 per million population. The percent positivity is 2.8%.
- 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 more detailed information that is available for 60% of the cases (n=3,409)*.
 - **Age and gender:**
 - The highest proportion of cases are being reported among people 40-59 years of age (37%), followed by those 20-39 years of age (29%) and 60-79 years of age (25%).
 - Only a small proportion of cases (4%) have been reported among people ≤ 19 years of age.
 - 51% of cases were reported among males.
 - **Hospitalizations:** Hospitalization data are only available for 2,036 (60%) of all cases. Among these, 278 have been hospitalized, including 84 in ICU.
 - While 30% of the cases are 60 years of age and older, these cases represent the highest proportion of hospitalizations (62%) and ICU admissions (62%).
 - Five hospitalizations and one admission to ICU were reported in individuals ≤ 19 years of age.
 - **Exposures:**
 - 88% of newly identified cases (within the last 7 days) are related to community transmission.
 - 63% of cases over the duration of the outbreak are related to community transmission.

International

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

Data Notes*

As of March 29, 2020 10:00 AM EST, case report forms have been received for 3,409 cases (60% of reported cases). Data on these cases are preliminary and may have missing values.

Data may not be routinely updated for key characteristics of interest at this time. Data on hospitalization status is unknown for 40% of all cases. As well, PHAC does not receive routine updates on patient status.

Furthermore, approaches to testing cases varies by province/territory and has changed over time, which can affect key summary statistics.

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, March 29, 2020, 11:00 AM EST.

Location	Total Cases	Total Confirmed	Total Probable	Total Deaths	New cases	% change	People tested per 1,000,000	People Tested
BC	884	884	0	17	92	12%	6,218	31,536
AB	621	621	0	2	79	15%	9,537	41,691
SK	134	134	0	0	30	29%	7,512	8,822
MB	72	69	3	1	33	85%	5,061	6,931
ON	1,144	1,144	0	19	151	15%	3,570	52,002
QC	2,498	2,498	0	22	477	24%	6,153	52,204
NL	120	120	0	0	18	18%	4,040	2,107
NB	51	51	0	0	6	13%	3,652	2,837
NS	122	122	0	0	32	36%	5,131	4,984
PE	11	11	0	0	0	0%	3,039	477
YK	4	4	0	0	0	0%	15,690	641
NT	1	1	0	0	0	0%	16,508	740
NU	0	0	0	0	0	0%	3,223	125
Repatriated travellers	13	13	0	0	0	0%		NA
Total	5,675	5,672	3	61	918	19%	5,456	205,097

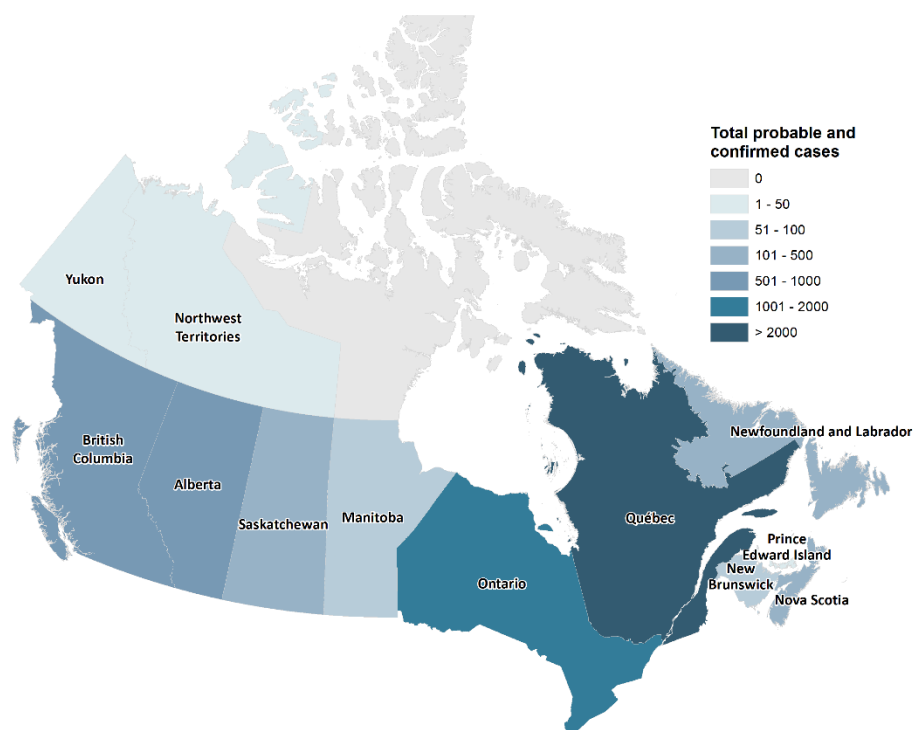
Notes: New cases are those reported since the previous report. Probable cases have tested positive at a provincial laboratory and are awaiting confirmatory testing results from the National Microbiology Laboratory. Laboratory testing numbers may represent an underestimation due to reporting delays and 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 205,097 people have been tested for COVID-19 in Canada. This corresponds to a test rate of 5,456 per million population.

- Testing volumes vary across the country.
- Percent positivity is 2.8%

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, March 29, 2020, 10:00 AM EST.

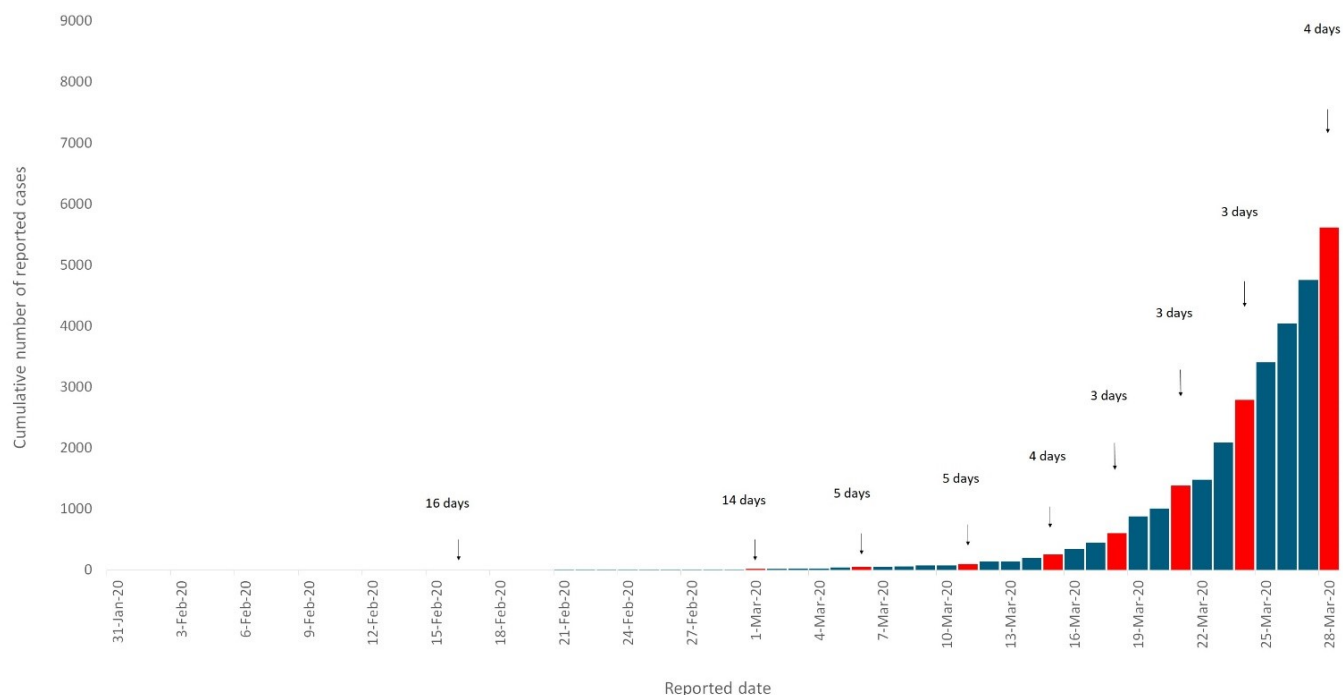


Data source: Surveillance and Risk Assessment, Epidemiology Update. Map Created by NML, Geomatics

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

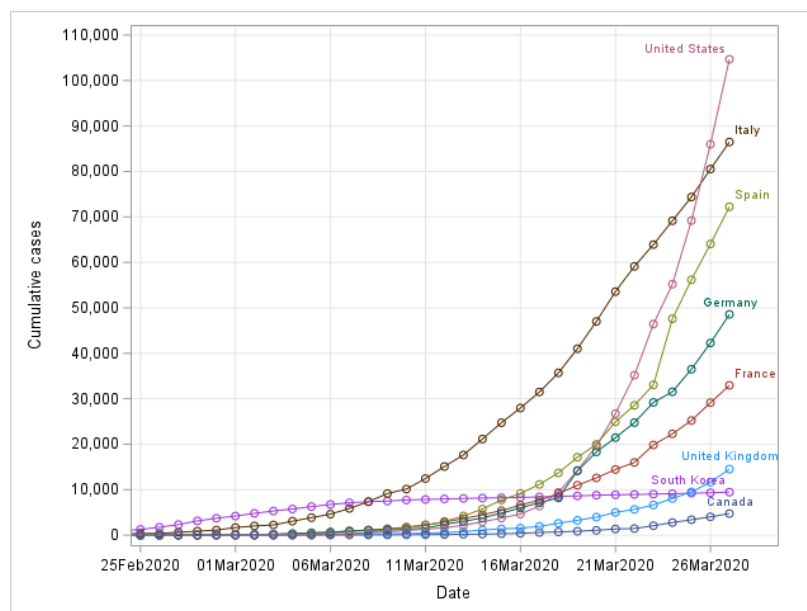
- The epidemic doubling period of COVID-19 cases in Canada, defined as the number of days between doubling of cumulative case counts is marked with red bars.
 - Reported cases double at a rate of every three to five days since March 1.

Figure 2. Doubling time of cumulative number of reported COVID-19 cases in Canada by date of report, March 29, 2020, 10:00 AM EST (n=5,655)



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**.

Figure 3. Cumulative cases of COVID-19 in Canada compared to other countries by date of report, March 29, 2020, 10:00 AM EST.



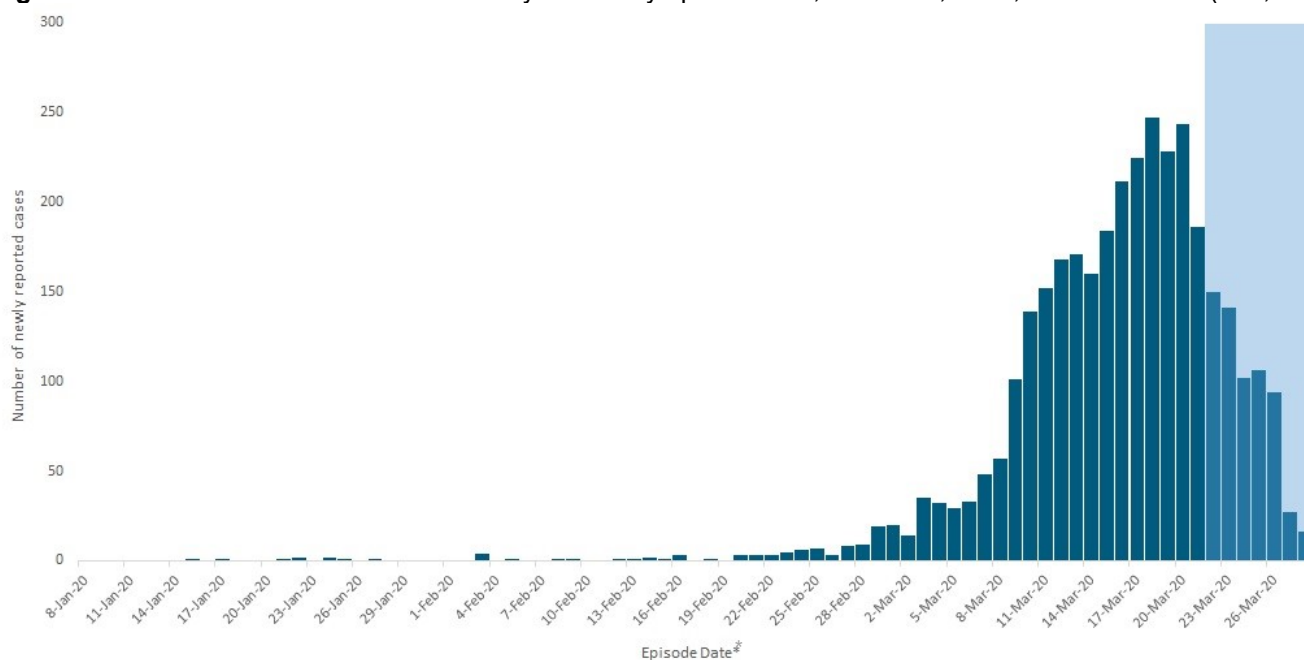
Note: At this time, results from international comparisons should be interpreted with caution. The number of tests conducted and indications for testing by country all have a large influence on total reported case counts. Therefore, the data displayed does necessarily represent the true size of outbreak within each country.

Please note that this section onwards of the epidemiology update is based on limited data (n=3,409).

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, March 29, 2020, 10:00 AM EST (n=3,409)



*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.

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

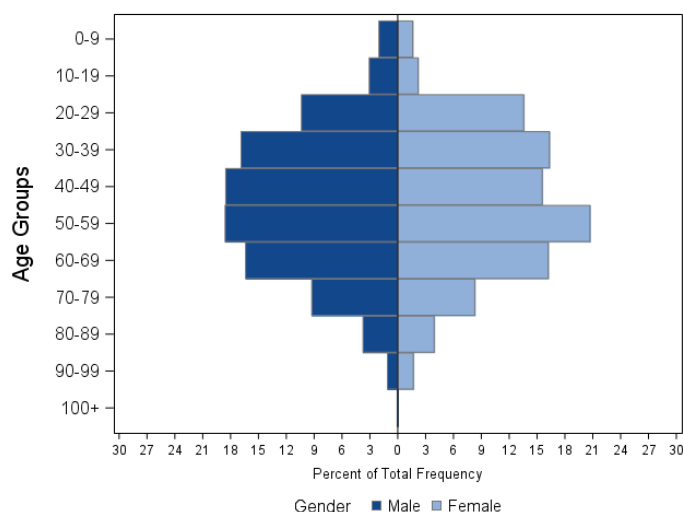
A summary of the demographics of reported cases can be found in **Table 2** and **Figure 5**.

- The highest proportion of cases occurred in individuals 40-59 years of age (37%), followed by those 20-39 years of age (29%) and 60-79 years of age (25%).
- Only 4% of cases have occurred in individuals ≤ 19 years of age.
- 51% of cases were reported among males.

Table 2. Demographic characteristics of COVID-19 cases reported in Canada, March 29, 2020, 10:00 AM EST (n=3,409)

Characteristics		
Demographics		
Age (in years)		
	Median	49
	Range	0-100
Age groups		n=3,207
	≤ 19	143 (4%)
	20-39	916 (29%)
	40-59	1,177 (37%)
	60-79	803 (25%)
	80+	168 (5%)
Gender		n=3,376
	Female	1,641 (49%)
	Male	1,735 (51%)

Figure 5. Age and sex distribution of COVID-19 cases reported in Canada, March 29, 2020, 10:00 AM EST (n=3,186)



Clinical Presentations

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 March 25, 2020.

- Cough, chills and headache are the most common symptoms reported.
- 110 cases have been clinically or radiologically diagnosed with pneumonia. Of those, 62% are individuals 60 years of age and over, with individuals 60-79 representing 48%.
- The most commonly reported pre-existing health conditions amongst cases were respiratory disease, cardiac disease, and diabetes.
- Eighteen cases have occurred in pregnant women.

Table 3. Clinical presentation summary of COVID-19 cases reported in Canada, March 29, 2020, 10:00 AM EST (n=1,854)

Clinical Presentations		
Symptoms	n=1,854	
Cough	1,458	(79%)
Headache	1,043	(56%)
Chills	1,019	(55%)
Pre-Existing Conditions	n=1,805	
Respiratory disease	213	(12%)
Cardiac	177	(10%)
Diabetes	143	(8%)
Other	349	(19%)
Complications	n=1,225	
Pneumonia	138	(11%)
Abnormal lung auscultation	69	(6%)
Dyspnea	76	(6%)
Other	183	(15%)

Hospitalization Status (based on data available for 2,036 (60%) of all cases)

A total of 278 cases have been hospitalized including 84 in ICU (**Table 4** and **Figure 6**).

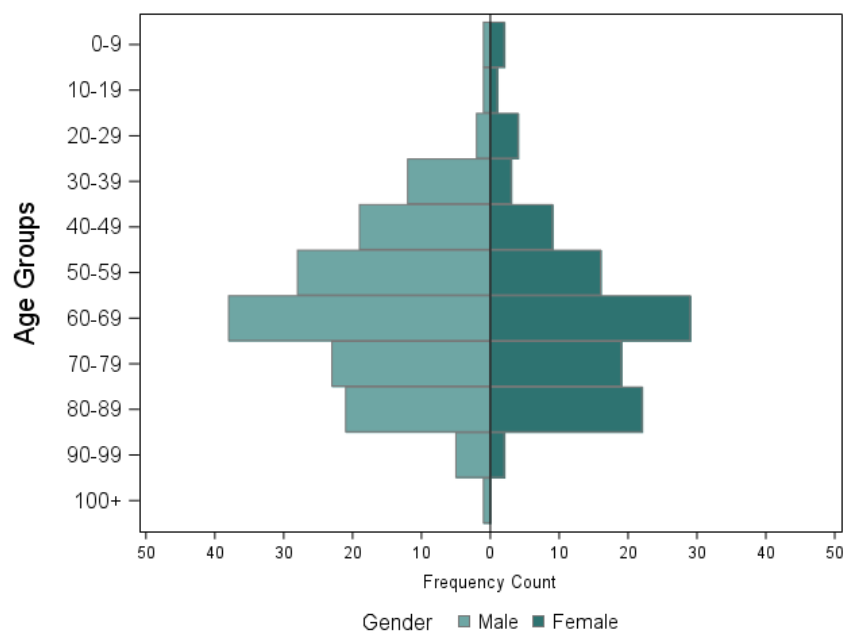
- 62% of hospitalizations and of ICU admissions occurred among individuals ≥ 60 years of age.
 - The highest proportion of hospitalizations (42%) and ICU admissions (51%) being reported among individuals 60-79 years of age.
- Five hospitalizations and one ICU admission were reported in individuals ≤ 19 years of age
- A higher proportion of hospitalizations are being reported among males (59%).
- 64% of the hospitalized cases had pre-existing conditions.

Table 4. Summary of hospitalized cases of COVID-19 reported in Canada with a submitted case report form, March 29, 2020, 10:00 AM EST (n=278)

Severe Cases			
Overall Summary Hospitalizations			
Hospitalizations		278	
<i>Hospitalizations in ICU</i>		84/278	(30%)
<i>Hospitalizations requiring mechanical ventilation</i>		42/278	(15%)
Breakdown by:	All Hospitalizations	Admitted to ICU	
Age groups	n=256	n=76	
≤ 19	5 (2%)	1	(1%)
20-39	19 (7%)	6	(8%)
40-59	73 (29%)	22	(29%)
60-79	108 (42%)	39	(51%)
80+	51 (20%)	8	(11%)
Gender	n=278	n=84	
Female	116 (41%)	38	(45%)
Male	162 (59%)	46	(55%)

Note: PHAC does not receive routine updates on patient status.

Figure 6. Age and sex distribution of hospitalized COVID-19 cases reported in Canada, March 29, 2020, 10:00 AM EST (n=256)

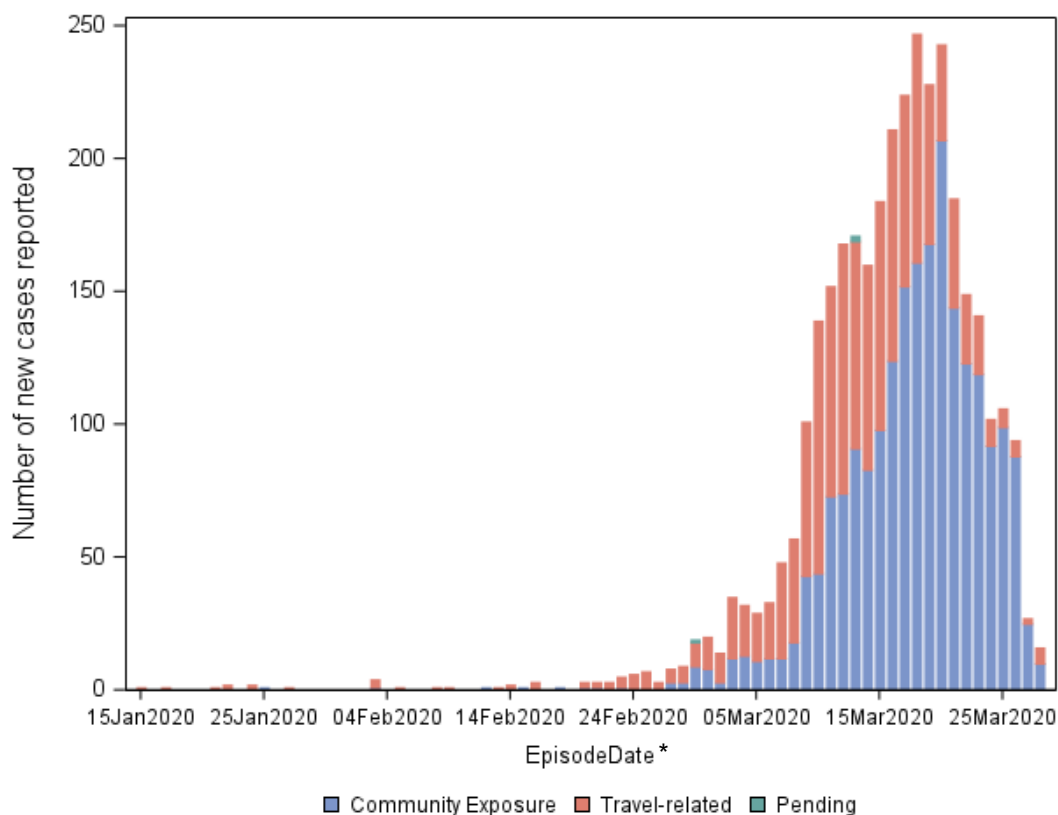


Exposure History

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

- 88% of newly identified cases (within the last seven days) are related to community transmission.
- 63% of cases over the duration of the outbreak are related to community transmission.
- 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, March 29, 2020, 10:00 AM EST (n=3,409)



*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.

Table 5. Possible exposure setting of COVID-19 cases reported in Canada, March 29, 2020, 10:00 AM EST (n=3,409)

Possible Exposure Setting		
Travel-Related		n=1,274 37%
History of international travel	1,120	88%
Close contact of an international traveller	154	12%
Community		n=2,132 63%
Case lives in a long-term care facility	21	1.0%
Case exposed in a healthcare facility*	275	13%
Case attends/works at a school or daycare	32	2%
Close contact with case in a household	109	5%
Close contact with case in a workplace	25	1%
Case has unknown community exposure	1,669	78%
Pending		n=3 0%

*Includes healthcare workers and exposure in health care setting

United States

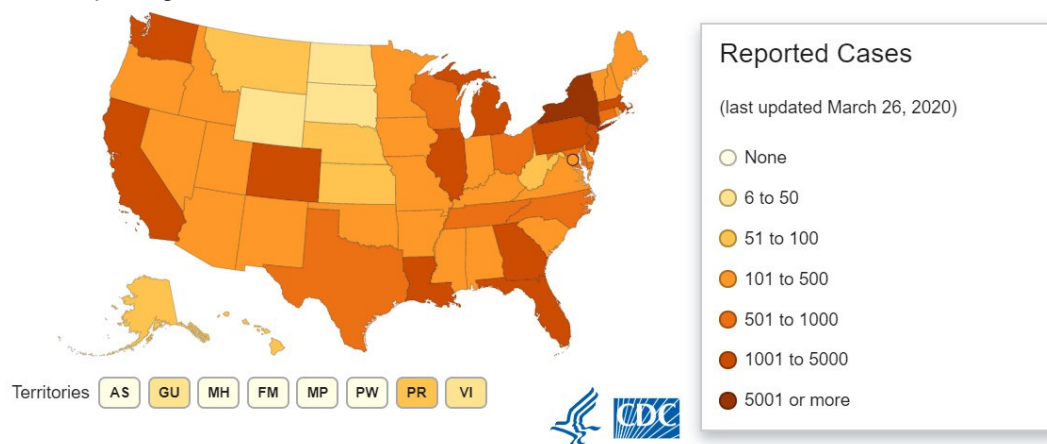
There are 124,686 cases and 2,191 (overall case fatality rate of 1.8%) deaths reported in the United States as of March 29, 2020 at 10:00 AM*.

The [US CDC](#) has information on 103,321 cases (1,668 deaths) reported from 54 jurisdictions (50 states, District of Columbia, Puerto Rico, Guam and US Virgin Islands).

- Exposure details are known for 2,038 cases:
 - Travel-related: 712
 - Close contact: 1,326
- [New York State](#) accounts for 45% of case in the US.
- 85% of jurisdictions reporting cases are reporting community transmission.
- As of March 28, 2020, the [US CDC and US public health labs](#) have tested 122,974 specimens.

* Information source: Johns Hopkins Coronavirus Resource Center.

Figure 8. States reporting cases of COVID-19, March 29, 2020 at 10:00 AM EST



Source: [US CDC website](#).

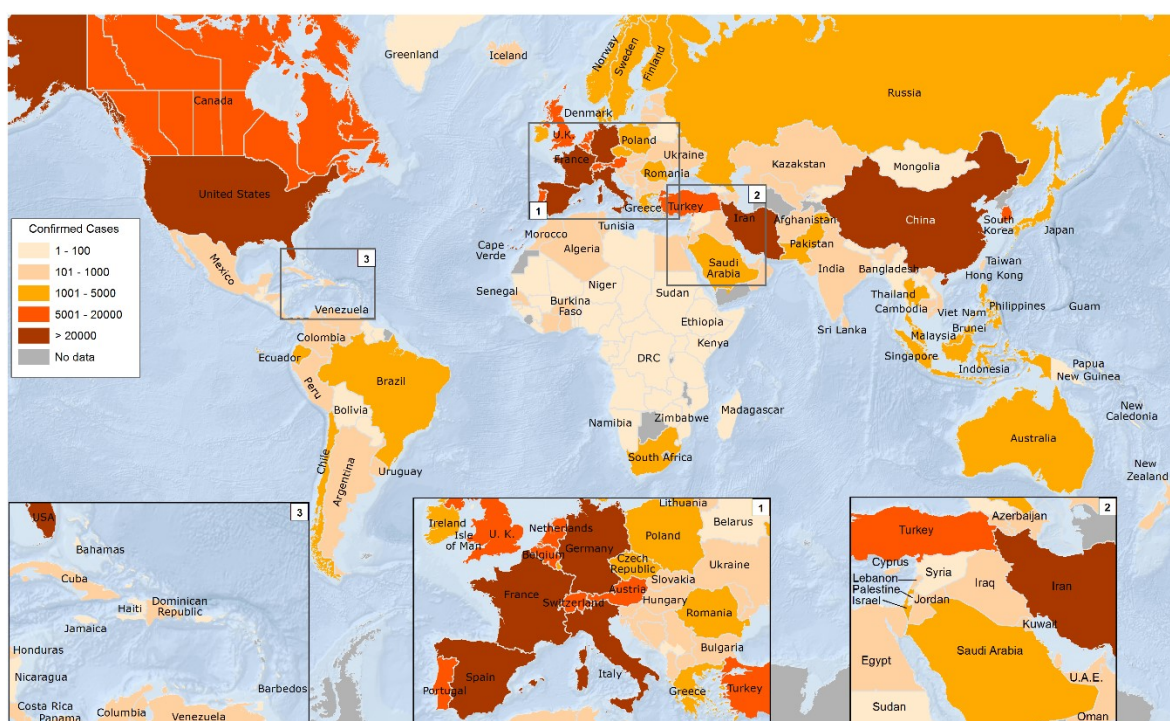
International

- The United States is now the epicentre of the global pandemic (**Table 6**).
- 197 countries/jurisdictions outside mainland China have reported cases of COVID-19 (**Figure 9**).
 - Five countries (United States, Italy, Spain, Germany and Iran) make up the majority of international cases outside of mainland China.
 - Iran is reporting the majority of cases in Asia (excluding mainland China), followed by South Korea and Malaysia.

Table 6. Global number of reported COVID-19 cases, March 29, 2020, 10:00 AM EST.

Location	Total cases	New cases	Total deaths	New deaths
Globally	667,288	63,637	31,415	2,568
USA	124,686	20,000	2,191	484
China	82,120	124	3,304	5

Figure 9. Global distribution of confirmed cases of COVID-19, March 29, 2020, 10:00 AM EST.



Information Sources: Johns Hopkins Coronavirus Resource Center, 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, Netherlands MOH, Italy MOH, US CDC, and ECDC Situation update.

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