Coronavirus Disease 2019 (COVID-19)

DAILY EPIDEMIOLOGY UPDATE

Updated: March 27, 2020, 10:00 AM EST

Highlights

Canada

- **4,043 cases including 39 deaths** have been reported in Canada (overall case fatality rate of 0.96%).
- **164,564** people have been tested for COVID-19 in Canada which corresponds to a test rate of 4,378 per million population.The percent positivity is 2.6%.
- Further **real-time information** on the distribution of cases and deaths in Canada can be found in our dynamic online map or through the University of Saskatchewan covid-19 tracker website.
- The epidemiological summary is based on more detailed information that is available for 62% of the cases (n=2,517)*.
  - **The age distribution has remained the same over the course of the outbreak.**
    - The highest proportion of cases are being reported among people 40-59 years of age (34%), followed by those 20-39 years of age (28%) and 60-79 years of age (23%).
    - Only a small proportion of cases (5%) have been reported among people ≤ 19 years of age.
  - **Hospitalizations**: Hospitalization data are only available for 1,413 (35%) of all cases. Among these, 188 have been hospitalized, including 65 in ICU.
    - While 28% of the cases are 60 years of age and older, they represent the highest proportion of hospitalizations (56%) and ICU admissions (52%).
    - 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 now reporting community transmission.
    - 60% of cases over the duration of the outbreak reported community transmission.

International

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

Data Notes*

As of March 27, 2020, case report forms have been received for 2,517 cases (62% 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 65% 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, other testing.

Canadian epidemiology

Table 1. Summary of COVID-19 cases reported in Canada by location, March 27, 2020, 10:00 AM EST.

Location	Total Cases	Total Confirmed	Total Probable	Total Deaths	New cases	%change	People tested per 1,000,000	People Tested
BC	725	725	0	14	66	10%	5,963	30238
AB	486	486	0	2	67	16%	8,373	36600
SK	95	95	0	0	9	10%	6,267	7360
MB	36	11	25	0	1	3%	3,964	5429
ON	858	858	0	15	0	0%	2,830	41217
QC	1,629	1,629	0	8	290	22%	4,049	34356
NL	82	82	0	0	15	22%	3,229	1684
NB	33	33	0	0	7	27%	2,783	2162
NS	73	73	0	0	5	7%	4,062	3946
PE	9	9	0	0	4	80%	2,249	353
YK	3	3	0	0	0	0%	13,658	558
NT	1	1	0	0	0	0%	12,158	545
NU	0	0	0	0	0	0%	2,991	116
Repatriated travellers	13	13	0	0	0	0%		N/A
Total	**4,043**	**4,018**	**25**	**39**	**464**	**13%**	**4,378**	**164,564**

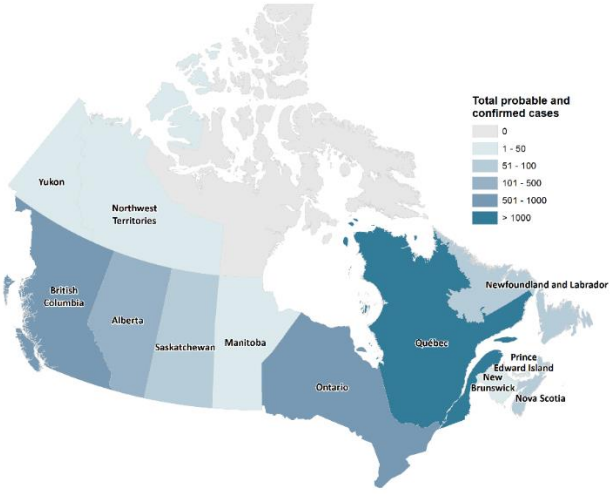
Notes: *New cases are those reported since the previous report. Probable cases have tested positive at a provincial laboratory and are awaiting confirmatory testing results from the National Microbiology Laboratory. Laboratory testing numbers may represent an underestimation due to reporting delays and 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 **164,564** people have been tested for COVID-19 in Canada. This corresponds to a test rate of 4,378 per million population.

- Testing volumes vary across the country.
- Percent positivity is 2.6%

A **real-time map** on the distribution of cases in Canada can be found in our dynamic online map.

Figure 1. Map of COVID-19 cases reported in Canada by province, March 27, 2020, 10:00 AM EST.

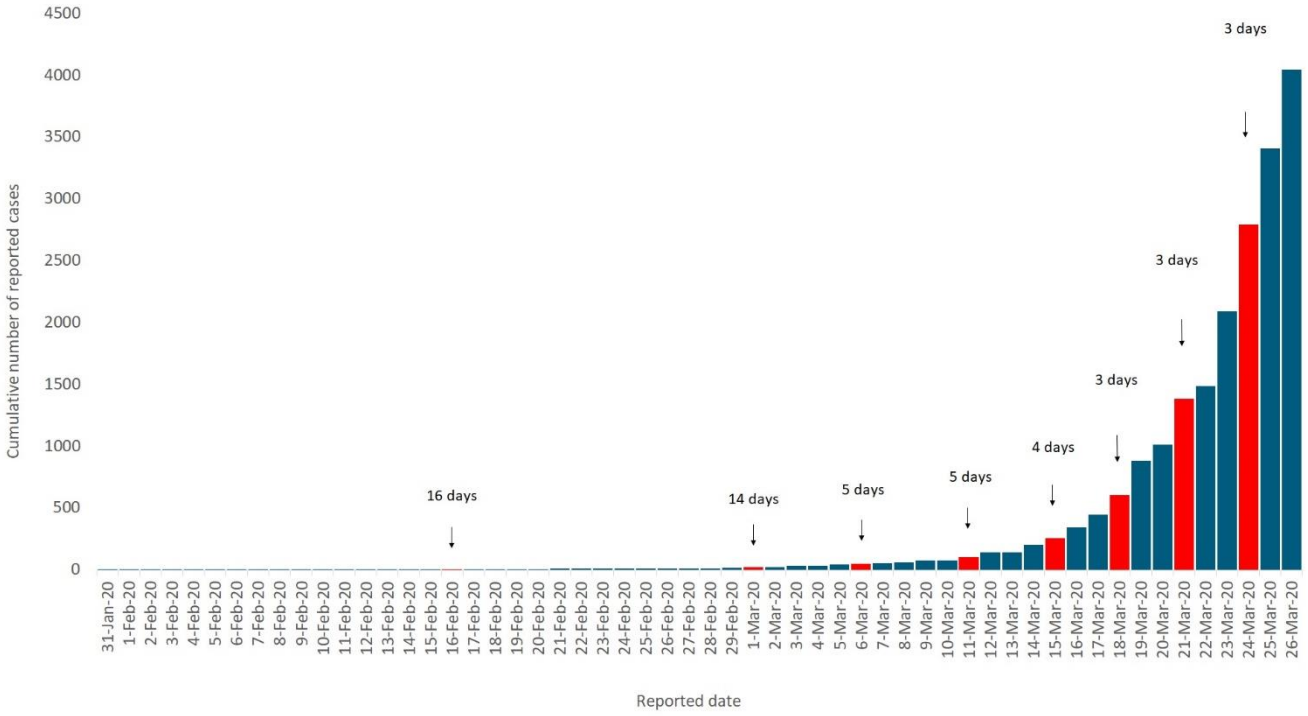


Data source: Surveillance and Risk Assessment, Epidemiology Update. Map Created by NML, Geomatics

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

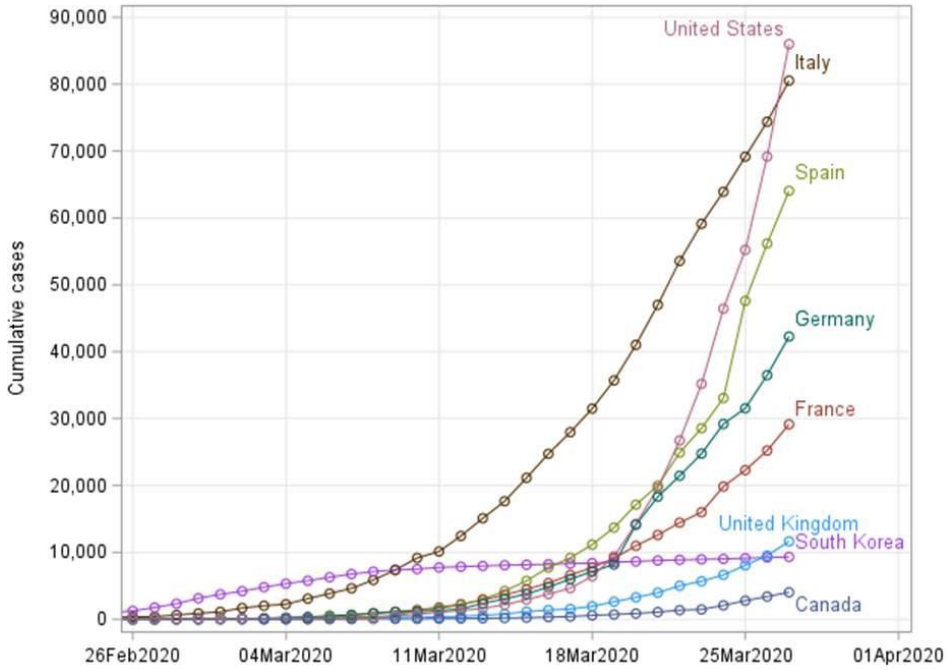
- The epidemic doubling period of COVID-19 cases in Canada, defined as the number of days between doubling of cumulative case counts is marked with red bars.
    - Reported cases double at a rate of every three to five days since March 1.
- Public health measures to mitigate the spread of COVID-19 in the community were instituted around the country starting in early March.
- It is too early to determine the level of impact the implementation of these measures has had on slowing the rate of newly occurring cases since the effects of these measures are not expected to be seen until two to three weeks after the measures have been implemented.

Figure 2. Doubling time of cumulative number of reported COVID-19 cases in Canada (n=4,043) by date of report March 27, 2020, 10:00 AM EST.



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

Figure 3. Cumulative cases of COVID-19 in Canada compared to other countries by date of report, March 27, 2020, 10:00 AM EST.



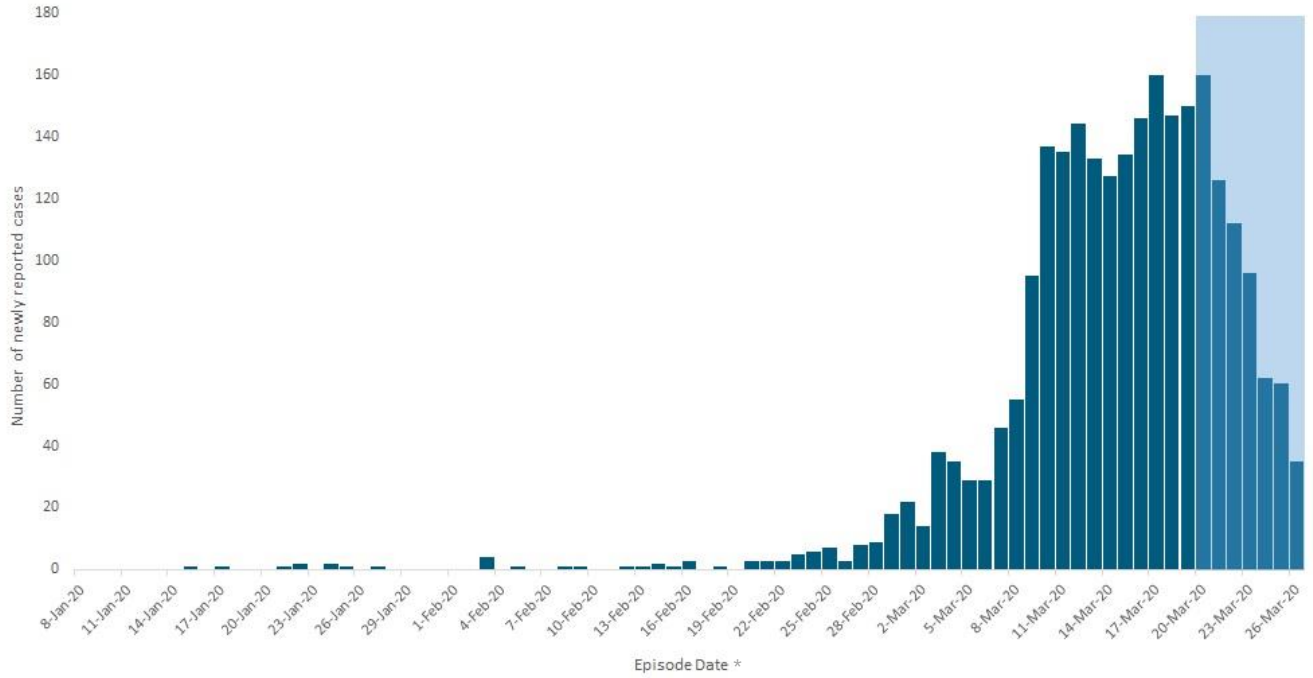
Note: *At this time, results from international comparisons should be interpreted with caution. The number of tests conducted and indications for testing by country all have a large influence on total reported case counts. Therefore, the data displayed does necessarily represent the true size of outbreak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

Please note that this section onwards of the epidemiology update is based on the limited detailed data reported (n=2,517).

Temporal Distribution

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

Figure 4. New COVID-19 cases in Canada by date of symptom onset, March 27, 2020, 10:00 AM EST.



*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

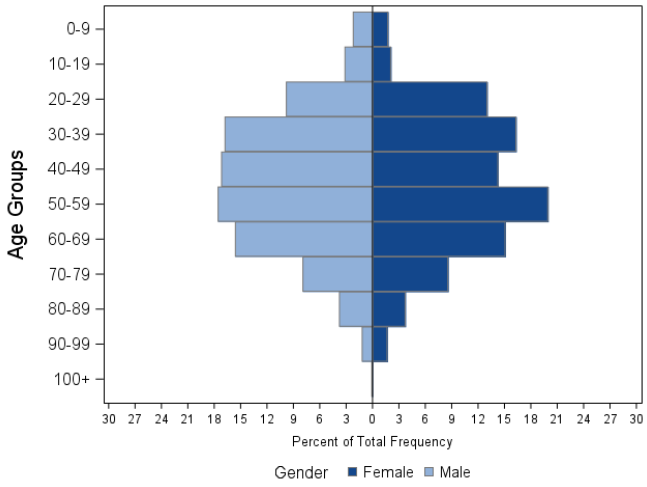
A summary of the demographics of reported cases can be found in **Table 2** and **Figure 2**.

- The highest proportion of cases occurred in individuals 40-59 years of age (34%), followed by those 20-39 years of age (28%) and 60-79 years of age (23%).
- 5% of cases have occurred in individuals ≤ 19 years of age.
- 51% of cases were among males, 48% among females and 1% for which sex was unknown.

Table 2. Demographic characteristics of COVID-19 cases reported in Canada, March 27, 2020, 10:00 AM EST.

Characteristics		
Demographics	n =	2,517
Age (in years)		
Median	49	
Range	0-100	
Age groups		
≤ 19	115	(5%)
20-39	699	(28%)
40-59	868	(34%)
60-79	590	(23%)
80+	130	(5%)
Unknown	115	(5%)
Gender		
Female	1,215	(48%)
Male	1,276	(51%)
Unknown	26	(1%)

Figure 2. Age and sex distribution of COVID-19 cases reported in Canada, March 27, 2020, 10:00 AM EST.



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 24, 2020.

- Cough, chills and headache are the most common symptoms reported.
- 18 asymptomatic cases have been reported.
- 101 cases have been clinically or radiologically diagnosed with pneumonia. Of those, 45% are individuals 60-79 years of age.
- 18% of cases had a pre-existing health condition.
    - The most commonly reported pre-existing health conditions amongst cases were respiratory disease, cardiac disease, and diabetes.
- Eleven cases have occurred in pregnant women.

Table 3. Clinical presentation summary of COVID-19 cases reported in Canada, March 27, 2020, 10:00 AM EST.

Clinical Presentations		
Symptoms	n=1,247	
Cough	978	(78%)
Chills	665	(53%)
Headache	661	(53%)
Pre-Existing Conditions	n=1,211	
Respiratory disease	131	(11%)
Cardiac	120	(10%)
Diabetes	97	(8%)
Other	224	(18%)
Complications	n=857	
Pneumonia	101	(12%)
Abnormal lung auscultation	42	(5%)
Dyspenea	42	(5%)
Other	154	(18%)

Hospitalization Status

A total of 188 cases have been hospitalized including 65 in ICU (**Table 4** and **Figure 3**).

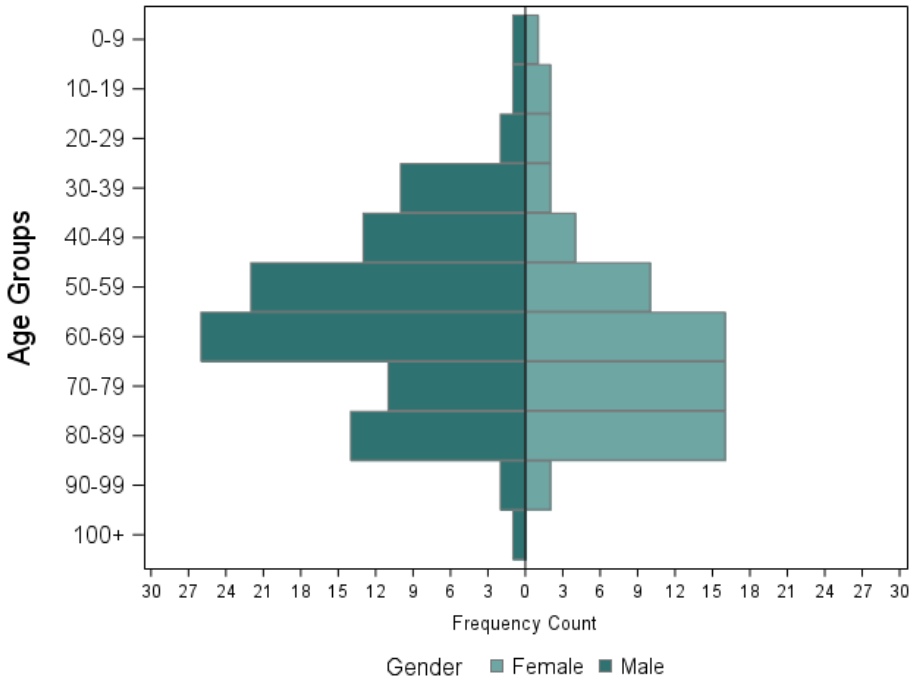
- 56% of hospitalizations and 52% of ICU admissions occurred among individuals ≥ 60 years of age.
    - The highest proportion of hospitalizations (37%) and ICU admissions (38%) being reported among individuals 60-79 years of age.
- Five hospitalizations and one ICU admissions was reported in individuals ≤ 19 years of age
- A higher proportion of hospitalizations are being reported amongst males (60%).
- 67% 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 27, 2020, 10:00 AM EST.

Summary of Severe Cases				
Overall Summary Hospitalizations			n=1,413	
Hospitalizations			188	
Hospitalizations in ICU			65/188	(35%)
Hospitalizations requiring mechanical ventilation			33/188	(18%)
Breakdown by:	**All Hospitalizations**		**Admitted to ICU**	
Age groups	n=188		n=65	
≤ 19	5	(3%)	1	(2%)
20-39	16	(9%)	5	(8%)
40-59	49	(26%)	17	(26%)
60-79	69	(37%)	25	(38%)
80+	35	(19%)	9	(14%)
Unknown	14	(7%)	8	(12%)
Gender				
Female	75	(40%)	28	(43%)
Male	113	(60%)	37	(57%)

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

Figure 3. Age and sex distribution of hospitalized COVID-19 cases reported in Canada, March 27, 2020, 10:00 AM EST.

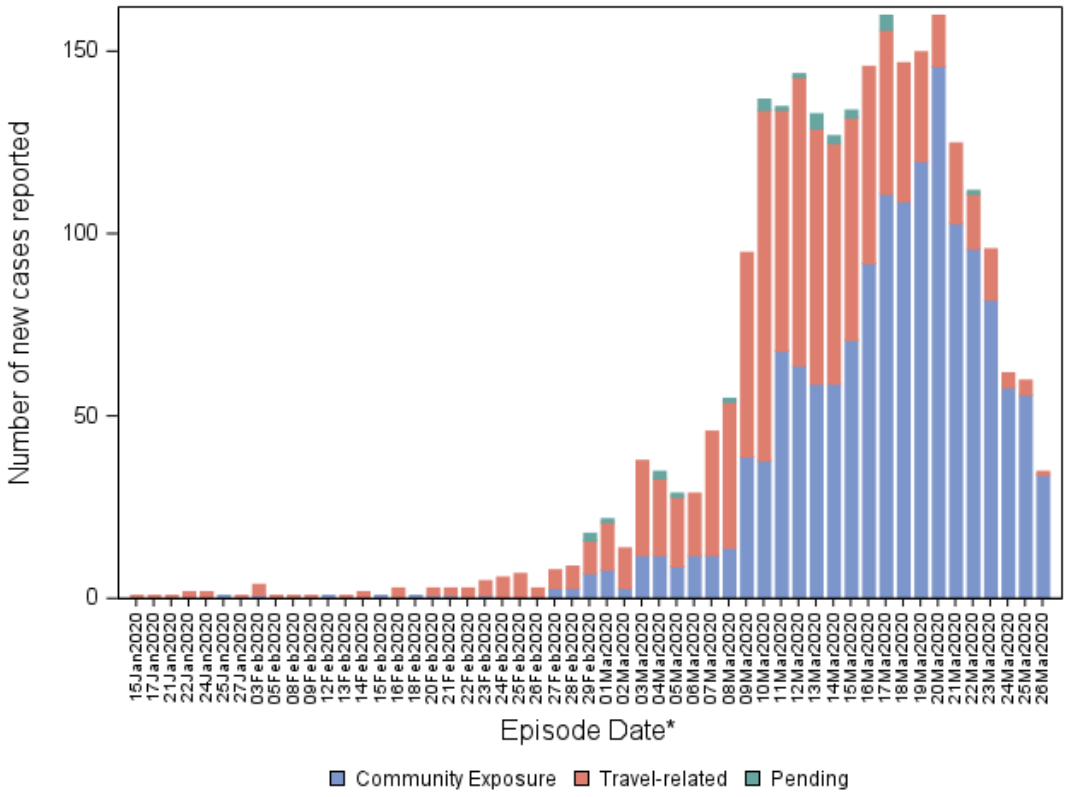


Exposure History

A summary of the exposure history of cases can be found in **Figure 4** and **Table 5**.

- 88% of newly identified cases (within the last seven days) are now reporting community transmission.
- 60% of cases over the duration of the outbreak reported community transmission.
- With the number of returning travellers to Canada, we anticipate the proportion of newly identified cases to increase.
- The number of cases related to community transmission overtook travel-related cases on March 15, 2020.

Figure 4. Number of newly reported COVID-19 cases in Canada by probable exposure category, March 27, 2020 at 10:00 AM EST.



*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 27, 2020, 10:00 AM EST.

Possible Exposure Setting	n=2,517	
Travel-Related	**n=983**	**39%**
History of international travel	879	89%
Close contact of an international traveller	104	11%
Community	**n=1,509**	**60%**
Case lives in a long-term care facility	6	0.4%
Case works in a healthcare facility	211	14%
Case attends/works at a school or daycare	20	1%
Close contact with case in a household	79	5%
Close contact with case in a workplace	22	1%
Case has no known exposures	1,171	78%
Pending	**n=25**	**1%**

International

Table 6. Global number of reported COVID-19 cases, March 26, 2020, 10:00 AM EST.

Location	Total cases	New cases	Total deaths	New deaths
Globally	535,562	57,206	24,433	2,388
USA	85,996	16,802	1,301	251
International	454,344	57,159	21,152	2,384
China	81,218	47	3,281	4

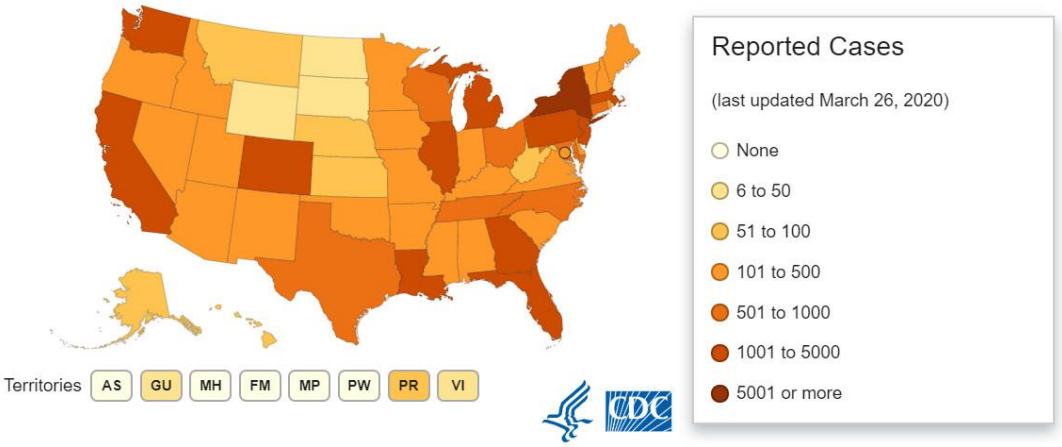
Note: International case count does not include mainland China.

United States

There are 85,996 cases and 1,301 (overall case fatality rate of 1.5%) deaths reported in the United States as of March 27, 2020 at 10:00 AM.

- The US CDC has information on 68,440 cases (994 deaths) reported from 54 jurisdictions (50 states, District of Columbia, Puerto Rico, Guam and US Virgin Islands).
- Exposure details are known for 1,710 cases:
    - Travel-related: 636
    - Close contact: 1,074
- New York State accounts for 48% of case in the US.
- 80% of jurisdictions are reporting community transmission.
- As of March 26, 2020, the US CDC and US public health labs have tested 103,230 specimens.

Figure 5. States reporting cases of COVID-19, March 26, 2020 at 10:00 AM EST

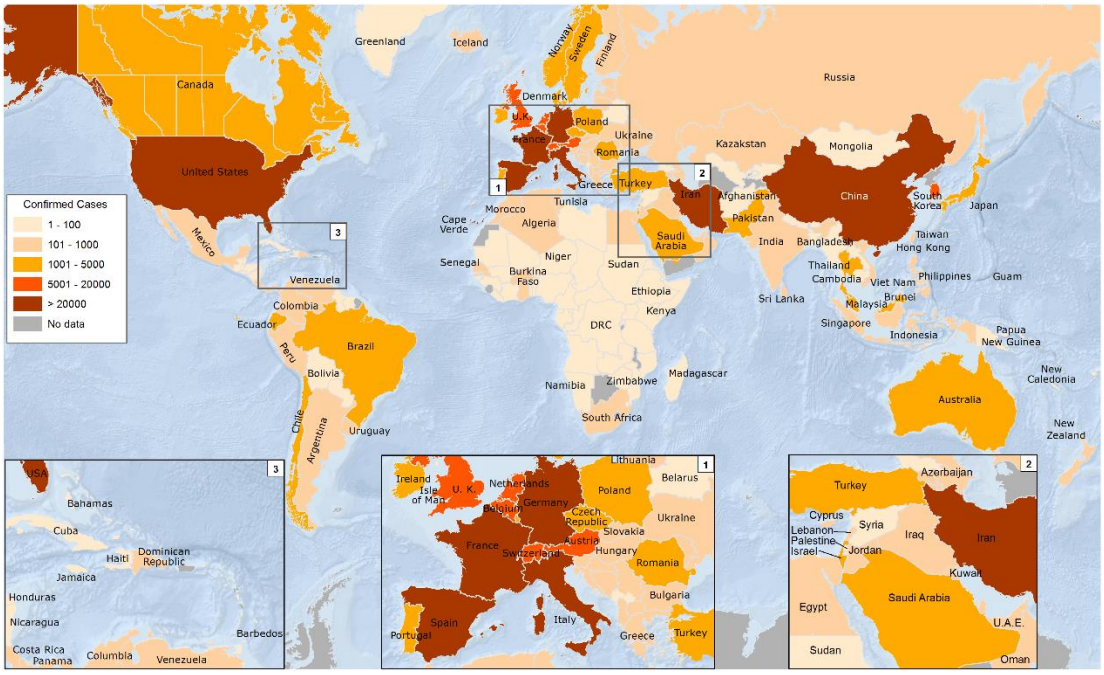


Source: US CDC website.

International:

- Europe is the epicentre of the global pandemic.
- The United States is reporting the highest number of cases, surpassing the numbers reported by China.
- 196 countries/jurisdictions outside mainland China have reported cases of COVID-19 (**Figure 6**).
    - **Three** new country/jurisdiction have reported cases**: Anguilla, British Virgin Islands, and Guinea-Bissau.**
    - The United States is reporting the most cases, followed by China, Italy, Spain and Germany.
    - Iran is reporting the majority of cases in Asia (excluding mainland China), followed by South Korea and Malaysia.

Figure 6. Global distribution of confirmed cases of COVID-19, March 27, 2020, 10:00 AM EST.



Up-to-date country-specific risk levels may be found on travel health notices.