



# COVID-19 daily epidemiology update

Updated: July 16, 2021, 7 pm EST

Summary of COVID-19 cases across Canada and over time. Contains detailed data about the spread of the virus over time and in different regions of the country. Includes breakdowns by age and sex or gender.

Provides an overview of hospitalizations and deaths, testing, variants of concern and exposures.

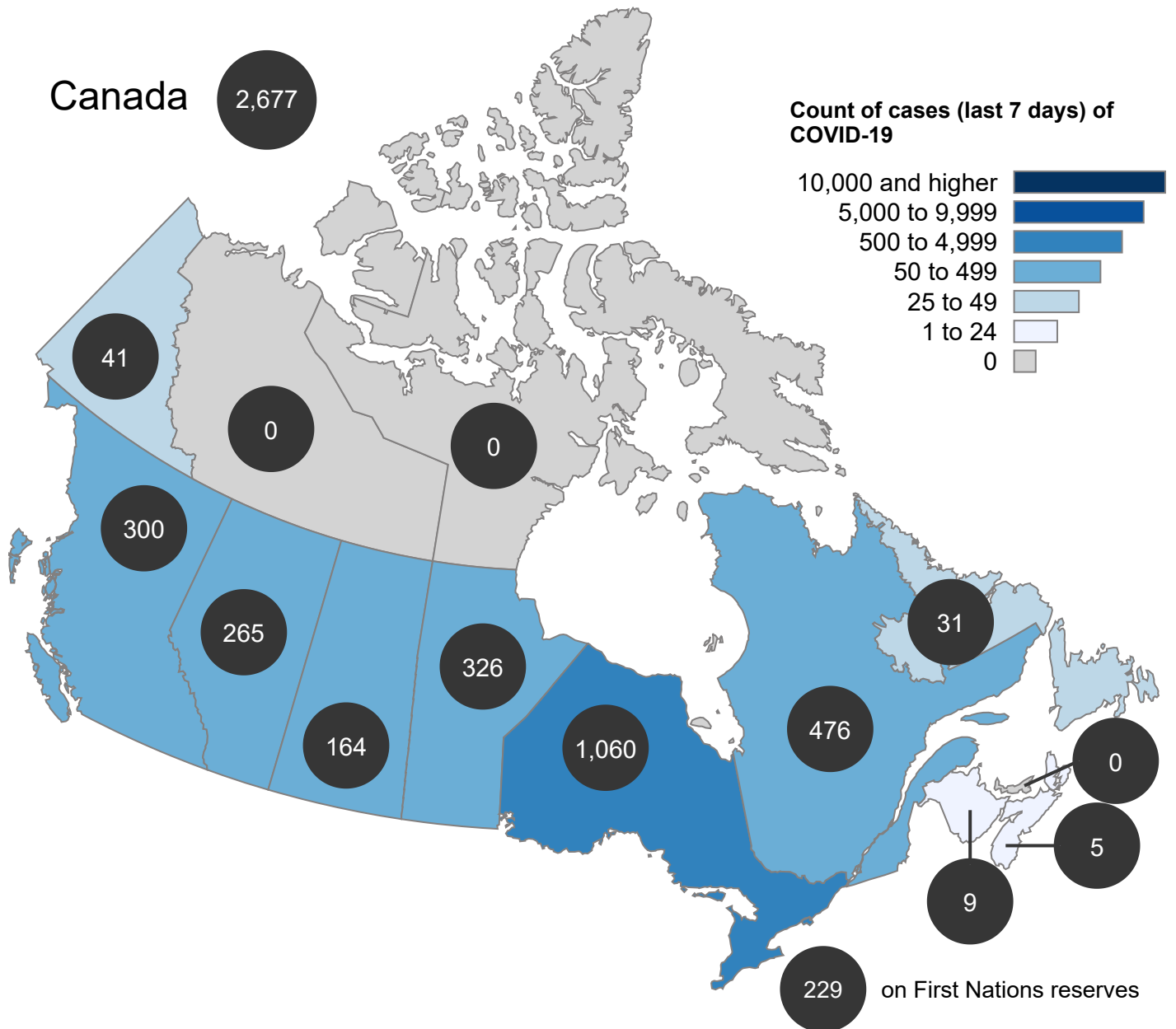
## Key updates as of July 16, 2021, 7 pm EST

Cases today	Total cases	Active cases	Total resolved	Deaths today	Total deaths
<b>397</b>	<b>1,422,641</b>	<b>4,755</b>	<b>1,391,397</b>	<b>17</b>	<b>26,489</b>
Total tests performed	Daily percent positive (last 7 days)	Daily tests per 100,000 population (last 7 days)			
<b>37,747,547</b>	<b>0.7%</b>	<b>151</b>			

- We update these sections daily at 7:00 PM EST: Key updates, Current situation and National overview. Laboratory data represents specimens received by labs up to July 14, 2021 to allow time to process results.
- We update these sections every Friday: Epidemic curve, Demographics, How people were exposed, and Severe illness and outcomes.
- Most cases (65.0%) and deaths (77.5%) were reported by Ontario and Quebec.
- Of the 12 jurisdictions reporting updates, no new cases were reported in 4 provinces or territories in the past 24 hours.
- Of the 12 jurisdictions reporting updates, no new deaths were reported in 8 provinces or territories in the past 24 hours.

# Current situation

Figure 1a.  of  of COVID-19, by  as of July 16, 2021



The count of cases (last 7 days) of COVID-19 in **Newfoundland and Labrador** was **31** as of July 16, 2021.

This information is based on data our provincial and territorial partners published on cases, deaths, and testing daily, and are current as of the day they are published. Today's numbers are current as of July 16, 2021, 7 pm EST. For the most up to date data for any province, territory or city, please visit their website. The number of cases or deaths reported on previous days may differ slightly from those on the provincial and territorial websites as these websites may update historic case and death counts as new information becomes available.

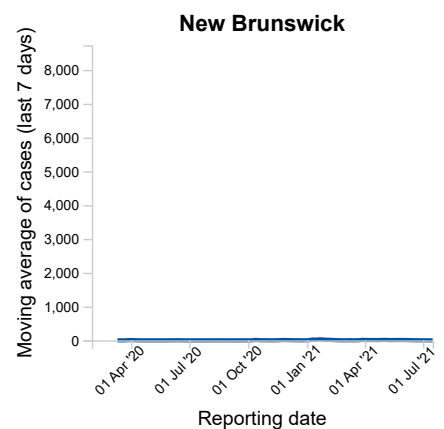
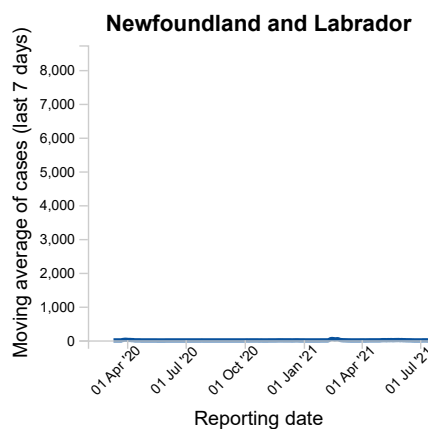
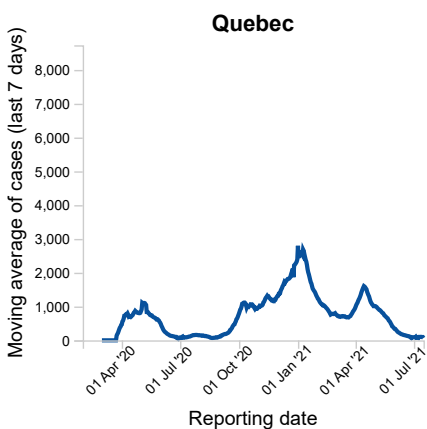
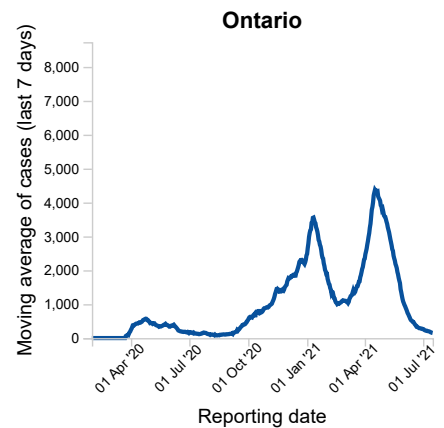
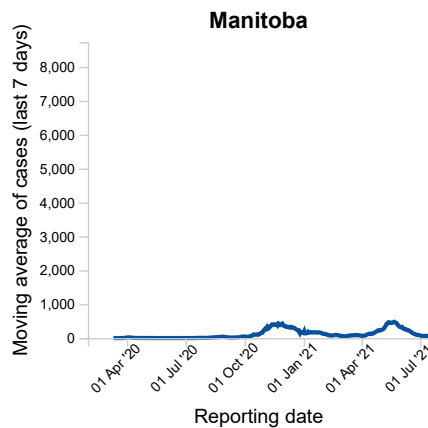
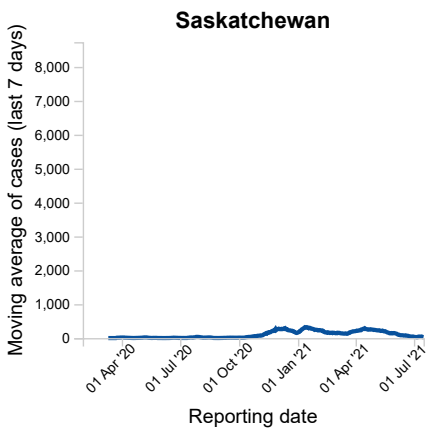
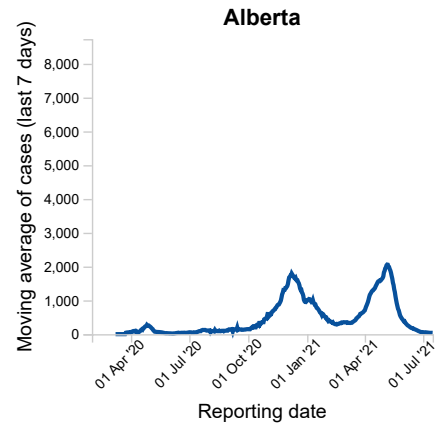
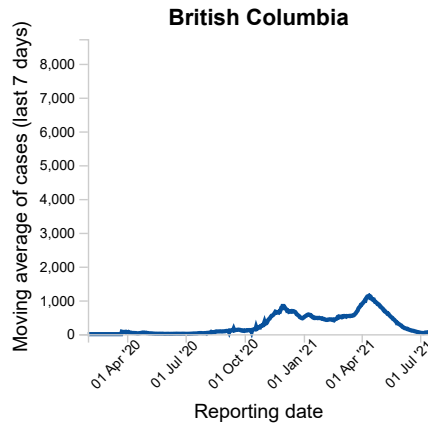
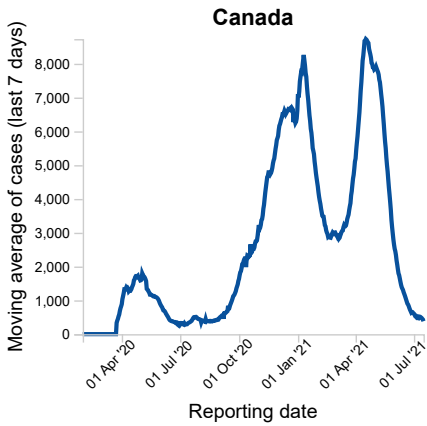
Areas in Canada with cases of COVID-19 as of July 16, 2021

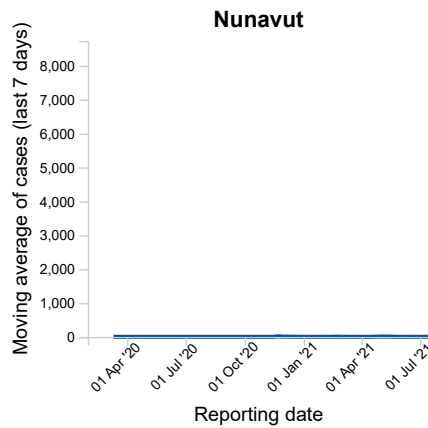
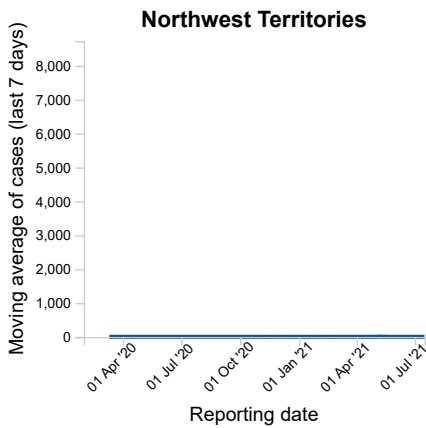
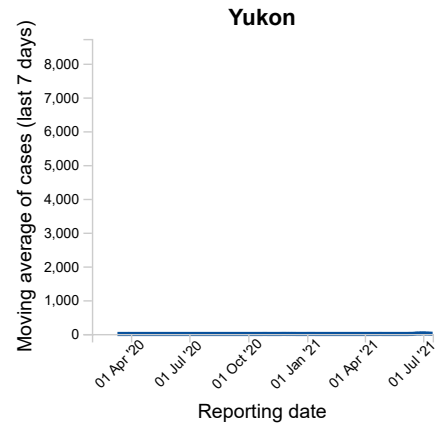
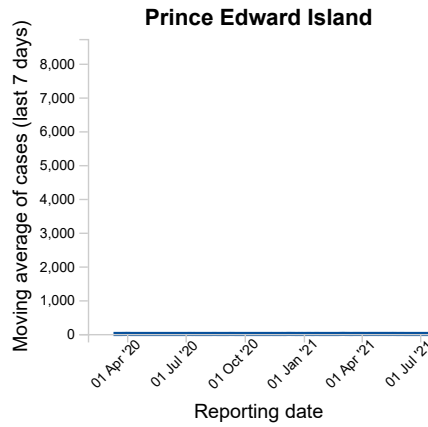
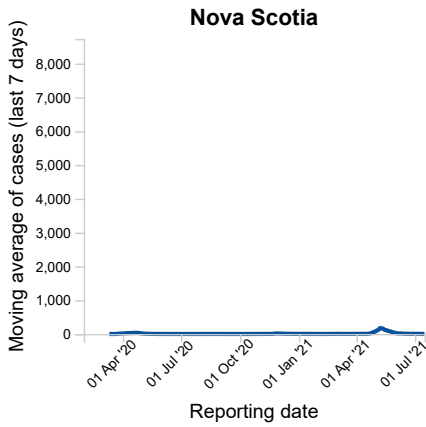
Location	Total cases		Cases last 7 days		Active cases		Resolved	Deaths			Deaths last 7 days		Total tests performed	Moving average tests performed last 7 days		Moving average positivity last 7 days
	Count	Rate*	Count	Rate*	Count	Rate*	Count	Count	Rate*	Count	Rate*	Count	Count	Rate*	Percent	
<b>Canada</b>	<b>1,422,641</b>	<b>3,743</b>	<b>2,677</b>	<b>7</b>	<b>4,755</b>	<b>13</b>	<b>1,391,397</b>	<b>26,489</b>	<b>70</b>	<b>70</b>	<b>0</b>	<b>37,747,547</b>	<b>57,298</b>	<b>151</b>	<b>0.7%</b>	
British Columbia	148,331	2,881	300	6	662	13	145,908	1,761	34	1	0	37,747,547	6,146	119	0.9%	
Alberta	232,676	5,262	265	6	579	13	229,783	2,314	52	7	0	37,747,547	5,894	133	0.7%	
Saskatchewan	49,362	4,188	164	14	380	32	48,407	575	49	4	0	37,747,547	1,285	109	2.2%	
Manitoba	57,065	4,137	326	24	958	69	54,943	1,164	84	4	0	37,747,547	1,574	114	3.9%	
Ontario	547,864	3,718	1,060	7	1,403	10	537,176	9,285	63	48	0	37,747,547	23,326	158	0.7%	
Quebec	376,192	4,387	476	6	629	7	364,328	11,235	131	5	0	37,747,547	14,832	173	0.5%	
Newfoundland and Labrador	1,433	274	31	6	50	10	1,376	7	1	0	0	37,747,547	401	77	0.4%	
New Brunswick	2,345	300	9	1	9	1	2,290	46	6	0	0	37,747,547	671	86	0.1%	
Nova Scotia	5,870	599	5	1	8	1	5,770	92	9	0	0	37,747,547	2,952	301	0.1%	
Prince Edward Island	208	130	0	0	0	0	208	0	0	0	0	37,747,547	158	99	0.0%	
Yukon	497	1,182	41	98	77	183	414	6	14	1	2	37,747,547	N/A	N/A	N/A	
Northwest Territories	128	283	0	0	0	0	128	0	0	0	0	37,747,547	32	70	0.0%	
Nunavut	657	1,670	0	0	0	0	653	4	10	0	0	37,747,547	26	67	0.0%	

\* Rate per 100,000 population

Figure 1b. **Moving average** of **cases (last 7 days)** of **COVID-19 in Canada as of July 16, 2021, 7 pm EST**

The figures below show cases over time. The range of dates (January 31st, 2020 - present date) is the same for each figure. This allows you to compare the provinces and territories on the same timescale.





This information is based on data our provincial and territorial partners published on cases, deaths, and testing daily, and are current as of the day they are published. Today's numbers are current as of July 16, 2021, 7 pm EST. For the most up to date data for any province, territory or city, please visit their website. The number of cases or deaths reported on previous days may differ slightly from those on the provincial and territorial websites as these websites may update historic case and death counts as new information becomes available.

[Downloadable data \(in .csv format\).](#)

Note: Out of the total number of people tested, 76 were repatriated travellers, of which 13 were cases.

# National overview

There have been over **37,747,547** COVID-19 tests performed in Canada or **457,522 tests per 1 million people**. Of these, **4.0%** were positive. For information about testing trends, please see the [Detailed weekly epidemiological report \(PDF\)](#).

**Table 1. Daily\* change in the number of cases, deaths and tests performed, by province or territory, as of July 16, 2021, 7 pm EST**

Location	New cases	New deaths	Tests performed
<b>Canada</b>	<b>397</b>	<b>17</b>	<b>68,160</b>
British Columbia	45	0	7,721
Alberta	41	2	6,216
Saskatchewan	21	2	1,573
Manitoba	39	0	1,722
Ontario	159	10	31,329
Quebec	83	3	14,856
Newfoundland and Labrador	0	0	310
New Brunswick	2	0	745
Nova Scotia	0	0	3,438
Prince Edward Island	N/A	N/A	192
Yukon	7	0	N/A
Northwest Territories	0	0	33
Nunavut	0	0	25

\* The new cases, deaths and tests reflect the difference between a province or territory's current report and their last report. Some provinces and territories do not update daily.

N/A means that no daily update was provided by the province or territory.

# COVID-19 variants in Canada

All viruses, including COVID-19, change over time. These changes are called mutations, and result in variants of the virus. Not all mutations are of concern. Most do not cause more severe illness. However, some mutations result in variants of concern or variants of interest.

A variant of concern has mutations that are significant to public health. Before a variant of interest is considered one of concern, scientists and public health professionals must determine if the mutations result in an actual change in the behaviour of the virus. For example, it might:

- spread more easily
- cause more severe illness
- require different treatments, or
- reduce vaccine effectiveness

There are several variants of interest that have mutations similar to variants of concern, but we don't yet know if they pose a higher risk to public health.

The Public Health Agency of Canada (PHAC) works with provincial and territorial partners and the Canadian COVID-19 Genomics Network ([CanCOGeN](#)), to sequence a percentage of all positive COVID-19 test results. Sequencing reveals the genetic code of the virus, which tells us which variant is involved in a specific case of COVID-19. We report the proportion of COVID-19 variants in Canada every week.

We collect evidence to determine if new variants meet the definition for a [variant of concern or a variant of interest](#). Many variants are being tracked across Canada and around the world. Variants of concern now represent a majority of COVID-19 cases in Canada.

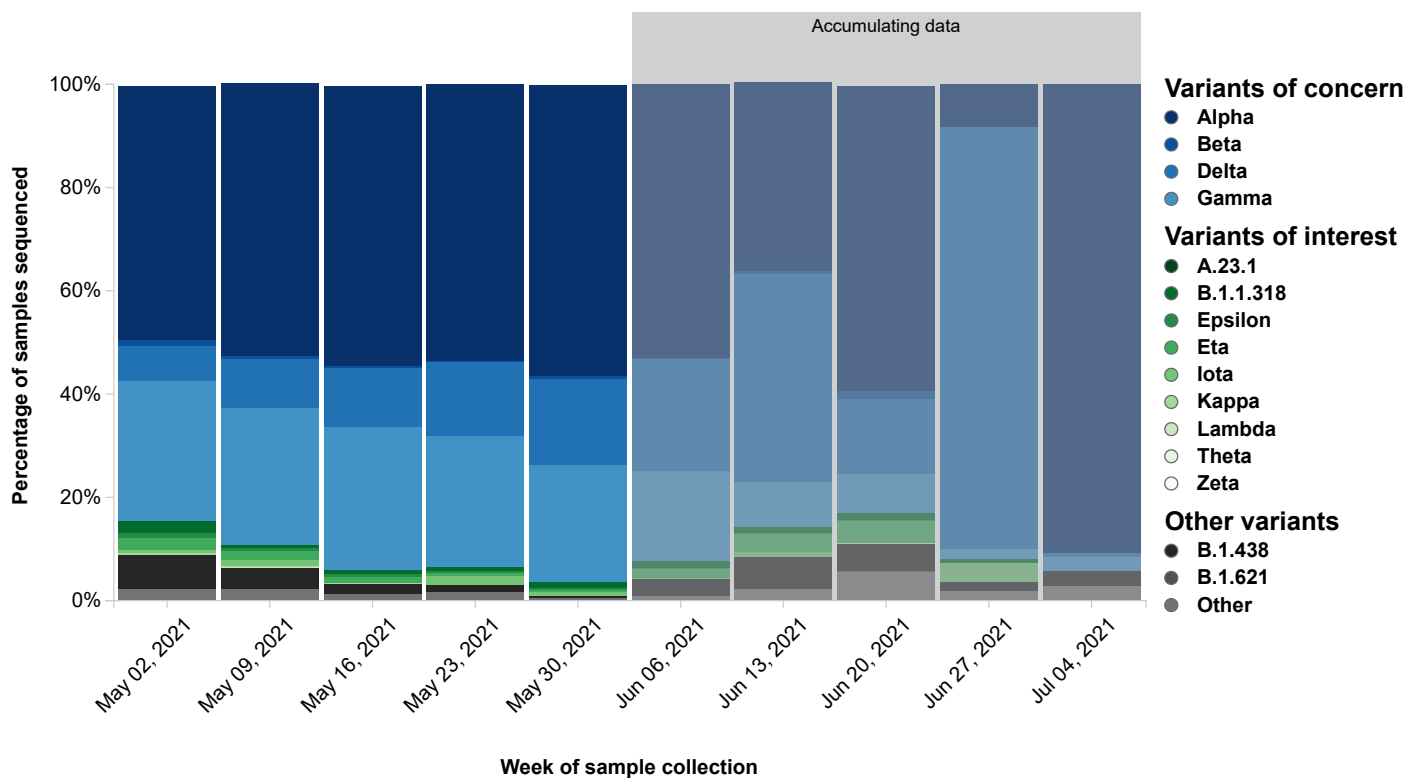
Four [VOC \(Variants of concern\)](#)s have been detected in most provinces and territories:

- B.1.1.7 (Alpha)
- B.1.351 (Beta)
- P.1 (Gamma)
- B.1.617.2 (Delta)

New variants will continue to appear. We must remain vigilant and take all available measures to limit spread.

## Figure 2. Weekly variant breakdown

**i** The graphic shows the percentage mix of COVID-19 variants detected in Canada through whole genome sequencing, by week of sample collection. You can see the numbers for each date by hovering over, tabbing to, or long-pressing any of the bars. To see a specific variant or variant grouping, click or press return. Repeat to restore the complete graph.



This information is based on whole genome sequencing from surveillance testing in all provinces and territories. In addition to sequencing done by the National Microbiology Laboratory in Winnipeg, data is included from provincial and territorial laboratories.

Sequencing takes from 1 to 3 weeks to complete, so the proportions for recent weeks may change as more data are added. Surveillance in each province or territory is organized and prioritized according to local needs and may change from time to time. Because of differences in local sampling and reporting, the percentages illustrate trends rather than precise measurements.

## Weekly variant breakdown

Percentage of COVID-19 cases identified through whole genome sequencing, presented by variant and by week of sample collection.

Variant Grouping	May 02, 2021 (n=3,425)	May 09, 2021 (n=3,132)	May 16, 2021 (n=2,726)	May 23, 2021 (n=2,507)	May 30, 2021 (n=2,467)	Jun 06, 2021 (n=2,220)	Jun 13, 2021 (n=1,636)	Jun 20, 2021 (n=855)	Jun 27, 2021 (n=110)	Jul 04, 2021 (n=142)
<b>Variants of concern</b>	<b>84.1%</b>	<b>89.4%</b>	<b>93.7%</b>	<b>93.6%</b>	<b>96.3%</b>	<b>92.1%</b>	<b>86.1%</b>	<b>82.6%</b>	<b>91.8%</b>	<b>94.3%</b>
Alpha	49.1%	52.8%	54.1%	53.6%	56.3%	52.9%	36.6%	58.9%	8.2%	90.8%
Beta	1.1%	0.5%	0.4%	0.2%	0.7%	0.1%	0.4%	1.6%	-	-
Delta	6.8%	9.4%	11.4%	14.4%	16.6%	21.8%	40.3%	14.5%	81.8%	0.7%
Gamma	27.1%	26.7%	27.8%	25.4%	22.7%	17.3%	8.8%	7.6%	1.8%	2.8%



<b>Variant Grouping</b>	<b>May 02, 2021</b> (n=3,425)	<b>May 09, 2021</b> (n=3,132)	<b>May 16, 2021</b> (n=2,726)	<b>May 23, 2021</b> (n=2,507)	<b>May 30, 2021</b> (n=2,467)	<b>Jun 06, 2021</b> (n=2,220)	<b>Jun 13, 2021</b> (n=1,636)	<b>Jun 20, 2021</b> (n=855)	<b>Jun 27, 2021</b> (n=110)	<b>Jul 04, 2021</b> (n=142)
<b>Variants of interest</b>	<b>6.7%</b>	<b>4.3%</b>	<b>2.6%</b>	<b>3.4%</b>	<b>2.7%</b>	<b>3.6%</b>	<b>5.9%</b>	<b>6.0%</b>	<b>4.5%</b>	-
A.23.1	0.1%	-	-	-	-	-	-	0.1%	-	-
B.1.1.318	2.3%	0.5%	0.7%	0.6%	1.0%	1.4%	1.2%	1.3%	0.9%	-
Epsilon	0.9%	0.6%	0.6%	0.5%	0.5%	0.2%	0.1%	0.1%	-	-
Eta	2.5%	1.7%	1.1%	0.7%	0.4%	1.8%	3.5%	4.4%	-	-
Iota	0.4%	1.2%	0.1%	1.6%	0.7%	0.2%	1.0%	-	3.6%	-
Kappa	0.4%	0.2%	0.1%	-	0.1%	-	-	-	-	-
Lambda	-	0.1%	-	-	-	-	0.1%	0.1%	-	-
Theta	-	-	-	-	-	-	-	-	-	-
Zeta	0.1%	-	-	-	-	-	-	-	-	-
<b>Other variants</b>	<b>8.7%</b>	<b>6.3%</b>	<b>3.2%</b>	<b>3.0%</b>	<b>0.8%</b>	<b>4.1%</b>	<b>8.3%</b>	<b>10.9%</b>	<b>3.6%</b>	<b>5.6%</b>
B.1.438	6.4%	4.2%	2.1%	1.4%	0.3%	3.2%	6.1%	5.3%	1.8%	2.8%
B.1.621	-	-	-	-	-	-	-	0.1%	-	-
Other	2.3%	2.1%	1.1%	1.6%	0.5%	0.9%	2.2%	5.5%	1.8%	2.8%



### Contributing laboratories:

- Public Health Ontario (PHO)
- Newfoundland and Labrador – Eastern Health
- New Brunswick – Vitalité Health Network
- Manitoba Cadham Provincial Laboratory
- LSPQ
- BCCDC Public Health Laboratory
- Alberta Precision Labs (APL)
- National Microbiology Laboratory (NML) - supplemental sequencing for all provinces and territories

# Detailed case information

The tables and figures below reflect detailed case information provided to the Public Health Agency of Canada (PHAC) by health authorities in the provinces and territories. This data is updated every week. It may change as we get more information about cases.

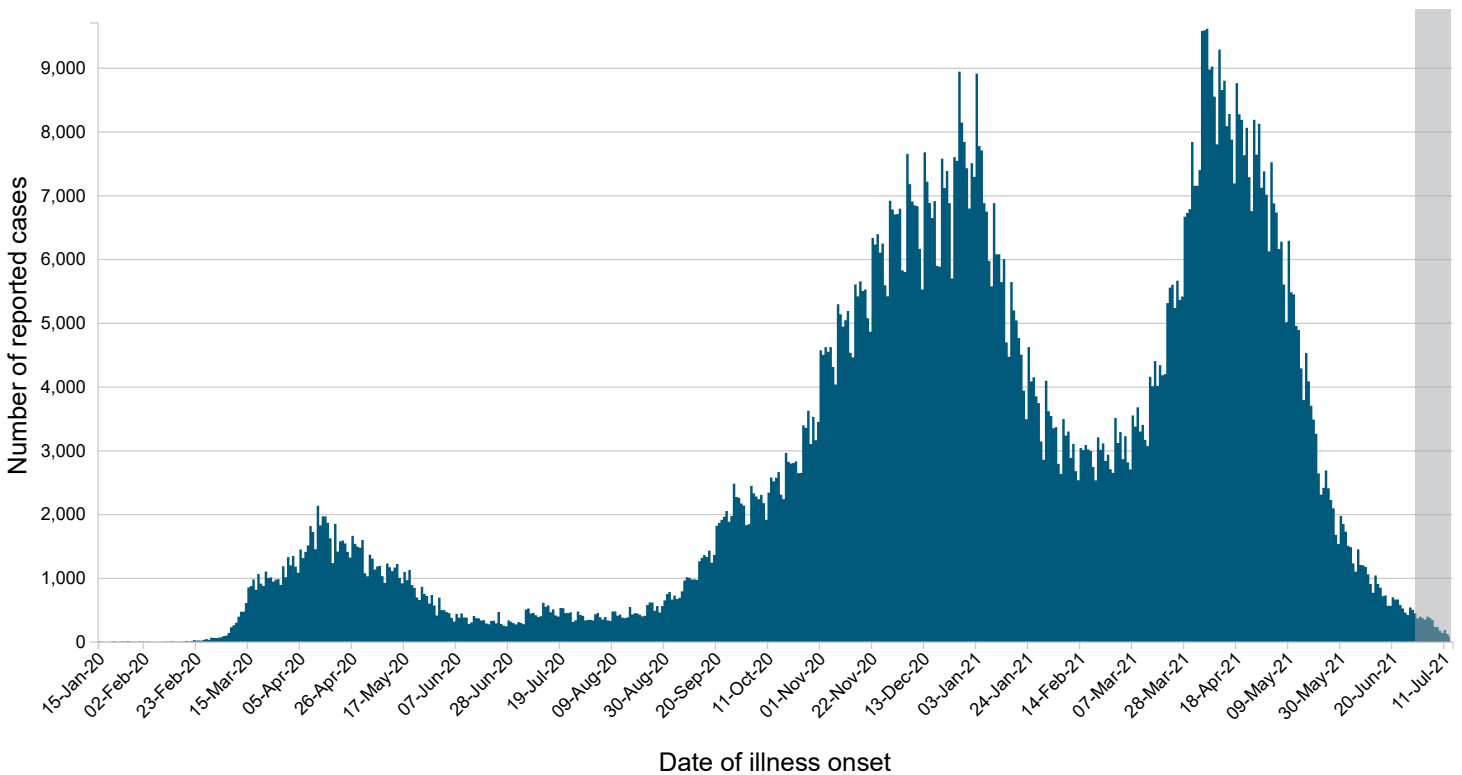
Updated: July 16, 2021, 7 pm EST

## Epidemic curve

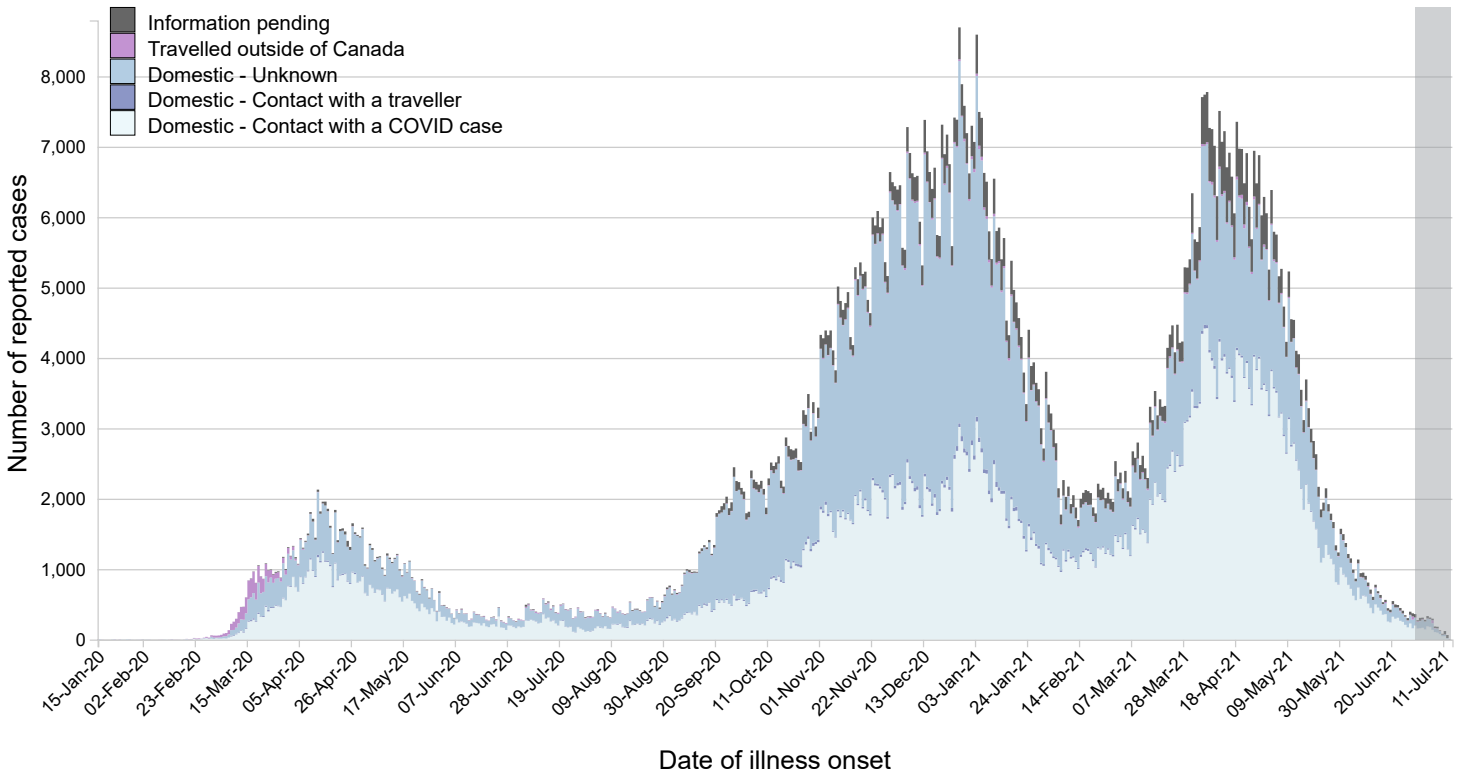
As of July 16, 2021, 7 pm EST, PHAC has received detailed case report data on 1,421,243 cases. Both exposure and symptom onset date were available for 1,271,877 (89.5%) cases <sup>1</sup>.

The shaded area on the far right of Figure 2 represents lag time. This is the period of time (1 to 2 weeks) before the latest cases are reported to PHAC. This delay is a result of the time required to seek health care, get tested and receive results. It also takes time for public health authorities to gather information on cases. We update this information as it becomes available.

**Figure 2. COVID-19 cases (n=1,421,399 <sup>1</sup>) in Canada by date of illness onset <sup>2</sup> as of July 16, 2021, 7 pm EST (total cases)**



**Figure 2. COVID-19 cases (n=1,271,877 <sup>1</sup>) in Canada by date of illness onset <sup>2</sup> as of July 16, 2021, 7 pm EST (by exposure)**



**Figure 2. COVID-19 cases (n=1,420,852 <sup>1</sup>) in Canada by date of illness onset <sup>2</sup> as of July 16, 2021, 7 pm EST (by age - 10 year groups)**

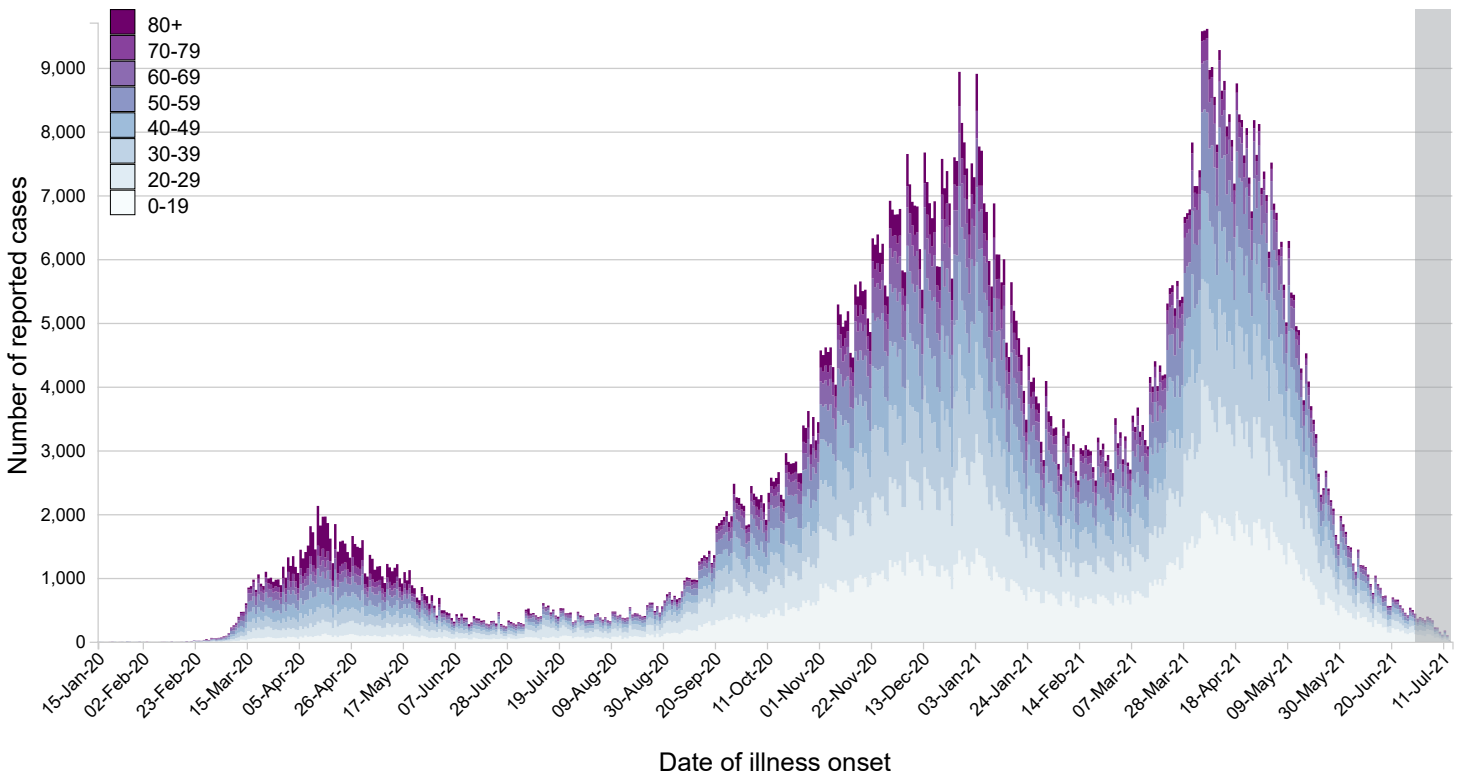
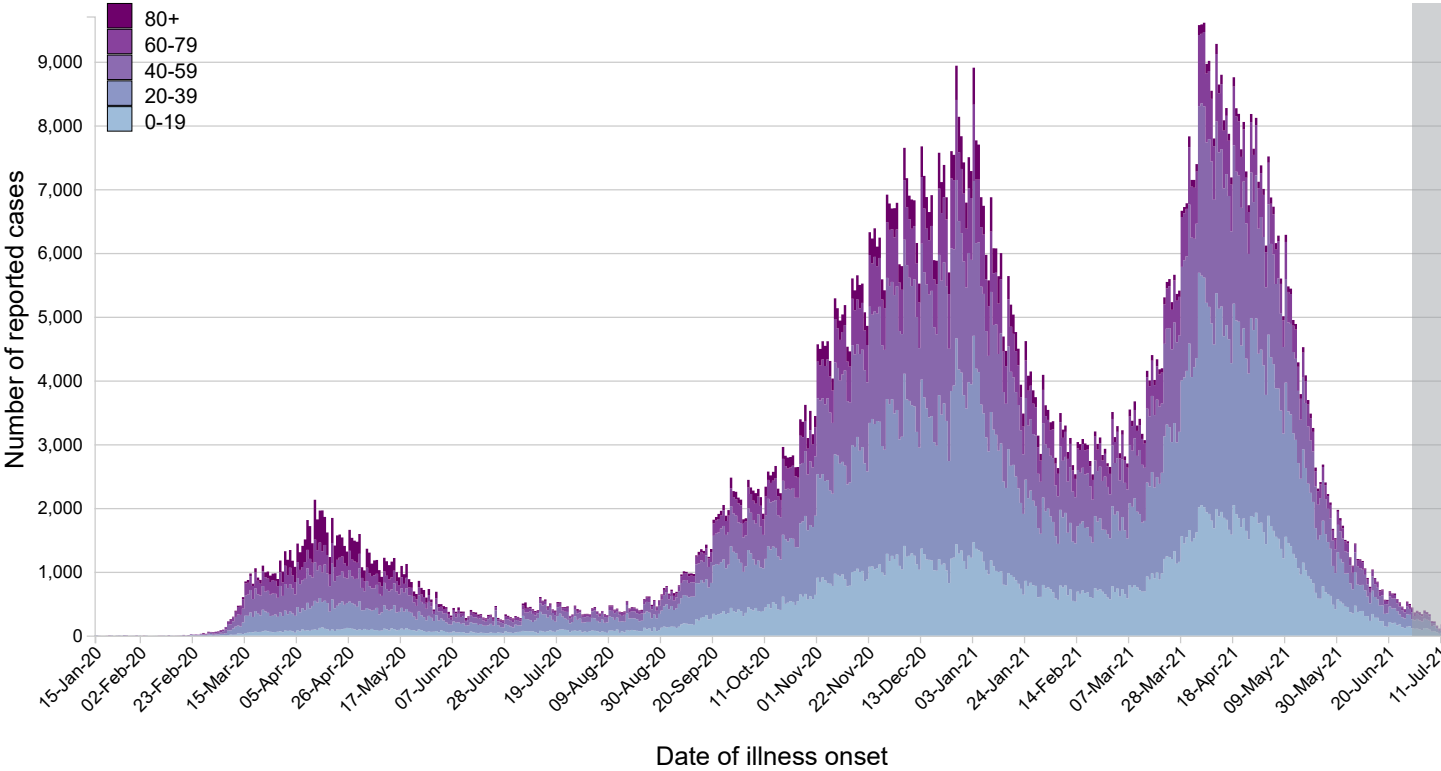


Figure 2. COVID-19 cases (n=1,420,852 <sup>1</sup>) in Canada by date of illness onset <sup>2</sup> as of July 16, 2021, 7 pm EST (by age - 20 year groups)



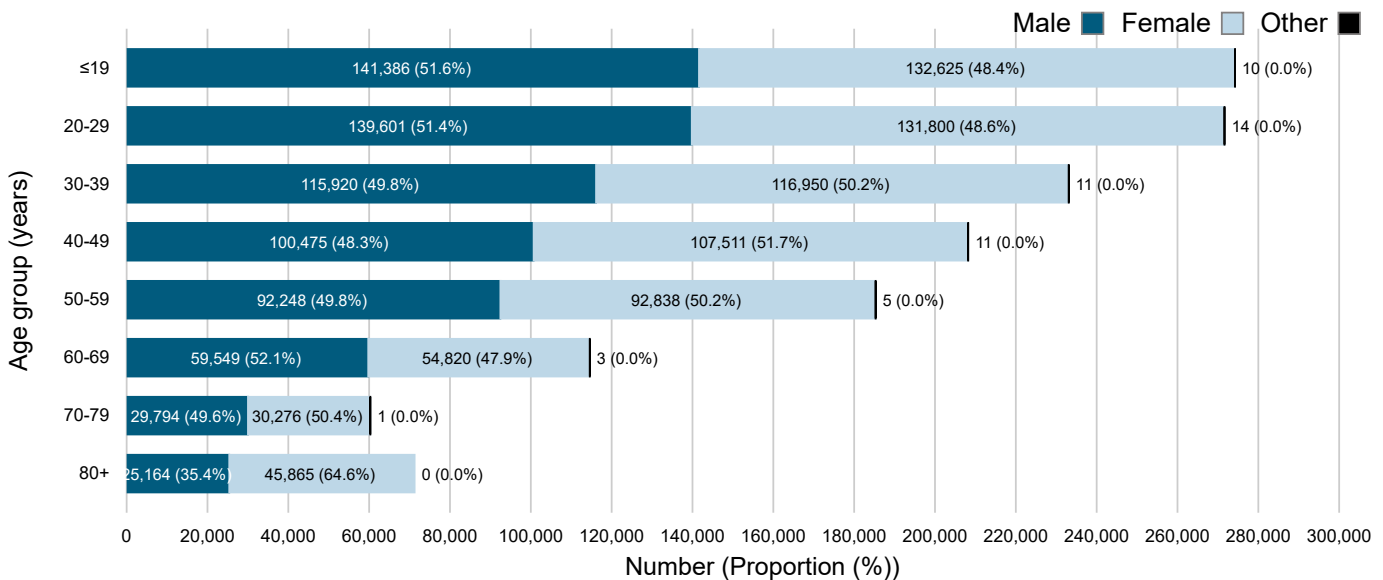
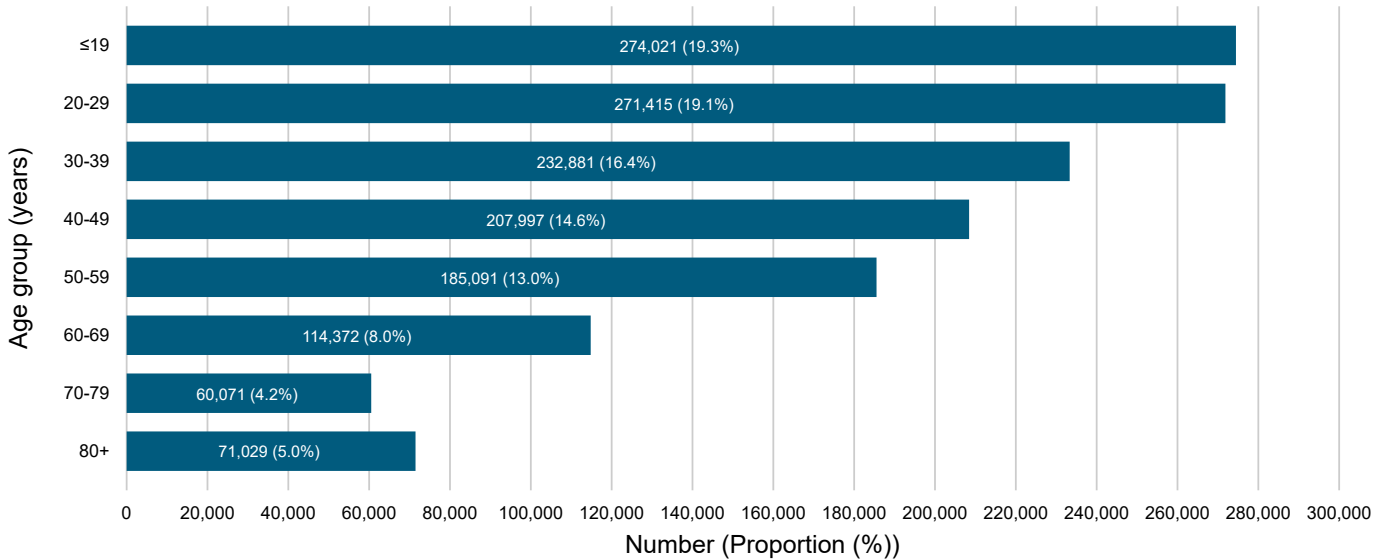
This figure may underestimate the total number of cases among returning travelers. Exposure history is not available for all cases and jurisdictions have not all consistently reported exposure history to PHAC throughout the pandemic.

# Demographics

We have detailed case report data from 1,421,243 cases. We know the age of patients in 100.00% of cases, and both age and gender in 99.69% of cases.

Of the cases reported in Canada so far, 50.3% were female and 35.6% were between 20 and 39 years old (Figure 3).

Figure 3.  distribution of COVID-19 cases (n=1,421,243<sup>1</sup>) in Canada as of July 16, 2021, 7 pm EST<sup>4</sup>



**Age by gender <sup>4</sup> distribution of COVID-19 cases (n=1,421,243 <sup>1</sup>) in Canada, July 16, 2021, 7 pm EST**

Age group (years)	Number of cases with case reports (percentage)	Number of male cases (percentage)	Number of female cases (percentage)	Number of other cases (percentage)
≤19	274,021 (19.3%)	141,386 (20.1%)	132,625 (18.6%)	10 (18.2%)
20-29	271,415 (19.1%)	139,601 (19.8%)	131,800 (18.5%)	14 (25.5%)
30-39	232,881 (16.4%)	115,920 (16.5%)	116,950 (16.4%)	11 (20.0%)
40-49	207,997 (14.6%)	100,475 (14.3%)	107,511 (15.1%)	11 (20.0%)
50-59	185,091 (13.0%)	92,248 (13.1%)	92,838 (13.0%)	5 (9.1%)
60-69	114,372 (8.0%)	59,549 (8.5%)	54,820 (7.7%)	3 (5.5%)
70-79	60,071 (4.2%)	29,794 (4.2%)	30,276 (4.2%)	1 (1.8%)
80+	71,029 (5.0%)	25,164 (3.6%)	45,865 (6.4%)	0 (0.0%)
Total	1,416,877 (100%)	704,137 (100%)	712,685 (100%)	55 (100%)

## How people were exposed <sup>3</sup>

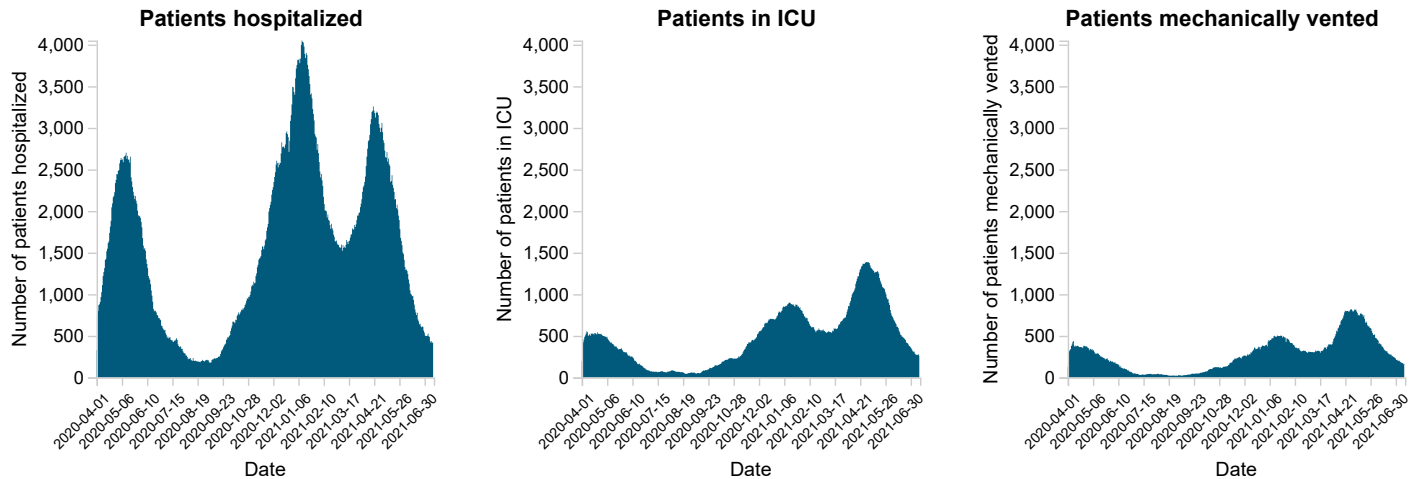
In  , detailed case report data were provided for 1,421,243 cases. We have exposure history for 1,271,877 (89.5%) cases. The probable exposure setting of these cases <sup>1</sup> are:

- any exposure that occurred in Canada: **1,184,468 (93.1%)**, including
  - from contact with a known COVID case: **589,601 (46.4%)**
  - from contact with a traveller: **8,519 (0.7%)**
  - from an unknown source: **586,348 (46.1%)**
- currently unknown (information pending): **77,564 (6.1%)**
- travelled outside of Canada: **9,845 (0.8%)**

# Severe illness and outcomes

## Hospital use

Figure 4. Daily number of hospital beds and ICU beds occupied by COVID-19 patients as of July 12, 2021



Between July 5, 2021 and July 12, 2021:

- the number of **hospital beds** occupied by COVID-19 patients **decreased** from **526** to **419** beds.
- the number of **ICU beds** occupied by COVID-19 patients **decreased** from **310** to **259** beds.
- the number of **COVID-19 patients who were mechanically vented decreased** from **202** to **165**.

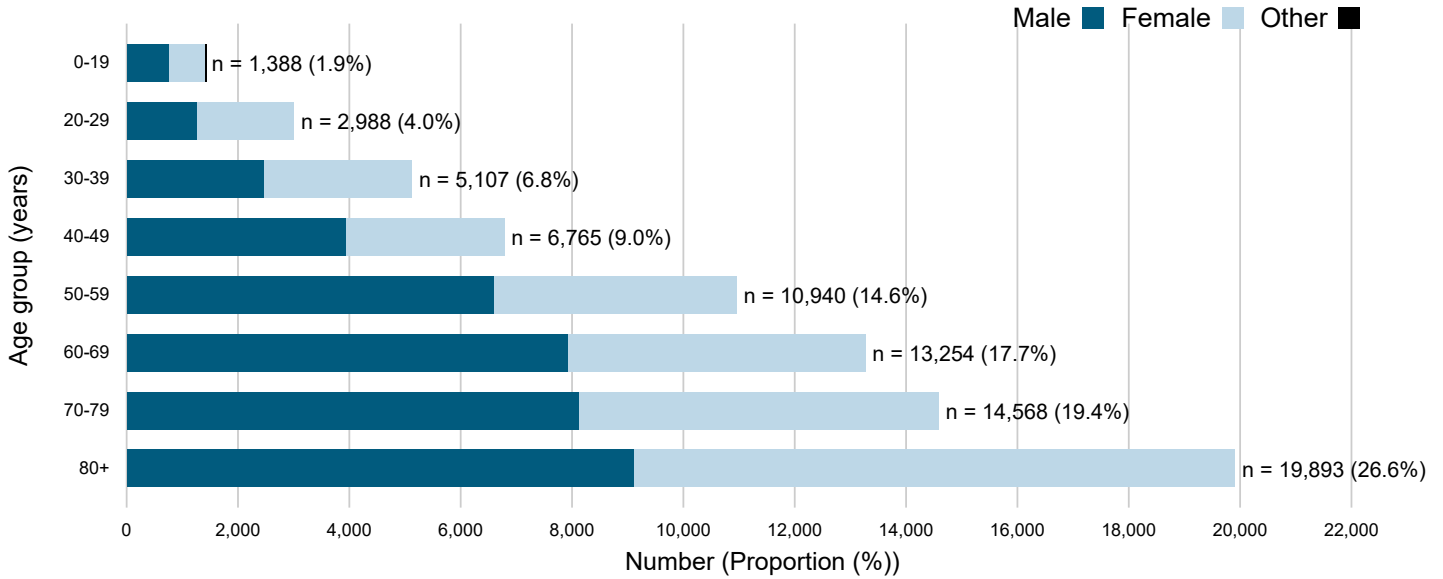
## Hospitalizations and deaths to date

We have detailed case report data on 1,421,243 cases, and hospitalization status for 997,101 (70.2%) of them:

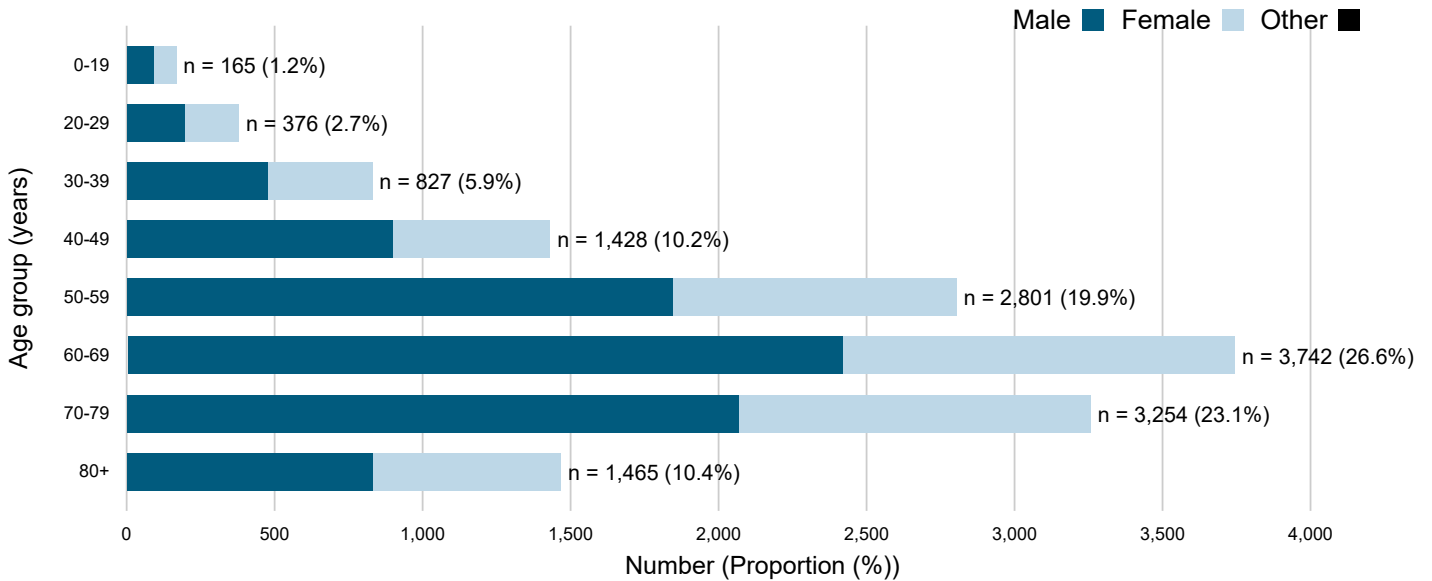
- **75,045 cases (7.5%)** were hospitalized, of whom:
  - **14,216 (18.9%)** were admitted to the ICU
  - **1,923 (2.6%)** needed mechanical ventilation

The provinces and territories provided detailed case report forms for **26,451** deaths related to COVID-19.

**Figure 5a. Age and gender<sup>4</sup> distribution of COVID-19 cases hospitalized in Canada as of July 16, 2021, 7 pm EST (n=74,903<sup>1</sup>)**

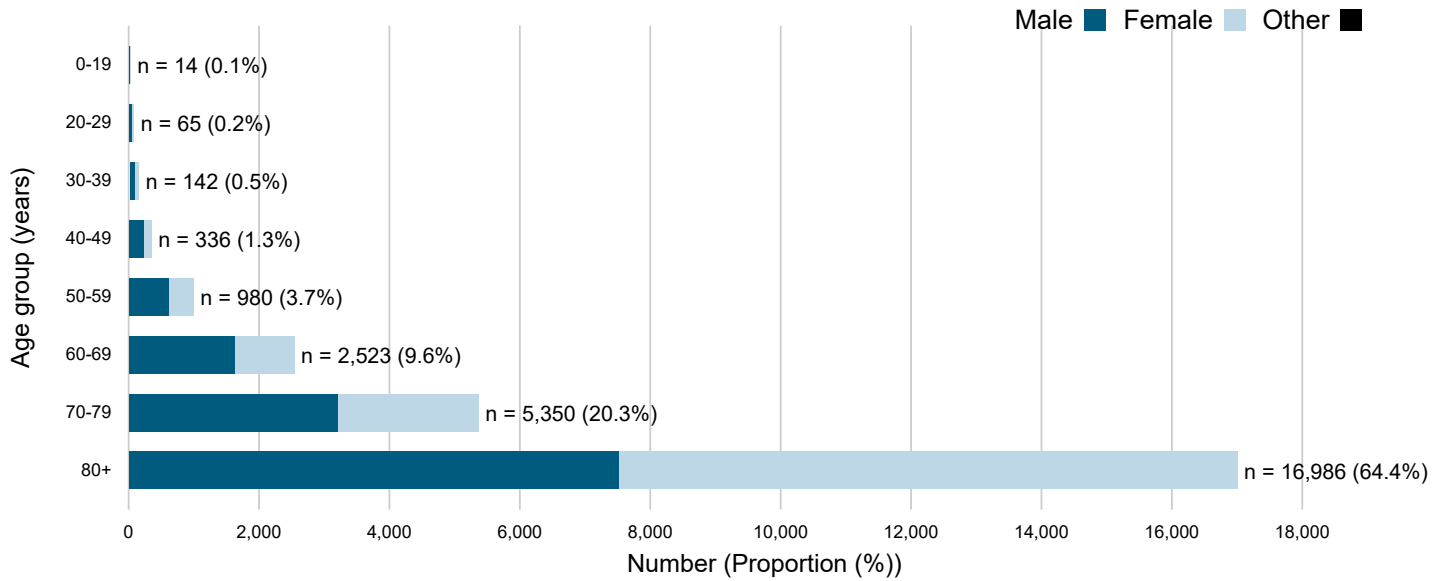


**Figure 5b. Age and gender<sup>4</sup> distribution of COVID-19 cases admitted to ICU in Canada as of July 16, 2021, 7 pm EST (n=14,058<sup>1</sup>)**





**Figure 5c. Age and gender<sup>4</sup> distribution of COVID-19 cases deceased in Canada as of July 16, 2021, 7 pm EST (n=26,396<sup>1</sup>)**



Data note: Figure 5 includes COVID-19 cases hospitalized, admitted to ICU, and deceased for which age and gender information were available. Therefore, some COVID-19 hospitalizations, ICU admissions, and deaths may not be included in Figure 5.

**Age and gender <sup>4</sup> distribution of COVID-19 cases hospitalized in Canada as of July 16, 2021, 7 pm EST (n=74,903 <sup>1</sup>)**

<b>Age group (years)</b>	<b>Number of cases with case reports (percentage)</b>	<b>Number of male cases (percentage)</b>	<b>Number of female cases (percentage)</b>	<b>Number of other cases (percentage)</b>
0-19	1,388 (1.9%)	741 (1.0%)	646 (0.9%)	1 (0.0%)
20-29	2,988 (4.0%)	1,258 (1.7%)	1,730 (2.3%)	0 (0.0%)
30-39	5,107 (6.8%)	2,449 (3.3%)	2,658 (3.5%)	0 (0.0%)
40-49	6,765 (9.0%)	3,923 (5.2%)	2,842 (3.8%)	0 (0.0%)
50-59	10,940 (14.6%)	6,576 (8.8%)	4,364 (5.8%)	0 (0.0%)
60-69	13,254 (17.7%)	7,911 (10.6%)	5,343 (7.1%)	0 (0.0%)
70-79	14,568 (19.4%)	8,106 (10.8%)	6,462 (8.6%)	0 (0.0%)
80+	19,893 (26.6%)	9,107 (12.2%)	10,786 (14.4%)	0 (0.0%)

**Age and gender <sup>4</sup> distribution of COVID-19 cases admitted to ICU in Canada as of July 16, 2021, 7 pm EST (n=14,058 <sup>1</sup>)**

<b>Age group (years)</b>	<b>Number of cases with case reports (percentage)</b>	<b>Number of male cases (percentage)</b>	<b>Number of female cases (percentage)</b>	<b>Number of other cases (percentage)</b>
0-19	165 (1.2%)	89 (0.6%)	76 (0.5%)	0 (0.0%)
20-29	376 (2.7%)	195 (1.4%)	181 (1.3%)	0 (0.0%)
30-39	827 (5.9%)	474 (3.4%)	353 (2.5%)	0 (0.0%)
40-49	1,428 (10.2%)	898 (6.4%)	530 (3.8%)	0 (0.0%)
50-59	2,801 (19.9%)	1,842 (13.1%)	959 (6.8%)	0 (0.0%)
60-69	3,742 (26.6%)	2,419 (17.2%)	1,323 (9.4%)	0 (0.0%)
70-79	3,254 (23.1%)	2,066 (14.7%)	1,188 (8.5%)	0 (0.0%)
80+	1,465 (10.4%)	830 (5.9%)	635 (4.5%)	0 (0.0%)

**Age and gender<sup>4</sup> distribution of COVID-19 cases deceased in Canada as of July 16, 2021, 7 pm EST (n=26,396<sup>1</sup>)**

<b>Age group (years)</b>	<b>Number of cases with case reports (percentage)</b>	<b>Number of male cases (percentage)</b>	<b>Number of female cases (percentage)</b>	<b>Number of other cases (percentage)</b>
0-19	14 (0.1%)	6 (0.0%)	8 (0.0%)	0 (0.0%)
20-29	65 (0.2%)	41 (0.2%)	24 (0.1%)	0 (0.0%)
30-39	142 (0.5%)	92 (0.3%)	50 (0.2%)	0 (0.0%)
40-49	336 (1.3%)	221 (0.8%)	115 (0.4%)	0 (0.0%)
50-59	980 (3.7%)	607 (2.3%)	373 (1.4%)	0 (0.0%)
60-69	2,523 (9.6%)	1,618 (6.1%)	905 (3.4%)	0 (0.0%)
70-79	5,350 (20.3%)	3,195 (12.1%)	2,155 (8.2%)	0 (0.0%)
80+	16,986 (64.4%)	7,506 (28.4%)	9,480 (35.9%)	0 (0)

# Provincial, territorial and international reporting

For more information, please refer to provincial or territorial COVID-19 webpages:

- [British Columbia](#)
- [Alberta](#)
- [Saskatchewan](#)
- [Manitoba](#)
- [Ontario](#)
- [Quebec](#)
- [Newfoundland and Labrador](#)
- [New Brunswick](#)
- [Nova Scotia](#)
- [Prince Edward Island](#)
- [Yukon](#)
- [Northwest Territories](#)
- [Nunavut](#)
- [World Health Organization](#)
- [Centers for Disease Control and Prevention](#)
- [European Centre for Disease Control and Prevention](#)

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- 1 This figure is based on cases for which a case report form was received by the Public Health Agency of Canada from provincial or territorial partners.
  - 2 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 earliest of the following dates were used as an estimate: Onset date, Specimen Collection Date, Laboratory Testing Date, Date Reported to Province or Territory, or Date Reported to PHAC.
  - 3 Exposure information may not be available for all cases. Some jurisdictions haven't consistently reported to PHAC how people were exposed throughout the pandemic. As a result, this may underestimate the total number of cases by different exposures, especially among returning travelers.
  - 4 Where available, gender data was used; when gender data was unavailable, sex data was used. Reliable data on gender diverse respondents are unavailable due to small counts.
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