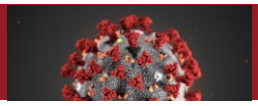
COVID-19 IN CANADA



WEEKLY EPIDEMIOLOGY UPDATE (11-17 JUNE, 2020)

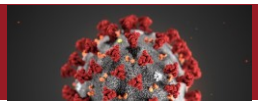
Published: 19 June 2020

2 728 NEW CASES REPORTED¥	**294** NEW DEATHS REPORTED¥
390 (-146) AVERAGE NEW CASES PER DAY¥	**32% (+1.3%)** NEW CASES REPORTED AGED <30*
39 (-27) AVERAGE NEW DEATHS PER DAY¥	**30% (-11%)** PERCENT OF CASES ARE ACTIVE¥
36 320 (+3 549) AVERAGE PEOPLE TESTED PER DAYᵛ	**1.2% (-0.8%)** PERCENT POSITIVE ᵛ

KEY UPDATES

- For the week 11 to 17 June 2020, the average number of newly reported cases of COVID-19 per day was 390, which is a 27% decrease from the previous week, and the lowest 7-day average since 26 March 2020
    - Ontario, Quebec, New Brunswick reported decreases in the number of new cases compared to the previous week.
    - Despite decreased case counts in Quebec and Ontario, these two provinces continue to drive the epidemic in Canada, accounting for 87% of total cases and 95% of total deaths.
- The age distribution of COVID-19 cases is evolving over time. Newly reported cases this week are younger than in previous weeks. These changes may be related to gradual reopening across activities across the country, and outbreaks in non-health related workplace settings.
    - The median age of cases dropped to 40 years, the previous week's median age of 42 years. The median age has been steadily decreasing since the beginning of April.
    - The 3-day moving average of reported cases has been substantially decreasing for all age groups since the middle of April, except for those aged 0-19, which has shown a minimal decline.
    - Cases aged 0-29 years comprised of 32% of new cases this week, compared to 19% earlier in the outbreak. Cases aged 60 or older comprised of 23% this week, compared to 36% earlier in the outbreak.
- The proportion of newly reported hospitalized cases has decreased to 10%, compared 15% previously.*
- This may be due to fewer cases reported among seniors and reporting delays.
- With the overall expansion in testing, the incidence of cases has continued to decrease across all age groups, and the percent positivity continues to decline. This signals a reduction in transmission, as seen in the *R(t)* which remains below 1.

*Data for case-based analyses are as of 15 June ¥Data for trend analyses are as of 17 June ᵛData for laboratory analyses are as of 14 June



NATIONAL TRENDS IN CASES AND DEATHS

As of 17 June 2020, a decrease in the 7-day average number of new cases was observed nationally.

- Substantial decreases in the average number of new cases per day were seen in Ontario and Quebec
- Increases in the average number of new cases per day were seen in Alberta, British Columbia, and Saskatchewan, however small case counts in these jurisdictions, while important from a regional perspective, minimize the impact on the national trend

Table 1. Trends of new cases in Canada and by province/territory, as of 17 June 2020

	# Cases (as of 17 June)	7-day average # of cases reported daily			Crude rate per 100 000 (as of 17 June)
		4 to10 June	11 to 17 June	% Change**	
BC	2 775	8	14	+67%	55
AB	7 530	29	36	+27%	172
SK	693	2	5	+150%	59
MB	306	0	1	--	22
ON	32 744	328	200	-30%	225
QC	54 263	208	132	-37%	640
NL	261	0	0	--	50
NB	164	2	2	-19%	21
NS	1 061	0	0	--	109
PE	27	0	0	--	17
YK	11	0	0	--	27
NT	5	0	0	--	11
NU	0	0	0	--	0
Canada*	99 853	577	390	-27%	266

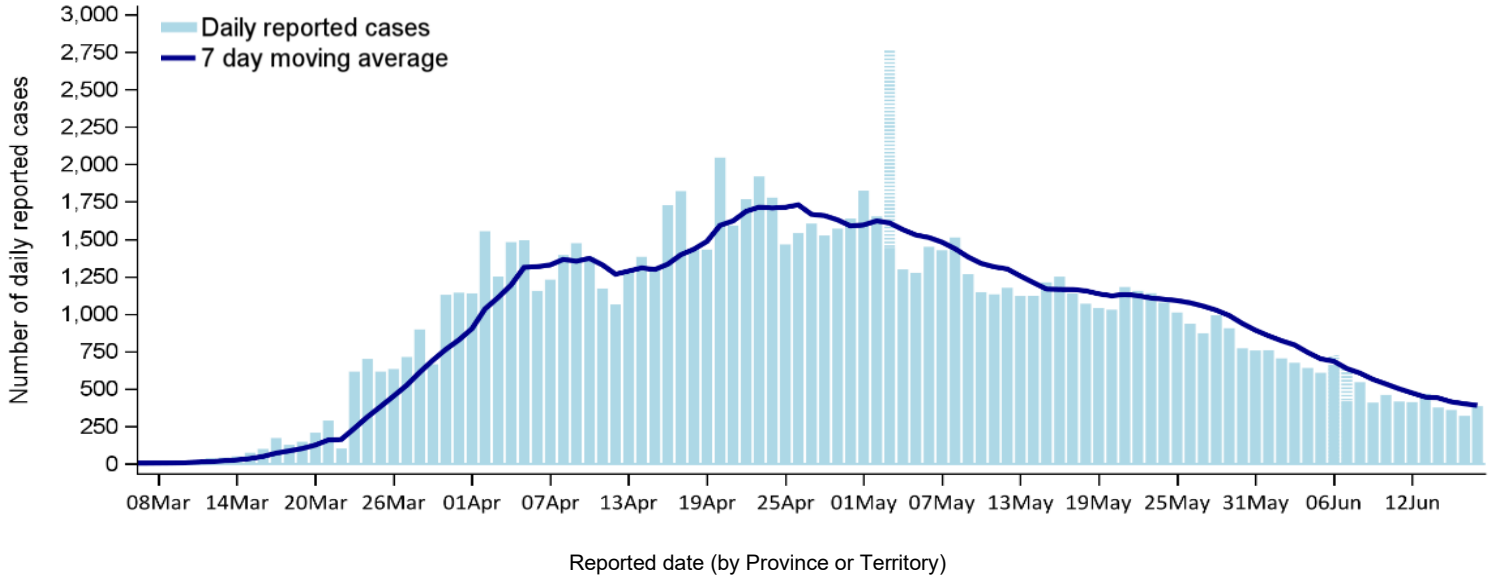
** Includes 13 cases identified in repatriated travellers (Grand Princess Cruise ship travelers) who were under quarantine in Trenton in March 2020.*

***The percentage is calculated on the difference in the total number of cases in the past 7 days over the past 7 days prior. Note that for PTs with low case counts, an increase or decrease of only a few cases leads to a large percentage change. There was no change in the 7-day average for MB, NL, NS, PE, YK, NT, and NU.*

From 11 to 17 June 2020, the average number of new cases per day was 390.

- This represents a **27% decrease** compared to the previous 7-day period (4 to 10 June), and a continuation of this downward trend since mid-late April.

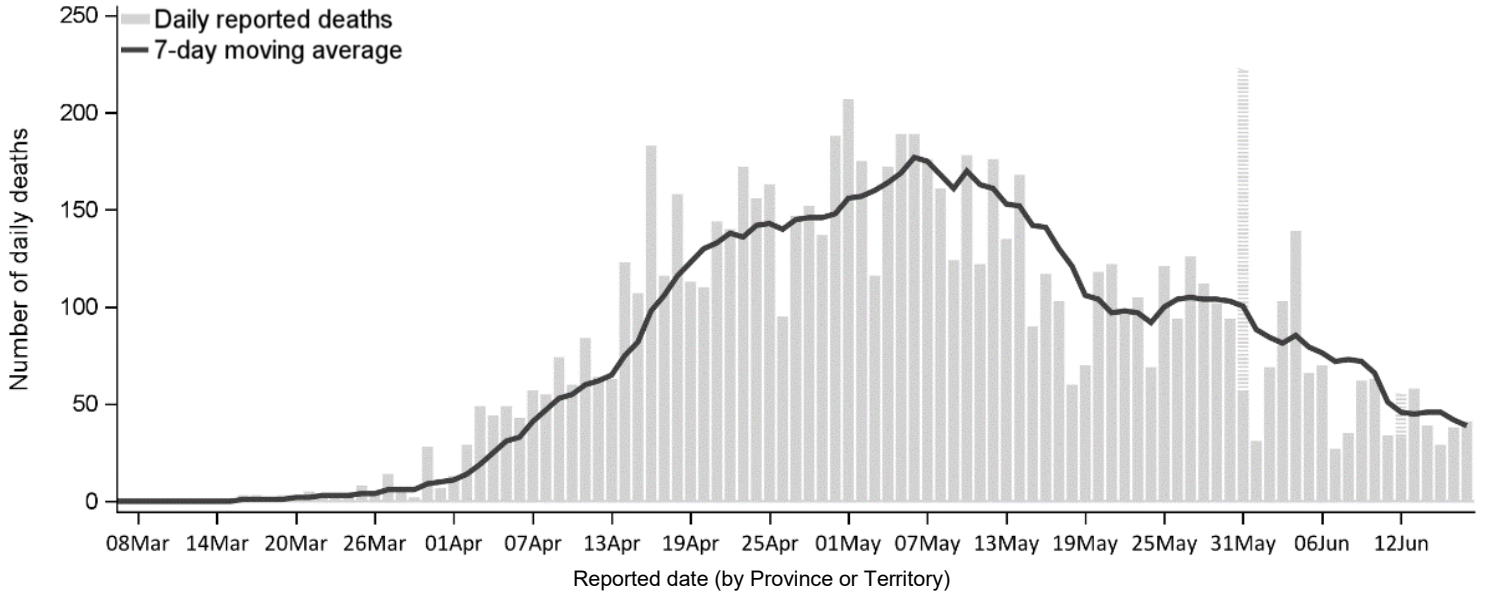
Figure 1. Daily number of reported COVID-19 cases in Canada (and 7-day moving average*), by date of report as of 17 June 2020 (n=99 853)



From 11 to 17 June 2020, the average number of deaths per day was 39.

- This represents a **41% decrease** compared to the previous 7-day period (4 to 10 June), and a continuation of this downward trend since early May

Figure 2. Daily deaths in Canada (and 7-day moving average) as of 17 June 2020 (n=8 254)

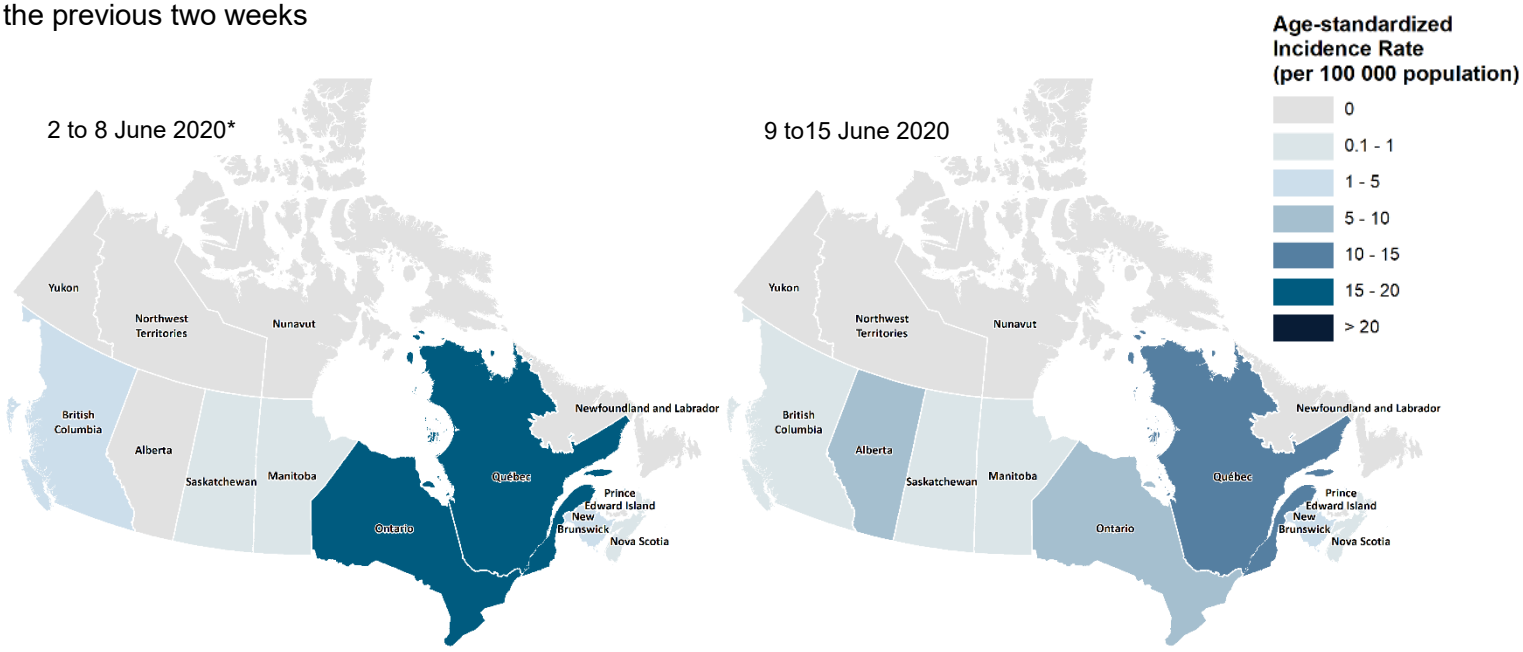


Note: *The 7-day moving average is a trend indicator that captures the arithmetic mean of the daily reported deaths over the previous seven days. The moving average helps smooth out day-to-day variability in reporting, filtering out the "noise" of short term fluctuations. The hatched blue bars in Figure 1 corresponds to the 1 317 cases reported by Quebec on 3 May, that were originally detected over the period 2 to 30 April (excluded from moving average calculation), and the 68 and 223 cases reported by Ontario on 6 and 7 of June, respectively The hatched grey bar in Figure 2, corresponds to 165 additional deaths reported by Quebec on 31 May that occurred before 23 May.*

During the week from 9 to 15 June, Quebec had the highest age-standardized incidence rate reported (12.0 per 100,000), followed by Ontario (9.3 per 100,000) and Alberta (9.4 per 100,000). All provinces, with the exception of Saskatchewan and Nova Scotia, had decreases or no change in the age-standardized incidence rate.

- Prince Edward Island, Newfoundland, Yukon, and Northwest Territories have not reported any new cases in three weeks.
- Nunavut has not reported any cases to date.

Figure 3. COVID-19 age-standardized incidence rate per 100 000 population* by province or territory (PT) for the previous two weeks



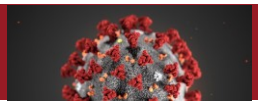
Data source: Case report forms submitted to PHAC by provinces and Territories. Map from NML Geomatics

**Standardized to the July 1 2019 postcensal population estimate*

Table 2. Age-standardized incidence rates by province or territory from 9 to15 June

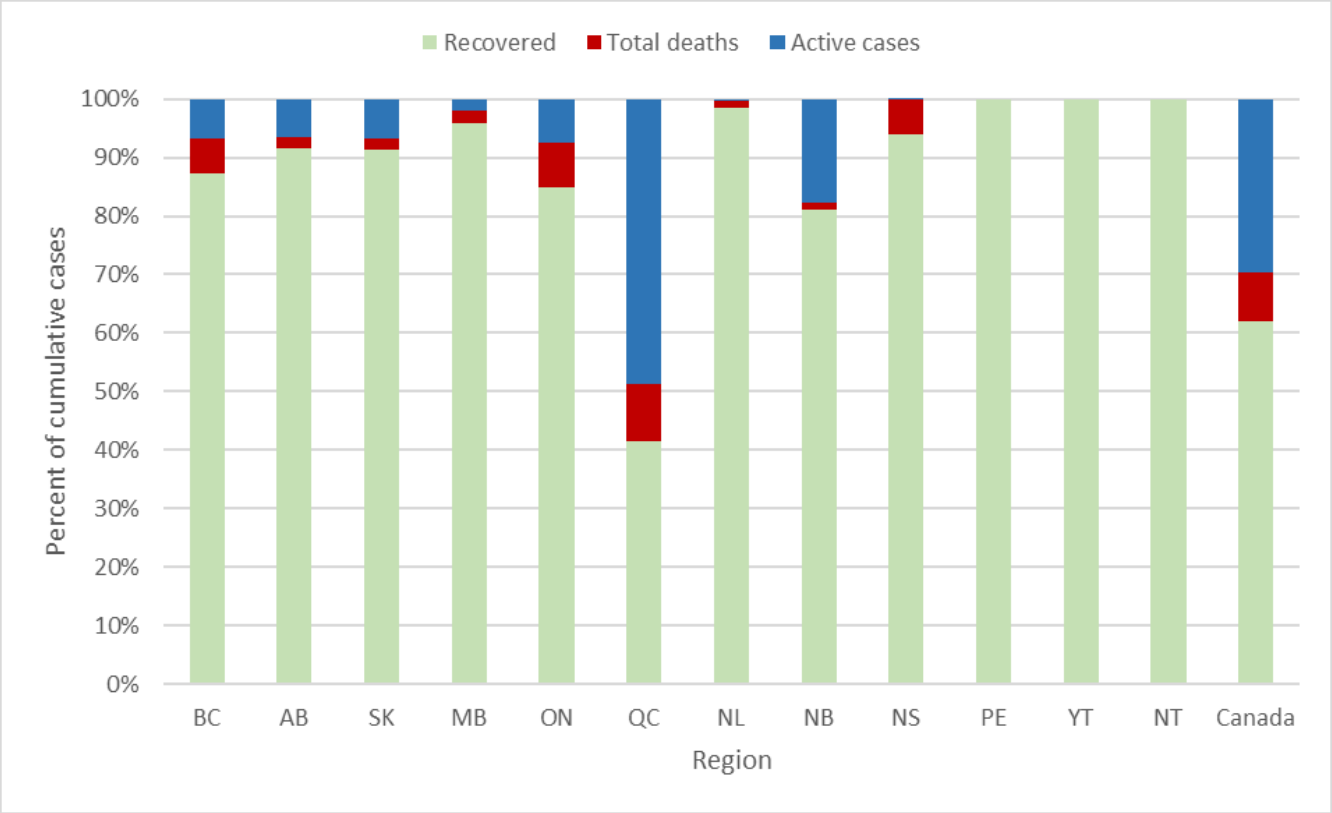
Province/Territory	Age-standardized incidence per 100 000 (change from previous week)	Province/Territory	Age-standardized incidence per 100 000 (change from previous week)
British Columbia	1.0 (-0.1)	New Brunswick	1.6 (-)
Alberta*	9.4 (-)	Prince Edward Island	0.0(-)
Saskatchewan	1.0 (+0.3)	Nova Scotia	0.3 (+0.2)
Manitoba	0.3 (-0.2)	Newfoundland	0.0 (-)
Ontario	9.3 (-7.2)	Yukon	0.0 (-)
Quebec	12.0 (-7.6)	Northwest Territories	0.0 (-)

*No data from Alberta was reported to PHAC in the previous week

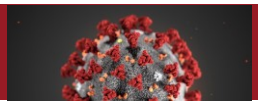


In Canada, 62% of cases have recovered as of 17 June, and 30% of cases remain active. Among the active cases, Quebec continues to have the highest number (n=26 416) and proportion (49%) of active cases in Canada. In all other provinces and territories, over 80% of cases have recovered. For the detailed breakdown of cases in Canada by jurisdiction, please see **Table A1** in the Annex.

Figure 4. Proportion of COVID-19 cases in Canada, by current status and the active cases in Canada by jurisdiction, as of 17 June 2020 (n=99 853)



*Note that the definition and reporting of 'recovered' cases varies by PT. Reporting of recovered cases may be delayed.

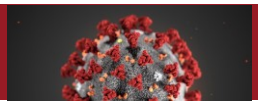


DEMOGRAPHIC DISTRIBUTION

- Cases newly reported to PHAC from 9 to 15 June (n=3 196) ranged in age from less than one year to 102 years old, with a median age of 40 years.
- The age distribution of cases newly reported to PHAC from 9 to 15 June is younger than the cumulative age distribution:
    - Those less than 20 years comprise 14% of cases reported in the past week, but only 7% of total cases in the Canadian outbreak. This age group is still under-represented in the overall outbreak, as they represent 22% of the Canadian population.
    - Those aged 20-29 years comprise 19% of the cases reported in the past week, but only 13% of the total cases in the Canadian outbreak. This age group is now over-represented in recently reported cases, as they comprise just 14% of the Canadian population.
- The increase in incidence of cases in younger age groups may be due to multiple factors, such as:
    - Several jurisdictions have recently expanded testing strategies that were previously restricted to those with severe illness, at high-risk, or vulnerable populations. The expansion of testing strategies may be detecting cases in individuals who would not have been tested earlier in the outbreak.
    - Younger individuals may be having increased in-person physical connections, either as a result of return to workplaces and associated activities (i.e. commuting) or due to reduced adherence to physical distancing measures.

Table 3. Demographic characteristics of COVID-19 cases reported to PHAC as of 15 June 2020

	Overall			Previous Week (June 2-June 8)			Current Week (June 9-15)		
Age groups	**n**	**(%)**	**Rate per 100 000**	**n**	**(%)**	**Rate per 100 000**	**n**	**(%)**	**Rate per 100 000**
≤ 19	6 824	7%	84	448	11%	6	389	14%	5
20-29	13 109	13%	259	822	20%	16	542	19%	11
30-39	13 641	14%	267	673	16%	13	452	16%	9
40-49	15 203	15%	317	628	15%	13	442	15%	9
50-59	15 180	15%	288	611	15%	12	363	13%	7
60-69	9 841	10%	216	360	9%	8	234	8%	5
70-79	7 487	8%	267	209	5%	7	184	6%	7
80+	17 661	18%	1 098	377	9%	23	257	9%	16
Total	**98 945**			**4 128**			**2 863**		
Gender	**n**	**(%)**	**Rate per 100 000**	**n**	**(%)**	**Rate per 100 000**	**n**	**(%)**	**Rate per 100 000**
Female	55 648	56%	56	2 057	50%	11	1 431	50%	8
Male	43 068	44%	44	2 053	50%	11	1 420	50%	8
Other	14	<1%		<5	<1%		<5	<1%	
Total	**98 730**			**4 112**			**2 852**		



- Substantial decreases in the 3-day moving averages have been observed in all age groups, with the exception of those aged 0-19 years, which has shown a minimal decline.
- As of 26 May, young adults aged 20-29 years comprise the largest proportion of cases reported, although the incidence continues to decline in this age group.

Figure 5. Reported COVID-19 cases by age group (3-day moving average) as of 15 June 2020

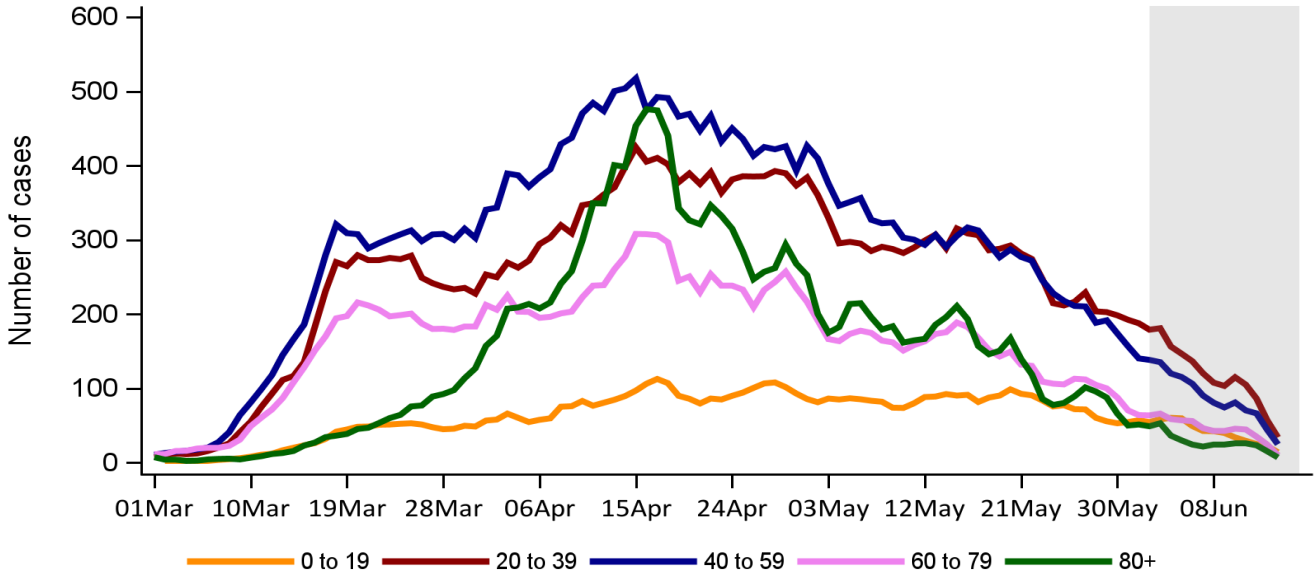
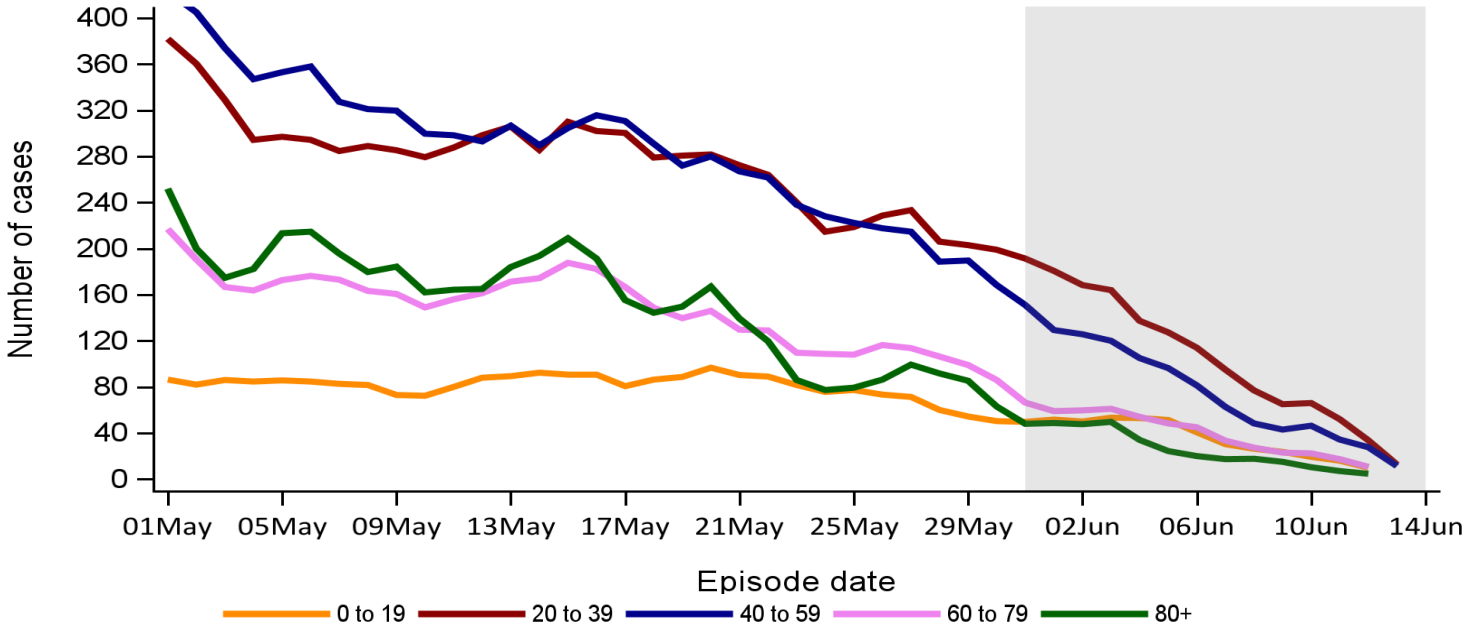
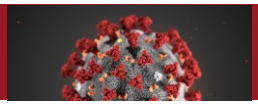


Figure 6. Reported COVID-19 cases by age group (3-day moving average) within from 1 May to 16 Jun



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.*
**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.*



OUTCOMES

Within the last week (9 to 15 June), 1 450 cases with data on hospitalization status were reported to PHAC, among those:

- **154** cases **(10%)** were hospitalized, of whom:
  - **19 (12%)** were admitted to ICU, and
  - **5 (3%)** required mechanical ventilation

This compares with the 62 317 cases with data on hospitalization status reported to PHAC since the start of the outbreak, where:

- **9 641** cases (**15%**) were hospitalized, of whom:
  - **1 967** (**20%**) were admitted to ICU, and
  - **369** (**4%**) required mechanical ventilation

A decline in severity has been observed in the past 2 weeks, see **Table 4**. For case counts related to severity please refer to **Table A2** in the Annex.

Table 4: The proportional age and gender distribution of cases hospitalized, admitted to ICU, and deceased in the previous two weeks, compared to the start of the outbreak

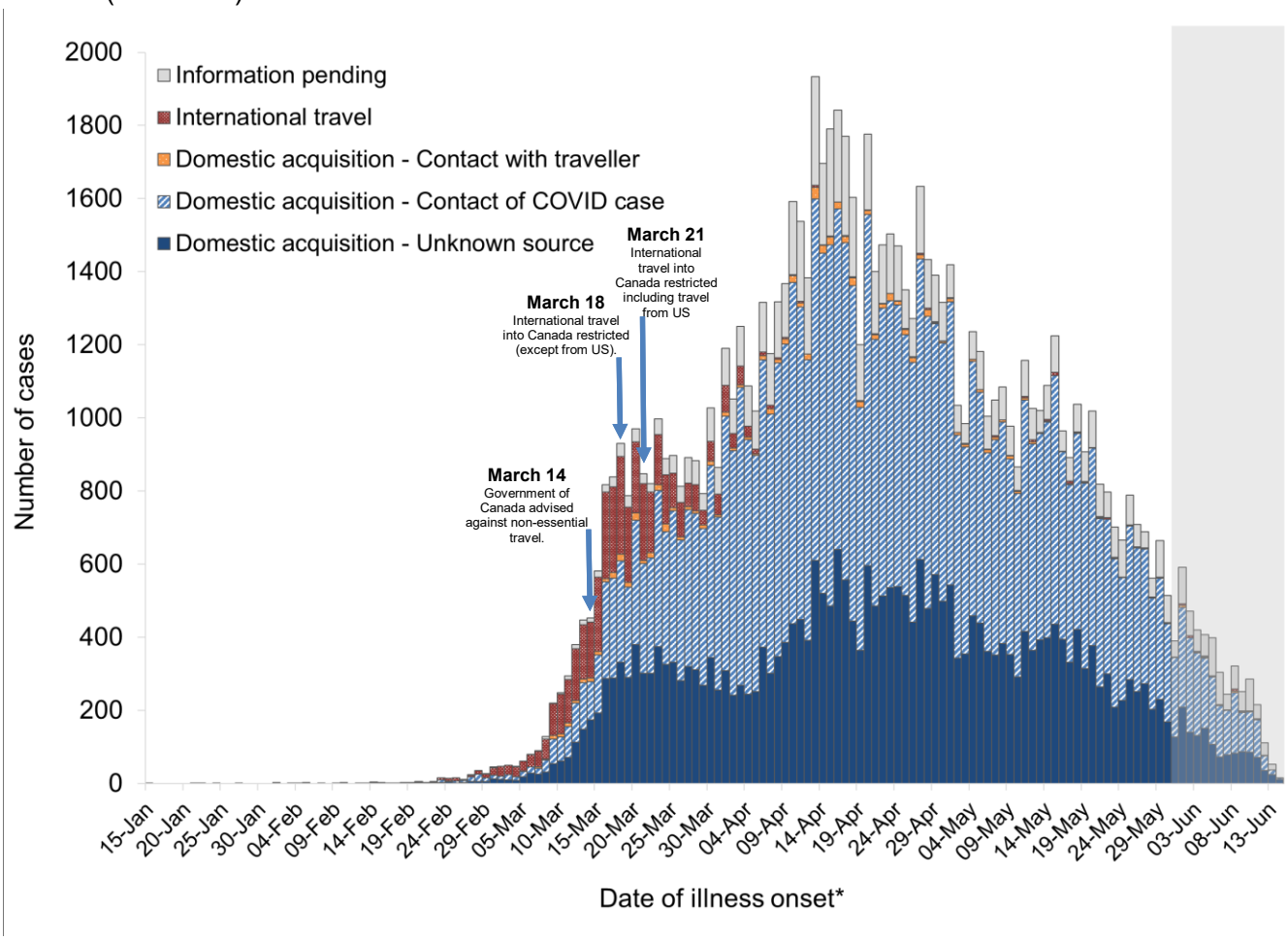
	Hospitalizations			Admitted to ICU			Deceased		
Age groups	**To June 1 (%)**	**2-8 June (%)**	**9-15 June (%)**	**To June 1 (%)**	**2-8 June (%)**	**9-15 June (%)**	**To June 1 (%)**	**2-8 June (%)**	**9-15 June (%)**
≤ 19	1.0	2.1	2.0	1.0	2.6	0.0	0.0	0.0	0.0
20-29	2.6	3.8	2.0	3.7	5.3	0.0	0.1	0.0	0.0
30-39	4.4	5.1	5.2	4.6	0.0	15.8	0.2	0.0	0.0
40-49	7.5	6.4	7.8	9.8	10.5	21.1	0.5	0.0	0.0
50-59	13.8	14.9	16.3	20.4	15.8	15.8	2.2	0.0	8.2
60-69	16.8	18.3	12.4	25.0	23.7	26.3	6.9	9.5	6.1
70-79	20.8	17.9	20.9	24.0	26.3	15.8	18.1	19.0	10.2
80+	33.2	31.5	33.3	11.4	15.8	5.3	72.0	71.4	75.5
Gender									
Female	48.4	46.0	50.3	38.4	34.2	31.6	54.2	54.2	51.0
Male	51.6	54.0	49.7	61.6	65.8	68.4	45.8	45.8	49.0

TEMPORAL DISTRIBUTION BY EXPOSURE CATEGORY

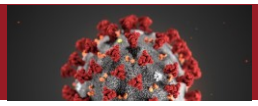
Of the 97 156 cases with information on exposure provided, 39 579 cases (4%) reported having travelled outside of Canada during the exposure period, 50 495 (52%) cases were due to exposure in Canada to either a known COVID-19 case or to someone who had travelled; 9 250 (10%) have information on exposure pending.

Information on exposure is available for 933 cases with illness onset* in the week of 9 to15 June. Of these, less than 5 cases (<1%) reported having travelled outside of Canada during the exposure period, 386 cases (41%) were due to exposure in Canada to either a known COVID-19 case or to someone who had travelled; 230 (25%) have information on exposure pending. Jurisdictions update exposure status on an ongoing basis as case investigations are completed, which may result in information currently pending changing exposure category in the future. Conversely, some cases which have information pending from early in the outbreak may be lost to follow up, and exposure category may not be identified.

Figure 7. Number of reported COVID-19 cases in Canada, by date of illness onset and exposure category as of 15 June (n=93 142)



**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.*



TRAVEL RELATED EXPOSURES

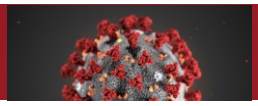
From 9 to 15 June, 18 cases of COVID-19 in Canada associated with international travel were reported to PHAC. Ten cases reported travel from Pakistan, and five from Mexico. Country of travel was not available for three cases at time of reporting.

Of the cases reported to PHAC, 3 979 cases have been associated with international travel. On March 14, the Government of Canada published a global Travel Health Notice advising Canadians against non-essential travel and advised Canadians abroad to return to Canada. By March 21, the Government of Canada prohibited all non-essential travel into Canada by foreign nationals. Since that time, COVID-19 cases associated with international travel have decreased substantially.

Table 5: The number and proportion of COVID-19 cases associated with international travel by month

Month	Number of COVID-19 cases associated with international travel	Proportion of COVID-19 cases associated with international travel*
January	6	85.7%
February	67	36.2%
March	3 481	10.0%
April	294	0.7%
May	71	0.3%
June	21	0.6%

*Only includes cases which have an onset, specimen collection, or lab test date, as well as information on exposure



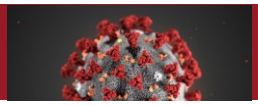
OUTBREAKS

- Outbreaks have been important contributors to the spread of COVID-19 in Canada, and have been detected in a variety of settings. **Table 6** identifies common locations of outbreaks identified, as well as the number of cases and deaths associated with each.
- Within a few weeks of Canada's first imported case of COVID-19, outbreaks were identified in long-term care and seniors' homes. Outbreaks continue to be identified in long-term care facilities.
    - High mortality associated with outbreaks in long-term care settings reflects the vulnerability of this population.
- Additionally, outbreaks in other congregate living and workplace settings have also been detected.
    - Canada's largest outbreak occurred at the Cargill meat processing plant in Alberta with 1 560 cases among workers, household, and community members.
    - A significant risk associated with workplace outbreaks is the spread of the virus into communities
- Movement of workers, whether between workplaces or across jurisdictions, has initiated additional chains of transmission.
    - Health care workers working at more than one facility can spread COVID-19 between facilities
    - An outbreak in northern Saskatchewan was linked to work camp in Alberta
    - There have been several outbreaks associated with agricultural and congregate living settings.
    - COVID-19 outbreaks have also been detected in other congregate living settings such as correctional facilities and shelters.
- Successful control of outbreaks requires early identification of cases and the implementation of measures to mitigate spread.

Table 6. Total number of COVID-19 clusters, cases, and deaths by outbreak setting in Canada

Outbreak setting	Reported number of outbreaks	Reported number of cases	Reported number of deaths
Long term care and senior's homes	971	19 742	5 995
Hospital	117	1 620	179
Workplace (includes work camps and agricultural settings)	81	1 487	7
Group homes, residential Care, and supported housing	55	593	76
Shelter	31	579	3
Correctional facility	26	848	5
Meat processing plant	13	3 022	6
Mass gathering*	5	179	1

*Mass gatherings are defined as an event which brings together a large amount of people, examples of mass gatherings include: conferences, funerals, and sporting events.



FLUWATCHERS

FluWatchers is an online health surveillance system that relies on volunteer reports to track spread of flu-like illness across Canada. In the context of the COVID-19 pandemic, FluWatchers is shifting focus to track COVID-19 symptoms over the spring and summer months.

In the week of 7 June 2020, 10 820 participants reported into the FluWatchers program. A total of 10 participants (0.09%) reported cough and fever. The participants reporting cough and fever were not restricted to a single jurisdiction. As FluWatchers does not normally collect data during the summer months, this cannot be compared to historical Canadian data. Similar participatory influenza-like illness surveillance programs in other countries are also reporting historically low values.

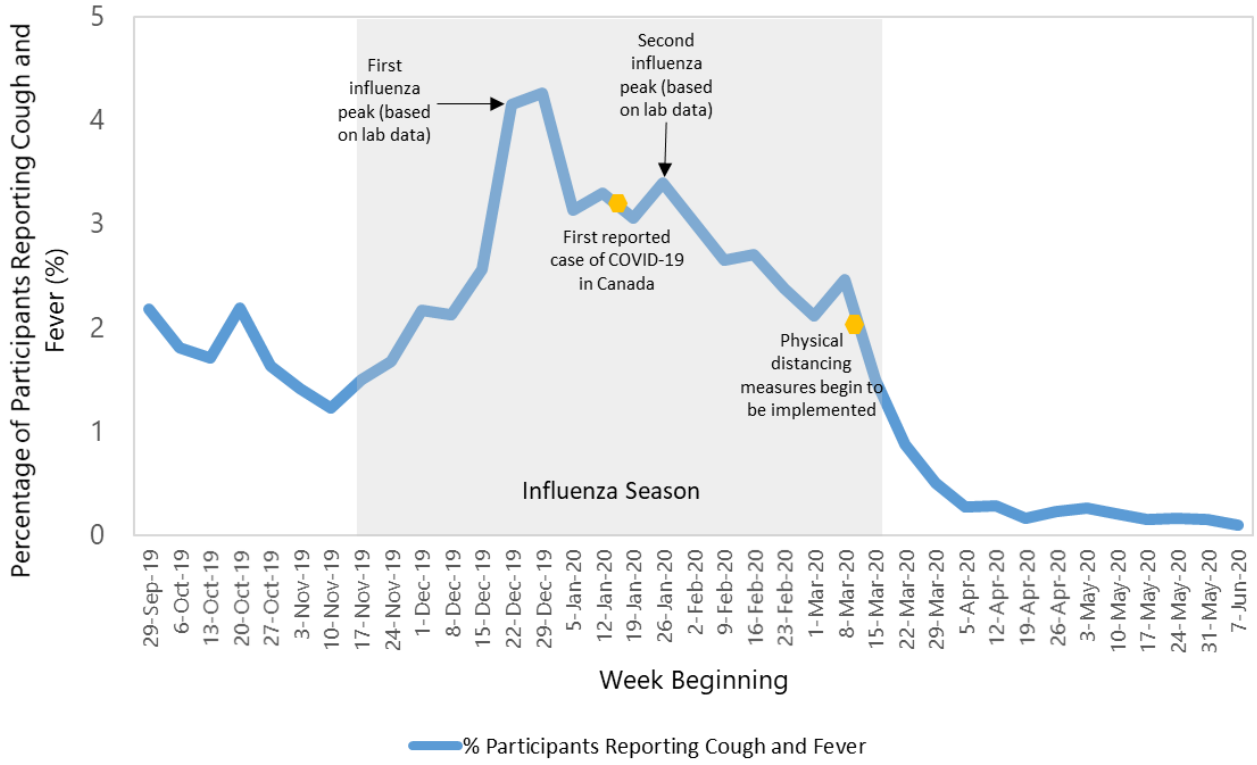
Among the 10 participants reporting cough and fever:

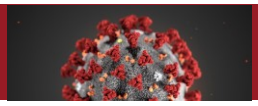
- 4 (40%) sought medical attention
- 3 (30%) were tested
    - 2 tests were negative for COVID-19, 1 result was unavailable at the time of reporting

Additionally, 108 participants (1%) reported having a cough and at least one other symptom* in the week of 7 June 2020. Thirteen of these participants reported being tested (7 tests were negative and 6 results were unavailable at the time of reporting).

**sore throat, fatigue/exhaustion, diarrhea/vomiting/stomach ache, joint pain, muscle pain, shortness of breath and headache*

Figure 8: Percentage of FluWatchers Participants Reporting Cough and Fever (N=10 820 the week of 7 June 2020)





LABORATORY TESTING

For the week of 8 to 14 June 2020, **234 223** persons were tested and the weekly average percent positive was **1.2%**. The observed decrease in the percent positivity may be due to increased testing, lower incidence of disease, or a combination of the two. The percent positivity has been trending down since the week of 6 April, despite the increase in the number of people tested.

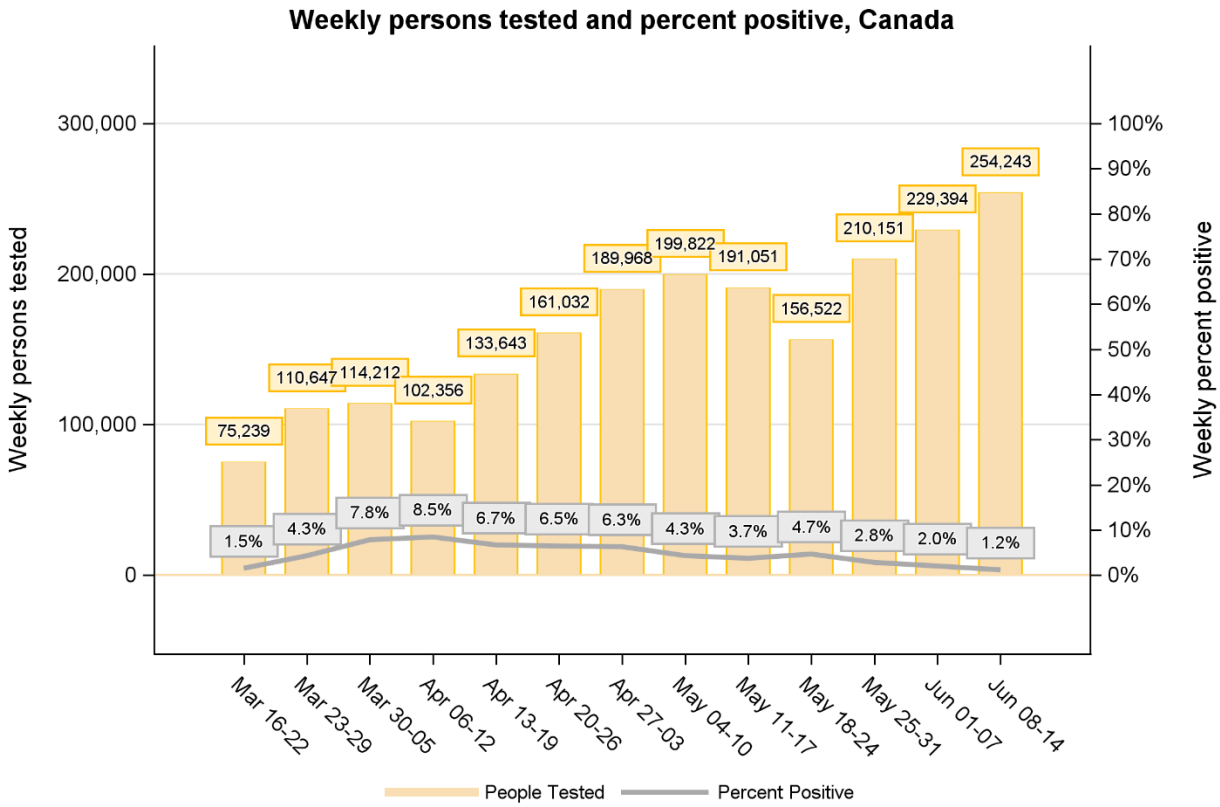
Overall, **2 254 481** people have been tested for COVID-19 in Canada as of 17 June 2020, and the cumulative percent positive to date is **4.1%.**

Table 7. Summary of COVID-19 testing reported between 8 and 14 June 2020 in Canada by PT

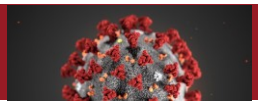
Location	Total number of people tested (cumulative)	Difference since last report	Average # people tested daily in past 7 days	People tested per 1 000 000 pop'n	Percent positivity (8 to14 June)
BC	146 712	13 345	1 534	28 930	1.0%
AB	318 276	49 613	6 411	72 810	0.6%
SK	51 127	4 117	474	43 532	0.9%
MB	54 204	5 498	578	39 580	0.1%
ON	1 036 393	197 851	21 034	71 149	1.1%
QC	533 133	43 256	5 128	62 833	2.9%
NL	15 091	1 668	180	28 935	0.0%
NB	34 992	3 211	358	45 045	0.8%
NS	50 893	3 876	482	52 392	0.1%
PE	9 163	1 669	114	58 383	0.0%
YK	1 245	31	5	30 474	0.0%
NT	2 227	97	11	49 681	0.0%
NU	949	108	9	24 471	0.0%
Total*	**2 254 481**	**324 340**	**36 320**	**59 977**	**1.2%**

For provinces and territories which report the number of tests completed, mathematical formula is used to estimate the number of unique people tested.
**Includes 76 repatriated travellers tested.*
***Note:** Laboratory testing numbers may be underestimated due to reporting delays and may not include additional sentinel surveillance or other testing conducted in the province or territory.*

Figure 9: Number of persons tested for COVID-19 and percent positivity by week (data to 14 June)



Data source: Provided by the NML, who receive lab testing data from provincial labs



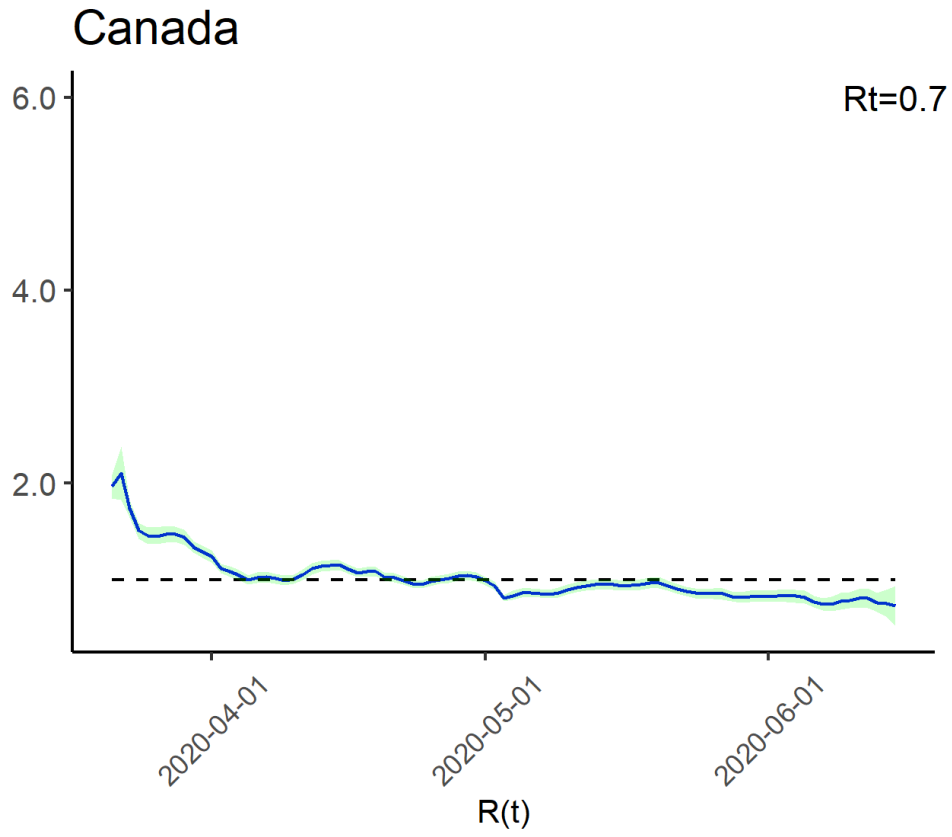
Estimates of transmission rates in Canada: Effective reproductive rate (*Rt*)

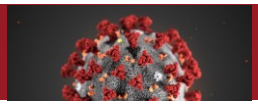
R_t is the time variable reproduction rate, representing the average number of new infected people for each infected person. *If* R_t is less than 1 at a particular time (*t*), then the average number of people infected by one infected person is less than one, so the epidemic is being brought under control. If R_t is greater than 1, the average number of people infected by one infected person is greater than one, and the epidemic is growing.

Figure 10 shows the R_t over time

- The graph shows how the reproductive rate in Canada has remained below 1 for nearly 4 weeks, suggesting public health measures are being effective in controlling the epidemic.
- These fluctuations reflect ongoing transmission in some communities and settings across the country, especially in and around Canada's most populous cities, Toronto and Montreal.
- Until we can keep R_t consistently below 1, the epidemic will continue to smolder.
- Canada does not depend only on the value of R_t to assess the state of epidemic control.

Figure 10. Reproductive rate in Canada, 16 June 2020





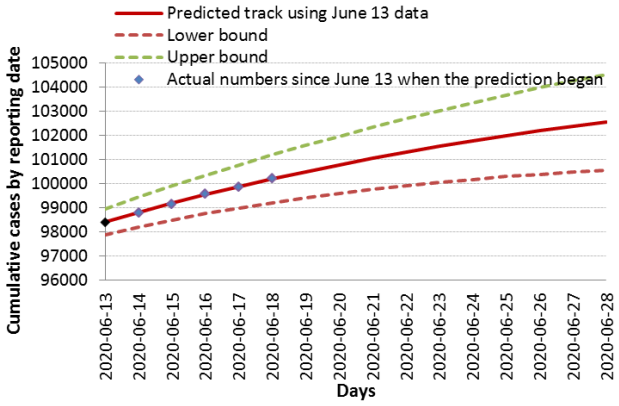
Canada's approach to modelling:

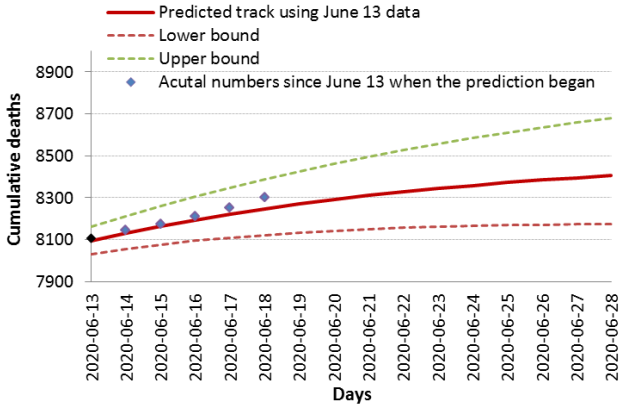
Models cannot predict what will happen, but rather can help us understand what might happen to ensure we can plan for worst cases and drive public health action to achieve the best possible outcome. Models can support decisions on public health measures and help the health care sector plan for the number of expected COVID-19 patients.

Forecasting models use data to estimate how many new cases we might expect to see in the coming week. Figure 11 below shows the projected number of cases and deaths in Canada, with a 95% prediction interval.

- Forecasting shows **100 500** to **104 500** cumulative reported cases and **8 170** to **8 680** cumulative number of deaths are predicted by 28 June.

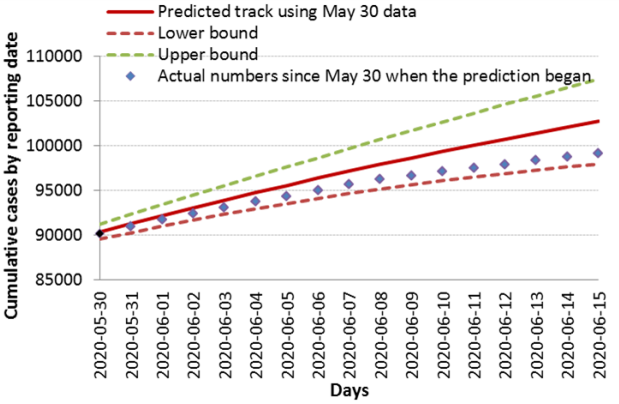
Figure 11. Projected numbers to 28 June 2020 and 95% prediction intervals based on data as reported by 13 June 2020. Scattered dots are data that have been reported since 13 June

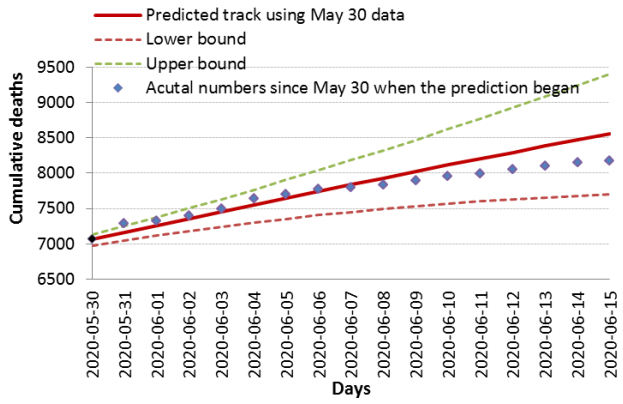




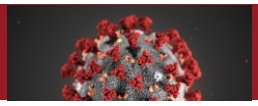
To assess the performance of these predictions, Figure 12 compares what were predicted and what were observed in previous prediction cycle: from 30 May to 15 June, 2020

Figure 12. Assessment of performance of the predictions in the recent two cycles.





For more information, please visit:
https://www.canada.ca/en/public-health/services/publications/diseases-conditions/covid-19-using-data-modelling-inform-public-health-action.html

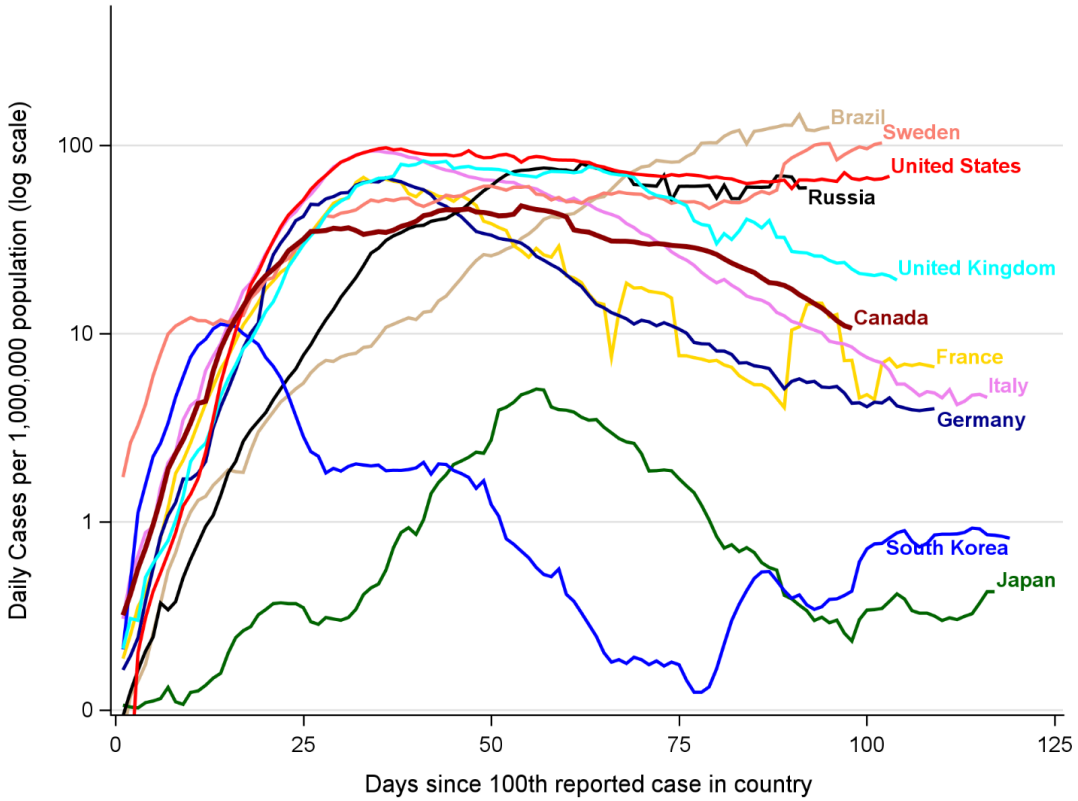


- As of 17 June, globally, there have been over 8.1 million confirmed cases of COVID-19 with over 443,000 reported deaths.
- Latin America continues to report large increases in COVID-19 cases and is now considered to be the epicenter of the pandemic. As of 17 June, Brazil has the second-highest number of COVID-19 cases globally (n=923 189) and the third-highest number of deaths (n=45 241). Elsewhere in in the region, Peru has reported 237 156 cases, Chile 184 449, and Mexico 154 863.
- In Asia, China has reported 219 new cases between 11 to 17 June, associated with an outbreak in a market in Beijing. In South Asia, India has reported more than 10 000 new cases daily since 11 June.
- New Zealand, which declared no active cases on June 8, reported two new imported cases on 16 June.

The 7-day moving average of new daily COVID-19 cases in Canada compared to other countries can be seen in **Figure 13**.

Up-to-date country-specific risk levels may be found on travel health notices.
For more information on COVID-19 internationally, please refer to the World Health Organizations' COVID-19 Situation Report.

Figure 13. Daily new cases of COVID-19 in Canada compared to other countries (7-day moving average, population adjusted)



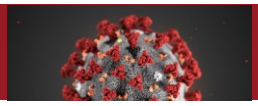


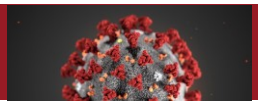
Table A1. Summary of COVID-19 cases, recoveries, and deaths, reported in Canada by location as of 17 June

Location	Total cases	New cases reported in past 7 days	Recovered	New recoveries in past 7 days	Total deaths	New deaths reported in past 7 days
BC	2 775	95	2 422	94	168	1
AB	7 530	254	6 893	139	151	0
SK	693	35	633	9	13	0
MB	306	6	293	8	7	0
ON	32 744	1 403	27 784	2 404	2 550	75
QC	54 263	922	22 549	2 708	5 298	217
NL	261	0	257	1	3	0
NB	164	13	133	12	2	1
NS	1 061	0	997	3	62	0
PE	27	0	27	0	0	0
YK	11	0	11	0	0	0
NT	5	0	5	0	0	0
NU	0	0	0	0	0	0
Total*	**99 853**	**2 728**	**62 017**	**5 378**	**8 254**	**294**

** Includes 13 cases identified in repatriated travellers (Grand Princess Cruise ship travelers) who were under quarantine in Trenton in March 2020. Update on their status is not available.*

Table A2: Age and gender distribution (count) of cases hospitalized, admitted to ICU, and deceased in the previous two weeks, compared to the start of the outbreak

	Hospitalizations			Admitted to ICU			Deceased		
Age groups	**To June 1**	**2-8 June**	**9-15 June**	**To June 1**	**2-8 June**	**9-15 June**	**To June 1**	**2-8 June**	**9-15 June**
≤ 19	93	5	<5	20	<5	0	0	0	0
20-29	243	9	<5	70	<5	0	8	0	0
30-39	407	12	8	87	0	<5	15	0	0
40-49	691	15	12	188	<5	<5	42	0	0
50-59	1 274	35	25	390	6	<5	174	0	<5
60-69	1 550	43	19	478	9	5	558	8	<5
70-79	1 921	42	32	459	10	<5	1 461	16	5
80+	3 072	74	51	218	6	<5	5 796	60	37
Total	**9 251**	**235**	**153**	**1 910**	**38**	**19**	**8 054**	**84**	**49**
Gender									
Female	4 476	108	77	733	13	6	4 347	45	25
Male	4 769	127	76	1 177	25	13	3 673	38	24
Total	**9 245**	**235**	**153**	**1 910**	**38**	**19**	**8 020**	**83**	**49**



TECHNICAL NOTES

The data in the report are based on information from various sources described below. The information presented for case-based analyses is that available as of **15 June at 8 p.m. EDT.** The information presented for trend analyses is that available as of **17 June at 8 p.m. EDT.** The information presented for laboratory analyses is that available as of **14 June at 8 p.m. EDT.**

DATA SOURCES AND DATA CAVEATS

Provincial and territorial case counts

Provincial and territorial (P/T) information on case counts, recoveries, and deaths associated with COVID-19 are collected from publicly available P/T websites.

- Only cases and deaths meeting P/T's definition for case classification are reported. For details on case definitions, please consult each P/T ministry of health website.

Laboratory information

Laboratory data on number of people tested per P/T are received from the National Microbiology Laboratory.

- Laboratory testing numbers may be an underestimate due to reporting delays and may not include additional sentinel surveillance or other testing performed. They are subject to changes as updates are received.
- Some provinces may report the number of tests conducted, and not the number of people tested. In this case, a mathematical formula is used to estimate the number of unique people tested.

Epidemiological data

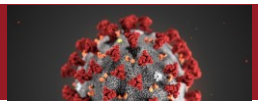
Epidemiological data for this report are based on detailed case information received by PHAC from P/Ts. This information is housed in the PHAC COVID-19 database. Case counts and level of detail in case information submitted to PHAC varies by P/T due to:

- Possible reporting delay between time of case notification to the P/T public health authority and when detailed information are sent/received by PHAC.
- Preliminary data may be limited and data are not complete for all variables.
- Data on patient health status not frequently updated and received by PHAC.
- Variation in approaches to testing and testing criteria over time within and between P/Ts.

Data on case severity are likely under-estimated due to underreporting of these variables, as well as events that may have occurred after the completion of public health reporting, therefore not captured in the case report forms.

Outbreak data

Reporting delays and gaps in information that is available at the federal level present difficulties in reporting on local outbreaks. To ensure timely information is available, PHAC utilizes web-scraping techniques to gather outbreak data from media and provincial/territorial public health agency websites. There are several important limitations to this data:



- A national standardized outbreak definition does not exist. Clusters are defined and vary according to P/T.
- The data do not represent all outbreaks that have occurred in Canada over the course of the pandemic, but they do provide a summary of clusters reported via non-traditional data sources. Data collection on outbreaks began March 12.
- Case-level data is generally not available for outbreaks detected via non-traditional data sources. Information presented is at the aggregate level only.

Population data

- Canadian population data from Statistics Canada Population estimates on 1 July 2019 is used for rate calculations.

International data

International data are retrieved from various reputable data source, mainly the European Centre for Disease Prevention and Control (ECDC) Situation update, Johns Hopkins Resource Center and various country's MOH website.

- Given that the pandemic is rapidly evolving and the reporting cycles from government sources are different, the case numbers may not necessarily match what is being reported publicly. Rather, this reflects what is publicly available from the sources listed above.
- International comparisons should be interpreted with caution. Number of tests conducted, indications for testing, and diagnostic capacity by country have a large influence on total number of reported cases. Therefore, the data displayed may not represent the true incidence of disease within each country.