

# Comparison of COVID-19 Epidemiology in NL to PEI and Vancouver Island and to Other Canadian Provinces

## Objective

To monitor COVID-19 events in Canada with emphasis on the island communities of Prince Edward Island (PEI) and Vancouver Island.

## Practice Points

- Two island communities of PEI (population 157,000) and Vancouver Island (population 870,300) are comparable to NL.
- The Atlantic provinces formed a bubble to permit interprovincial travel within the four provinces on 3 Jul 2020, but a Canadian bubble had not been introduced by end of September.

## Methods

- Incidence of new cases and interventions was obtained from provincial websites up to 22 Sept 2020. Low rate of new cases was defined as  $<10/1,000,000$  population/day for 7 days.
- For PEI and Vancouver Island, events analyzed included: first cases, time to peak of incidence curve, time to flattening of the curve (day after 7 days of new cases  $<10/1,000,000$  population) and time to virus eradication (day after 14 days without new cases).

## Results

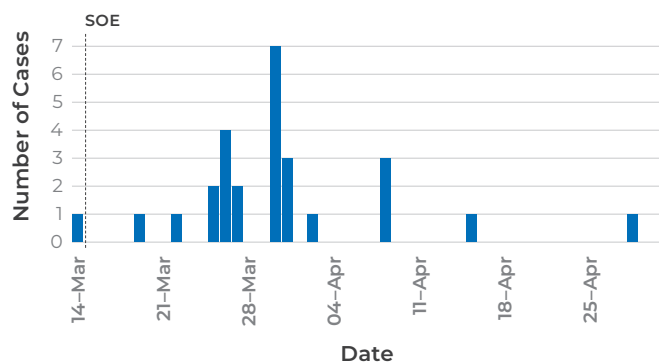
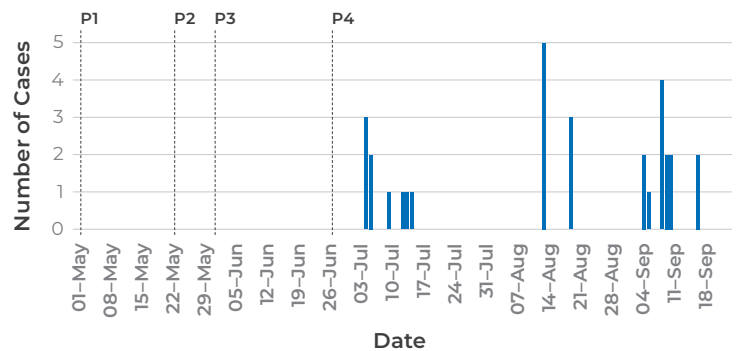


Figure 1. Incidence of New Cases in PEI From Start of Pandemic to First Stage of Loosening Restrictions

- For the first wave of the virus, the first case was identified on 14 Mar 2020, lockdown was imposed on 16 Mar, peak of the incidence curve was 16 days after first case, time to flattening the curve was 33 days and to eradication of the virus 60 days.
- Mortality was 0.0%.



**Legend:**

SOE – Public Health State of Emergency (16 Mar); P1 – Phase 1 Reopening (1 May); P2 – Phase 2 Reopening (22 May); P3 – Phase 3 Reopening (1 Jun); P4 – Phase 4 Reopening (26 Jun)

Figure 2. Incidence of New Cases in PEI Since the First Stage of Loosening Restrictions up to 22 Sept 2020

Border control: Travel into PEI is restricted. 14-day self-isolation is required if you are entering PEI from outside Atlantic Canada.

- Restrictions started to loosen in PEI 46 days after lockdown.
- There have been no community acquired cases since start of loosening restrictions.

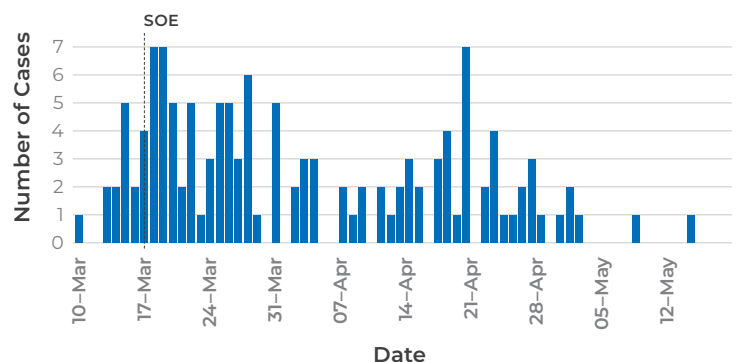
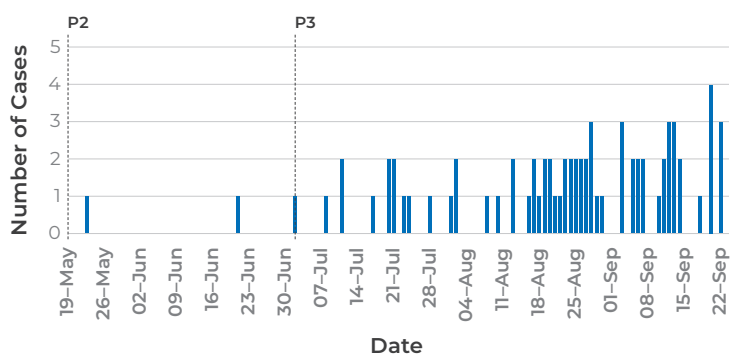


Figure 3. Incidence of New Cases in Vancouver Island From Start of Pandemic to First Stage of Loosening Restrictions

- For the first wave of the virus on Vancouver Island, the first case was identified on 10 Mar 2020, lockdown was imposed on 17 Mar, peak of the incidence curve was 8 days after first case and incidence of new cases/million population/day was never above 10.
- Mortality was 2.5%.

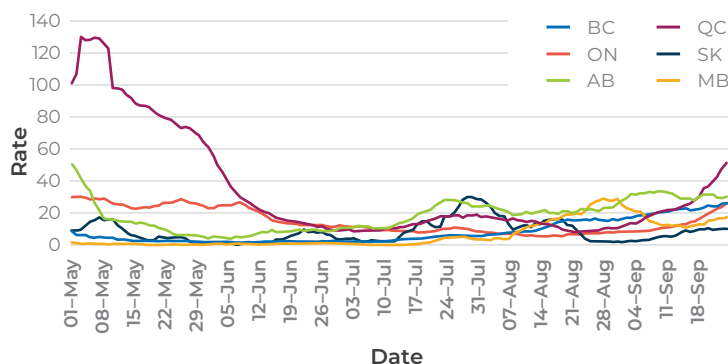


**Legend:**  
 SOE – Provincial State of Emergency (17 Mar) (Phase 1: Public health measures enacted 14-21 Mar); P2 – Phase 2: Start of reopening (19 May); P3 – Phase 3: Continued reopening (1 Jul)

**Figure 4. Incidence of New Cases in Vancouver Island Since the First Stage of Loosening Restrictions up to 22 Sept 2020**

Border control: Travel within BC is permitted. Only international travellers returning to BC are required to self-isolate for 14 days.

- ◇ Restrictions started to loosen in Vancouver Island 63 days after lockdown.
- ◇ Community acquired cases continue to occur.



**Figure 5. Incidence of New Cases in Non-Atlantic Provinces From 1 May 2020 - 22 Sept 2020 (Rolling 7-Day Average Rate per 1,000,000 Population)**

- Following the more extensive loosening of restrictions in July in the non-Atlantic provinces, rate of new cases increased above 10/million population.
- As of 22 Sept, the rolling 7-day average for all non-Atlantic provinces was 10 or above, with BC, ON, QC and AB all above 25.

## Conclusions

1. In the first wave, PEI only had 27 cases of COVID-19. Since eradication of the virus it has had no community acquired cases, an outcome facilitated by a 14-day isolation period for those entering PEI.
2. The rate of new cases/day in Vancouver Island never went above the low rate of 10/million population, either in the first wave or after loosening restrictions. The importation of new cases was limited solely by its geography as it did not have a 14-day isolation period for incoming travellers from Canada or a testing protocol at its border.

Control of community transmission may have been facilitated by good adherence to restrictions, no large super spreader events and relatively low population density.