Prince Edward Island
CANADA
Health and Wellness

# Prince Edward Island Guidelines for the Prevention and Control of Gastrointestinal Illness Outbreaks in Long Term Care and Community Care Facilities

August 2023

Department of Health and Wellness
Chief Public Health Office

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## *Introduction*

Gastrointestinal (GI) infections may be caused by a variety of microbes, including bacteria and viruses, and occasionally from toxins created by bacteria. GI infections often cause symptoms including vomiting, diarrhea, nausea, abdominal cramps, fever, headaches, and rashes. Transmission of GI infections usually results from contact with infected individuals, from consumption of contaminated food or water or from exposure to contaminated objects or environmental surfaces.

This reference document is intended to provide information and guidance to facilities that are experiencing an increased number of GI infections where the infectious agent may or may not have been identified. Certain precautions taken by staff at a facility experiencing an increase in GI infections may help to prevent further spread of infections and decrease the amount of time the facility must keep precautions in place.

**NOTE:**
**It is recognized that *Clostridium difficile (c. difficile)* can be responsible for clusters or outbreaks, and that some of the measures outlined in this document may be applicable in preventing or controlling this organism, it is beyond the scope of this document to provide direction in outbreaks specific to this organism due to its unique epidemiological properties.** [(1)]

## *Case Definitions*

### Gastrointestinal (GI) Illness Case Definition

At least **one** of the following criteria must be met in an individual **that cannot be attributed to another cause** [(1)(2)] (e.g., *C. difficile* diarrhea, medication, laxatives, diet, or prior medical condition etc.):

- Diarrhea: Two or more episodes of unformed or watery stools (above what is normal for the resident) within a 24-h period (for reference see Bristol Stool Chart, **Appendix A**)

**OR**

- Vomiting: Two or more episodes in a 24-h period

**OR**

- One or more episode of diarrhea AND vomiting within a 24 h period

**OR**

- One episode of bloody diarrhea

**OR**

**Both** of the following:

- Lab confirmation of known GI pathogen
- At least one symptom below:
    - Nausea
    - Vomiting
    - Abdominal pain/tenderness
    - Diarrhea

## Gastrointestinal (GI) Illness Outbreak Definition

- **Two or more** cases of GI illness **with a common epidemiological link** (e.g., same location or same caregiver, and evidence of health care associated transmission within the facility), with initial onset **within one 48-hour period.** [1][3][4]
    - Staff illness should also be considered when declaring an outbreak.

# *Reporting Requirements*

## Facility Staff

Facility staff, in accordance with the Prince Edward Island *Public Health Act* [5] and the Notifiable Diseases and Conditions and Communicable Diseases Regulations [6], will notify the Chief Public Health Office (CPHO) in situations when there is or may be an outbreak occurring.

## Laboratory

The Provincial Laboratory will in accordance with the Prince Edward Island *Public Health Act* [4], report all positive laboratory results by phone and email, fax, or electronic transfer as soon as the result is known to the CPHO.

# *Infection Prevention and Control (IPAC) Measures*

Outbreaks of GI illness in LTC and CC facilities can result in high morbidity and place a strain on operations. Typically, most of these outbreaks are attributable to norovirus as it is very communicable. Transmission of GI illness is usually through the fecal/oral or vomitus/oral route but can also include contact or droplet spread. Despite stringent IPAC, outbreak control can be difficult. Therefore, to prevent spread of infection in LTC facilities, staff must initiate IPAC measures promptly, without waiting for laboratory confirmation of the pathogen. IPAC measures include Routine Practices, hand hygiene, and implementation of Additional Precautions, including Contact Precautions and Droplet and Contact Precautions (if resident is actively vomiting).

## Routine Practices

Routine practices apply **to all staff, residents, and visitors, at all times, in all LTC and CC facilities** and include but are not limited to:

- Conducting a point of care risk assessment (PCRA)
- Hand hygiene
- Appropriate use of Personal Protective Equipment (PPE)

## Point-of-Care Risk Assessment (PCRA) (Appendix B)

Prior to any resident interaction, all staff should assess the infectious risks posed to themselves, other staff, residents, and visitors during a care situation or procedure.

- The PCRA helps staff to select the appropriate actions and/or PPE to minimize risk or exposure to known and unknown infections.
- Performing a PCRA helps to avoid misuse of PPE.

## Hand Hygiene (Appendix C)

### Staff are required to perform hand hygiene

- On entry to and exit from the LTC and CC facility
- Before and after contact with a resident, regardless of whether gloves are worn
- Before preparing or administering all medications or food
- Before performing aseptic procedures
- Before putting on PPE and during removal of PPE according to facility procedure for putting on or removing PPE
- Before putting gloves on
- Before and after contact with the resident's environment (e.g., medical equipment, bed, table, door handle) regardless of whether gloves are worn
- After removing gloves
- Any other time hands are potentially contaminated (e.g., after handling blood, body fluids, bedpans, urinals, or wound dressings)
- After other personal hygiene practices (e.g., blowing nose, touching face, using toilet facilities, etc.)

### Residents should perform hand hygiene:

- Upon entering or leaving their room
- Prior to eating, oral care, or handling oral medications
- After using toileting facilities
- Any time hands are potentially contaminated (e.g., after handling blood, body fluids, bedpans, urinals, or wound dressings)

**NOTE:**

- **Hand Hygiene using soap and water is the preferred method of hand hygiene when providing care for residents with diarrhea and/or vomiting, immediately after using toilet facilities, and if hands are visibly soiled.**
- **Hand hygiene using soap and water is required before handling or serving food.**

## Contact Precautions and Contact and Droplet Precautions (Appendix D)

- Contact Precautions must be implemented for all residents who are diagnosed with or presenting with signs and symptoms of GI illness. (Donning and doffing of PPE is described in **Appendix D)**
- Contact and Droplet Precautions must be implemented when residents have vomiting as part of their symptoms.
- Gloves and a long-sleeved cuffed gown (covering front of body from neck to mid-thigh) must be worn upon entering a resident's room, along with a medical grade mask and face or eye protection if the resident is actively vomiting.
    - **Facial protection includes eye protection that is either a full-face shield that covers the front and sides of the face or well-fitting goggles.** (*regular eyeglasses or safety glasses with gaps between glasses and the face are not sufficient protection*)
- The area where PPE is donned should be separated as much as possible from the area where it is removed and discarded.
- Hand hygiene must be performed prior to putting on or after removing PPE.

# *Outbreak Management for GI Illness*

## LTC and CCF Operators Responsibilities:

### Administrative Measures

- Use line list to track residents/staff symptoms **(Appendix E)**. Fax/email line list to CPHO if illness meets the outbreak definition. Send updated line lists daily if more residents/staff become ill for the duration of the outbreak.

### Residents

- Isolate symptomatic residents in their rooms (whenever possible) with meals delivered to them, until at least 48 hours after their last episode of vomiting or diarrhea. Residents can return to communal dining when they are considered recovered.
- Symptomatic residents should only leave the outbreak unit/facility when it is medically necessary; the receiving site should be alerted of the resident's symptoms and that they are coming from a facility experiencing GI illness outbreak and the same precautions should be implemented at their site.
- Keep asymptomatic residents away from affected unit, wing, or floor (whenever possible).
- Encourage and assist with resident hand hygiene.

### Admissions/Transfers from Acute Care to an Outbreak LTC or CCF

- A resident who is hospitalized at another facility prior to the outbreak is not recommended to be admitted or transferred back to the facility until the outbreak has been declared over. Extenuating circumstances many arise requiring further discussion and should be done in consultation with IPAC Team and/or CPHO (for after hours and weekend support).
- Facility staff should collaborate with the acute care contact before the resident is discharged.

### Transfers from an Outbreak Facility to Acute Care

- If a resident requires acute medical attention or treatment outside of the facility, the outbreak facility must notify EMS Dispatcher, the EMS crew, and the receiving care facility that the resident is being transferred from a facility experiencing a GI illness outbreak. This is to ensure the proper additional precautions are in place when the resident arrives.

### Group/Social Activities

- Previously scheduled resident social and special events/activities on the affected unit, wing, floor and/or in the facility should be cancelled or moved for the duration of the outbreak.
- Non-resident events (e.g., meetings) previously booked for areas in proximity to the areas under restriction in the outbreak facility should also be cancelled for the duration of the outbreak.

### Nourishment Areas / Sharing of Food

- Close the kitchen/nourishment areas accessed by residents/visitors and ensure there is no communal sharing of food in outbreak areas.
- Avoid providing food or snacks in "common" servings, such as shared platters or containers.
- Staff are preferred to travel room to room with individually packaged snacks/food. Staff should

complete hand hygiene when indicated and as needed. If using carts/trays, they are not to enter resident rooms.

### Visitor and Designated Family/Support Persons

- Advise visitors that there is an ongoing GI outbreak at the facility and (if appropriate) post outbreak signage **(Appendix F**) at the entrance of the unit/facility advising visitors of the necessary precautions.
- Advise those who choose to visit during an outbreak to practice good hand hygiene and limit visit to one (1) resident only and exit the facility immediately after the visit.
- Those visiting symptomatic residents must be advised to practice Contact Precautions (contact/droplet precautions if there is vomiting) to protect themselves.
- Complete restriction of visitation during GI illness outbreaks is typically not recommended as it may cause emotional hardship to both residents and families. However, if the facility is having difficulty controlling an outbreak, further measures may need to be taken in consultation with IPAC Team/CPHO.

### Staff Outbreak Measures (including volunteers, students, physicians, etc.)

- Staff are recommended to be aware of the need for daily self-assessment for GI illness symptoms.
- Symptomatic staff (food handlers, care workers, housekeeping, etc.) that fit the case definition of GI illness should be excluded from work until 48 hours after their last episode of vomiting and/or diarrhea.
- Any non-essential staff (e.g., non-essential volunteers) should be excluded from working in outbreak areas of the facility.
- Keep staff informed about the outbreak.

### Specimen Collection

- If possible, it is valuable to collect stool specimens from cases during outbreaks to try and identify the pathogen. Three specimens from three different residents are usually sufficient and once the pathogen is identified continued lab testing is not required.

### Resident Care Equipment

- All reusable equipment and supplies, electronic, personal belongings, etc., should be dedicated to the use of the resident with suspect or confirmed GI illness. If use with other residents is necessary, the equipment and supplies should be cleaned and disinfected with hospital-grade disinfectant, ensuring adequate contact time before reuse. Items that cannot be appropriately cleaned and disinfected should be discarded.

### Linen, Dishes and Cutlery

- No special precautions required, routine practices.

### Waste Management

- No special precautions required, routine practices.

## Effective Cleaning Agents

- Disinfectants effective against norovirus and most other microbes include:
  - 7% Accelerated Hydrogen Peroxide (AHP) mixed at a ratio of 1 part 7% AHP to 16 parts water - 1:16 (giving a 0.5% A.H.P. Solution)

  **OR**

  - Household bleach (5-6%) mixed at a ratio of 1 part bleach to 10 parts water - 1:10 (giving approximately 5000 parts per million (ppm) chlorine).

**NOTE:**

- **Using household bleach at the concentration recommended in this document may cause irritation of the respiratory system for some people. Proper use of personal protective equipment may help to eliminate any reactions to chemicals.**
- **Ensure that material safety data sheets for any chemicals used in the facility are kept on hand for reference in case of accidental exposure.**
- **Quaternary ammonium (QUAT) sanitizers are not effective against organisms such as noroviruses and must be discontinued until the outbreak is declared over.**

## Enhanced Environmental Cleaning and Disinfection

- A facility's regular cleaning/disinfection schedule is important to maintain during a suspected or confirmed outbreak. However, during the outbreak, a facility must increase the frequency to prevent the spread of infections.
- Clean and then disinfect frequently touched surfaces (e.g., rails, door handles, walkers, carts) at least twice daily with a disinfectant at the strength noted above. Cleaning the area with a detergent first will improve the effectiveness of disinfection.
- For disinfection to be effective the disinfectant must remain in contact with the surface for a specific period. Refer to the manufacturer's information for proper contact time required for the disinfectant being used.
- Change disinfectant solutions daily or more frequently as required.
- To prevent disinfectants from becoming aerosolized, use the bucket and cloth method or flip top bottles, to apply the disinfectant directly on the surface or on a cloth.
- Never vacuum carpeted areas during an outbreak as viruses may become airborne. If carpet becomes contaminated use paper towel to clean up the material and then use a disinfectant designed for use on carpets and thoroughly steam clean the area if possible.
- For sanitizing food contact surfaces during an outbreak, the chlorine can be mixed to a maximum of 200 ppm (as determined with chlorine test papers) without a potable water rinse. The area should be cleaned first with a detergent to remove any food particles.
- Restrict kitchen access to well food handlers only.

## *Declaring the Outbreak Over*

CPHO will declare the outbreak over based on the causative agent.

**When outbreak is known to be caused by Norovirus, or the agent is unknown but a viral cause is suspected, the outbreak can be declared over after 96 hours since the most recent case onset.**

**For outbreaks where other viral agents are identified, the outbreak can be declared over when two incubation periods (based on the known agent) have passed since the last case onset.** [7]

It is strongly recommended that the facility conduct a thorough, enhanced cleaning in all affected areas at the end of the outbreak as per facility protocols.

## *References*


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2. Provincial Infection Control Network of BC (PICNet). Gastrointestinal Infection Outbreak Guidelines for Healthcare Facilities. June 2016 https://www.picnet.ca/wp-content/uploads/PICNet-GI-Outbreak-Guidelines_Revised-June-2016.pdf
3. Ministry of Health/Ontario Public Health Standards: Requirements for Programs, Services and Accountability Infectious Disease Protocol. Case Definitions and Disease Specific Information Disease: Gastroenteritis Outbreaks in Institutions and Public Hospitals. May 2022 https://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/gastro_outbreaks_chapter.pdf
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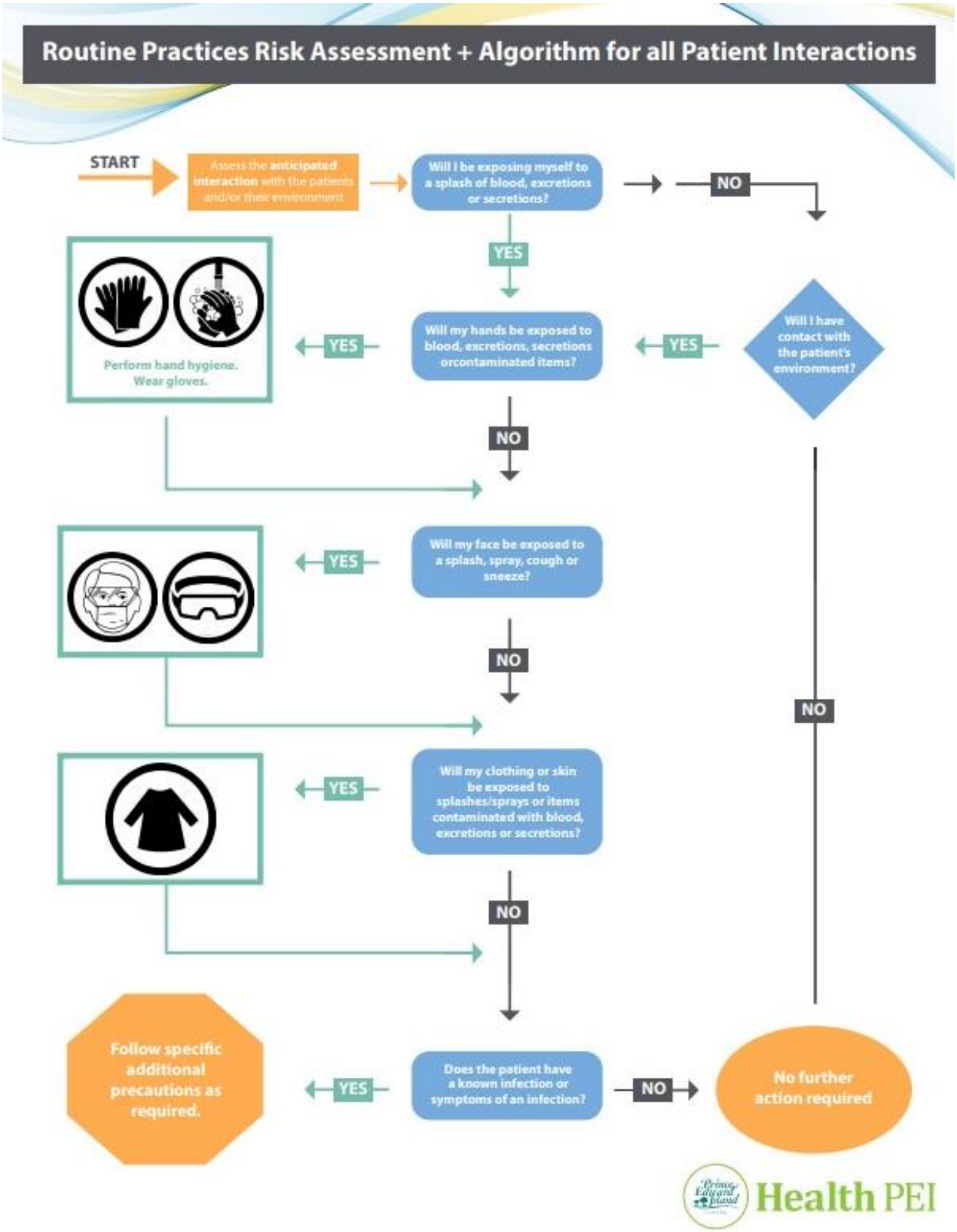
## *Appendix A – Bristol Stool Chart*

Use as a guide to determine if diarrhea could be infections. Type 7.

# Bristol Stool Chart

| | | |
|---|---|---|
| Type 1 |  | Separate hard lumps, like nuts (hard to pass) |
| Type 2 |  | Sausage-shaped but lumpy |
| Type 3 |  | Like a sausage but with cracks on the surface |
| Type 4 |  | Like a sausage or snake, smooth and soft |
| Type 5 |  | Soft blobs with clear-cut edges |
| Type 6 |  | Fluffy pieces with ragged edges, a mushy stool |
| Type 7 |  | Watery, no solid pieces. Entirely Liquid |

## *Appendix B- Routine Practices Risk Assessment*



## *Appendix C – Hand Hygiene*


## *Appendix D – Precautions and Donning and Doffing PPE*

### Contact Precautions or Contact and Droplet Precautions

Suspected or Confirmed Resident with GI Illness follow Contact Precautions or Contact and Droplet Precautions if there is vomiting. This includes the appropriate selection and use all the following personal protective equipment (PPE).

**Contact Precautions**

- Gloves
- Long-sleeved gown

**Contact and Droplet Precautions**

- Gloves
- Long-sleeved gown
- Facial protection, including **eye protection that is either a full face shield that covers the front and sides of the face or well-fitting goggles**

All PPE should be removed before leaving the resident's room and discarded into a no-touch receptacle.

**Donning PPE Order**

1. Perform hand hygiene

2. Don gown

3. Apply mask (if applicable)

4. Apply face shield or goggles (if applicable)

5. Put on gloves

**Doffing PPE Order**

1. Remove gown and gloves (can be removed together)

2. Perform hand hygiene

3. Remove face shield or goggles (if applicable) (do not touch the front)

4. If appropriate remove mask touching only the strings or ear loops (if applicable).

5. Perform hand hygiene


STOP
All Visitors and Staff Entering Room:
1
Wash hands with soap and water
or use
alcohol hand rinse.
2
Put on gown – fasten all ties.
3
Put on gloves – extend gloves over gown cuffs.
Prince Edward Island
Department of Health
Contact Precautions


STOP
All Visitors and Staff Leaving Room:
1
Remove gloves – grasp outside edge of glove near wrist and peel away from your body. DO NOT touch outside of glove. Place fingers inside second glove to remove.
2
Remove gown – unfasten ties. Remove gown pulling away from body. DO NOT touch the outside of gown.
3
Exiting patient's room:
Wash hands with soap and water
or use
alcohol hand rinse.
Prince Edward Island
Department of Health
Contact Precautions


STOP
All Visitors and Staff Entering Room:
1
Wash hands with soap and water
or use
alcohol hand rinse.
2 Put on gown – fasten all ties.
3 Put on mask with visor – adjust top of mask to fit snugly over nose.
4 If no visor attached to mask put on goggles or face shield.
5 Put on gloves – extend gloves over gown cuffs.
Droplet/Contact Precautions
Health PEI
ONE ISLAND FUTURE
ONE ISLAND HEALTH SYSTEM
STOP
All Visitors and Staff Leaving Room:
1 Remove gloves – grasp outside edge of glove near wrist and peel away from your body. DO NOT touch outside of glove. Place fingers inside second glove to remove.
2 Remove gown – unfasten ties. Remove gown pulling away from body. DO NOT touch outside of gown.
3 Exiting patient's room:
Wash hands with soap and water or use alcohol hand rinse.
4 Remove goggles or face shield if worn. Remove mask – pull away from face using ear loops/ties. DO NOT touch outside of mask/visor.
5
Wash hands with soap and water or use alcohol hand rinse.
Droplet/Contact Precautions
Health PEI
ONE ISLAND FUTURE
ONE ISLAND HEALTH SYSTEM

## *Appendix E – Line List*

**GI- Surveillance Line List LTC and CCF**

**Please Fax to Chief Health Office 620-3354** **Date:** _____

**Facility Name:** _____

**Number of Residents:** _____ **Number of Staff:** _____

| Name | MRN | Onset (D-M) | Resident/ Staff | Sex (M/F) | Room | Fever | Nausea | Vomitting | Diarrhea | Other Symptom | Hospital (Y/N) | Test (Y/N) | Date (D-M) | Result |
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***Appendix F – Outbreak Signage***

# OUTBREAK!

## In This Facility


**Do not** visit if you are sick

**Visiting is Restricted**
Please check with front desk or staff

**Clean Your Hands**
**before** entering
**when** leaving

**Protect Yourself and Others**

Prince Edward Island CANADA Health and Wellness