

Ministry of Health

# Public Health Management of Viral Hemorrhagic Fevers – Interim Guidance

Version 1.0, Date November 14, 2022

Nothing in this document is intended to restrict or affect the discretion of local medical officers of health to exercise their statutory powers under the [Health Protection and Promotion Act \(HPPA\)](#). This document is intended for information and guidance purposes only. It is not intended to provide medical advice, diagnosis or treatment or legal advice.

## Introduction

This interim guidance is meant to provide specific information regarding current processes as established by the Public Health Agency of Canada (PHAC) regarding returning travellers from Ebola-affected countries. As such, this guidance may be updated over time as the risk of importation changes.

## Health System Partners' Roles & Responsibilities

### Public Health Agency of Canada (PHAC):

- Under the Federal *Quarantine Act*, enhanced border measures may be implemented.
- The Federal Minister of Health may implement Orders in Council.
- Collaborate with federal and provincial counterparts to establish processes and protocols.
- Assessing and monitoring international travellers.
- Quarantine Officers may issue Quarantine Orders to international travellers.

## National Microbiology Lab (NML):

- Work with HSEMB and PHOL to activate [ERAP](#) for sample shipments, as required.
- Conducting confirmatory testing, as required.

## Ministry of Health (MOH):

- Health System Emergency Management Branch (HSEMB) to provide legislative and policy oversight to PHUs and their Boards of Health.
- Issue guidance to PHUs on the management of VHF, PUIs, contacts, and outbreaks\*, and provide clear expectations of PHUs' roles and responsibilities.
- Support PHUs during investigations with respect to coordination, policy, interpretation, communications, etc. as requested.
- Comply with any International Health Regulation (IHR) notifications, as necessary.
- Maintain a pandemic stockpile containing PPE and critical supplies to support the health sector during emergencies.
- Fulfil critical requests for PPE, equipment, and medical supplies from the provincial stockpile to health care workers and employers of health care workers in need.
- Liaise with Ministry partners (e.g., Agriculture, Food and Rural Affairs; Labour, Immigration, Training and Skills Development) as necessary
- Lead and coordinate stakeholder communications and meetings.
- If requested by the hospital and/or PHU, facilitate discussions on patient transfers.
- Receive notifications:
  - If the PHU believes there is potential for (significant) media coverage.
  - If orders are issued by the local medical officer of health or their designate.
- Activate/deactivate MEOC and Ontario Outbreak Investigation Coordinating Committee (ON-OICC) as necessary.

- If cases and contacts reside within the jurisdictions of multiple PHUs, the MOH will lead the discussions between the respective PHUs to coordinate case and contact follow-up.
  - **Note:** The outbreak case definition varies with the outbreak under investigation. In the case of VHFs, and given the severity and rarity of hemorrhagic fevers, a single confirmed case constitutes an outbreak.

## Public Health Ontario (PHO/PHOL):

- Provide scientific and technical advice to PHUs to support case and contact management, outbreak investigations, and data entry.
- Develop evidence-informed resources, programs, and approaches related to IPAC.
- Notify the PHU of a traveller returning to the PHU's jurisdiction and the traveller's risk level based on their exposures, and any possible Quarantine Order issued by a Quarantine Officer.
- Liaise with hospital/hospital lab and provide advice on specimen collection in accordance with the [Specimens Requiring Emergency Response Assistance Plan \(ERAP\) for Transport within Canada](#) guidance.
- Lead, in collaboration with MOH and National Microbiology Lab (NML), the transfer of specimen shipments to the NML, as required.
- Confirm results in a timely manner, including communication to all involved (including submitting provider and attending clinician) if sample must be sent to NML for further testing or confirmation.

## Public Health Unit (PHU):

- Receive and investigate reports of returning travellers under a Quarantine Order from PHAC based on the traveller's base location (e.g., home address).
- Receive and investigate identified contacts of a confirmed case of a Viral Hemorrhagic Fever (VHF) as specified under the *HPPA*.
- Assess all reports for risk of exposure and manage each individual based on their risk level: lower risk, at risk, or high risk.
  - **Note:** Frequency of follow up with returned travellers and contacts may be dependent on risk level, type of exposure and/or the issued Quarantine Order.

- Initiate and complete case and contact management for any Persons Under Investigation (PUI), confirmed, convalescent, or deceased cases with VHF based on their risk level.
  - **Note:** Contact identification for PUI cases should proceed after discussion with HSEMB, PHO, Office of the Chief Medical Officer of Health (OCMOH), and consultation with attending physician to ensure a high index of suspicion.
- Engage Ontario Ministry of Health's (MOH) Public Health Veterinarian for assessment in case of PUI exposure to animals.
- Enter PUIs, cases, and outbreaks in the integrated Public Health Information System (iPHIS) within 24 hours of notification and in accordance with data entry guidance provided by Public Health Ontario (PHO).
- Notify MOH ([IDPP@ontario.ca](mailto:IDPP@ontario.ca) and [ECCOperations.moh@ontario.ca](mailto:ECCOperations.moh@ontario.ca)) of:
  - Any PUI's under investigation for a hemorrhagic fever, including EVD, Marburg virus disease, Lassa fever, and other relevant viral causes.
  - Potential for significant media coverage or if media releases are planned by the PHU.
  - Any orders issued by the PHU's medical officer of health or their designate to confirmed cases of VHF and share a copy.
- Engage and/or communicate with relevant partners, stakeholders, and ministries, as necessary, including MOH, PHO, hospitals, laboratories, Emergency Medical Services (EMS), and IHR notification.
- Declare outbreak over in consultation with MOH, if necessary.

## Hospital/Hospital Lab:

- Ensure sufficient amounts of personal protective equipment (PPE) needed for the care of a PUI/confirmed case.
- Assess patients suspected of having VHF at the Emergency Department Triage using the "Triage Assessment Algorithm for VHF" found in the [Interim Infection Prevention and Control \(IPAC\) Recommendations of Suspected or Confirmed Viral Haemorrhagic Fever \(VHF\) in Acute Care](#) to ensure the patient is properly isolated and staff don the appropriate PPE ([See Appendix A](#)).

- Follow the IPAC recommendations for the handling and elimination of liquids, body fluids, and linens from patients with suspected or confirmed VHF outlined in “Table 3: IPAC Recommendations for Clinically Stable (Lower Risk) and Clinically Unstable (Higher Risk) Suspect or Confirmed VHF\* Patients” in the [Guide to Infection Prevention and Control \(IPAC\) Management of Suspected or Confirmed Viral Haemorrhagic Fever \(VHF\) in Acute Care](#).
- If VHF is suspected, refer to the [Viral Haemorrhagic Fever including Ebola Disease](#) for further instructions on notifying relevant stakeholders including:
  - Inform hospital Infection Prevention and Control (IPAC) team, occupational health and safety team, infectious diseases specialist, hospital laboratory management and a microbiologist.
  - Inform local PHU
  - Engage MOH, PHU, and PHO for coordinated response and communication on a PUI/confirmed case
- If VHF is suspected, refer to the [Viral Haemorrhagic Fever including Ebola Disease](#) for further instructions on ordering appropriate tests.
  - **NOTE:** Do not collect specimens for a microbiological examination before consulting with a PHO Laboratory Microbiologist.
  - PHO Laboratory Customer Service Centre can be reached at **416-235-6556/1-877-604-4567**, after-hours **416-605-3113**
- Additional testing may be needed for individuals with suspected VHF. Malaria, typhoid fever, and bacteremia are considered in the differential diagnosis of patients presenting with suspected VHF. Refer to the [Testing and Specimen Guidelines for Viral Haemorrhagic Fevers, including Ebola Virus Disease](#) laboratory guidance for detailed testing recommendations and specimen collection guidelines.
- Specimens suspected of containing VHFs must always be shipped under the Emergency Response Assistance Plan (ERAP). The decision to proceed with ERAP agent testing requires the concurrence of the PHO Microbiologist and the National Microbiology Laboratory (NML).
  - Refer to the [Specimens Requiring Emergency Response Assistance Plan \(ERAP\) for Transport within Canada](#) laboratory guidance for the process for shipping to an external testing laboratory.

- If a confirmed case of VHF occurs in Ontario, MOH will coordinate with federal and provincial partners and will provide guidance to the treating physician regarding access to investigational products, including monoclonal antibodies and vaccine, through the appropriate regulatory mechanism.
  - Further information can be found under [Ebola virus disease: For health professionals and humanitarian aid workers](#) and clinicians may also consult the [Ebola Clinical Care Guidelines: A Guide for Clinicians in Canada](#).

**Note: Paramedic/Emergency Services section is in progress.**

## Management of Returned Travellers

The below scenarios apply to individuals with a recent history (i.e., within 21 days) of travel to [at risk areas](#) identified by PHAC.

### **Traveller – Asymptomatic, no reported exposures, no Quarantine Order**

- Traveller information will not be shared with local health authority (i.e., the PHU), but traveller will be provided information on VHF at their Point of Entry (POE).
- Travellers will be provided with instructions on how to connect with their local PHU for further advice, or if severe symptoms develop to be directed to the closest appropriate hospital.
- If asymptomatic traveller connects with their local PHU, the PHU will provide information on signs and symptoms of VHF, direct the individual to self-monitor for 21 days from last day in country, and review process of contacting PHU if symptoms develop.
- Public health measures:
  - No restrictions on travel or activities
  - Self-monitoring only

### **Traveller – Asymptomatic, self-reported exposure, under Quarantine Order to report to the local PHU within 72 hours**

- PHAC will send Quarantine Order to PHO.

- PHO will notify PHU:
  - **During business hours (9am-4:30pm):** PHO will send information to local PHU (based on home address of individual) via iPHIS referral, and a phone call to the local PHU will be made.
  - **Afterhours:** a phone call will be made (4:30pm to 10pm on weekdays and on 9am to 10pm weekends and holidays) in addition to the iPHIS referral on the next business day
- PHU to initiate contact with individual as soon as information is received
  - This includes weekends and holidays but **does not** include overnight (i.e., 10pm-9am) calls.
- The local PHU will inform PHO via iPHIS referral and call PHO once contact has been made.
  - The PHU will continue to assess exposure and risk level.
  - Regardless of contact success, within 72 hours from initial notification as indicated on the Quarantine Order, please inform of contact success to PHO via iPHIS referral and by phone at 647-260-7619 during business hours. For afterhours notifications, please inform the MOH via 1-866-212-2272 or [EOCOperations.MOH@ontario.ca](mailto:EOCOperations.MOH@ontario.ca) and send iPHIS referral to PHO on the next business day.
  - PHAC will take over responsibility for contacting the person under the Quarantine Order.
- PHU will need to re-assess the individual under Quarantine Order, which will include:
  - Re-assess level of risk or exposure ([Appendix B](#))
  - Depending on level of risk, begin initial symptom review and recommended frequency of follow-up
  - Develop a contingency plan for individual to notify PHU if they develop symptoms and develop a plan for being assessed at the closest appropriate hospital
  - Depending on level of risk, counsel on recommended public health measures to limit spread in the event of symptom onset.

## **Traveller – Symptomatic on arrival at Port of Entry (Pearson), under Quarantine Order to report for health assessment**

- PHAC will send Quarantine Order to PHO.
- PHAC will notify the healthcare provider hotline (HSEMB), who will coordinate a call with affected PHUs, PHO and ministry partners.
- Individual will be transported to appropriate hospital by EMS for assessment.
  - Transfer will be coordinated by HSEMB.
- Quarantine Order is lifted once health assessment is complete and attending physician signs back Quarantine Order form indicated no communicable disease of quarantine concern (CDQC).
- The PHU where the person resides is responsible for case and contact management, including requesting a flight manifest from PHAC if the index of suspicion is high.
  - Contact identification should proceed **after** discussion with HSEMB, PHO, OCMOH, and attending physician regarding index of suspicion.
  - This may include a request from the PHU to PHO for the flight manifest—which is received from PHAC.
  - Risk assessment for contact follow up may also include airport partners, which is information also available through PHAC.

## **Traveler – Not identified at port of entry, presents to PHU or hospital with symptoms**

- If patient presents to PHU:
  - The PHU will assess risk of exposure and symptoms, and arrange transport to closest appropriate hospital for assessment
- HSEMB to support transfer to closest appropriate hospital if required
  - The hospital or PHU should notify HSEMB to initiate the coordination
- If the patient presents to hospital:
  - If the assessing physician determines there is a low risk for Ebola and the patient can be discharged without testing for Ebola, no further action is necessary.



- If the assessing physician suspects Ebola and wants to discuss testing or to initiate testing for Ebola, the hospital should call the Health Care Provider Hotline to initiate a coordinating call to assess the risk and exposures of the patient and the need for testing.
- HSEMB to arrange coordinating call with appropriate hospital, PHU, PHO and OCMOH.
- To avoid delays in patient care, if the assessing physician has already consulted a medical microbiologist at PHOL and testing has been approved by PHOL and can be conducted at the hospital, testing can be initiated ahead of a coordinating call. However, a coordination call should still be arranged.
- PHU (based on home address) is responsible for case and contact management.
  - Contact identification should proceed **after** discussion with HSEMB, PHO, OCMOH and attending physician regarding index of suspicion.

## Appendix A. Appropriate Personal Protective Equipment (PPE)

### Appropriate PPE for a clinically stable patient<sup>1</sup>

- disposable full face shield (that covers all mucous membranes of the face)
- gloves with extended cuffs to pull over gown cuffs
- disposable fluid resistant or impermeable cuffed gown that covers to mid-calf or coveralls
- fit-tested, seal-checked N95 respirator (or equivalent) \*

### Appropriate PPE for a clinically unstable patient or risk of uncontained body fluid exposure (e.g., vomiting, diarrhea, bleeding)<sup>1</sup>

- disposable full face shield (that covers all mucous membranes of the face)
- gloves with extended cuffs to pull over gown cuffs
- impermeable long-sleeved, cuffed gown that covers to mid-calf or coveralls
- fit-tested, seal-checked N95 respirator (or equivalent) \*
- shoe covers (if not part of a coverall suit)
- hair/head/neck covering (if not part of a coverall suit)

\*A powered-air purifying respirator (PAPR) is an alternative and may be used based on considerations such as length of time in patient room and appropriate training and availability

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<sup>1</sup> Based on Point of Care Risk Assessment

## Appendix B. Public Health Follow-up for Returning Travellers

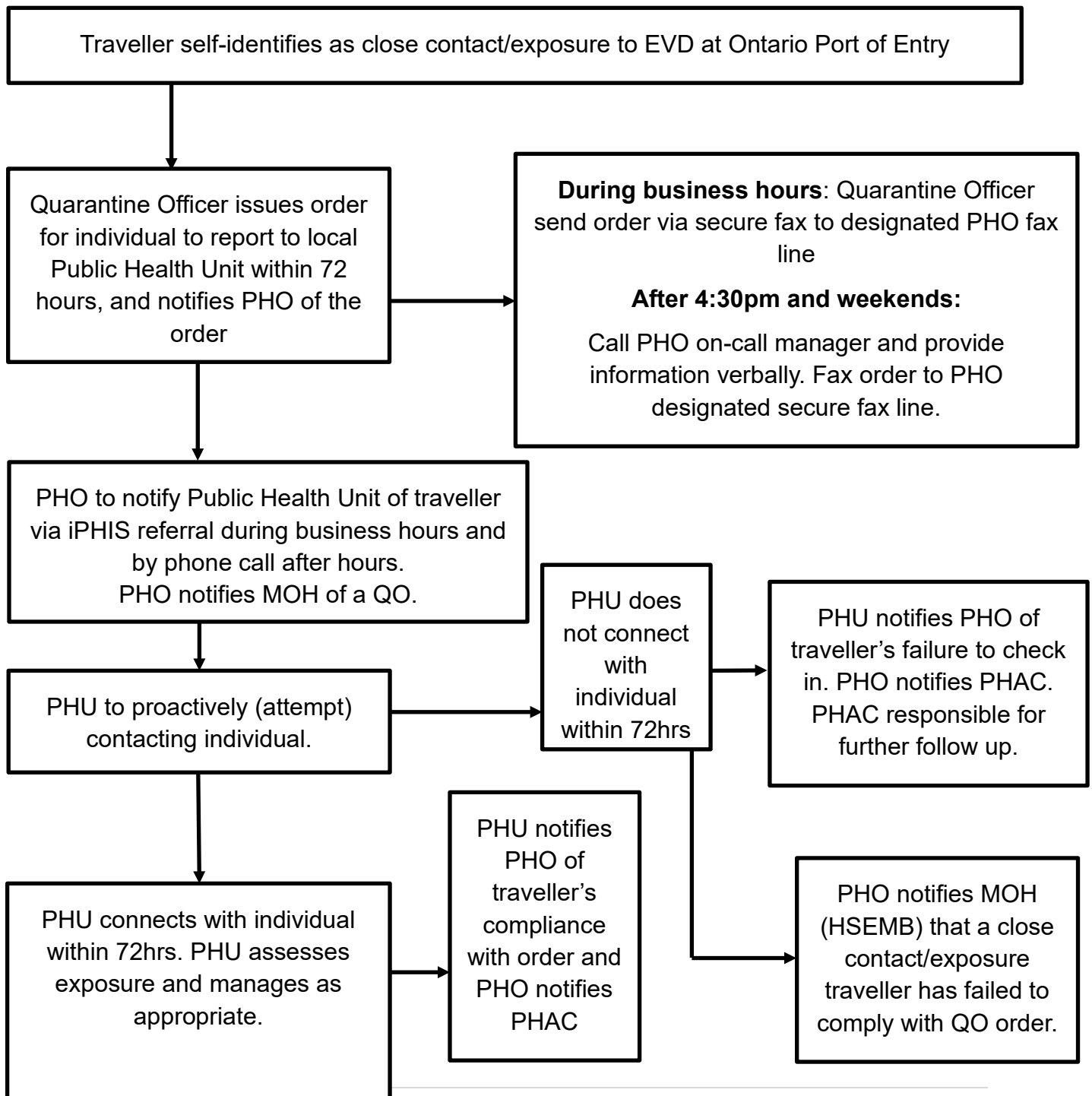
PHUs can use this form for all asymptomatic returning travellers from VHF-affected areas. Sections 2 and 3 can be used to determine the risk exposure level and subsequent public health follow-up actions to be taken.

(1) Client Information			
Last name		First name	Date of birth dd mm yyyy
Gender		Male	Female
		Unknown	Other (please specify)
Usual residential address			
City		Province Territory	Postal code
(2) Potential VHF Exposure			
Travel to an area affected by VHF			
VHF affected area visited (village/city/country)	Location of stay during visit (hotel name/ friends/family/ other)	Date arrived dd mm yyyy	Date departed dd mm yyyy
Please provide additional details of exposures			

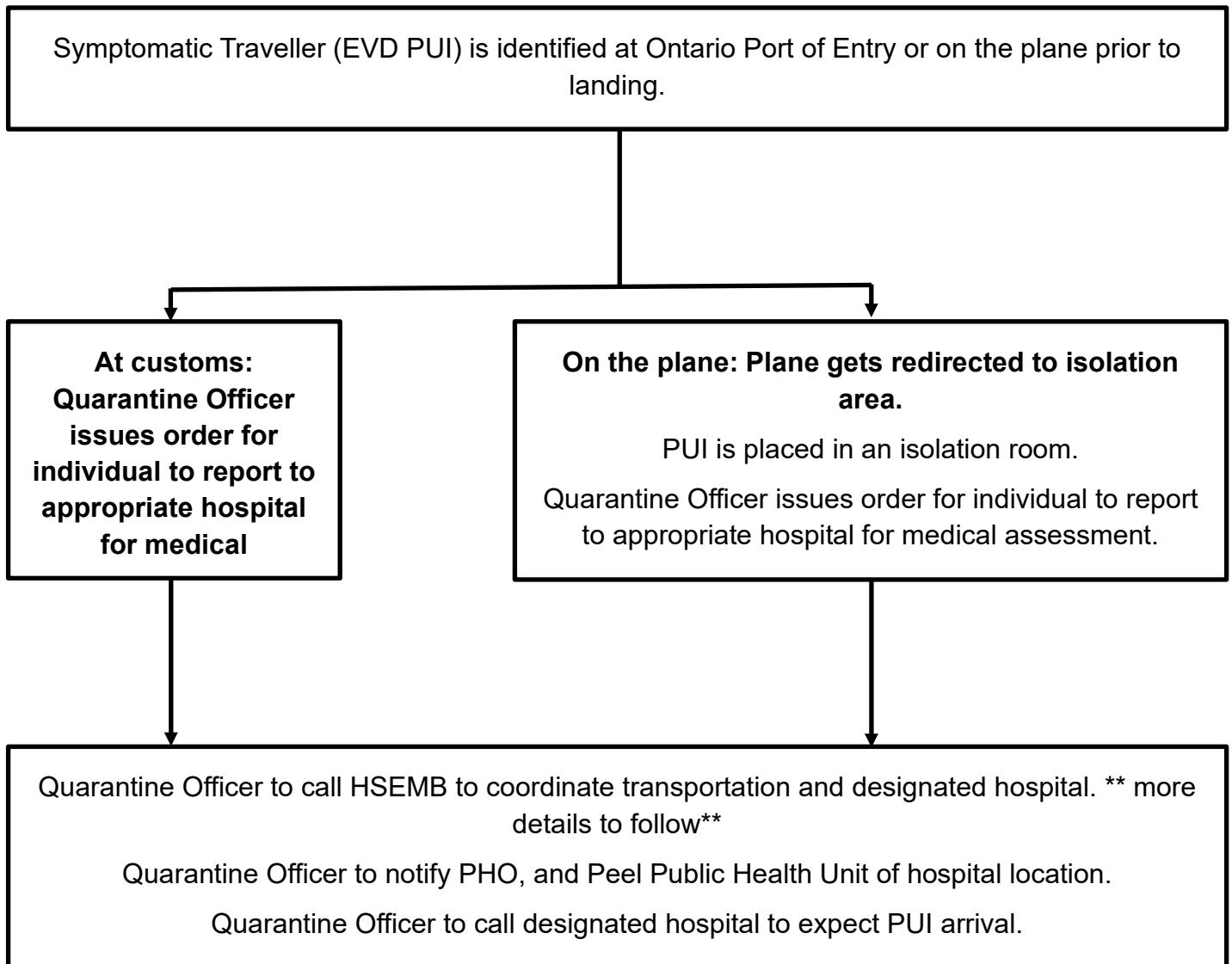
(3) RISK ASSESSMENT	
<p><b>Please check all that apply while client was in VHF-affected area to determine exposure risk level (based on CATMAT risk assessment levels)</b></p> <p><b>NOTE: Risk levels and public health follow-up of contacts exposed to a case in Ontario are forthcoming.</b></p>	
<input type="checkbox"/> No known contact with a symptomatic VHF case (or their body fluids or contaminated materials) and does not meet any of the other criteria listed in the at risk or high-risk categories below.	<b>LOWER RISK</b>
<input type="checkbox"/> Direct contact with a symptomatic VHF case (or their body fluids, corpse, or any other known source of VHF virus) while adhering to recommended IPAC precautions including full, appropriate personal protective equipment and no known breach in IPAC precautions.	<b>AT RISK</b>
<input type="checkbox"/> Had only casual interactions (i.e., no direct contact) with a VHF case or their body fluids. Examples of casual interactions include sharing a seating area on public transportation or sitting in the same waiting room.	
<input type="checkbox"/> Lived or worked in areas/settings where active transmission of VHF was occurring (e.g., a humanitarian aid worker who was not working in a healthcare facility but was in a location with active transmission).	
<input type="checkbox"/> Direct contact with a symptomatic VHF case (or their body fluids, corpse, or any other known source of VHF virus) without adhering to recommended IPAC precautions; or due to a breach in IPAC precautions.	<b>HIGH RISK</b>
<input type="checkbox"/> Had unprotected sexual contact with an asymptomatic person recovering from VHF (since the virus can persist for months in the semen of infected males and possibly the vaginal secretions of infected females).	
<input type="checkbox"/> Direct or close contact (i.e., within one meter, and more than casual interactions described above) with a person known or highly likely to have VHF.	
<input type="checkbox"/> Was a household or family contact of a person known or highly likely to have VHF.	

(4) PUBLIC HEALTH FOLLOW-UP (BASED ON RISK EXPOSURE LEVEL)	
<p><b>Based on the exposure risk level determined in section (3) these are the recommended public health follow-up actions.</b></p>	
<b>LOWER RISK</b>	<ul style="list-style-type: none"> <li>• Advise client to check the PHAC website for information on VHF and what to do if they develop symptoms in the 21 days following return to Canada.</li> <li>• Note: these travellers are not recommended to contact their local PHU, however, in the event that they do, any active monitoring or specific guidance on precautions is at the PHU's discretion.</li> </ul>
<b>AT RISK</b>	<ul style="list-style-type: none"> <li>• Counsel client regarding symptoms compatible with VHF and appropriate actions to take should symptoms develop.</li> <li>• Instruct client to self-monitor their temperature twice daily and monitor for VHF-compatible symptoms during the 21-day monitoring period.</li> <li>• Follow-up with client periodically (i.e., at least weekly) to check for fever and/or other VHF symptoms.</li> <li>• Advise client to do the following during the 21-day monitoring period:               <ul style="list-style-type: none"> <li>○ Postpone elective medical visits and other elective procedures.</li> <li>○ Alert all healthcare workers (if presenting for health care) of potential VHF exposure.</li> <li>○ Not donate blood or other body fluids or tissues.</li> <li>○ Notify the PHU if travelling outside the PHU's jurisdiction, other than to a nearby jurisdiction for work. (i.e., movement of the client does not need to be restricted, but PHU should be notified).</li> </ul> </li> <li>• If client is a healthcare worker, advise them to notify their workplace/organization prior to returning to work. The PHU should discuss return to work policies with the workplace/organization.</li> </ul>
<b>HIGH RISK</b>	<p>Same as for at risk plus:</p> <ul style="list-style-type: none"> <li>• Follow-up with client frequently (i.e., at least every business day) to check for fever and/or other VHF symptoms</li> <li>• Recommend the client do the following during the 21-day monitoring period:               <ul style="list-style-type: none"> <li>○ Remain near an appropriate acute care facility (i.e., within a one-hour drive, if possible).</li> <li>○ Report any intentions to travel outside of their city/town during the 21-day monitoring period.</li> <li>○ Restrict activities in order to minimize exposure to others as follows:                   <ul style="list-style-type: none"> <li>▪ Not attend school (primary/secondary) or day care.</li> <li>▪ Not attend social or other gatherings.</li> <li>▪ Not travel on any form of public transportation/riding sharing (e.g., plane, train, bus, subway, taxi etc.).</li> </ul> </li> </ul> </li> <li>• Advise client on avoiding in-person attendance at workplace or post-secondary education.</li> <li>• If client is a healthcare worker, advise them not to have direct patient contact.</li> </ul>

## Appendix C. Ebola Virus Disease (EVD) Process Map – Asymptomatic, self-reported exposure, under Quarantine Order to report to the local PHU within 72 hours



## Appendix D. EVD Process Map - Traveler – Symptomatic on arrival at Port of Entry (Pearson), under Quarantine Order to report for Health Assessment



## Appendix E. EVD Process Map - Not identified at port of entry, presents to PHU or Hospital with symptoms

