

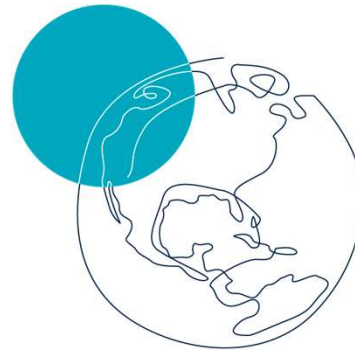
IDENTIFY, ISOLATE, INFORM: RESPONDING TO EMERGING INFECTIOUS DISEASES IN CLINICAL CARE

October 22, 2026 | 18:30–20:00 PT



THE UNIVERSITY OF BRITISH COLUMBIA

Continuing Professional Development
Faculty of Medicine



TERRITORIAL ACKNOWLEDGMENT

We acknowledge that UBC CPD is located on the traditional, ancestral and unceded territory of the Skwxwú7mesh (Squamish), xʷməθkwəy̓əm (Musqueam), and Səlíl̓wətaʔ/Selilwitulh (Tsleil-Waututh) Nations.



UBC CPD
Medicine
CONTINUING
PROFESSIONAL
DEVELOPMENT

ACKNOWLEDGEMENT

This webinar is provided in partnership by the BC Centre for Disease Control and UBC Continuing Professional Development.



THE UNIVERSITY OF BRITISH COLUMBIA

Continuing Professional Development
Faculty of Medicine



BC Centre for Disease Control
An agency of the Provincial Health Services Authority



UBC CPD
Medicine
CONTINUING
PROFESSIONAL
DEVELOPMENT

3

LEARNING OBJECTIVES

By participating in this webinar, you will be able to:

1. Identify the role of global factors, like climate change and travel, on the risk of emerging and re-emerging infections.
2. Apply an *identify, isolate, inform* framework to prevent transmission of infectious diseases.
3. Describe initial assessment, risk mitigation, and management steps for patients who may have rare or travel-related infections.



UBC CPD
Medicine
CONTINUING
PROFESSIONAL
DEVELOPMENT

4

DISCLOSURES

Speakers

- Maulik Baxi: Nothing to disclose
- Jennifer Grant: Receives funding from CIHR. **Any financial relationships have not influenced the content of this webinar.**
- Jennifer Vines: Nothing to disclose
- Simon Moore: Nothing to disclose



UBC CPD
Medicine
CONTINUING
PROFESSIONAL
DEVELOPMENT

Planning Team

- Allison Macbeth: Nothing to disclose
- Christopher Morrow: Nothing to disclose
- Caldon Saunders: Nothing to disclose
- Jason Wong: Nothing to disclose

5

Emerging and Re-emerging Infections: Information for Frontline Clinicians

Presenters:

Dr. Jennifer Vines

Medical Director | Public Health Response | Communicable Disease Prevention and Response Unit | BCCDC

Dr. Jennifer Grant

Program Lead | Bacteriology and Mycobacteriology | Public Health Laboratory | BCCDC

Dr. Maulik Baxi

Medical Health Officer - Medical Director | CMHO & VP Population & Public Health | Fraser Health

October 22, 2026



BC Centre for Disease Control
Provincial Health Services Authority

Slide 5

CJ0 As of 16th Sep 2026
Chow, Jasmine, 2026-09-16T22:12:42.220

CJ0 0 Jennifer Vines disclosure yet to be received (As of Oct 2nd 2026)
Chow, Jasmine, 2026-10-02T17:50:05.016

Land acknowledgement

BCCDC acknowledges the Title and Rights of BC First Nations who have cared for and nurtured the lands, air and waters for all time, including the xʷməθkʷəy̍əm (Musqueam), Skwxwú7mesh Úxwumixw (Squamish Nation), and sə́lilwətaʔ (Tsleil-Waututh Nation) on whose unceded, occupied, and ancestral territory BCCDC is located and whose relationship with these lands continue to this day.



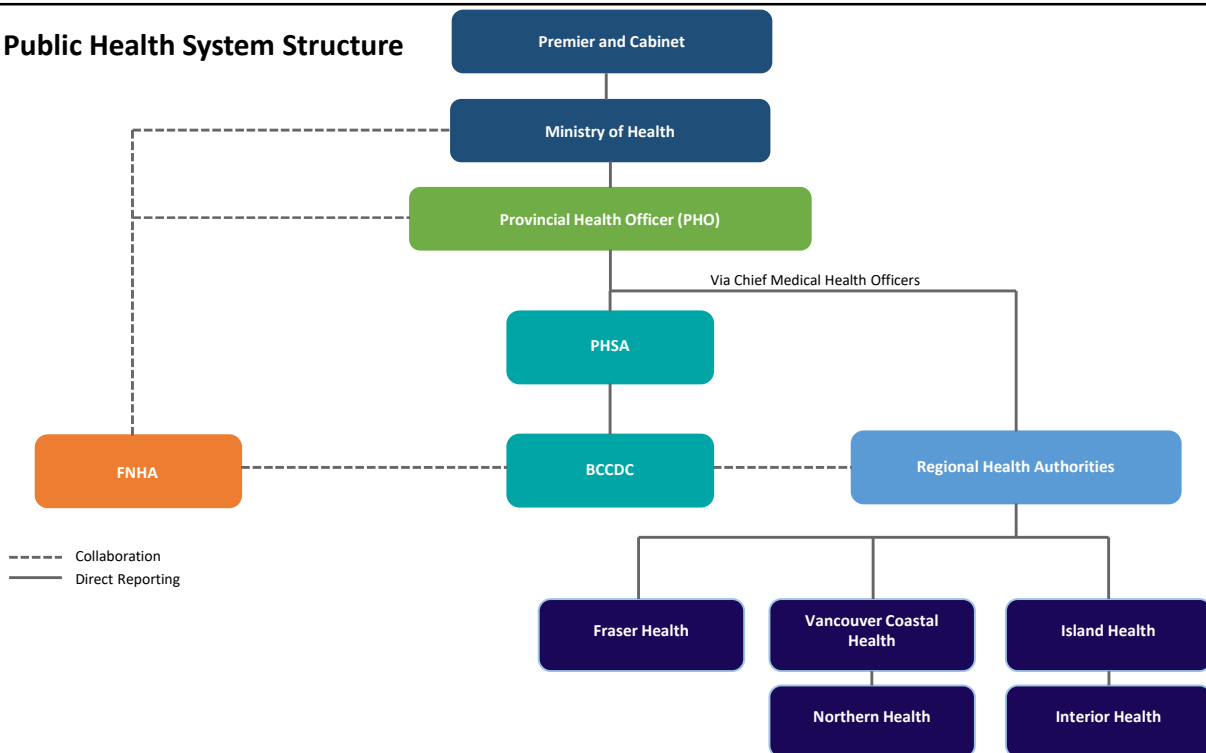
<https://fpcc.ca/stories/first-peoples-map/>

We recognize that Fraser Health provides care on the traditional, ancestral and unceded lands of the Coast Salish and Nlaka'pamux Nations and is home to 32 First Nations within the Fraser Salish region.

Fraser Health is dedicated to serving all Indigenous people, and honours the unique cultures of the First Nations, Métis and Inuit living within the Fraser Salish region.

7

BC Public Health System Structure



BC's public health system (cont'd)

Who do I call?

- A patient was bitten by a bat and needs rabies PEP:
 - Call your Regional Health Authority (RHA) and speak to a medical health officer (MHO)
- A patient may have botulism:
 - Call your RHA MHO to report the suspect case, work with your hospital lab to start coordinating testing
 - The RHA and hospital lab will alert the BCCDC Public Health Lab and the BCCDC public health physician can authorize release of antitoxin from the BCCDC pharmacy

9

Learning objectives

1. Identify the role of global factors, like climate change and travel, on the risk of emerging and re-emerging infections.
2. Apply an *identify, isolate, inform* framework to prevent transmission of infectious diseases.
3. Describe the initial assessment, risk mitigation, and management steps for patients who may have rare or travel-related infections.

10

Global factors on the risk of emerging and re-emerging infections

11



BC Centre for Disease Control
Provincial Health Services Authority

Global Perspectives

Globalization and infectious disease:

Global changes bring an increased risk of infectious disease outbreaks

Travel and Trade:

- **Rapid Movement:** International flights and global trade move people and pathogens across borders in hours rather than weeks.
- **Local to Global:** An outbreak in one isolated region can transform into a worldwide epidemic before local containment measures take effect.
- **Examples:** Andes Hantavirus cruise ship outbreak; movement of fans during the 2026 FIFA World Cup.

Climate Change and the Environment:

- **Weather Shifts:** Rising temperatures and changing rainfall patterns expand the habitats of disease-carrying insects like mosquitoes and ticks.
- **Habitat Disruption:** Deforestation and urbanization force wildlife into closer contact with humans, raising the risk of zoonotic spillover (diseases jumping from animals to people).
- **Examples:** Avian influenza; a 2024 cluster of pediatric encephalitis cases caused by California serogroup virus near Whistler and evidence of invasive mosquito species in the Sea-to-Sky Highway corridor.

References: [Infectious disease in an era of global change - PMC](#); [How Globalization Affects the Spread & Treatment of Pathogens - Video | Study.com](#)

Socioeconomic and Demographic:

- **Overcrowding:** Poverty and rapid urbanization often lead to dense living conditions with strained sanitation and healthcare infrastructure.
- **Vulnerable Populations:** Displaced people and migrants face higher exposure risks due to disrupted access to clean water, shelter, and medical care.
- **Examples:** Ebola Bundibugyo virus outbreak in the Democratic Republic of Congo and federal quarantine requirements for returning travelers; localized outbreaks of wild poliovirus; resurgence of measles in North America in communities with low vaccination rates.

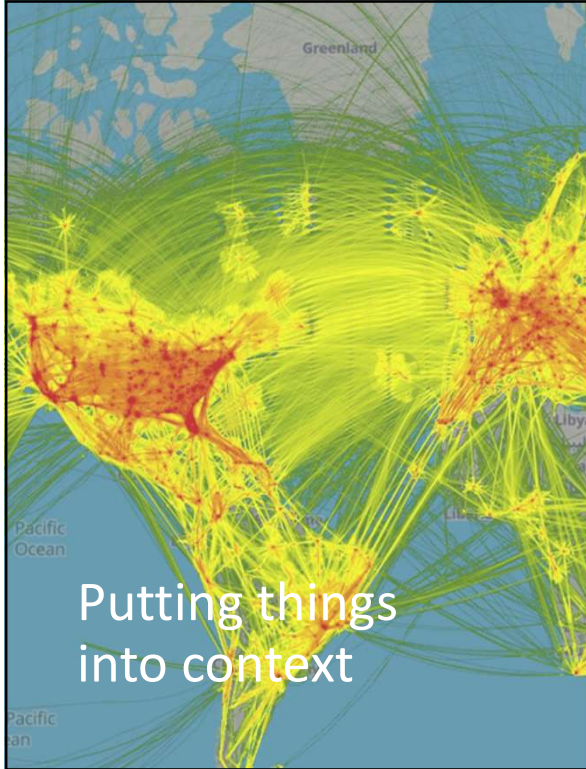
Mitigation and Response:

- **Global Monitoring:** Organizations like the World Health Organization track cross-border threats and enforce international health regulations.
- **Preparedness:** Coordinated global transparency, rapid data sharing, and local infrastructure investments are vital to stopping future pandemics.
- **Example:** News reports of fatal pneumonia in a Russian lab worker and WHO statements.

References: [Global perspectives on infectious diseases at risk of escalation and their drivers | Scientific Reports](#); [Why infectious diseases are still a global health threat | NTU Research](#); [Globalization and Infectious Diseases - PMC](#); [Global Challenges - What You Need to Know About Infectious Disease - NCBI Bookshelf](#); [Globalization and infectious disease | Public Health | Research Starters | EBSCOhost](#)

Preventing transmission: Initial detection and management





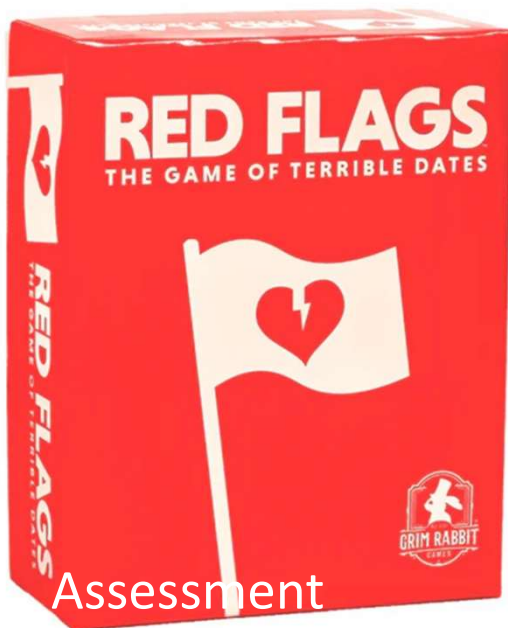
- 43 million trips from Canada/year
 - 29.1 million to USA
 - Europe, Asia, Americas (non-USA) . . .
- 20-60% medical issue
 - Most minor (5-8% seek care)
 - Diarrhea
 - ILI/fever
 - Dermatologic conditions
 - Hospitalization 1-5%
 - Injury -- #1 MVA
 - CAD
 - Malaria (location dependent)
 - Death 0.1% → mostly pre-existing or trauma



- 43 million trips from Canada/year
 - 0 Ebola cases (ever)
 - 480 000 cases worldwide since 1976
 - 7 cases outside Africa
 - 1 Andes Hantavirus case in 10 years
 - ~1:430 000 000 chance
 - >\$100 000 Lotto 6/49 win
 - ~ 1:2-5 000 000 chance
 - 100X more likely to win lottery . . .
- More common:
 - Malaria (1:100 highest risk)
 - Typhoid (1:3000 highest risk)
 - Arboviruses (varies by region)

What alarms a microbiologist

If you order, we will call . . . and ask a lot of questions!



Assessment

- Common things are common
 - Most symptoms are due to usual causes
 - Use usual review based on symptoms
 - Treat common or threatening (e.g. pneumonia)
 - Many minor symptoms will resolve
- Fever
 - Rule out **Malaria**
 - Consider **typhoid fever** diagnostics
- Red Flags:
 - Abnormal mucosal bleeding
 - Very severe symptoms
 - Unexplained rash or bruising
 - Alarming lab results



Ensure you and your patients and staff are safe

- Keep patient as far away from others as practical
- Limit exposure as possible (mask, gloves etc.)
- Clean the environment

Ensure the patient is safe

- Address immediate threats to health (malaria, sepsis)
- Call EHS if the patient is unstable

Get additional data

- Where: include towns/provinces, environments
- When: arrival, departure, symptom onset
- What: activities and exposures

Call for consultation

- Medical Health Officer and/or
- Medical Microbiologist on call (local or BCCDC)

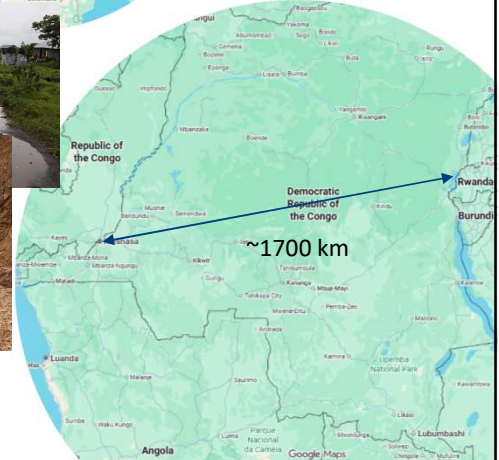
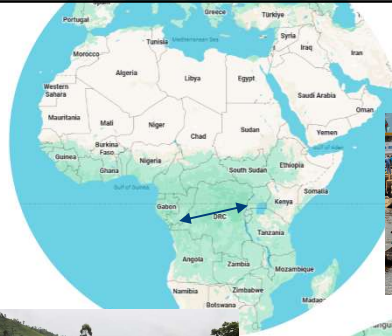
Zebra or Horse? ... It depends

- Horse
 - High-income country
 - Urban only
 - High-end
 - Business or tourism
- Zebra (. . . horse still more likely)
 - Low/Middle-income countries
 - Rural/adventure
 - Lower end
 - Visiting Friends/Family (VFR)



Geography matters

- Outbreaks are limited by mobility
 - Spread follows most used travel modality
 - Not possible for many
- Understand local context
 - Detailed travel history
- Ask directly
 - Distance from area
 - Exposure or not



Brief case study (1 of 3)

- Nipah virus: A man presents to Emerg feeling unwell and saying he may have Nipah virus. On interview it becomes clear he is suffering from anxiety and is worried he might have Nipah virus despite lack of travel to the affected region.
 - Key point: Get a good history, assess beyond the presenting complaint.

Brief case study (2 of 3)

- Hantavirus: Andes virus cruise ship passenger and known contact is diagnosed and treated on Vancouver Island with no additional exposures.
 - Key point: Contact tracing works; in some outbreaks the global public health system can pre-identify people at risk and smooth their way into care if needed.

23

Brief case study (3 of 3)

- Ebola Bundibugyo Virus – A traveler has recently returned from Uganda and develops a headache and trouble breathing. The last Ebola case there was several weeks prior.
 - Key point: Risk assessment relies on specific geography, timing, and exposures, not just travel history.

24

Risk assessment, mitigation and management in primary care settings

25

The **Identify-Isolate-Inform (3I)** framework

Purpose

To help frontline healthcare workers rapidly detect, contain and report patients who may have high consequence infectious diseases like Ebola, measles

Core Steps

Identify

Patient screening including travel history, contact with infected individuals and compatible signs and symptoms e.g. fever, rash, unexplained bleeding

Isolate

Placement in a private or airborne infection isolation room
Use of masks and other appropriate personal protective equipment (PPE) to stop further spread.

Inform

Immediate notification of internal infection control teams and local public health authorities to coordinate safe transport, testing, and management

Initial assessment in the primary care environment

Identify

Identify

Question - What's the risk to my patients and staff?

Answer – **Low**

Example: Ebola

Although Ebola can cause serious illness in humans, it is **rare**.

The risk to people in British Columbia from Ebola is **low**.

- Primary care providers will most likely encounter **common** travel related disease, tickborne illness, NOT Ebola
- Key message: For fever in traveler - consider malaria

Risk Assessment: If a person calls or arrives at a healthcare facility

- Gather clinical history, preliminary clinical examination
- Call your regional health authority MHO for assistance with Risk Assessment
- *Do Not* rush to order Ebola testing without consulting MHOs and Medical Microbiologists

27

Risk mitigation in the primary care environment

Isolate

If you suspect an infection of concern, Isolate and initiate Infection Prevention and Control (IPC) measures

- Staff:
 - Use Point of Care Risk Assessment (PoCRA/PCRA) for infection prevention and control
 - Ebola, Marburg, Nipah, etc are *not* classic respiratory pathogens
- Patients:
 - Isolation and patient transportation considerations
 - Assess patients: gathering history, pertinent clinical examination should continue
- System:
 - Isolate but don't ignore the patient
 - Consider more likely differential diagnoses
 - Always consult Medical Health Officers (MHO) and Medical Microbiologists *before* ordering Ebola testing

28

Case management in the primary care environment: Reporting possible/probable and confirmed cases

Inform

Inform – report confirmed cases +/- Persons Under Investigation (PUIs)

- Who to call
 - If you send to local ED, call ahead
 - Call your microbiologist and MHO
 - Contact information in the same place as your on call scheduling system
 - Do not send to Lifelabs if clinical suspicion is high enough to test
 - MHOs and Microbiologists will need pertinent clinical information to assist you with risk assessment
 - *IF* testing is needed, they can assist with coordination of testing
 - [BCCDC web site has all RHA contacts: Contact Us](#)
- Resources
 - RHA's
 - BCCDC key guidance documents (depends on pathogen? How specific?)

29

Summary and key messages

- Several global factors increase the risk of disease emergence and importation – but the overall risk of infections of concern is LOW.
- Your role:
 - **Identify:** Get a good initial history
 - **Isolate:** Move to a private room
 - **Inform:** Call your Medical Health Officer
- Your regional and provincial public health system is 24/7/365 for:
 - Consultation
 - Specialized testing
 - Coordinating province-wide public health response when needed
 - Escalating communicable disease threats to national and global authorities

30

Additional resources: <https://www.bccdc.ca/contact>

Regional Health Authority Contacts

Direct questions about communicable diseases, environmental health and other public health issues to your [regional health authority](#):

Fraser Health

- For public: 604-587-3936
- Health professionals: 1-866-990-9941

Interior Health

- For public: [local health centre](#)
- Health professionals:
 - During business hours (Monday to Friday, 8:30 am to 4:30 pm): 1-866-778-7736
 - After hours/weekends, MHO on-call: 1-866-457-5648

Island Health

- For public:
 - South Island: 1-866-665-6626
 - Central Island: 1-866-770-7798
 - North Island: 1-877-887-8835
- Health professionals: 1-800-204-6166

Northern Health

- For public: 250-645-3794
- Health professionals: 1-833-214-3274

Vancouver Coastal

- Business hours (Monday to Friday, 9:00 am - 5:00 pm): 604-675-3900 (or 1-855-675-3900)
- After-hours, weekends, stat holidays: 604-527-4893

31

Acknowledgements

- Jason Wong, Chief Medical Officer and Deputy Provincial Health Officer, BCCDC
- Natasha Young, Resident Physician, Public Health and Preventive Medicine, BCCDC/UBC
- Abdulaa Babili, Lead, Population and Public Health Initiatives and Innovation, BCCDC
- The UBC-CPD Program Team

32

THANK YOU!



UBC CPD
Medicine
CONTINUING
PROFESSIONAL
DEVELOPMENT