

# Provincial Public Health Risk Assessment

Public Health Hazards at the FIFA World Cup 2026 Games in  
Vancouver

## Acknowledgements

The British Columbia Centre for Disease Control (BCCDC) respectfully recognizes and honours the Title and Rights of the First Nations who have cared for and nurtured the lands, air, and water since time immemorial in what is colonially known as British Columbia (BC). We also recognize that BC is home to many First Nations, Métis, and Inuit people from homelands elsewhere in Canada who have distinct rights, including rights to health which are upheld in international, national, and provincial law. This acknowledgment includes the xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh Úxwumixw (Squamish Nation), and sə́ilwətaʔ (Tsleil-Waututh Nation), on whose unceded, ancestral, and occupied territories the BCCDC is situated, and whose relationship with the land continue to this day.

## Prepared by

Public Health Response (PHR) Team | Communicable Disease Prevention and Response (CDPR) Unit

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# Introduction

## The BC Centre for Disease Control

The BC Centre for Disease Control (BCCDC), a program of the Provincial Health Services Authority, works to improve the wellbeing of all people and communities living on the territories of many distinct First Nations in what is colonially known as British Columbia (BC). The BCCDC monitors the health of the population, designs and supports public health programs to prevent illness, protects against health risks, and promotes the well-being of people living in BC. BCCDC provides technical and expert guidance on public health practice, along with generating and synthesizing evidence to advance public health practice. BCCDC's services include:

- Public Health Laboratory services
- Clinical services for tuberculosis and sexually transmitted and blood-borne infections
- Communicable disease control
- Disease surveillance, epidemiology, data science and analytics
- Drug and Poison Information Centre (which supports BC and Yukon)
- Environmental health
- Harm reduction and response to substance use
- Immunization programs
- Indigenous health
- Population health, health promotion and the prevention of chronic diseases and injuries
- Preparing for and responding to public health threats

## Purpose

To ensure public health preparedness and response readiness during the Fédération Internationale de Football Association (FIFA) World Cup (FWC26) games, the BCCDC completed a provincial public health risk assessment, considering increased population density, close contact in indoor and outdoor venues, higher demands on food services, summer heat, wildfire season, and changes in social behaviour and transportation. The findings from the risk assessment are dynamic and have informed public health planning and preparedness readiness. Intended for internal planning purposes with key partners, this risk assessment supports an enhanced approach to situational awareness and provides a descriptive overview of key risks relevant to the BCCDC's mandate.



## Scope

To support a comprehensive review of public health hazards that may arise before, during, and after the FWC26 Games, this assessment applied an all-hazards approach and focused on public health mandates and functions, including (1) population health protection and promotion and (2) public health emergency preparedness & response. This risk assessment is conducted under the following legislative and policy frameworks:

- Public Health Act
- Emergency and Disaster Management Act
- BC's Population and Public Health Framework: Strengthening Public Health.

## Foundational Framework

The British Columbia Declaration on the Rights of Indigenous Peoples Act (BCDRIP) is foundational to this Risk Assessment. The assessment recognizes the pre-existing First Nations laws, governance systems, and authorities related to public health and emergency management that have long existed on the lands now known as British Columbia.

## Host Jurisdictions

Musqueam, Squamish, Tsleil-Waututh First Nations; City of Vancouver; and Province of British Columbia.

## Event Background

The FWC26 will take place from **11 June to 19 July 2026**, marking the first time the tournament is jointly hosted by three countries: the **United States, Canada, and Mexico**. The event will span 16 host cities, including 11 cities in the United States, 2 in Canada, and 3 in Mexico (Figure 1). The 2026 tournament will also be the largest in FIFA World Cup history, featuring 48 participating teams, an increase of 16 teams compared to previous tournaments, and a total of 104 matches. The scale of FWC26 is expected to exceed that of previous tournaments.

During the FIFA World Cup 2022, total attendance reached approximately 3.4 million spectators, with an average stadium capacity utilization of 96%.<sup>1</sup> For FWC26, it is anticipated that approximately 5.5 million ticketed spectators will attend across all three host countries, in addition to substantial numbers of nonticketed visitors, including accompanying travelers, media personnel, and event staff.<sup>2</sup>



Figure 1. Map of host cities. Source: [FIFA](#)

Planning for FWC26 takes place in a complex risk environment characterized by decentralized coordination across 16 host cities and frequent international border crossings by teams, officials, and spectators. Unlike past major sporting events in BC, including the 2010 Winter Olympics, FWC26 public health preparedness planning does not involve dedicated additional resources or formal requirements. While large sporting mass gatherings generally do not result in substantial increases in communicable diseases or major public health events, they still pose risks to population health in the form of communicable disease transmission and other public health hazards, including heat and wildfire smoke, which must be considered in planning.<sup>3-5</sup> Additionally, the risk of emerging or re-emerging pathogen importation should be considered given the international nature of the event. Finally, the scale and profile of the event in the setting of a dynamic geopolitical and global health risk landscape highlight the need for enhanced public health surveillance and cross-jurisdictional coordination.



## Methods

### Type of assessment

To ensure public health preparedness and response readiness, the BCCDC completed a provincial public health risk assessment, considering increased population density, close contact in indoor and outdoor venues, higher demands on food services, summer heat, wildfire season, and changes in social behaviour and transportation. The risk assessment was informed by both the World Health Organization's All-Hazards Risk Assessment Tool for Mass Gathering Events (WHO All-Hazards Tool)<sup>6</sup>, and Public Health Ontario's Hazard Identification and Risk Assessment (HIRA) framework.<sup>7</sup> Impacts on business continuity and public health's capacity to respond were also considered.

### Assessment Scope

This risk assessment employed a provincial public health (BC) perspective for all-hazard public health risks that may arise before, during, and after FWC26 games. Due to the nature of the event and crowd dynamics (volume, movement, and interactions), mass casualty incidents are possible in sporting mass gathering events. However, planning for mass casualty incidents and other surges in demand for health care services are the responsibility of the hosting health jurisdiction (Vancouver Coastal Health, VCH) and largely outside of BCCDC.

### Data Collection and Validation

Public health hazard categories were developed using the WHO All-Hazards Tool (Figure 2) and aligned with public health functions. The HIRA framework was used to capture qualitative data via virtual, one-hour facilitated work sessions with BCCDC teams between May 2025 and April 2026. In lieu of a formal scoping review, BCCDC teams drew on qualitative and quantitative sources relevant to their work areas. Following each session, completed worksheets were shared with participating teams for validation and consensus on risk estimation.

An iterative validation process was used through multiple consultations with regional and provincial health partners to refine early versions and identify gaps. Subsequent drafts were shared with public health leaders in the regional health authorities and formed the basis of risk assessment collaborations with Public Health Ontario and the Public Health Agency of Canada.

**Figure 2. Risk buckets**

Communicable Disease	Non-Communicable Disease	Environmental Health and Natural Disasters	Chemical, Biological, Radiological, & Nuclear Threats (CBRN)
<ul style="list-style-type: none"> <li>•Vaccine preventable diseases</li> <li>•Enteric/foodborne illness</li> <li>•Sexually transmitted and blood-borne infections</li> <li>•Respiratory illness</li> <li>•Vector borne illness</li> <li>•Emerging pathogens</li> </ul>	<ul style="list-style-type: none"> <li>•Alcohol and substance use disorders (toxic drug overdose)</li> <li>•Injuries</li> </ul>	<ul style="list-style-type: none"> <li>•Extreme weather events/advisory (e.g. heat, poor air quality)</li> </ul>	<ul style="list-style-type: none"> <li>•Weaponized radioactive, chemical, and biological agents.</li> </ul>

### Risk Questions

- **Hazard identification:** What are the most likely public health risks to arise before, during, and after the FWC26 Games?
- **Risk and probability estimation:** What is the anticipated likelihood and potential impact of these risks on population health and operational capacity?

### Risk Estimation and Levels

Qualitative risk and probability estimation of both population health impacts and capacity to respond were used to estimate overall risk level. A probability and impact matrix (adopted from Public Health Ontario HIRA) was used to categorized overall risk (Figures 3 and 4).

**Figure 3. Probability and impact matrix**

Probability of Event Occurring	Minor Health Impact	Moderate Health Impact	Significant Health Impact	Major Health Impact
Frequent	Low	Medium	High	High
Probable	Low	Medium	Medium	High
Unlikely	Low	Low	Medium	Medium
Rare	Low	Low	Low	Medium

Figure 4. Risk levels

Risk	Description
High Risk	The health event poses a threat to Unit’s capacity. It is a high priority for incident-specific planning.
Medium Risk	The health event could affect Unit’s capacity. It is a medium priority for incident-specific planning.
Low Risk	The health event will not affect Unit’s capacity. It is a lower priority for incident-specific planning

# Results

## Summary of Findings

Overall, five public health risks were assessed as having a moderate level of risk:

1. Enteric infections associated with food handling and high-volume food service.
2. Respiratory viral infections, including SARS-CoV-2 and seasonal influenza, with potential for off-season transmission or introduction of imported strains.
3. Substance use–related harms, including toxic drug overdoses and alcohol-associated injuries.
4. Environmental exposures, particularly heat-related events.
5. Transport-related injuries associated with increased visitor mobility and higher use of bike-share programs and electric scooters.

Other risks, such as measles, tuberculosis, vector-borne diseases, and zoonotic infections, were assessed as low risk with existing public health surveillance and response capacity expected to be sufficient.

## Low Probability High Consequence Risks

Using an all-hazards approach to planning and risk assessment, several low-probability, high-consequence scenarios were considered, including the emergence of high-threat pathogens and deliberate biological or chemical exposure events (See Table 1). From a preparedness and readiness perspective, these scenarios underscored the importance of clear reporting pathways and rapid escalation. As part of ongoing efforts to strengthen BCCDC’s constant state of readiness for public health response, BCCDC has undertaken joint exercises with partners to test response capabilities for these scenarios and have developed and refined response tools to strengthen early detection, reporting, and coordinated response.

**Table 1. Summary of risk estimate by public health hazard**

Category	Hazard \ Disease \ Condition	Risk Level	Notes
<b>Medium Level Risks</b>			
Communicable Diseases	Enteric (foodborne) diseases	Medium	Demand for food and beverage hospitality will increase during FWC26, and when combined with summer heat and potential for improper temperature control in food storage and preparation, the risk for foodborne infections may rise, particularly around event venues. Waterborne outbreaks of enteric disease in BC are rare and considered low risk
Communicable Diseases	Respiratory viruses	Medium	SARS-CoV-2 transmission typically increases during the summer with potential for introduction of a new variant. Vancouver matches include teams from the Southern Hemisphere, creating the potential for new or early introductions of seasonal influenza viruses.
Non-communicable Diseases	Substance use: Toxic drug overdose and alcohol consumption	Medium	Legal psychoactive substance use is likely to increase during a mass gathering sporting event like FWC26. Trends in illegal substance use are less certain, but any increase would be high

			<p>consequence due to toxicity of the illegal drug supply, which may pose an elevated risk for overdose among international visitors who are not tolerant to the potency or aware of the unpredictability.</p> <p>There is a high likelihood of increased alcohol consumption, increasing the risk of a range of injuries and adding to risks of substance use due to disinhibition.</p>
Non-communicable Diseases	Transport-related injuries	Medium	<p>Contributing factors include summer season, increased tourist mobility, alcohol and other substance use, and anticipated uptick in bike-share and scooter use.</p> <p>Alcohol use is expected to occur in association with the event. Alcohol contributes significantly to poisoning, motor vehicle crashes, falls, assaults, and other kinetic injuries.</p>
Environmental Health	Heat events/heatwaves	Medium	<p>Event timing is relatively early in the warmer season. Although the likelihood of extreme heat events is lower than that of poor air quality from wildfires (see low risk category), an extreme heat event during a mass sporting event can have moderate to large implications for</p>

			the health and well-being of visitors and attendees.
<b>Low Level Risks</b>			
Communicable Diseases	Vaccine preventable diseases (VPD) including measles	Low	Measles importation is probable, and there has recently been local transmission, primarily in northern BC. Recent measles introductions into the Vancouver Coastal Health region have not resulted in sustained community transmission due to herd immunity. Risk of importation and transmission of other VPDs is also present. The overall impact is assessed as low.
Communicable Diseases	Sexually Transmitted and Bloodborne infections (STBBIs)	Low	Potential for a STBBI outbreak is minimal. A seasonal uptick of clade II mpox is possible given overlap with Pride events and increased social activity, though BC has not shown consistent seasonality. Overall case counts remain lower than other cities, and serology and vaccination data suggest a relatively high baseline immunity. Risk of travel-associated clade I mpox importation depends on global situation, with impacts assessed as minor.

Communicable Diseases	Tuberculosis (TB)	Low	The potential for a TB outbreak (defined as more cases than usual) during the event is minimal.
Communicable Diseases	Vector-borne illnesses	Low	Locally acquired and imported risks were considered and assessed as low risk.
Communicable Diseases	Zoonosis (rabies) Environmental pathogens (Legionella, coliform and cyanobacteria exposure via recreational water use) Antimicrobial resistant organisms	Low	Several additional conditions were considered for risk of locally acquired and imported infections, with varying degrees of low probability, and health impacts assessed as minor to moderate. For these and other public health conditions of interest, public health system capacity to detect and respond is expected to be adequate.
Non-communicable Diseases	Crowd-related injuries (non-mass casualty, e.g. cuts, fractures, mental health and stress-related events, drowning)	Low	Injury patterns can be strongly influenced by alcohol consumption. Risk may increase with venue crowd density and management by local officials. The risk of drowning is influenced by the presence of lifeguards, weather, tourist volume, fan behavior, swimming ability, and personal flotation device usage.
Environmental Health	Poor air quality due to wildfire smoke	Low	If an event occurs, the impact on population health is assessed as

			moderate, with possible morbidity and mortality, but no significant strain on health system capacity based on data from previous years.
<b>Low Likelihood / High Consequence Events</b>			
Chemical, Biological, Radiological, and Nuclear Threats	Bioterrorism agents High threat pathogens	Medium	Initial response plans, protocols and notification pathways have been refreshed, including clarifying roles and biocontainment unit activation.
Chemical, Biological, Radiological, and Nuclear Threats	Intentional food poisoning, chemical spills, gas leaks, etc.	Low	These are very low likelihood events but can impact spectators' and visitors' health and health system capacity.

## Other Provincial and National Public Health Risk Assessments

### Public Health Ontario Infectious Diseases at the FWC26 in Toronto Risk Assessment

Public Health Ontario's HIRA for the FWC26 identified an overall low to moderate infectious disease risk, with measles, COVID-19, and food and waterborne illnesses assessed as moderate risks and all other disease groups rated low. While the risk assessment methodology differs from those used by BCCDC, several key findings are broadly aligned. For further detail on Ontario's assessment and planning considerations, please refer to the full Public Health Ontario HIRA.<sup>8</sup>

### Importation of Infectious Disease Pathogens Related to the 2026 FIFA World Cup: Public Health Agency of Canada

The Public Health Agency of Canada (PHAC) undertook an assessment of the risk of infectious disease importation prior to and during FWC26 to augment provincial risk assessments conducted in the two Canadian host cities, Vancouver and Toronto.<sup>9</sup> In collaboration with local and provincial partners, 14 infectious disease pathogens were identified as posing a potential importation risk during FWC26. The assessment evaluated the likelihood of importation, potential impact, and overall public health risk associated with each identified pathogen.

The risk question was **“For each pathogen, what is the likelihood and impact of an infected international traveller entering Canada into a host city between May 24 and August 1, 2026?”** The overall risk of importation and transmission for most of the identified pathogens was low except for two: measles and mpox clade Ib. As noted above, BCCDC has assessed these pathogens as low risk primarily due to herd immunity in the Vancouver area where the FWC26 games will be held.

Figure 5. PHAC risk of infectious disease importation

#### Higher likelihood of importation and broader transmission

1. Measles virus (High Risk)
2. Mpox Clade Ib (Moderate Risk)

#### Lower likelihood of importation and/or broader transmission

3. *Corynebacterium* spp. (toxigenic strains causing diphtheria)
4. Hyperinvasive meningococcus
5. Poliovirus (wild & vaccine-derived)
6. Mpox Clade Ia

#### Very Low likelihood of importation and no/limited broader transmission

7. Crimean-Congo hemorrhagic fever virus
8. Lassa virus
9. MERS-CoV
10. Marburg virus
11. Ebola and Sudan virus
12. *Yersinia pestis* (pneumonic plague)
13. Avian influenza
14. Swine influenza
15. Nipah virus

## Conclusion

FWC26 represents a mass gathering event for British Columbia, characterized by large and highly mobile international populations, complex cross jurisdictional coordination, and a dynamic global health landscape. This provincial public health risk assessment identifies a range of potential health risks that may be associated with FWC26 and has provided a foundation for enhanced preparedness and response planning.

Overall, the assessment finds that most identified public health risks are low to moderate in likelihood and impact, with existing public health systems and surveillance capacity expected to be sufficient to manage routine risks. Moderate risks are primarily associated with enteric infections, respiratory viruses, substance use–related harms, heat-related illness, and transport-related injuries, reflecting the anticipated impacts of increased population density, social activity, and seasonal environmental conditions. While these risks are not unique to FWC26, the scale of the event may amplify their impacts.

In addition, the assessment highlights the importance of maintaining vigilance for low-probability, high-consequence events, including emerging pathogens and chemical, biological, radiological, and nuclear (CBRN) threats. Although unlikely, these scenarios have the potential to significantly impact population health and system capacity, underscoring the need for robust detection, reporting, and escalation mechanisms.

Findings from this assessment are broadly aligned with other provincial and national risk assessments, reinforcing confidence in a shared understanding of key public health risks associated with FWC26. However, the absence of dedicated additional resources and formalized preparedness frameworks, as seen in previous large-scale events, emphasizes the importance of leveraging existing systems, enhancing situational awareness, and strengthening inter-agency coordination.

As planning for FWC26 is ongoing, this risk assessment is considered a living document, with ongoing updates informed by evolving epidemiological trends, environmental conditions, and global health risks. Continued collaboration across local, provincial, national, and international partners will be critical to ensuring a coordinated, evidence-informed public health response.

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