

Background

On April 8, 2024, parts of Southern and Eastern Ontario will experience a total solar eclipse. A solar eclipse occurs when the moon passes between the sun and the earth. The sun's disk is partially or fully obscured from sight by the moon, rendering the day into momentary darkness.

The Path of Totality (a narrow path approximately 100-115 km wide where the sun appears to be completely covered by the moon) will cross over several areas along the shoreline of Lakes Erie and Ontario, including Leamington, Port Burwell, Port Dover, all of Niagara Region, Hamilton, Belleville, Kingston, and Cornwall. The rest of Ontario will still be able to observe a partial eclipse and will require eclipse glasses to view it safely.

Health Hazards Identification and Risk Assessment (HIRA), Awareness and Surveillance

The Health System Emergency Management Branch (HSEMB) has developed an event-specific HIRA for the 2024 solar eclipse event based on known key event characteristics and other contextual information. As more information emerges about the event, the final HIRA may change. This HIRA applies to health system planning at the provincial level. Local risks and impacts may vary based on proximity to the Path of Totality and other unique considerations.

The following grading scales have been developed to determine the likelihood and impacts of certain hazards occurring and impacting the health system:

Likelihood	Description
Rare	Hazards that are unrelated to the eclipse
Very Unlikely	Very unlikely to occur (e.g., out of season)
Possible	Could occur but unlikely due to mitigating factors.
Likely	Likely to occur during the eclipse (based on experience from other jurisdictions/seasonality)
Very Likely	Expected to occur during the eclipse (based on experience from other jurisdictions/seasonality)

Impact	Description
Low	Isolated, minor impacts. Managed within the organization.
Moderate	Some support required, such as with logistics or coordination of resources.

High	Significant response required. Coordination of many resources, MEOC activated.
Very High	Large, complex emergency response possible. Multiple health system partners involved in response. Long recovery period likely.
Severe	Large, complex emergency response required. Many health system partners involved in response. Long recovery period expected.

Risk Assessment Matrix:

		Likelihood				
		Rare	Very Unlikely	Possible	Likely to Happen	Very Likely to Happen
Severity	Severe					
	Very High					
	High			Telecoms outage		
	Moderate			HHR Concerns	Road Congestion	
	Low		Flood hosting	Eye Injuries		

Low risk
 Moderate risk
 High risk

Telecommunications Outage – some concerns that telecoms will be impacted due to mass gatherings. In particular there are concerns around impact to 911 and emergency dispatch services.

- Ministry of Public and Business Service Delivery is working with municipalities and Telcos to address concerns and explore backup network options. HSEMB is engaging with program areas within the Ministry of Health to discuss this risk and explore mitigation options.

Health Human Resources (HHR) concerns – as several school boards have moved Professional Activity (PA) days, there is a potential impact on HHR for health system staff with young children. Additionally, there are some concerns with staff attending work on time due to road congestion.

- Health system partners are encouraged to plan for staffing on April 8 with these considerations in mind.

Road Congestion Impacts – congested roads may have an impact on several services including Emergency Medical Services (EMS) routes and access to home care patients.

- Ministry of Health (MOH) has partnered with Ontario Health to determine what regional planning is occurring to mitigate the impact of road congestion. Several municipalities are planning for strategic placement of EMS during the event.

Eye Injuries – Health impacts from looking at the eclipse improperly include retinal burns, blurred vision, and loss of eyesight (immediate or delayed). May see an influx of patients with eye damage in the hours/days following the eclipse.

- MOH has drafted key messaging focusing on eye safety, based on a literature review conducted by Public Health Ontario. Messaging on how to view the eclipse safely, and how/when to seek care if there are concerns about eye damage has been provided to Health811. MOH is also planning a social media campaign focused on viewing the eclipse safely.

Flood Hosting – Several municipalities that have historically been used to host flood evacuees (e.g., Niagara) may not be able to host if an evacuation is required around April 8. Many municipalities already have hotels fully booked around the time of the eclipse. If any of these areas are used to host evacuees at the same time as the eclipse, then health services may be further strained.

- MOH (via HSEMB) is engaged with Emergency Management Ontario to ensure planning efforts for flood evacuees take into account the solar eclipse. The likelihood of this risk occurring is low as many of these communities are not confirmed as host communities and the Provincial Emergency Operations Centre is aware they should be avoided for the period of the eclipse.