July 21, 2020

Dear Community Leaders and Staff Members,

**RE: Preparation for Extreme Heat and Wildfire Smoke**

The probabilistic temperature forecast from Environment Canada indicates the southern interior of B.C. will face above normal temperatures this summer[1]. Interior Health has compiled some information that can help communities prevent and reduce the negative health impacts of extreme heat while also complying with public health recommendations to prevent the spread of COVID-19 in your community.

## Heat and Health

Climate change has led to overall temperature increases and consequently, several communities in the B.C. Interior are at risk for extreme heat events[2]. Extreme heat events can have serious negative effects on health. Community and individual action can reduce the health impacts of heat. The information below may help identify some opportunities to integrate heat and wildfire-related precautions into your organizational activities.

Environment and Climate Change Canada defines an **extreme heat event** for the Interior of B.C. as two or more consecutive days with temperatures greater than or equal to 35°C, with minimum overnight temperatures greater than or equal to 18°C. Additional factors, such as high humidity, lack of wind and exposure to direct sunlight can compound stress on the body. Further, the number of days heat lasts can exacerbate harm caused by extreme heat; the strain on the body increases as heat days extend. Also, some individuals and groups are more susceptible than others.

## Those at Higher Risk to Health Impacts of Heat

- Older adults
- People with chronic poor health, heart problems or breathing difficulties
- People on certain medications
- People who live alone or are socially isolated, homeless or unsheltered
- Infants and children
- People who are physically active outdoors or work outdoors
- People wearing personal protective equipment (PPE) in places not temperature controlled

It is important to know that everyone can be affected by extreme heat and can suffer from **heat illness** or the more serious state of **heat stroke.** Planning for the heat season and taking action when the weather gets hot is the best way to stay healthy.

## Prepare for the Heat Season

Supporting community members to utilize cooler outdoor spaces can be helpful. Outdoor spaces that have protection from the sun can also enable physical distancing. Your organization can promote cooler outdoor areas in the community such as large parks near to water with shade trees. Signage on physical distancing should be displayed to remind people of precautions to reduce spread of COVID-19.

[1] https://weather.gc.ca/saisons/image_e.html?img=s234pfe1t_m1_cal&bc=prob (accessed June 22, 2020)

[2] IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp 1132.

INTERIOR HEALTH
Office of the Medical Health Officers
505 Doyle Avenue
Kelowna, BC V1Y 0C5

Individuals can also take action in their own homes to stay cool in the heat. Air conditioning, if available, can be used to keep indoor space cool. Also, keeping blinds closed during the day, spending time in the coolest areas of the home and using fans can help prevent overheating. Staying hydrated by drinking enough water is also important. Neighbours, friends and relatives should check on people who are the most vulnerable with phone, video or in-person visits using physical distancing precautions and PPE where appropriate. Special attention should be given to those who are unable to leave their home due to illness or disability.

## Heat Information Resources

The Global Heat Health Information Network has developed an excellent planning checklist for heat preparation during the COVID-19 pandemic. The links below contain additional information to help individuals and communities manage health impacts of extreme heat.

| Heat & Health – COVID-19 | Heat & Health - General | Heat Alert & Response Planning |
|---|---|---|
| BC Centre for Disease Control: Warm weather safety in a time of COVID-19 | HealthLink BC's Beat the Heat Webpage | Heat Alert & Response Planning for Interior BC Communities: A Toolkit |
| Global Heat Health Information Network: Heat and COVID-19 Information Series | Health Canada Fact sheets: Staying healthy in the heat | BC Centre for Disease Control: Developing a Municipal Heat Response Plan: A Guide for Medium Sized Municipalities |

## Wildfires, Smoke Pollution and Health

Wildfires can occur during heat season due to lack of rain and hot temperatures that dry up vegetation. This can lead to smoke pollution and present further challenges for people with respiratory infections. Exposure to air pollution can irritate the lungs, cause inflammation, and alter immune function, making it more difficult to fight respiratory infections such as COVID-19 [1]. Wildfire smoke can also lead to worsening of heart and lung disease.

## Wildfire Smoke Is a Higher Risk for Some Individuals

The length of exposure to wildfire smoke, as well as a person's age and underlying health conditions, determine the health impact. Children, older adults and those with respiratory conditions or other chronic illness are at higher risk from the effects of wildfire smoke. Reducing exposure to wildfire smoke is the best way to protect health.

## Prepare for Wildfire Smoke

Individuals may be able to take action in their homes to reduce smoke exposure. Portable air cleaners can be used and work the best when run continuously with doors and windows closed. Doors and windows should be kept closed **when possible.** Air conditioners set to re-circulate minimize the amount of smoke that enters the home. People should limit time outside when skies are smoky.

A **clean air shelter** is a room, area, or building that has an air filtration system that reduces the amount of pollution from wildfire smoke. Community clean air shelters that are normally available to the public may be less accessible with the physical distancing guidelines related to the COVID-19 pandemic. Public facilities with clean air such as libraries, community centres and shopping malls may be closed, operating with reduced hours or limiting the number of people who can enter.

[1] http://www.bccdc.ca/health-info/diseases-conditions/covid-19/prevention-risks/wildfires (accessed June 22, 2020)

Community members who are experiencing homelessness or who do not have a home to spend the day in may require additional support when there is wildfire smoke. Planning for clean air shelters that allow for appropriate physical distancing may be needed for this vulnerable population.

Wildfire smoke is an important consideration when planning the small outdoor community events that are permissible during the COVID-19 pandemic. When possible, identification of an alternate indoor 'clean air space' location is ideal. If an indoor clean air space is identified, precautions to reduce spread of COVID-19 will be necessary (i.e. limiting the number of people to permit physical distancing). When wildfire smoke is present, the risk to attendees at outdoor events can be reduced by shortening the length of the event (i.e. reduced game time, shorten lesson/presentation/concert). Event organizers and coaches should be aware that people react differently to smoke and should pay special attention to younger, older and/or participants with respiratory or chronic illness.

## Smoke Information Resources

The links below describe some actions that your organization and community members can take to stay healthy during wildfire smoke events.

| Wildfire & Health – COVID-19 | Wildfire & Health - General |
|---|---|
| BC Centre for Disease Control:<br>Wildfire smoke safety in a time of COVID-19 | HealthLink BC prepare before during and after a wildfire:<br>Wildfires and Your Health |
| BC Centre for Disease Control:<br>Fact Sheet: Wildfire Smoke & COVID-19 | BC Centre for Disease Control fact sheet series:<br>Wildfire Smoke Response Planning<br><br>Interior Health<br>Emergency Information Wildfires Page |

It is important to anticipate natural events and consider the role your organization can play to support community members to stay healthy. It is also important to emphasize that heat-related illness can be a greater immediate threat to health than poor air quality. We urge you to consider the information enclosed in your organizational planning and post information for the public to help increase awareness of potential health risks and how to mitigate.

Sincerely,

Dr. Sue Pollock
Interim Chief Medical Health Officer

Dr. Carol Fenton
Medical Health Officer

Dr. Kamran Golmohammadi
Medical Health Officer

Dr. Karin Goodison
Medical Health Officer

Dr. Silvina Mema
Medical Health Officer