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NEWSLETTER
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Health considerations: Climate Change and Hotter, Drier Summers

Climate change is having numerous impacts on our communities. Hotter, drier summers bring extreme heat, wild fire and drought. The number of individuals presenting to clinical care with ailments directly caused, or aggravated by, climate change is rising. Public health and community based physicians can work together to support the most vulnerable and to lessen poor health outcomes.

Heat

Island Health had 48 heat-related deaths from June 25 - July 1, 2021. [The heat dome overwhelmed BC Emergency Health Services, emergency rooms and BC Coroners Service](#). The [BC Coroners Service reported](#) that 69% of deaths were in those over 70 years and 96% occurred in a residential setting.

A [BC Heat Alert Response System \(HARS\)](#) is being launched in 2022 to alert the public of heat risk through an organized communication system. The ultimate objective of a HARS is to increase community resilience to extreme heat and develop actions that are most effective in reducing heat-health risks, especially for those who are most vulnerable. Community based physicians can help reduce heat-health risks through means such as listed below:

<u>Identify high risk patients who have/are</u>	<u>Recommendations to reduce heat-health risk</u>
• Severe mental illness	Encourage patients to have at least 2 weeks of medications
• Addiction	Encourage patients to follow heat alerts at WeatherCAN
• Multiple health conditions, especially comorbid diabetes	Consider signing patient up for Community Virtual Care
• People who are socially isolated	Encourage patients to stay hydrated AND monitor indoor temperatures
• Older people who live alone	Inform patients of means to be cooler within the home, i.e. turn on air conditioning, shading/closing windows, moving to basement level
	Inform patients if there is no way to cool the inside of the home to relocate to another cooler location (mall, public library, community centre) or outside
	Educate patients on symptoms of heat illness and dehydration AND when to seek medical care

Notes:

1. Some medications may increase extreme heat impacts – [Health Canada Fact Sheet](#)
2. Use of multiple fans strategically can move cooler air into the home overnight, if outside temperatures are lower. Fans alone cannot lower core body temperatures for older people.
3. [ICD-9 Codes for Heat-Related Illness](#) are 992 (992.0-992.8)

Wildfire Smoke

The Island Region has largely been spared the devastating direct impacts of wildfires, but there is the constant threat of wildfire and wildfire smoke when warmer, drier weather arrives. [Wildfire smoke carries harmful small particulate matter \(PM 2.5\) which travels deep into the lung, causing irritation and exacerbating respiratory conditions,](#) and across the alveoli potentially causing vascular events. [PM2.5, in a dose dependent manner, also increase the risk of dysrhythmia, heart attack and stroke, so patients with or at high risk of cardiovascular disease should exercise particular caution at time of poor air quality, and be vigilant to present for evaluation should concerning symptoms arise.](#)

Over the last decade a [BC Health and Smoke Exposure Coordination Committee](#) has coordinated planning and response efforts related to public health impacts for significant wildfire smoke events. Community based physicians can help lessen wildfire smoke-health risks through means such as those listed below:

Identify high risk patients who are	Recommendations to reduce wildfire smoke-health risk
• Infants	Encourage patients to have at least 2 weeks of medications
• Small children	Encourage patients to follow local air quality data at Air Quality Health Index (AQHI) .
• Older adults	Consider signing patient up for Community Virtual Care
• Pregnant women	When the AQHI is at high levels:
• People with asthma, COPD, heart disease, diabetes, chronic kidney disease	<ul style="list-style-type: none">• Encourage patients to stay indoors and reduce outside activities, especially high-intensity exercising• If patients must be outside, share that well-fitted and properly worn respirators such as the N95 mask can reduce smoke inhalation risks. Properly worn 3-ply masks offer some benefit as well, while bandanas, cloth masks, and clothing do not have any effect on reducing smoke inhalation.
	Ensure patients have up-to-date care plans for pulmonary and cardiac symptom exacerbations
	Provide clear indications on when to seek medical care
	Educate patients to protect their indoor air quality with portable air cleaners such as HEPA filters or homemade box fan air filters

[Concurrent Wildfire Smoke and Heat](#)

Where patients live in air-conditioned environments, it is advisable to keep doors and windows closed and air conditioning units on. Setting air-conditioning units to recirculate will reduce poor air quality from entering the indoor space. In the absence of air-conditioning it may not be safe for patients to remain inside with doors and windows closed. Instead, patients should seek locations that offer cool, clean air or a family member or friend that can offer cooler accommodations.

Climate Change and Mental Health

Living through an extreme weather event or dealing with uncertainty about the future can affect mental health with increases in anxiety, depression, post-traumatic stress disorder and suicide ideation. Added stress can lead to increase in substance use and relationship conflict. Discuss the impact of climate change with your patients. Support with stress reduction strategies and referrals to mental health practitioners can help improve their well-being.



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