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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 family practices and emergency rooms with ailments directly caused, or aggravated by, climate change is rising. Public health and community based health care practitioners 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 98% of deaths occurred indoors and 67% were in those over 70 years. In 2022 BC had 16 deaths attributed to the extended period of heat from July 23 to August 3rd.

A [BC Heat Alert Response System \(HARS\)](#) was launched in 2022 to alert the public of heat risk through an organized communication system. The goal of HARS is to increase community resilience to extreme heat and develop the most effective actions in reducing heat-health risks, especially for those most vulnerable. Community based health care practitioners can help reduce heat-health risks by:

Identify high risk patients who have/are:	Recommending heat-health risk reduction strategies
<ul style="list-style-type: none"> Severe mental illness Addiction Multiple health conditions, especially comorbid diabetes People who are socially isolated Older people who live alone Work outside 	Encourage patients to have at least 2 weeks of medications
	Encourage patients to follow heat alerts at WeatherCAN
	Consider signing patient up for Community Virtual Care
	Encourage patients to stay hydrated AND monitor indoor temperatures
	Inform patients of means to be cooler within the home, apartment/condo , 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 a 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: <ol style="list-style-type: none"> Some medications may increase extreme heat impacts – Health Canada Fact Sheet 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. ICD-9 Codes for Heat-Related Illness are 992 (992.0-992.8) 	

Wildfire Smoke

The Island Region is becoming more familiar with the devastating impacts of wildfires. When warmer, drier weather arrives there is a constant threat of wildfire and wildfire smoke. [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. [PM_{2.5}, 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 providers can help lessen wildfire smoke-health risks by:

Identify high risk patients who are	Recommending wildfire smoke-health risk reduction strategies
<ul style="list-style-type: none"> • Infants • Small children • Older adults • Pregnant people • People with asthma, COPD, heart disease, diabetes, chronic kidney disease 	Encourage patients to have at least 2 weeks of medications
	Encourage patients to follow local air quality data at Air Quality Health Index (AQHI) .
	Consider signing patient up for Community Virtual Care
	When the AQHI is at high levels: <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: <ul style="list-style-type: none"> ○ well-fitted and properly worn respirators such as the N95 mask can reduce smoke inhalation risks, but are not appropriate for all patients ○ properly worn 3-ply masks offer some benefit
	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 with 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 an 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 well-being.