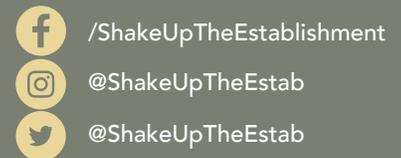


Climate Change: A Public Health Crisis

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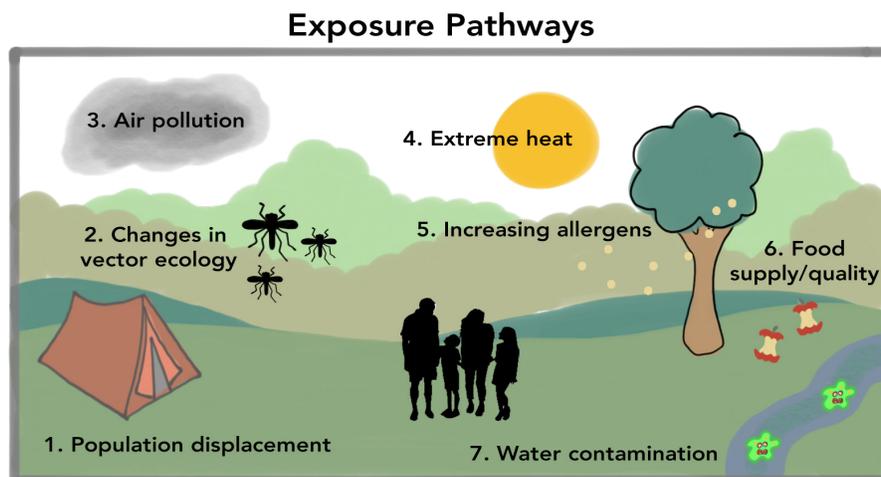


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As humans, climate change is often thought of as a phenomenon occurring around us, rather than directly to us. While it may not be easy to see a clear link between climate change and health outcomes, the evidence outlining dangers to humans is overwhelming. According to leading doctors and researchers, a lack of climate action will lead to a disruption of our public health services and have disastrous consequences for the future health of all Canadians (1).

As the climate warms, we will see an increase in extreme heat or cold events, natural disasters (e.g. flooding and wildfires), infectious diseases, and contamination of water and food (2). This will many risks to our population, including adverse mental health outcomes, decreased fertility, and more (3). We will see higher frequencies of heat stroke with increasing temperature, worsening of allergies due to more intense/longer pollen seasons, mass displacement of



Illustrated by Chloe Graham

Figure 1. Health consequences of climate change include higher frequencies of heat stroke with increasing temperature, worsening of allergies due to more intense/longer pollen seasons, mass displacement of individuals and families after natural disasters, and higher transmission of vector- and water-borne illnesses including dengue virus, cholera, and malaria (1).

individuals and families after natural disasters, and facilitated transmission of vector- and water-borne illnesses including dengue virus, cholera, and malaria (1). Further still, our diets will be affected when climate-related weather events impact crop yield, upsetting our food production process and the availability of produce (1).

However, rising temperatures are only part of the problem. Air pollution, even at low levels, can lead to disease, increased hospitalizations, and even death, with most of these effects being associated with components of “smog” (predominantly carbon monoxide, fine particulate matter, nitrogen dioxide, ozone and sulphur dioxide) (4). This can worsen the effects of both respiratory illnesses such as asthma and lung cancer, and cardiovascular conditions, such as heart attacks. Furthermore, prolonged exposure to air pollution can increase one’s risk of stroke (4). The Government of Canada estimates that as of 2019, 14,400 premature deaths occur each year from conditions relating to air pollution - a number that is expected to grow under a ‘business as usual’ scenario (4).

Unsurprisingly, mental health problems, such as anxiety, depression, post-traumatic stress disorder, and substance abuse have been reported to increase in Canadian communities affected by disasters (5, 1). For example, studies have reported generalized anxiety disorder was elevated in individuals after

the Fort McMurray wildfires in 2016 - an event deemed the most expensive disaster in Canadian history (5). Further, in the region surrounding Yellowknife, it was found that after prolonged smoke and fire exposure in 2014, the population had two-times higher rates of emergency department visits for asthma, along with self-reported feelings of isolation, fear, loss of connection to the land and to traditional summertime activities, decrease in physical activity and a feeling of grief regarding the environment (1).

Definition

Eco-Grief

/ee-koh greef/

The grief experienced in relation to experienced or anticipated ecological losses.

Source: Cunsolo A, Ellis N. Ecological grief as a mental health response to climate change-related loss. *Nature Climate Change*. 2018;8(4):275-281.

While our current healthcare system has the capacity to adapt to the increased health risks, a rapidly changing climate will create a huge rise in health crises in our country. We must work together to make real progress in preventing and controlling further climate change, or risk threatening millions of human lives.

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