

# Extreme heat events are public health emergencies

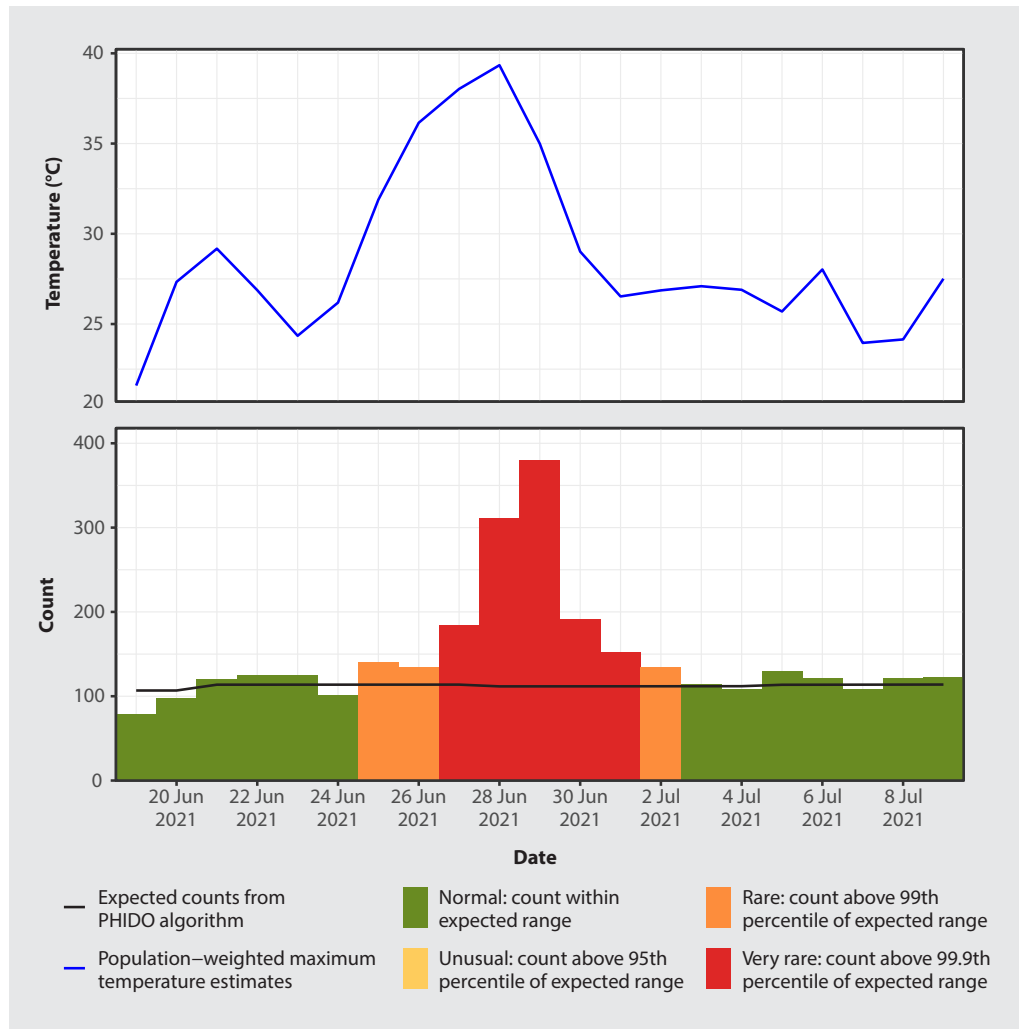
The average number of deaths per day in British Columbia is 110, ranging from 90 to 130 most days. On 29 June 2021, 380 people died across the province [Figure]. There were 1630 deaths in the 8 days from 25 June to 2 July, about 740 more than would be expected in a normal summer.

**People died because it was too hot *inside*, not because it was too hot outside.**

There is often a misperception that extreme heat is most dangerous for the very frail who are already near death, a group particularly impacted by the historic European heat wave in 2003.<sup>1</sup> However, we found that mortality during the 2021 heat dome doubled in every age group over 50, and we observed no decrease in mortality following the end of the hot weather [Figure]. This suggests that high temperatures simply killed hundreds of people who would probably still be alive had the weather conditions been more typical.

Many of these deaths will be further investigated by the BC Coroners Service (BCCS) in the months ahead.<sup>2</sup> We already know from preliminary analyses of data from BC Vital Statistics that most of the excess deaths occurred in residential settings, although there were increases in deaths in hospitals and long-term care facilities as well. Many of the deaths in individual residences occurred in neighborhoods with lower socioeconomic status, where

*This article is the opinion of the BC Centre for Disease Control and has not been peer reviewed by the BCMJ Editorial Board.*



**FIGURE.** Time series of population-weighted maximum daily temperatures in British Columbia before, during, and after the heat dome (top) shown with daily counts of all-cause mortality across the province (bottom). The bars on the bottom are colored according to their deviation from expected values using the Public Health Intelligence for Disease Outbreak (PHIDO) algorithm used by the BCCDC for anomaly detection.

more people live alone and where there is less protection provided by surrounding greenery.

Internet-connected thermostats in some homes without air conditioning recorded indoor temperatures of nearly 40 °C.<sup>3</sup> People died because it was too hot *inside*, not because it was too hot outside. Based on prior evidence, investigations by the BCCS are likely to find

that many of these people were socially isolated, which has been exacerbated during the pandemic, with physical and mental health conditions that affected their ability to take protective measures.

In total, the 2021 heat dome was associated with 740 excess deaths in British Columbia, and more in Alberta.<sup>4</sup> This makes it comparable with

the 1936 heat wave in Ontario and Manitoba, during which at least 780 people died.<sup>5</sup> In more recent years, the 2010 heat wave in Quebec was associated with 280 excess deaths.<sup>6</sup> Together, these are three of the most deadly weather events in Canadian history. We have ample evidence that heat waves cause mass casualties in Canada and that they will become more frequent and more intense as the climate changes.<sup>7</sup> We must develop and resource the systems necessary to recognize and respond to extreme heat events as public health emergencies. ■

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## Life insurance: How much do I really need?

When speaking with our members about life insurance, I am often asked, “How much do I really need?” That depends on a few key areas of consideration, and there is no one-size-fits-all approach. An experienced advisor can walk you through your specific situation and will generally look at the following areas:

### Primary capital needs

These are outstanding debts such as a mortgage and/or line of credit. Many of our members are the primary income earner for their family. If they pass away, they want all debt paid in full to ensure their surviving family can remain in the family home and not be forced to sell or deplete retirement savings to maintain mortgage payments.

### Secondary capital needs

These include money to cover the cost of dependants' postsecondary education, charitable bequests, and final expenses, including burial, final tax filings, and legal fees to settle your estate.

## Income replacement

This discussion is highly individualized, based on a person's situation and comfort level with risk. If your spouse works outside the family home, is their income enough to cover living expenses for the surviving family after all debts are paid off? The amount needed will vary based on their lifestyle and the age of any children. If there are no dependants, then the income replacement need may be minimal.

Once the appropriate coverage has been determined, Doctors of BC offers our physician members up to \$5 million of group term life insurance at highly competitive rates. We are also able to offer individual policies through several major Canadian insurers.

How often should you review your life insurance? If it has been several years since you last reviewed or made changes to your insurance, please review your beneficiary details to ensure they accurately reflect your intentions. It's an unhappy surprise for your heirs to find out after your death that your list of beneficiaries is out of date.

If you have questions and want to discuss your personal life insurance requirements, please speak with a noncommissioned, licensed

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