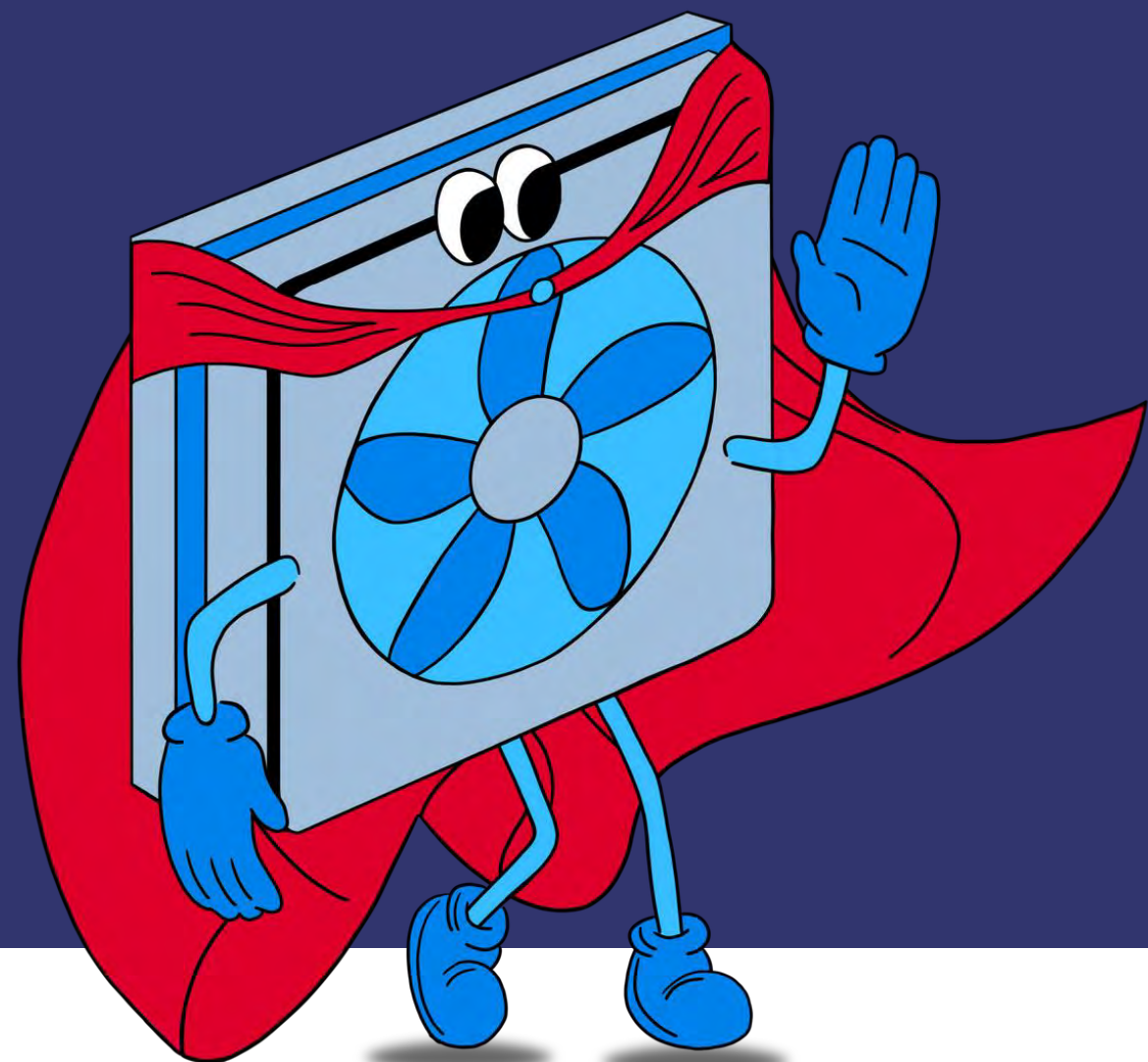


THE BREATHE PROJECT



Addressing Extreme Heat and Wildfire
Smoke in BC

Dr. Anne-Marie Nicol | Associate Professor, Simon Fraser
University



Extreme Heat and Smoke Distribution by Region- BC 2010-2022

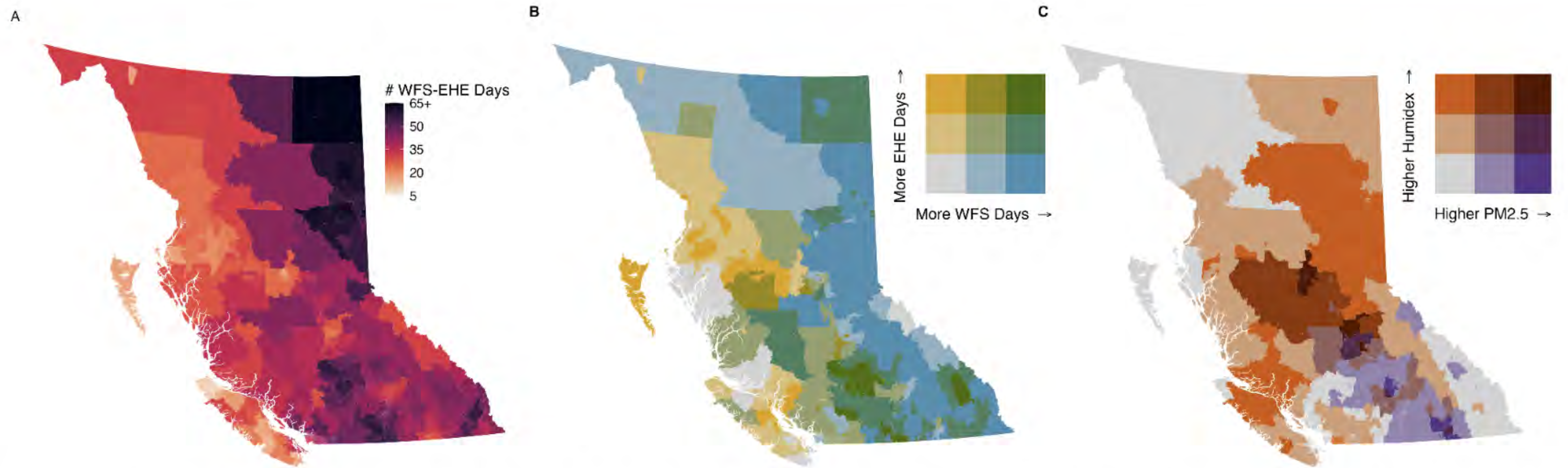


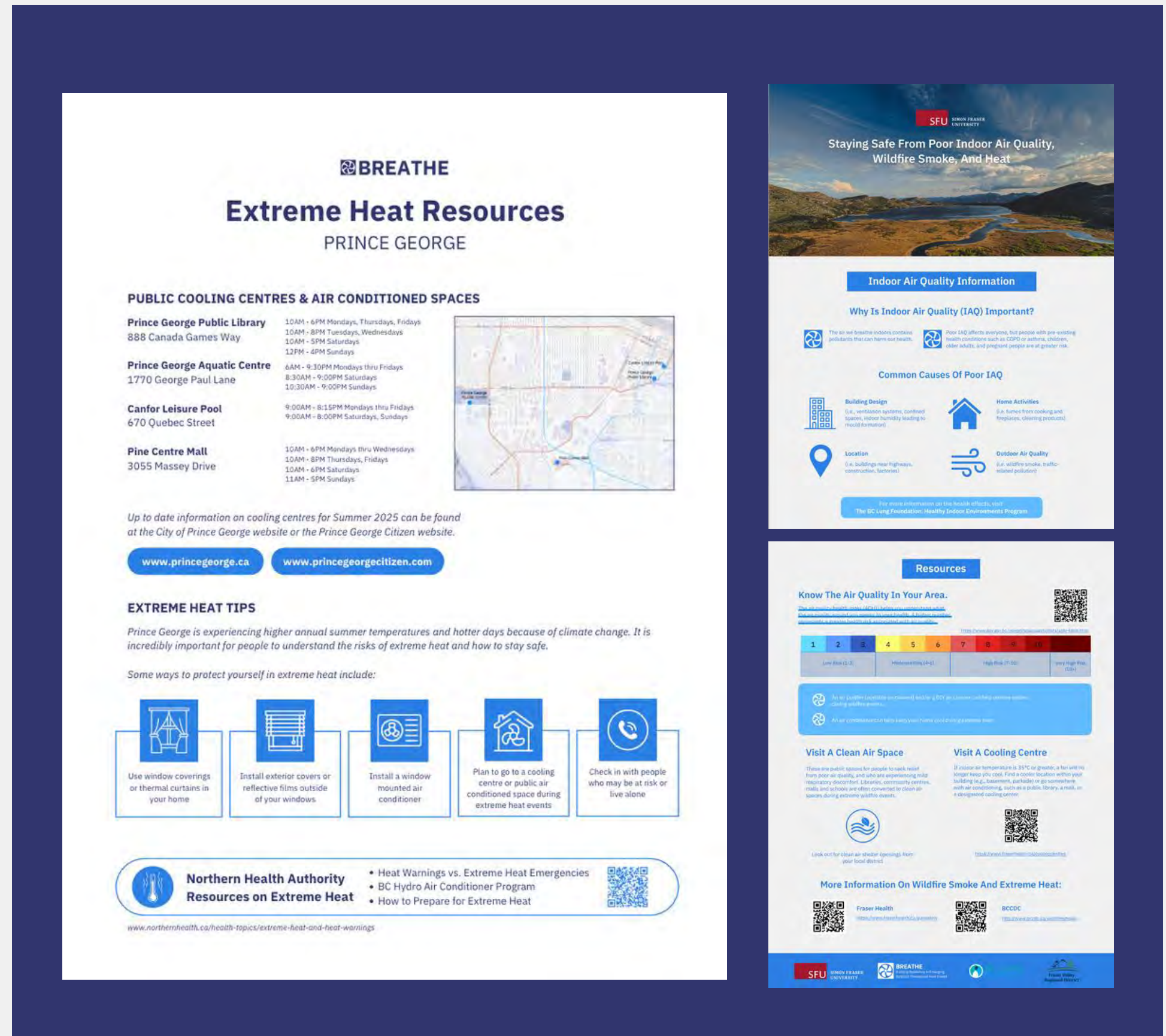
Figure 3. (A) Total number of co-occurring wildfire smoke (WFS)-extreme heat event (EHE) days, (B) total number of WFS and EHE days, and (C) average maximum humidex and PM_{2.5} exceedances on WFS-EHE days. Results shown for all dissemination areas in British Columbia, 2010–2022. Break points for maps (B) and (C) were selected using the Fisher–Jenks natural breaks classification method.

Extreme Heat Resources

We compile local and province-wide resources for BREATHE workshop participants related to dealing with extreme heat events.

These resource documents typically reference information such as:

- Cooling centres
- Methods to keep your living space and yourself cool in high temperatures
- How to stay active in extreme heat and smoke events



Examples of resource documents made for Prince George and Fraser Valley Health regions.

Extreme Heat Resources

We advise BREATHE Workshop participants that the air cleaners are not intended as a solution for extreme heat events.

- The effectiveness of the fan for cooling is diminished by the attachment of the filter.
- They cannot be put in windows to act as a window air conditioner / air cleaner unit.

Extreme Heat Event Resources

It is important to note that DIY Air Cleaners are designed only to clean air. Although they use fans, they do not help with cooling and are not a solution for Extreme heat events. For more information on extreme heat, please visit the BC CDC's Preparing for Extreme Heat Resource page below.

[BE PREPARED FOR EXTREME HEAT EVENTS](#)



We provide BC CDC resources on our website

Lay perception of Extreme Heat?

Do Canadians understand extreme heat to be a health risk?

Limited Canadian dataset:


- Tatzloff et al. 2025- Older adults tended to not perceived themselves to be at risk from extreme heat (online survey)
- Valois et al. 2020- Risk perception and perception of *controllable factors* related to protective behaviors for seniors in Quebec
- Small Ontario study (Hansen 2011) found that lower income seniors less likely to acknowledge risk from extreme heat due to concerns around personal autonomy

Building Resilience: Proposed Pilot Study on Indoor Temperature Monitoring and Behaviour Change in Older Adults

Does knowing indoor temperatures influence behaviors around extreme heat?

Proposed study:

- Recruit seniors (40) without air conditioning
- Provide indoor thermometers
 - Temperature monitoring card to note # of days above 26°C
- Follow over summer, interview at end

 **BREATHE**

Building Resilience: A Pilot Study on Indoor Temperature Monitoring and Behaviour Change in Older Adults

I will check my **indoor temperature** using my **BREATHE thermometer** daily at

Fill in a box below for each day that is **26°C or higher**:

Sample of the temperature tracking sheet for New Westminster Seniors