

Empowering Communities to Improve Indoor Air Quality: An Intervention During the 2023 Firesmoke Season

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Climate change is increasing the severity and frequency of wildfires in British Columbia, worsening air quality indoors. In our recent qualitative analysis, wildfire smoke is a tangible source of climate anxiety. This project aimed to develop and pilot a series of free workshops that taught participants how to build do-it-yourself (DIY) air cleaners. Participants included those at greater risk from exposure to fire smoke, including older adults (>65 years old), expecting mothers, those with pre-existing lung conditions, and those living in poorly ventilated homes.

Throughout the summer months of 2023, twenty-five workshops were held, resulting in over 500 DIY air cleaners created. The workshops occurred in two health regions within British Columbia – Fraser Health and Vancouver Coastal Health. Of those who participated, 60% disclosed that they had pre-existing medical conditions, with lung conditions being the most prevalent. Additionally, 43% of workshop participants were greater than or equal to 70 years old. 70% of the workshops were conducted in English, while 30% were live translated into Chinese.

Recent evidence has shown that personal adaptation actions for climate risk can be useful for coping with climate anxiety (Fyke and Weaver, 2020). Using DIY air cleaners as a tool for preparedness allows participants to take agency of their indoor air quality in an accessible manner. DIY air cleaners help participants to mitigate climate anxiety and reduce health risks associated with wildfire smoke. The high demand for these workshops has shown increased wildfire smoke-related climate anxiety for communities throughout British Columbia. The positive response from the workshops and the number of attendees interested showcases the large potential to be resilient to extreme climate events.

The project successfully reached the target populations, and the large participation demand indicated a keen interest in air cleaner technology. Workshop methods and responses from our exit and follow-up survey will inform an open-source manual for public health practitioners and researchers to use, in addition to scaling up the project to wildfire-prone areas to increase emergency preparedness and reduce climate anxiety. The foundation of our work in 2023 has led to an increase in our capacity to reach communities throughout BC, with additional partnerships with public health officials and emergency management teams in place for 2024.

References

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