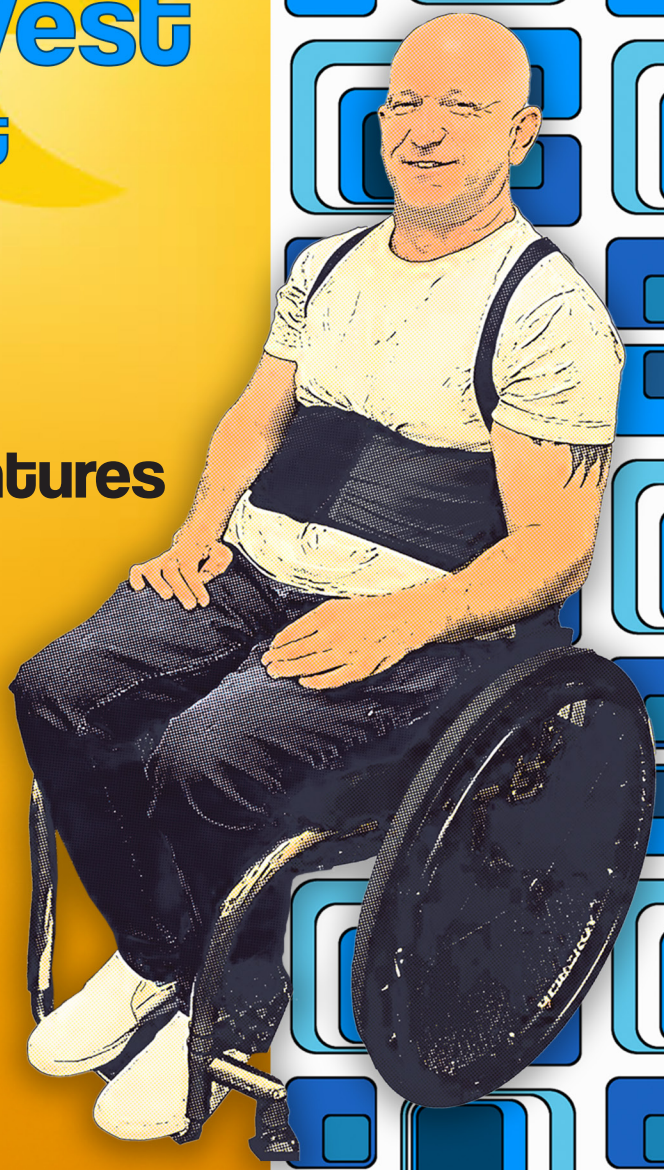
Beat the heat

Wear a Cooling Vest

Indoors and Out



Adapting to Rising Temperatures

Insights from an accessible cooling initiative

August 2024

Report produced by

technology for living

Introduction

This report synthesizes feedback from participants regarding their experiences with accessible cooling solutions, particularly focusing on cooling vests. The findings are intended to inform policy recommendations for the City of Vancouver (CoV) and C40, enhancing strategies for adaptive technologies in response to heat challenges. Drawing on the lived experiences of individuals with disabilities and Technology for Living's (TFL) ongoing work, this report offers insights into the effectiveness, challenges, and areas for improvement in cooling solutions.

Communication Strategies

To ensure broad awareness and participation in the project, a multi-faceted outreach strategy was implemented:

Print Materials

- Postcards: 250 copies distributed by Respiratory Therapists, Biomedical Engineers, peer staff, and other mobile staff.
- Posters: 50 copies placed in strategic locations such as Cambie Gardens, GF Strong, and doctor's offices.
- Instruction Cards: 100 cards detailing how to wear the cooling vests.
- Information Sheets: 100 sheets about the cooling vests and the campaign, inserted into vests before distribution.

Digital Marketing

- Email Marketing: MailChimp campaign sent on June 28 and July 12.
- Custom email insert: Distributed around July 1 to a specialized contact list.
- Facebook: Pinned post and boosted 3 times (June 28, July 12, July 22).
- Instagram: Reposted 3 times (June 28, July 12, July 22).
- X (formerly Twitter): Reposted 3 times (June 28, July 12, July 22).
- Website: Campaign information posted on TFL's website.
- Online Newsletter: Featured in SCI BC online newsletter on June 25.

This comprehensive outreach strategy effectively spread awareness about the project, reaching a wide range of potential participants and contributing to the high demand for cooling vests. *See outreach samples on last page of this report.*

Implementation and Outreach

The project saw a high demand, with 125 eligible participants applying within the first two weeks of promotion. Initially, 75 cooling vests were to be distributed, but due to overwhelming interest, the City of Vancouver provided an additional 50 vests. This demand underscores the need for similar projects across municipalities. Outreach efforts included distributing thirty-one posters to medical offices and walk-in clinics throughout Vancouver and featuring flyers in the Disability Foundation and SCI BC's July newsletters. Despite logistical challenges, such as the return of roughly 10 vests due to delivery issues, most were successfully redistributed.

Key Findings

Lack of Mechanical Cooling

A significant number of participants reported not having access to mechanical cooling systems such as air conditioning or heat pumps in their homes. This lack of access is particularly concerning for individuals with pre-existing health conditions, mental illnesses, or limited mobility, who are more vulnerable to heat-related health risks. Policies should prioritize facilitating access to affordable cooling technologies for these groups.

> "I like having a cooling method that I can wear. It also is quite comfortable to wear and not too cold."
>
> *Recipient quote*

Health and Mobility Challenges

Participants frequently highlighted their struggles with health conditions like diabetes, heart disease, and respiratory issues, as well as mobility limitations due to conditions such as multiple sclerosis and paralysis. These challenges exacerbate the effects of heat, emphasizing the need for targeted interventions in municipal heat plans.

> "It allowed me to be able to do *something* rather than nothing that I normally have to do in hot weather due to multiple sclerosis."
>
> *Recipient quote*

Mental Health Considerations

Many respondents mentioned mental health challenges, including schizophrenia, depression, and anxiety, which can be worsened by heat stress. Integrating mental health considerations into cooling strategies is essential for comprehensive support.

> "As soon as I put the vest on, I feel better. It takes away a thick layer of cognitive and mental challenges such as brain fog, fatigue, and generally just lifts my spirits instantaneously."
>
> *Recipient quote*

Feedback on Cooling Vests

Positive Aspects

- **Comfort and Ease of Use**: Users appreciated the vest's lightweight and comfortable design, which allowed them to perform daily activities without significant discomfort. This feature is especially beneficial for those with mobility issues.
- **Effective Cooling:** The vest was praised for its ability to provide immediate relief from heat, reducing symptoms like dizziness and brain fog. Its quick recharge time and long-lasting cooling effect were also noted as advantages.
- **Improved Quality of Life:** Many users reported that the vest enabled them to engage in

activities they would typically avoid during hot weather, enhancing their independence and wellbeing.

> The cooling vest provides me with much-needed cooling to my body, which makes this hot weather bearable.
>
> *Recipient quote*

Areas for Improvement

- **Cooling Capacity:** Some users felt the vest did not maintain a cooling temperature long enough, suggesting a need for enhanced cooling technology.
- **Fit and Comfort Issues:** Concerns about the vest's fit, particularly the straps and sizing, were common. More adjustable and inclusive sizing options could improve user comfort.
- **Ease of Use for Individuals with Limited Dexterity:** The process of inserting cooling packs was challenging for some users, indicating a need for a more user-friendly design.

> The straps keep coming loose and need to be adjusted.
>
> *Recipient quote*

Recommendations

Policy and Process Recommendations

- **Enhance Accessibility:** Further initiatives, such as subsidizing the installation of mechanical cooling systems in vulnerable homes (similar to BC Hydro's free portable air conditioners), should be developed.
- **Integrated Health and Cooling Strategies:** Collaborate with healthcare providers to incorporate cooling solutions into care plans for individuals with pre-existing health and mental health conditions.
- **Community Engagement:** Strengthen outreach efforts to ensure information about available cooling resources reaches all segments of the population, focusing on those who are socially isolated or have limited mobility.

Product Development Suggestions

- **Design Improvements**: Work with manufacturers to address fit, comfort, and cooling capacity issues, incorporating user feedback into future designs.
- **Inclusive Sizing and Design**: Offer a wider range of sizes and adjustable features to accommodate diverse body types.
- **User Education and Support**: Provide clear instructions and support for users with mobility challenges, ensuring they can easily manage the vest's features.
- **Diverse Cooling Options**: Consider providing more than one option for cooling devices, such as cooling towels, to cater to different preferences and needs.

Conclusion

The insights gathered from participants highlight the critical role of accessible cooling solutions in improving the quality of life for individuals facing heat-related challenges. By addressing the identified issues and implementing targeted recommendations, CoV and C40 can enhance their strategies for adaptive technologies, ultimately fostering a more resilient and inclusive community.

Samples of outreach materials that were used to publicise the campaign.

> I love my vest. People in online forums for my illness have been recommending them for years, and now I wish I'd had one much sooner!
>
> *Recipient quote*

A partnership program between

technology for living

Technology for Living

#103-366 East Kent Ave. South, Vancouver, BC V5X 4N6

www.technologyforliving.org