

April 28, 2022

***Extreme Heat and Wildfire  
Smoke: Essential Tools for  
Preparation and Protection***



---

# We are on Ancestral Lands

Joining from the unceded territories of the Skwxwú7mesh (Squamish), Səlílwətaʔ (Tsleil-Waututh), x<sup>w</sup>məθk<sup>w</sup>əy̓əm (Musqueam) peoples.

Our work at BCNPHA takes place throughout the ancestral lands and the many unceded territories of 198 distinct First Nations in British Columbia.

Thank-you to our



**BCNPHA**  
Education Partners



Aboriginal Housing  
Management Association  
*Celebrating 25 Years*



**BC HOUSING**



COMMUNITY LIVING  
BRITISH COLUMBIA



CMHC SCHL

Canada



**encasa**



HORIZON NORTH



**MARSH**

**Impact**  
ENGINEERING



**Vancity**  
Make Good Money.™



**MAKOLA**  
DEVELOPMENT  
SERVICES

 **TELUS**®

# Extreme Heat Webinar Series

June 2021 - Addressing Extreme Heat and Wildfire Smoke Equity-Informed Approaches

April 2020 - Building Overheating and Air Quality Considerations in New Construction

May 2020 - Addressing COVID-19 and Overheating in Non-Profit Housing

July 2020 - Retrofits for Overheating Buildings and Poor Indoor Air Quality

May 2019

Preparing for Extreme Heat and Poor Air Quality Events



# Outline

1:00 – 1:05	Welcome & Introductions Jackie Kanyuk, Senior Program Delivery Manager, Asset Management, BCNPHA
1:05 – 1:25	Dr. Michael Schwandt, Medical Health Officer, Vancouver Coastal Health <ul style="list-style-type: none"><li>Who is most vulnerable to extreme heat and wildfire smoke related illness?</li><li>What are the best strategies to mitigate risks of extreme heat &amp; wildfire smoke?</li></ul> Questions: 5 min
1:25 – 1:45	Heat Response in Non-profit Housing: Experiences, Actions, Lessons <ul style="list-style-type: none"><li>Luanne Ruotsalainen Executive Director, Dakelh and Quesnel Community Housing Society</li><li>Patti MacAhonic Executive Director, Ann Davis Transition Society</li><li>Marty Jones Director of Housing, Surrey Urban Mission Society</li></ul>
1:45-1:55	Discussion
1:55 – 2:10	Resource sharing - preparing for the heat season Magda Szpala Sustainability and Resilience Director, BC Housing
2:10-2:30	Question + Answer and closing



BCNPHA Webinar - Extreme Heat and Wildfire Smoke

# Extreme Heat and Poor Air Quality Events in BC: Health Effects and Planning

Dr. Michael Schwandt, Medical Health Officer, Vancouver Coastal Health

**April 28, 2022**

*With acknowledgements to:*

*Dr. Sarah Henderson, Emily Peterson*



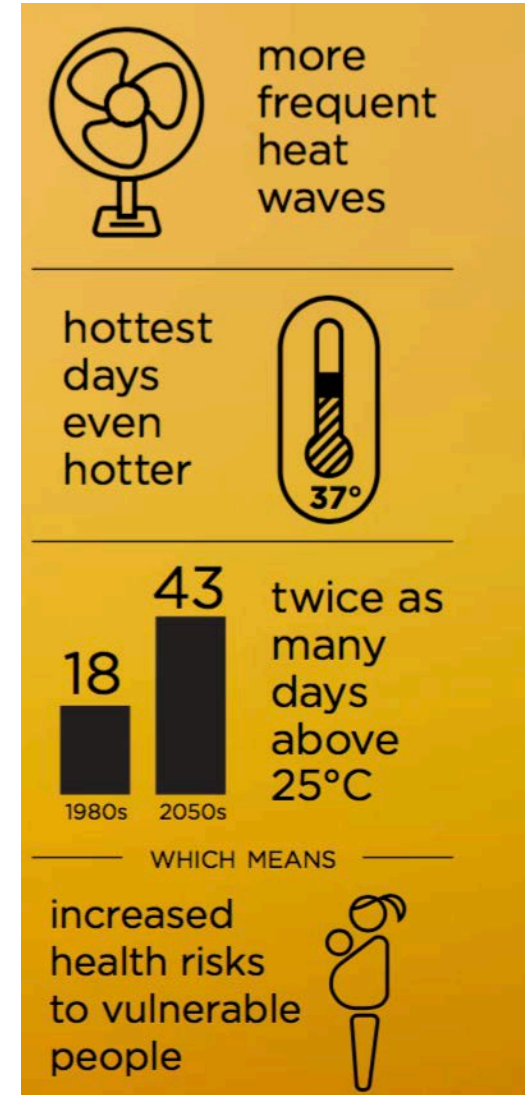
I live and work on the traditional territories of the Musqueam, Squamish and Tsleil-Waututh peoples.



Source: [www.johomaps.net](http://www.johomaps.net)

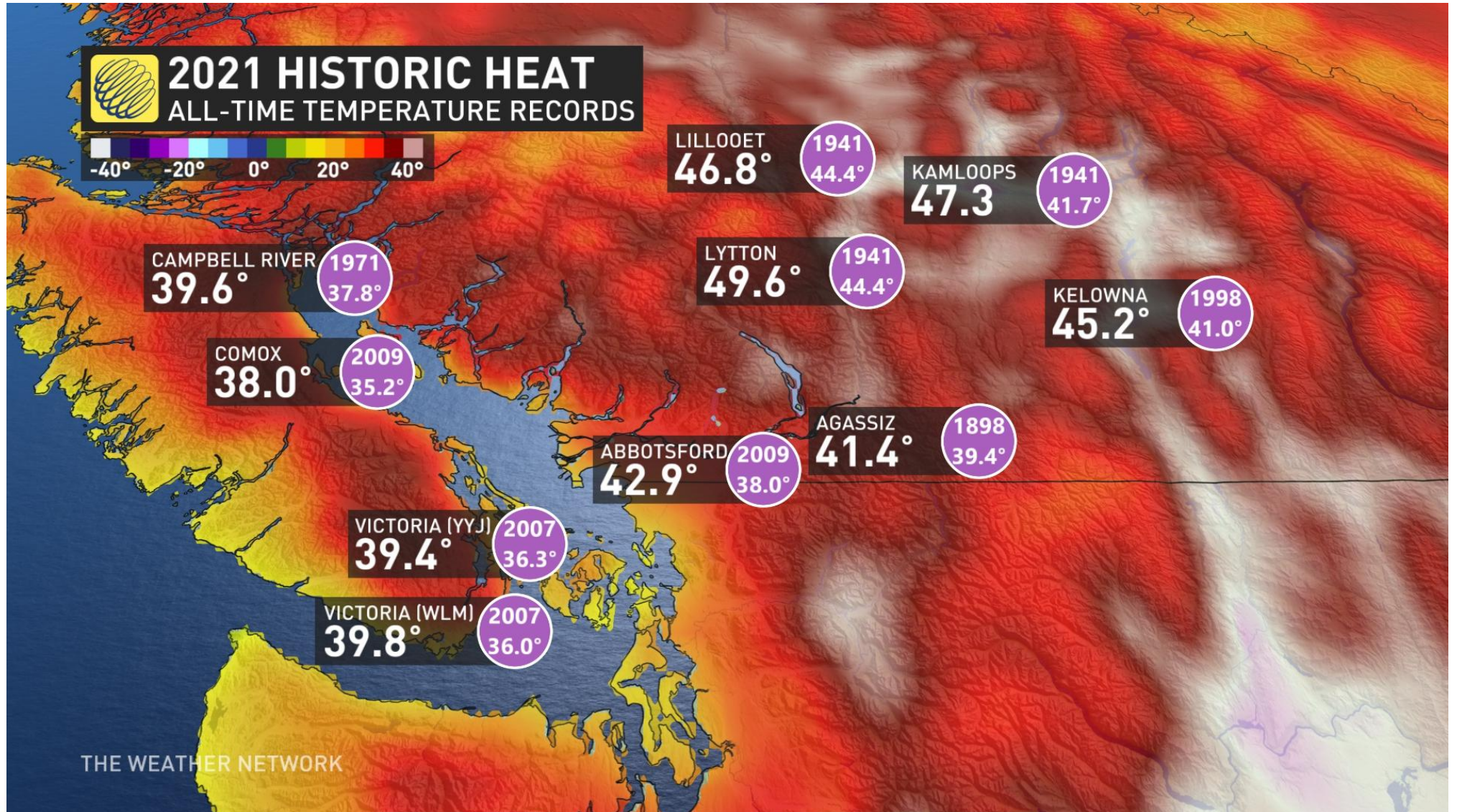
# Expected changes with climate change

- Vancouver, 2050:
  - Doubling of days above 25°C
  - Days above 30°C occur 12 times more frequently.
  - Warmest days are 4°C warmer
  - Increased wildfire smoke impacts (hotter, drier summers)

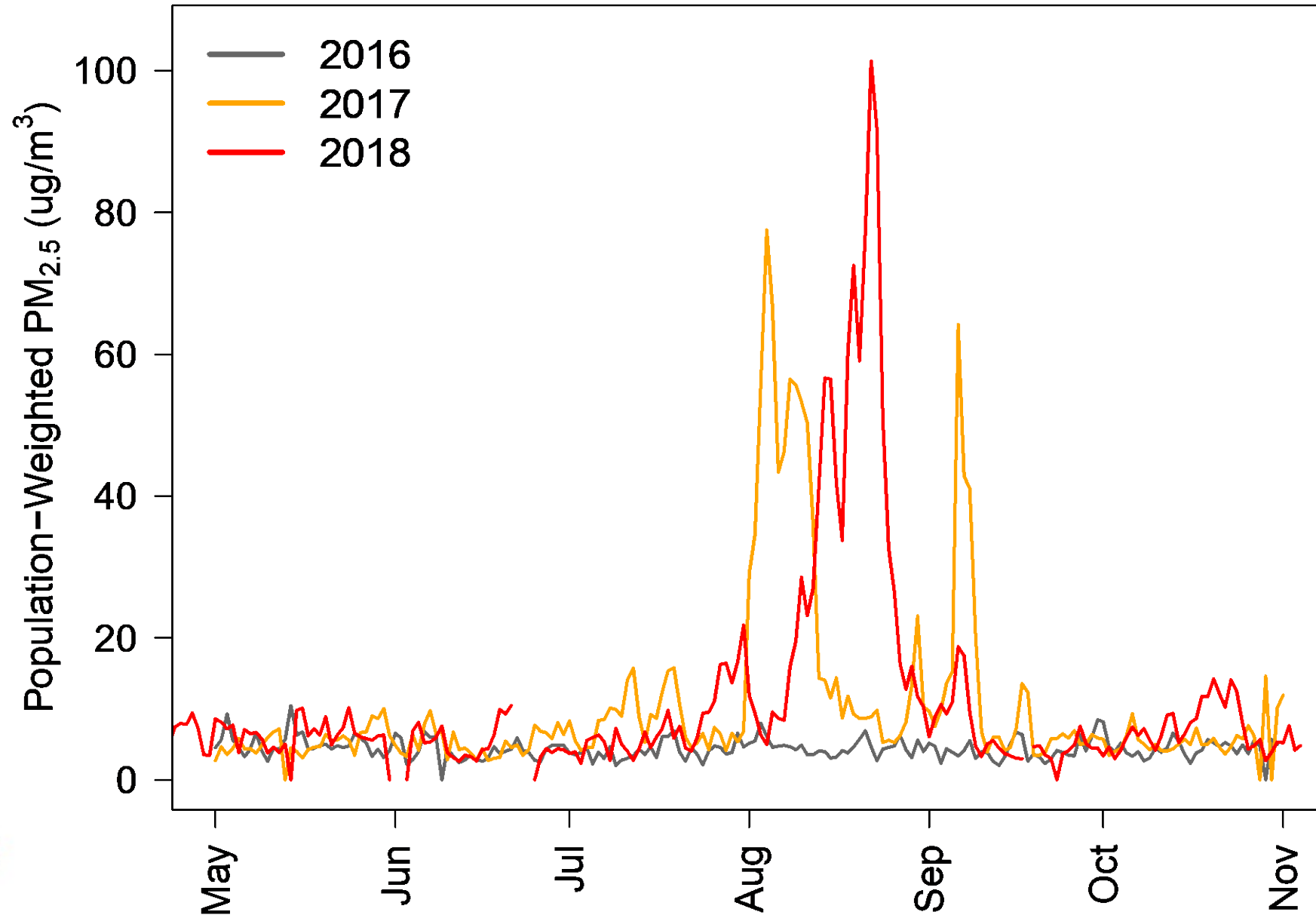




# Temperature records broken in June 2021



# 2016-2018 Wildfire Seasons



British Columbia

## 595 people were killed by heat in B.C. this summer, new figures from coroner show



More than 231 died on June 29 alone, during 'heat dome' that caused record temperatures, data says

[Rhianna Schmunk](#) · CBC News · Posted: Nov 01, 2021 9:17 AM PT | Last Updated: November 1, 2021

# Outline

- Heat and wildfire smoke related illness
- Vulnerability to heat and smoke
  - Physiological
  - Social
  - Environmental
- Planning for extreme heat and wildfire smoke
- Resources

# Outline

- Heat and wildfire smoke related illness
- Vulnerability to heat and smoke
  - Physiological
  - Social
  - Environmental
- Planning for extreme heat and wildfire smoke
- Resources

### *A scenario...*

- It has been very hot in your community for several days: over 30°C during the day, and over 20°C overnight.
- You are made aware that a 72 year-old man, living alone, has been experiencing heavy sweating, dizziness and headache for the past day. In the past hour, he briefly lost consciousness and is confused about his whereabouts.

### *Questions:*

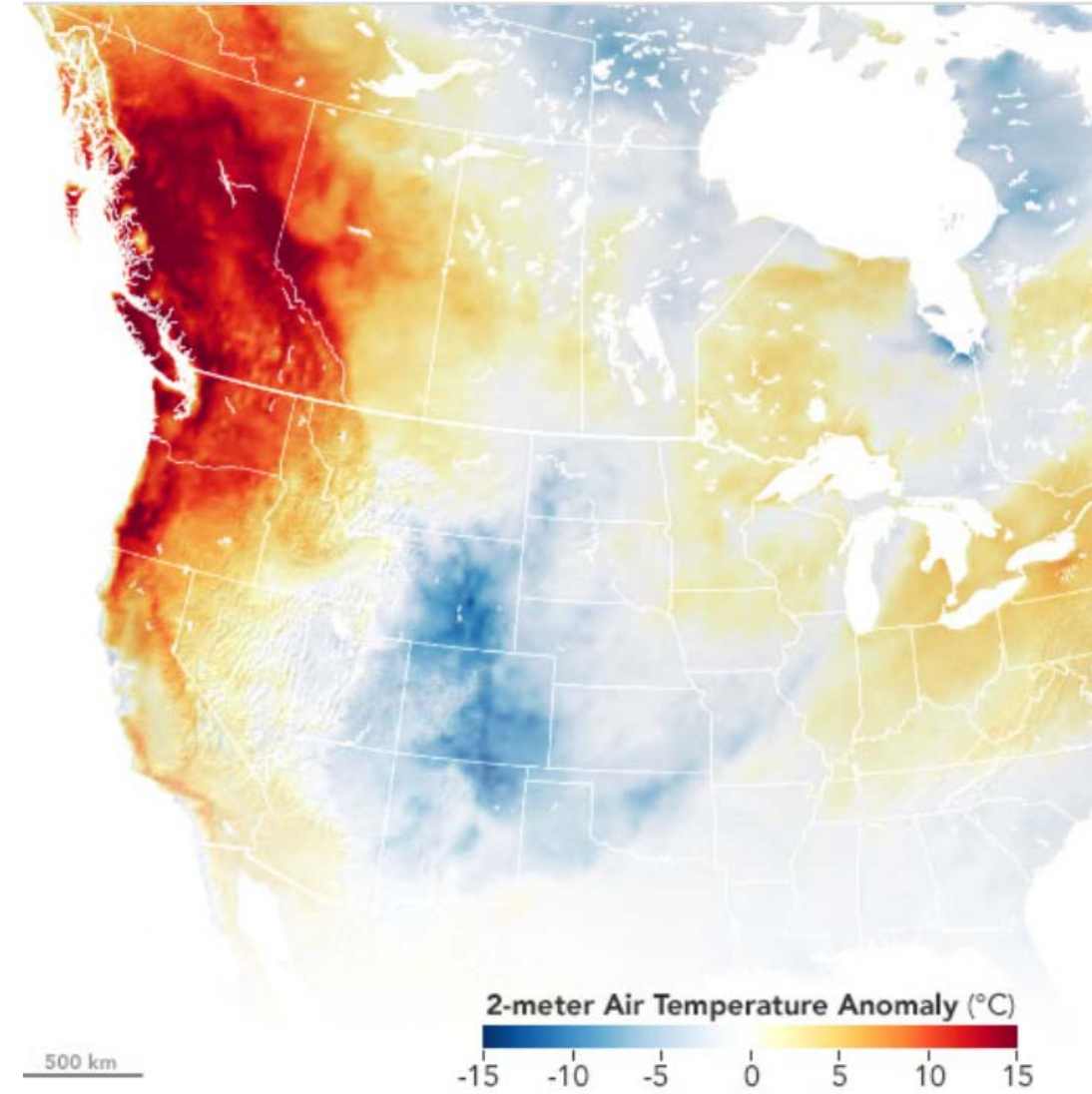
- What actions would you like to take (or should be taken by partners) to support this individual's health?
- What other information would you like to know?
- Please write down (or type) your ideas...

*Proposed actions:*

- Seek emergency medical care (ER, ambulance) promptly. Heat stroke is a medical emergency!
- Lower body temperature with wet cloths or a cool shower.
- Ensure that light and loose clothes are being worn.
- Move to a cooler place if possible. (Access cool zones in residential buildings, community centres, shopping areas if available.)

# Background – Recent health impacts of heat in BC

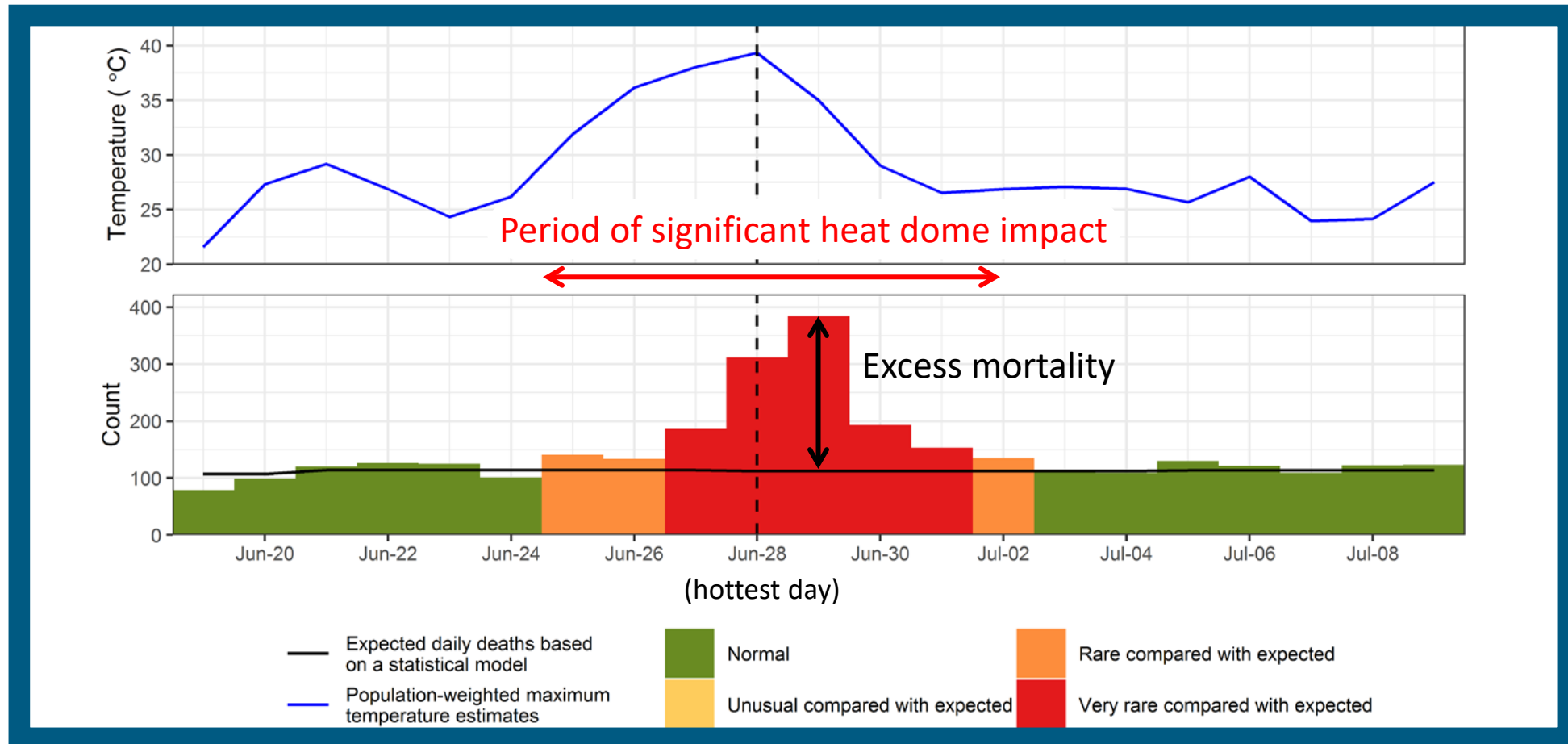
- Starting on June 25, 2021, the entire province experienced an extreme heat event that lasted eight days. This was the first time all regions of the province were impacted simultaneously and temperatures exceeded many historical records.
- These high and unprecedented temperatures resulted in 740 excess deaths in the province (Henderson et al.) and required immediate action to ensure client, resident, patient, and staff safety
- It is recognized that climate change has increased the likelihood of extreme heat and other dangerous seasonal weather related events





# EXTREME HEAT UPDATE:

BCCDC estimates **740** excess deaths from June 25 – July 2



## Estimated excess deaths during the heat dome (June 25 - July 2) by age group and setting of death

Number above the bar: percentage increase above expected deaths

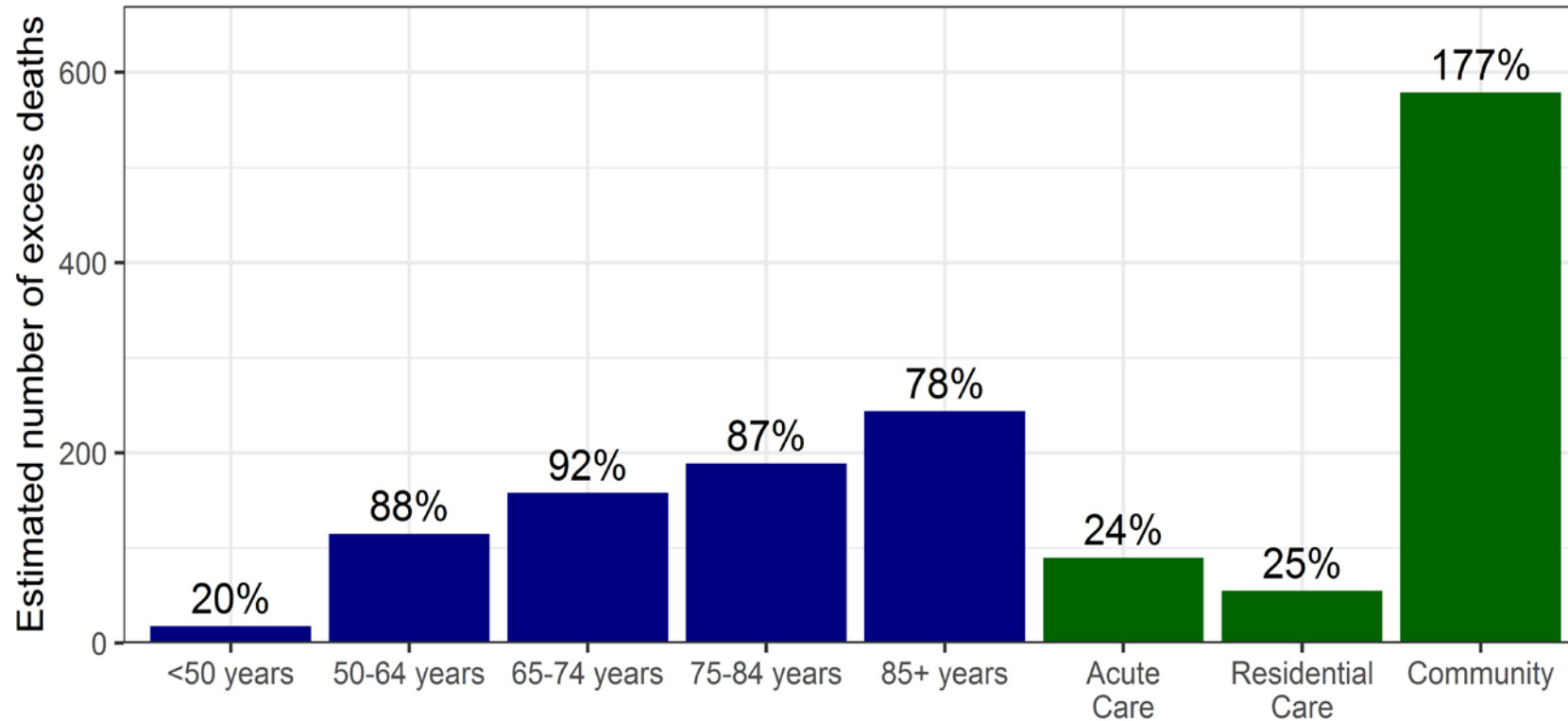
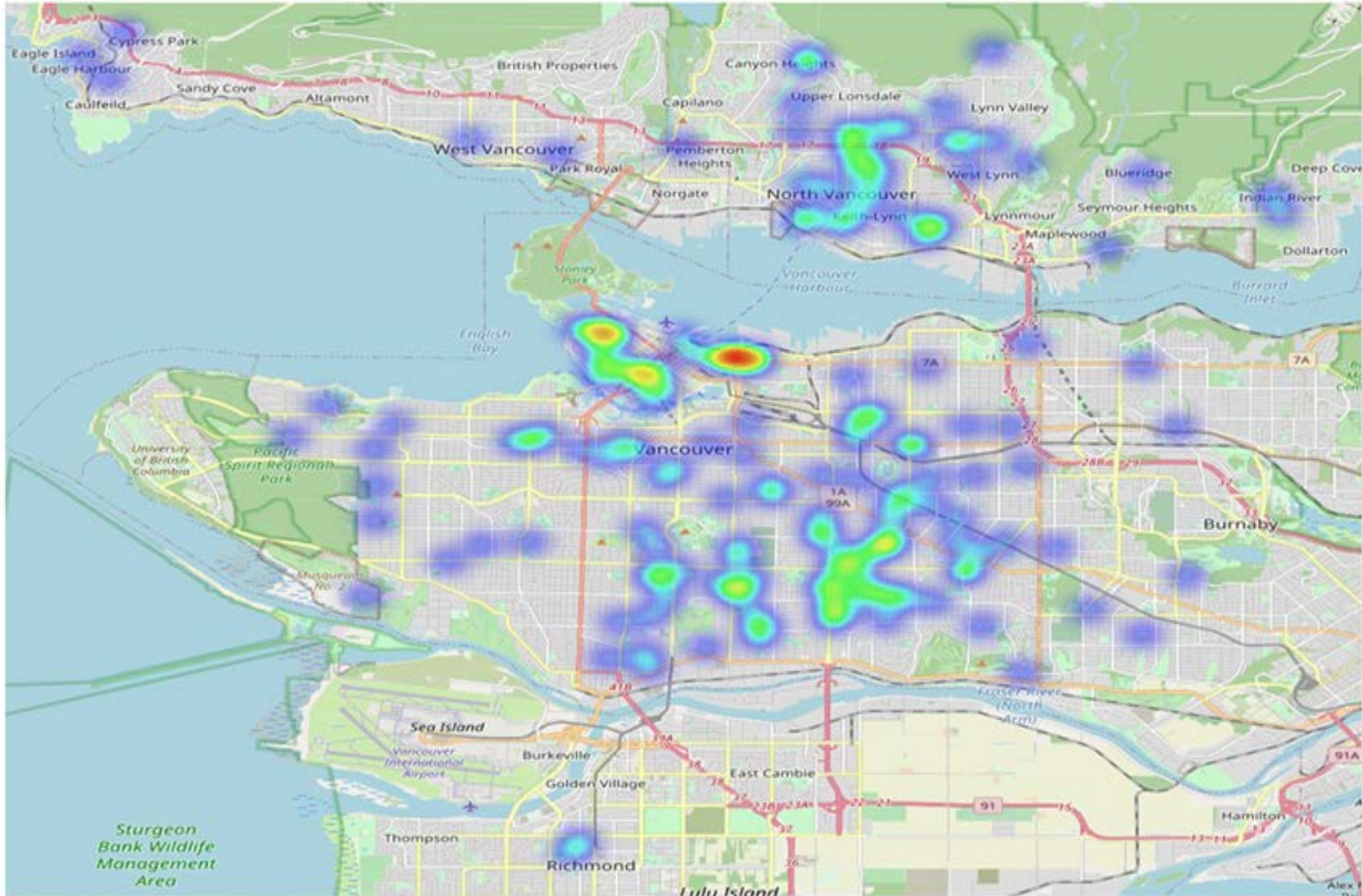


Figure 4. Heat Map of Heat-Related ED Visits



# Emerging themes

## **Risk factors**

- Deprivation
- Isolation
- Mental illness
- Substance use
- Comorbid diabetes

## **Protective factors**

- Privilege
- Greenspace
- Being in care

# EXTREME HEAT

Older adults, infants, young children, people with chronic conditions, and those on certain medications are especially sensitive to the health effects of heat and should take extra care.



## HEAT EXHAUSTION SYMPTOMS

- Skin Rash
- Heavy Sweating
- Dizziness or Fainting
- Nausea or Vomiting
- Rapid Breathing & Heartbeat
- Headache
- Difficulty Concentrating
- Muscle Cramps
- Extreme Thirst
- Dark Urine & Decreased Urination

Anyone with these symptoms should be moved to a cool space and given plenty of water.

## HEAT STROKE SYMPTOMS

- High Body Temperature
- Dizziness or Fainting
- Confusion
- Lack of Coordination
- Very Hot and Red Skin

CALL 911 - Heat stroke is a medical emergency and requires immediate attention.

# Wildfire Smoke

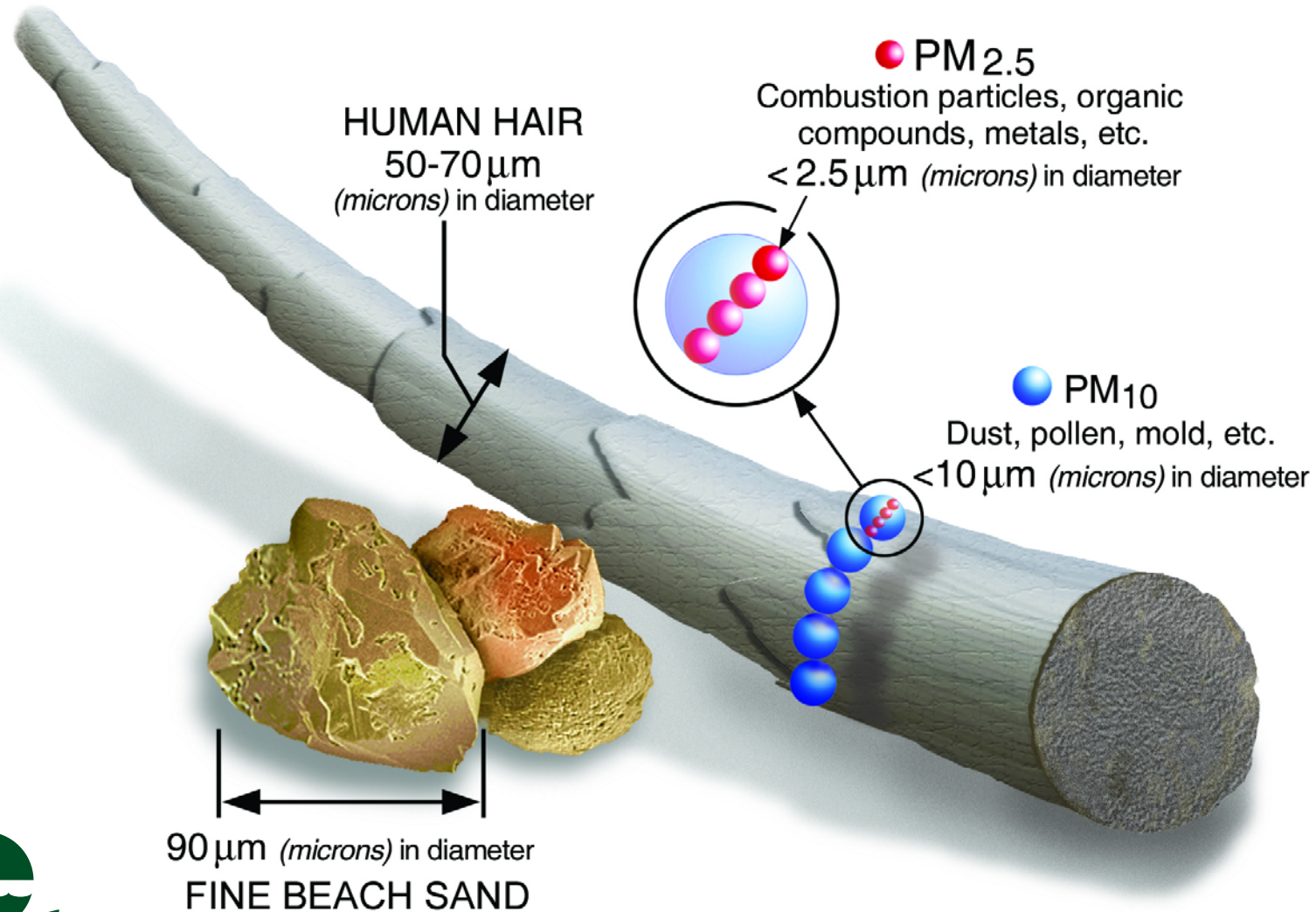
## Why is it a health concern?

- Respiratory issues (shortness of breath, severe cough, chest pain)
- Increased risk of some infections (pneumonia, COVID-19, ear infections)
- Emerging research on longer-lasting health effects (e.g. worsening heart disease)

Matz et al. (2020) assessed the health impacts from wildfire seasons across Canada using data from 2013–2015 and 2017–2018 seasons. They estimated that Metro Vancouver experienced **100 acute premature mortalities** attributable to wildfire PM<sub>2.5</sub> exposure during these two wildfire seasons



# Fine Particulate Matter (PM<sub>2.5</sub>)

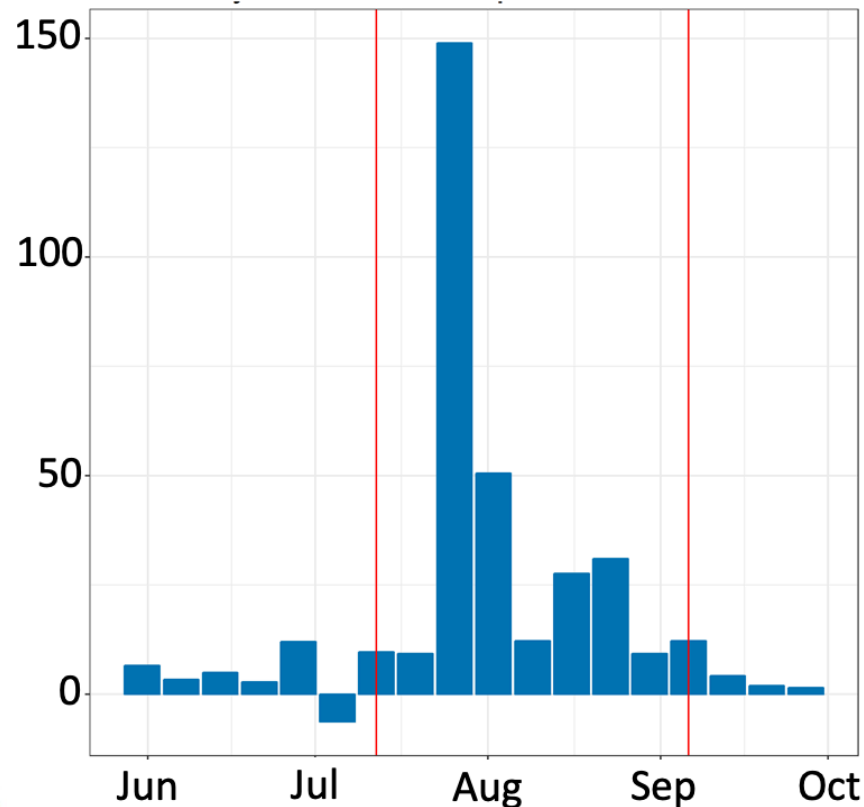


# Wildfires and asthma, BC

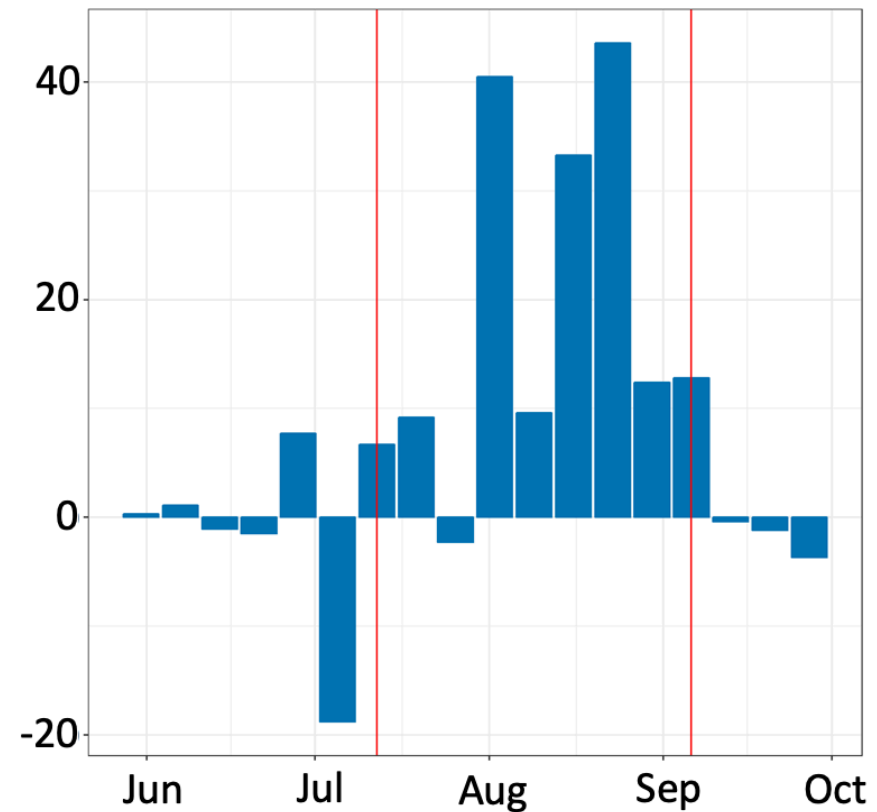
- **43,000 extra puffers**
- **38% increase**

- **10,000 extra MD visits**
- **19% increase**

% Change in Ventolin  
Dispensations 2017-2018



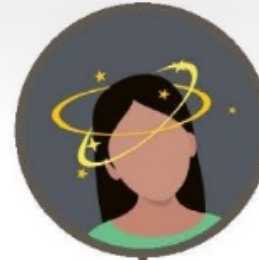
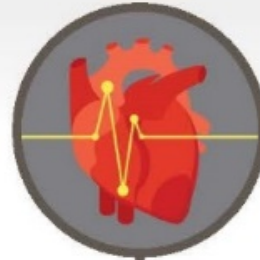
% Change in  
Asthma Visits 2017-2018





# WILDFIRE SMOKE

Older adults, infants, young children, pregnant women and people with chronic conditions are especially sensitive to health effects of wildfire smoke and should take extra care.



## COMMON SYMPTOMS

- Lung Irritation
- Eye Irritation
- Runny Nose
- Sore Throat
- Headaches
- Mild Cough

## MORE SEVERE SYMPTOMS

- Shortness of breath
- Severe cough
- Dizziness
- Chest discomfort
- Heart palpitations
- Wheezing

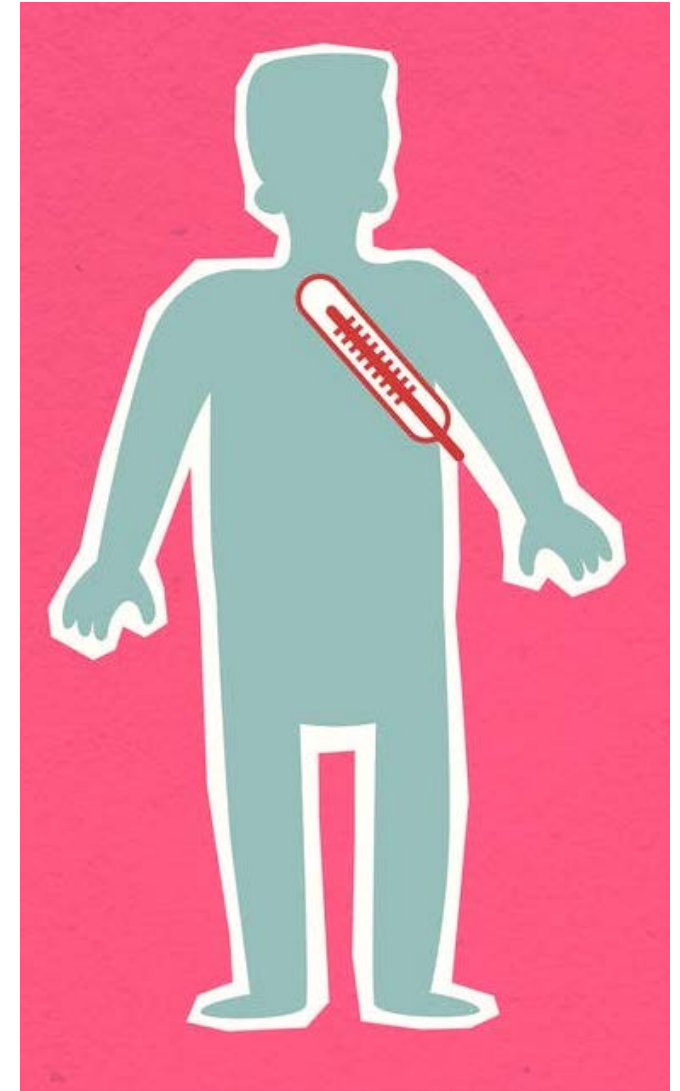
Anyone with these symptoms needs medical attention

# Outline

- Heat and wildfire smoke related illness
- Vulnerability to heat and smoke
  - Physiological
  - Social
  - Environmental
- Planning for extreme heat and wildfire smoke
- Resources

# Heat vulnerability

- Factors in vulnerability or resilience to heat illness may be **physiological**, **social**, and **environmental**.
- Body temperature is normally maintained within a narrow range, and we can only tolerate brief and minor elevations in temperature.



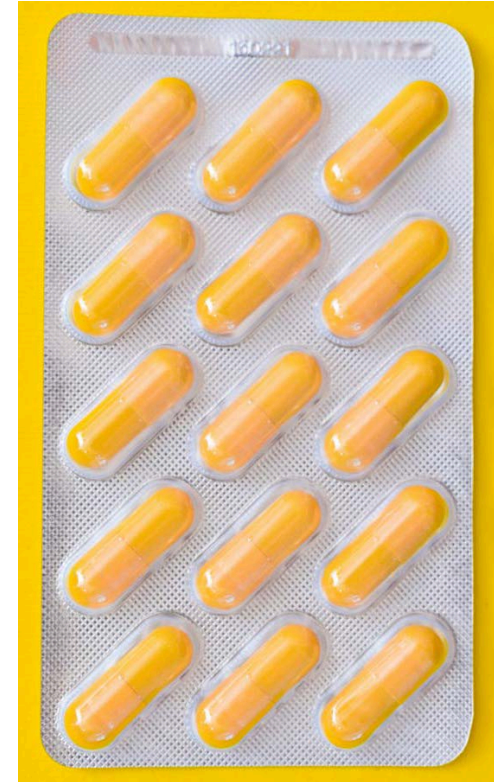
# Physiological vulnerability to extreme heat

- Evaporation (via sweating) is the body's main mechanism for heat dissipation (along with radiation of heat from skin)
- Processes for cooling are affected by:
  - Age
  - Pre-existing medical conditions (heart and lung disease, circulatory diseases, diabetes, neurological conditions)
  - Acute illness
  - Medications and drugs
  - Acclimatization



# Medications and drugs affecting risk of heat illness

- Antihistamines
- Decongestants
- Some antipsychotic and antidepressant medications
- Diuretics
- Anticholinergic agents (wide variety of conditions, incl. asthma, Parkinson's)
- Antiepileptic agents
- Beta blockers (blood pressure management)
- Alcohol
- Cocaine
- Amphetamines
- And more...

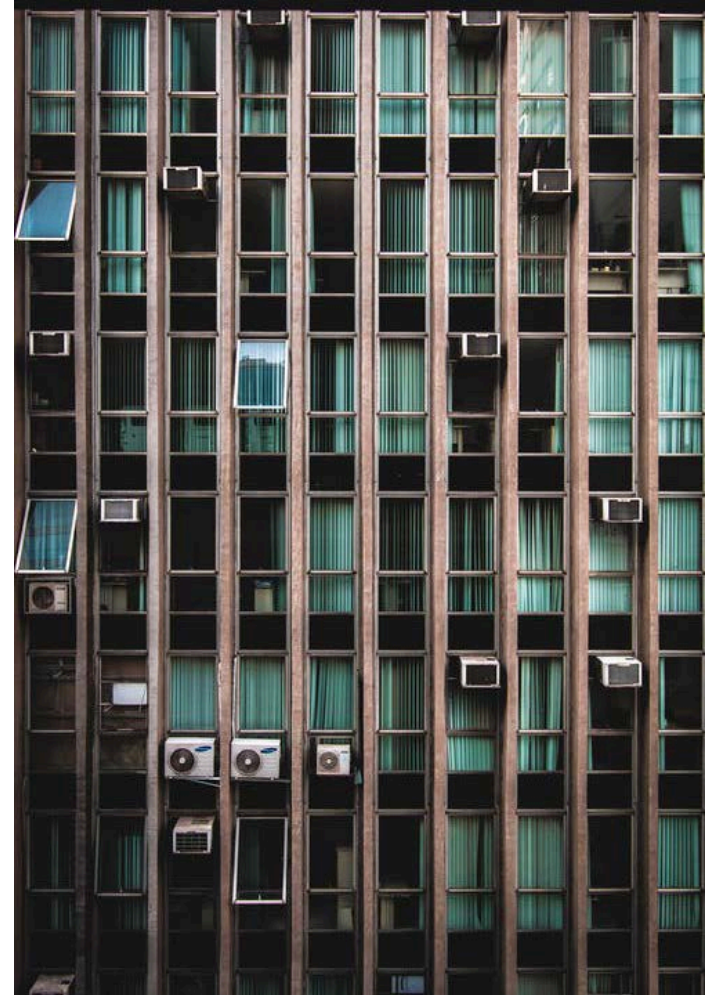


**“Pre-season” advice:**

**Health care providers, including pharmacists, can provide individual advice!**

# Social vulnerability to extreme heat

- Reduced access to cooling facilities and other heat mitigation measures (e.g. A/C)
- Social isolation and barriers to reaching help
- *Socially* vulnerable groups may be more likely to live in neighbourhoods with *environmental* vulnerability



A SOCIAL AUTOPSY OF  
DISASTER IN CHICAGO

# HEAT WAVE

ERIC KLINENBERG

But the climate is only one of the reasons that Joseph Lazcko, a sixty-eight-year-old man of Hungarian descent, died alone in his Northwest Side apartment in the days that followed. Although he kept to himself, Lazcko apparently staved off loneliness by collecting his neighbors' unwanted mail and filling his home with phone books, old newspapers, and shoddy furniture. Lazcko preserved order amid the chaos of broken radios and piled seat cushions by keeping a calendar, in which he recorded the daily temperature and noted the news stories that moved him. On July 15 he entered "94 degrees" in the book. On July 16 he was dead.

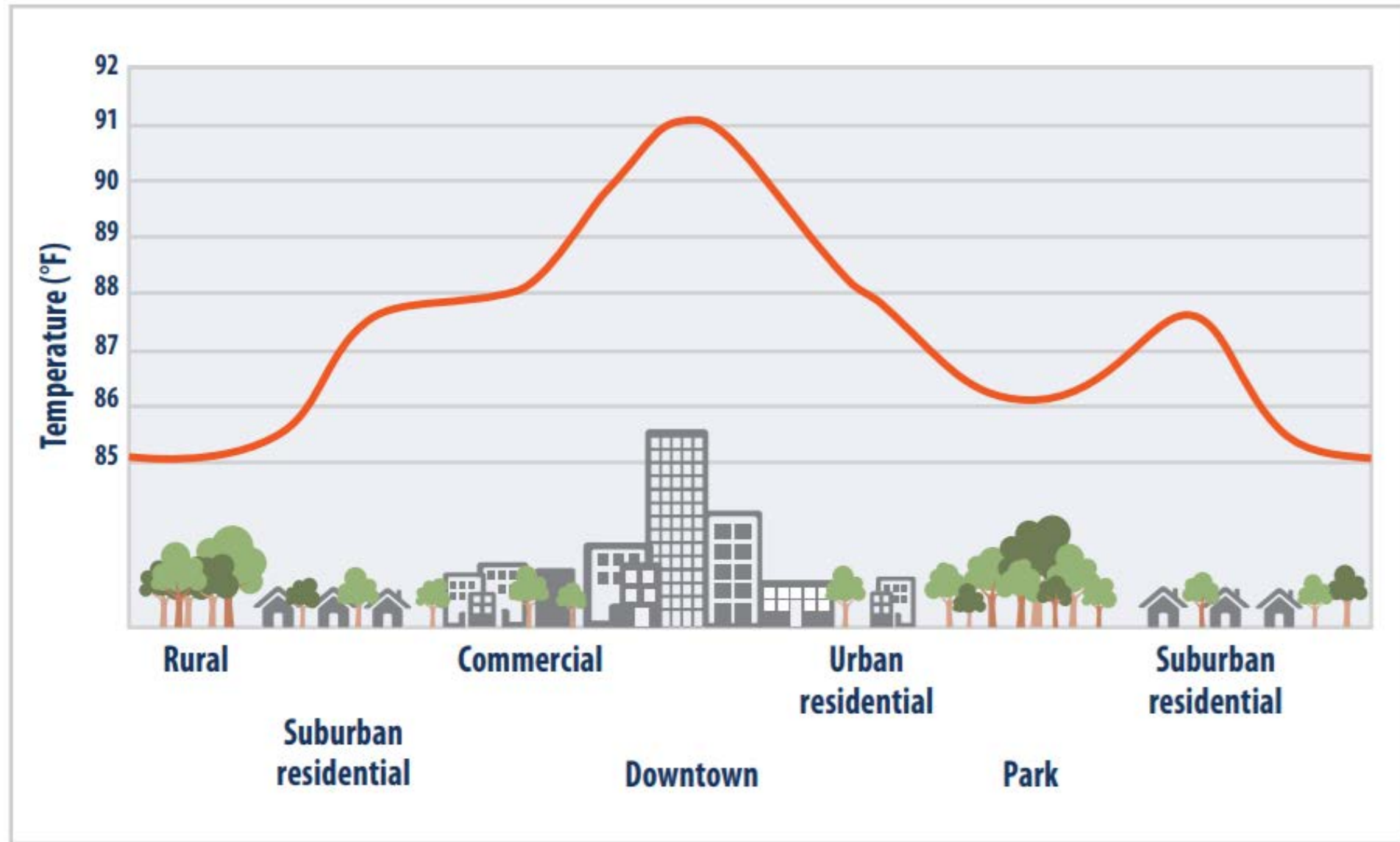


# Environmental vulnerability to extreme heat: built environments

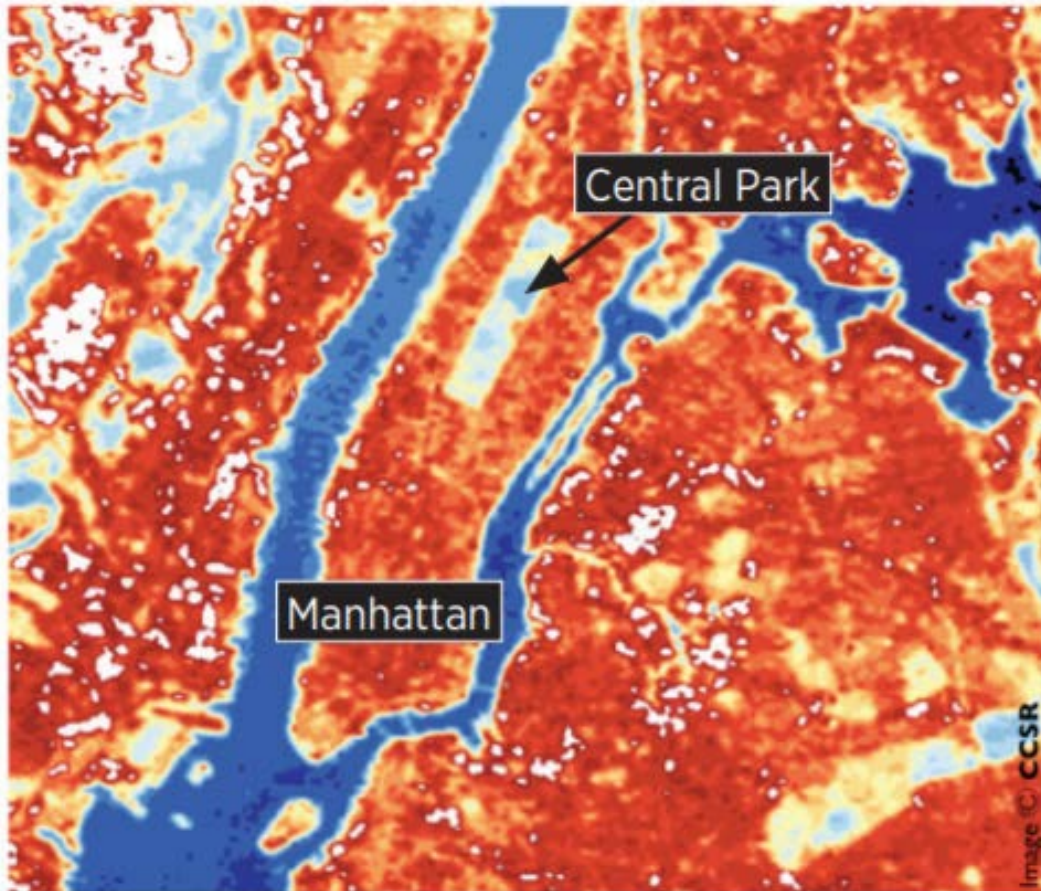
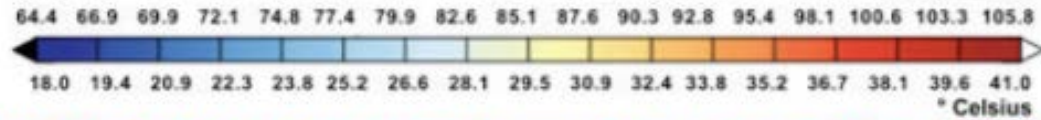
- Sparse vegetation
- Darkly hued roofing and paving materials
- Lack of cool neighbourhood spaces
- → Higher heat load in urban areas: “urban heat islands”



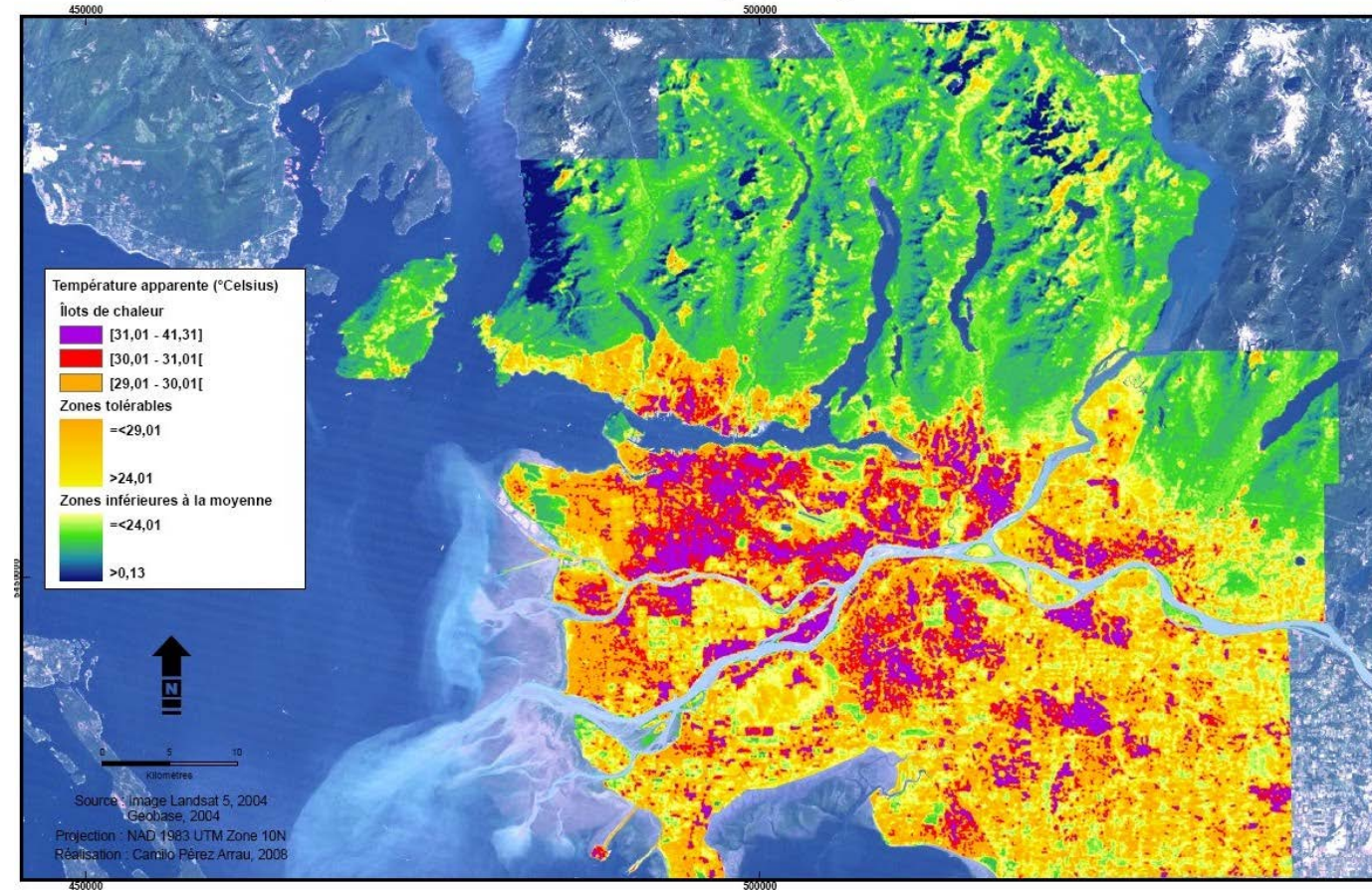
## Urban Heat Island Profile



# Urban heat island effect



Température superficielle apparente dans la RMR de Vancouver le 17 juillet 2004  
Classification de température selon la moyenne (24,01°C)



# Built environment risk factors

- ✘ No mechanical cooling
- ✘ Higher floor of building
- ✘ Directly under the roof
- ✘ South and/or west facing windows
- ✘ Large window surface area
- ✘ Singled pane windows
- ✘ No external window shading
- ✘ No evening cross breeze
- ✘ Low neighborhood greenness



# Protective environments

- Ventilation, air conditioning
- Trees and vegetation, water features
- Green roofs, cool roofs (reflective)
- Cool pavement surfaces



# Smoke Vulnerability

## More sensitive

- People with pre-existing medical conditions such as asthma and cardiovascular disease
- Infants, young children, and people who are pregnant
- Older adults

## More exposed

- People who are homeless and under-housed
- Live in homes without mechanical ventilation, air filtration systems or portable air cleaners
- Work or are active outdoors

### THOSE MOST AFFECTED



PEOPLE WITH CHRONIC  
LUNG/HEART DISEASE



OLDER  
ADULTS



PREGNANT  
WOMEN



INFANTS,  
YOUNG CHILDREN

Image source: <http://www.bccdc.ca/health-info/prevention-public-health/wildfire-smoke>

# Considering heat and air quality together

- Periods of poor air quality may overlap with extreme heat events (consider summer wildfire seasons)
- Many vulnerabilities for effects of extreme heat are **also** important for air quality impacts
  - Older adults, infants/children, chronic conditions, homelessness/underhousing
- Heat is a bigger health risk than smoke for most people, so cooling should generally be prioritized
- **Key for both heat and smoke events: Cool, clean indoor air**

# Outline

- Heat and wildfire smoke related illness
- Vulnerability to heat and smoke
  - Physiological
  - Social
  - Environmental
- Planning for extreme heat and wildfire smoke
- Resources



# Heat and smoke response planning

- Develop clear plan of action with roles and responsibilities
- Identify susceptible individuals *prior* to the hot-weather season
- Create lists of cooling and cleaner air facilities and strategies
- Identify and establish links with partners in community: municipal government, health agencies, community-based organizations
- Develop/share communication materials for staff and residents
- Monitoring of environmental conditions (weather and smoke) and health impacts
- Post-season evaluation and improvement of response



Spending time in a **COOL SPACE** and drinking plenty of **WATER** is the best way to prevent heat-related illnesses.



### DRESS FOR THE HEAT

- Wear loose-fitting, light-colored, breathable clothing.

### KEEP THE SPACE COOL

- Keep the building cool using blinds to block the sun, and open windows at night to let cooler air in.

### STAY INFORMED & PLAN AHEAD

- Reschedule outdoor activities to cooler times of the day and avoid sun exposure.
- Check the latest heat alert information & weather forecast.

### HYDRATE

- Drink plenty of water, and offer it to those in your care.

### CHECK-IN

- Pay attention to how you feel, and watch for symptoms of heat illness in those around you.

### COOL OFF

- Take breaks from the heat by spending a few hours in a cool place (e.g. air conditioned community center, tree-shaded area).
- Use water to help cool-off (e.g. cool shower, wet towels).



## Heat response for NGOs:

- Display heat health communication material in venues, and distribute to strategic teams or employees who engage with the high-risk populations identified
- Assess cooling centre locations (for accessibility, hours, appropriate space for high-risk or vulnerable populations)
  - Share local cooling shelter information through formal and informal communications channels and media sources
  - Explore on potential options for transportation
- Community outreach focusing on identified vulnerable and high-risk populations that your group or organization support to raise awareness about the risks of heat.
  - Provide consistent heat health messages during client/community visits and telephone calls.
- Encourage wellness checks for people at high risk of severe outcomes, with advice from the local health authority
- Establishing temporary cooling spaces and clean air on-site



## REDUCING EXPOSURE to wildfire smoke is the best way to protect health.



### STAY INFORMED & PLAN AHEAD

- Check the latest local air quality readings and advisories regularly.

### CHECK-IN

- Pay attention to how you feel, and watch for symptoms in those around you.

### HYDRATE

- Drink plenty of water, and offer water to those in your care.

### RELOCATE

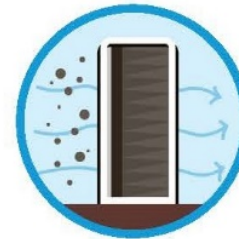
- Go to local libraries, community centers or other public spaces that have central air conditioning and cleaner air.

### REDUCE EXPOSURE

- Reduce outdoor physical activities and stay indoors when smoke is heavy.

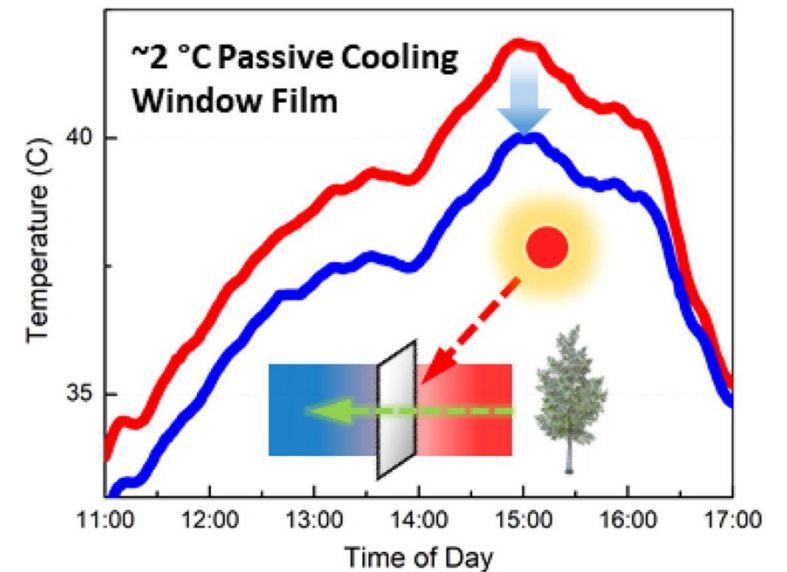
### COOL & FILTER

- Filter indoor air by adjusting the existing centralized HVAC system, or use portable air cleaners with HEPA air filters.
- Keep windows and doors closed during high smoke times; but on hot days, make sure the indoor temperature is at a comfortable level because heat can be dangerous.
- Use energy efficient cooling in addition to portable air cleaners to create cool spaces with clean air for hot days.



# Effective mitigation strategies

- ✓ Heat pumps
- ✓ External window shading
- ✓ External window films
- ✓ Close windows during the day
- ✓ Open windows overnight
- ✓ Use fans to move cool air in
- ✓ Increase neighborhood greenness



# Cleaner Air Spaces

## Building Filtration Systems

- **Highest rated** MERV filter possible
  - Minimum MERV 13
  - Consider HEPA for smoke events
- **Recirculate** the air when outdoor conditions are poor and draw in **fresh air** when the smoke abates, as pollutants can become trapped inside
- **Follow recommended filter replacement schedule**



## Portable Air Cleaners

- Portable air cleaners with **HEPA filtration**
- Units **certified** by Association of Home Appliance Manufacturers
- **Sized** for your space

There are many kinds of portable air cleaners on the market, so it is important to do some research before making a purchase.

- Look for a unit certified by the Association of Home Appliance Manufacturers (AHAM), with a label similar to the one shown here.
- The AHAM label clearly indicates the square footage of the area that each unit can clean. Be sure to find one that is appropriate for your needs, and to use it where people spend most of their time.
- The AHAM label also indicates the clean air delivery rate (CADR) for particles of different sizes, including tobacco smoke, dust, and pollen. Tobacco smoke is most similar to wildfire smoke.
- Portable air cleaners sold in the State of California are subject to higher standards than those sold elsewhere. All units certified by the California Air Resources Board <https://www.arb.ca.gov> are also tested for low ozone emissions, and some may be available for purchase in Canada.
- Like all appliances, portable air cleaners must be maintained to continue working properly. Look for a unit that clearly indicates when the filter needs to be changed or when the precipitator plates need to be cleaned.
- Prices range from less than \$100 to more than \$1000 per unit. Online reviews can provide useful information about perceived effectiveness, reliability, and noise levels.

www.ahamverifiide.org

108 >118 >125

Canada

# Outline

- Heat and wildfire smoke related illness
- Vulnerability to heat and smoke
  - Physiological
  - Social
  - Environmental
- Planning for extreme heat and wildfire smoke
- Resources

# Resources: heat

- Health Canada Infographics and factsheets on heat and health:
  - Infographic – <https://www.canada.ca/en/health-canada/services/publications/healthy-living/infographic-staying-healthy-heat.html>
  - Factsheet – <https://www.canada.ca/en/health-canada/services/publications/healthy-living/fact-sheet-staying-healthy-heat.html>
- [vch.ca/heat](http://vch.ca/heat)





# Resources: Wildfire smoke

- BC Centre for Disease Control fact sheets:
  - <http://www.bccdc.ca/health-info/prevention-public-health/wildfire-smoke>
- [vch.ca/wildfiresmoke](http://vch.ca/wildfiresmoke)



Information available in: [ASL](#) | [繁體中文](#) | [简体中文](#) | [Français](#) | [فارسی](#) | [한국어](#) | [Español](#) | [عربی](#) | [Tiếng Việt](#)

The BCCDC has created fact sheets with information about wildfire smoke and its health impacts, including information on how to prepare for wildfire season. You can view and download the fact sheets here:

- [Health effects of wildfire smoke](#)
- [How to prepare for the wildfire smoke season](#)
- [Portable air cleaners for wildfire smoke](#)
- [Wildfire smoke and air quality](#)
- [The composition of wildfire smoke](#)
- [Wildfire smoke and outdoor exercise](#)
- [Wildfire smoke and Air Quality Health Index \(AQHI\)](#)
- [Home-made box air fan filters](#)
- [Face masks for wildfire smoke](#)
- [Translated Content](#)

# Thank you! Questions?

[michael.schwandt@vch.ca](mailto:michael.schwandt@vch.ca)

# Non-Profit Providers' response

- *How have you observed extreme heat impact the populations you support?*
- *Which populations have been most impacted, and why?*
- *What have you done to support the community you serve to stay safe & healthy during heat events?*



DAKELH &  
QUESNEL  
COMMUNITY  
HOUSING SOCIETY

“

“Through compassion and commitment, we take pride in housing people from all walks of life and feel honored to help make our housing their home.”

— Luanne Ruotsalainen, Executive Director

*We have Several different programs that we offer to the community of Quesnel, they are:*

- 33 Housing units under the Urban Native Housing Program;
- 31 Housing units under BC Housing Affordable Housing Programs;
- 28 Housing units under the Rural and Native Housing Program;
- 38 Housing units in downtown Quesnel.

### **Seniors Building**

- *Operating Managers - Silver Manor -* 30 units under BC Housing Program.

# Extreme Heat Response

- Purchased A/C units, created tenant payment plan for A/C purchases
- Cooling stations
- Applied for funds for gift cards
- Arranged grocery deliveries
- Regular check in's on elders and vulnerable tenants

# Extreme Heat Response

- Testing swamp coolers in apartment hallways
- Maintenance ensures A/C units are running effectively twice daily in the common rooms
- Tenants offer to help whenever they see another tenant in need

# Extreme Heat Response

- Being as prepared as we can:
  - Spare A/C units on hand
  - Buying cases of water in advanced
  - Getting checklist ready of who we know will need attention
  - Helping tenants re-install their A/C units
  - Ensuring A/C units in common rooms are serviced and ready





# 3 P's Collision of People, Planet and Profits

## in Extreme Climate Events

Patti MacAhonic, MBA - Ann Davis Transition Society

PROVIDING EDUCATION, PREVENTION AND SUPPORT SERVICES TO THOSE  
AFFECTED BY ABUSE OR VIOLENCE since 1980



# Transitional Housing

Ann Davis Transition House and Ann Davis Women's Centre provide temporary safe shelter and support for adult women and women with children who are at risk of or are victims of domestic violence. The houses are staffed 24 hours a day, are pet-friendly, and work on a communal living model.

- In 2021 we provided bed stays for **8,174 women and children**
- The need for affordable housing is still on the incline with **43% of Chilliwack's homeless population being women**
- Crisis and support calls are up **43.7%** (Based on November 2020 statistics)
- Numbers of senior women seeking help is rising exponentially each year, *(with one week having 80% of residents over 50).*

Stats for the  
Fraser Valley  
Health Authority  
(FV) June 25 –  
July 1st

FVHA had 52% of the deaths due to the Heat Dome – 273 persons

79% were 65 or over and 51% were women

In Chilliwack of 22 deaths, 15 were women

Chilliwack was the 6<sup>th</sup> highest township in BC reporting heat stroke events

# Women experiencing poverty, domestic violence, and risks in severe climate events



- Women living with the “daily disaster” of domestic violence are also highly vulnerable when disasters transform geographies, institutions, and relationships.
- In the vicious dynamic of power and control, battered women live in a world of increasingly narrow social networks, often isolated, unable to take or keep paid work, lacking transportation, and financially dependent.
- Organizational responses to 3 crises of Heat Dome, Flooding and Pandemic to domestic violence in disaster-impacted communities matter. The daily realities of living with violence make attending to the threat of disaster unlikely and stabilizing life in a disaster-stricken neighborhood and community very difficult.
- Already in emotional crisis, women at risk of violence or experiencing violence are focused on the relationship they have just left; or are trying to survive day to day in the present danger of their lives, they often lack the ability to have a strong sense of *awareness of what’s going on around them*. And many crisis happen quickly and demand quick responses to stay safe.



## **Domestic Violence, Women experiencing poverty and risks in Severe Climate Events**

- Severe weather events like mudslides, heat events or flooding often isolate women at home in unsafe environments without working telephones or accessible roads; contact with crisis counselors may be cut off and court-ordered protection unavailable when major disasters disrupt or destroy lifeline services, including law enforcement agencies.
- Older women with limited income are also more at risk as we have tragically seen with the Heat Dome, with an unconscionably high number of women dying alone in their homes due to a lack of being able to keep cool and experiencing life threatening heat stroke.

# June-July 2021 Heat Dome Response

## Migrant Farm Workers



On June 28<sup>th</sup>, 2021, Ann Davis Society assisted over 100 migrant women farm workers who needed urgent help. 55 women were being moved from working outside to working in a refrigerated environment and the rest needed resources to combat the heat.

Our Outreach Team was able to provide each woman with weather appropriate clothing, hats, hygiene products and grocery cards for medical needs.



# June-July 2021 Heat Dome Response

## Community Outreach



From June 28<sup>th</sup> to July 2<sup>nd</sup>, the Ann Davis Outreach Team went out into the community to attempt to provide some relief and necessary items to our most vulnerable population. The Team gave out **303** care kits. We also gave out separately, water, clothing, sunscreen and resourced accommodations, we provided service to over **1000 persons**.

Chilliwack's Island 22 is one of the local locations where some of our community's vulnerable, street entrenched and displaced seniors' population, call "home." Individuals, have set up temporary shelters with tents, wood pallets or small trailers.

**During the heat dome event, Ann Davis Outreach Team made several visits to the camps at Island 22.**

The Team gave out **42** care kits to the individuals at Island 22.

# June-July 2021 Heat Wave Response



## Community Response

**Much of the help we were able to give to our community was made possible with the generous donations of our supporters.**

Through social media, we were able to let people know that we were doing Outreach and get the message out about those we were serving at the time. This included asking community members to contact seniors they knew who may be at risk to do “check ins”. The community engagement on our posts was tremendous, with donations of water, sunscreen, aloe, hats, sandals, Gatorade and summer clothing which greatly aided us in helping those at risk .





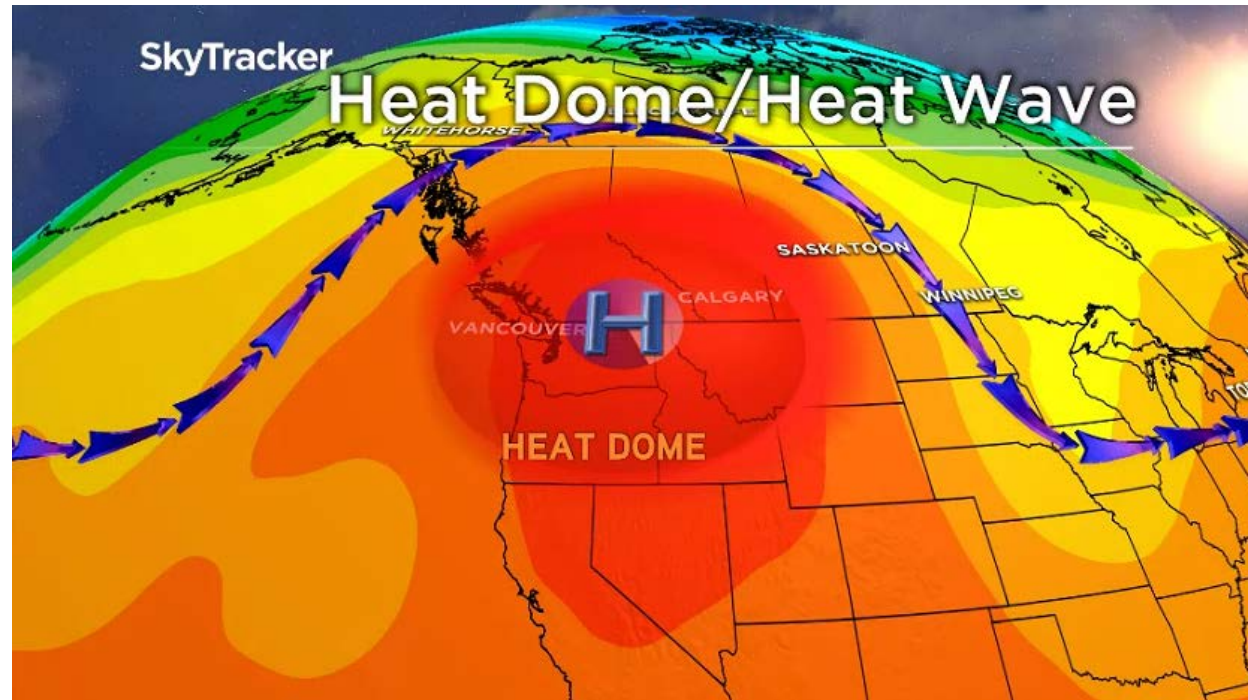
# June 2021 Heat Wave Response



## Testimonials – the persons affected

- Every day that we were out in the community we saw vulnerable persons hiding in bits of shade, doing whatever they could to stay cool. Our team was greeted with gratitude, as we were able to provide such immediate care supplies. There were many people gathered in Salish Park near the trees, so many of them with heat stroke, needing water and protective clothing, it was very apparent the urgency that was needed for outreach to gather as many items as possible and meet these people where they were at.
- One man just sitting in the grass off of the overpass, he was crying, and his feet had burned all over, there was only 1/2 of his feet covered with shoes, as the rest had melted. We were able to provide him with a real pair of sandals, I will never forget the look on his face after- it was pure relief.
- One person was so surprised to have outreach approach them we found them hidden between 2 shopping carts with a sheet and an umbrella draped over it, once we met, they were able to share their story and able to build a relationship with staff. They are now housed thanks to this relationship as we were able to get them into subsidized housing.

# Thank You



**Patti MacAhonic**  
**[pmacahonic@anndavis.org](mailto:pmacahonic@anndavis.org)**  
**604-793-5003**  
**[info@anndavis.org](mailto:info@anndavis.org)**  
**[www.facebook.com/AnnDavisTransitionSociety](http://www.facebook.com/AnnDavisTransitionSociety)**

**Surrey  
Urban  
Mission  
Society**



# What do we do?

- We work with the unhoused in the Whalley area of Surrey.
- We operate 4 Shelters which provide safety and rest for over 200 people every night.
- We provide food services, providing 1000 meals daily.
- We provide clothing and essentials for shelter guests and others in need.
- We run a Community Connections Worker program. This program assists guests and general public with resources, referrals and connection to local, provincial and federal agencies and ministries.

# How did we respond to the 2021 heatwave?

## ○Water:

Each shelter responded with either bottled water or water in a cup.

## ○Sprinkler / Hose:

Each shelter provided a sprinkler or hose for guests to cool down with.

## ○Cooling Tents:

Our ERC and Olive Branch locations set up cooling tents. The ERC tent provided cooling options for shelter guests as well as those in the North Surrey area.

## ○Outreach:

The CCW team would do outreach each day. The team provided water as well as guiding people to cooling centers within the Whalley area. If someone was struggling with heat exhaustion or heat stroke the CCW would call non-emergency RCMP or BC Ambulance in extreme cases.

# Planning Ahead. 2022



Expand the number of Cooling Tents.



Extended hours and area for our CCW Team.



Getting the word out in advance. Involve our community.

# Public Opportunities

We want to provide opportunities for our community to get involved.

We are finding that due to Covid, people want to give, donate, volunteer – care for their neighbour!

Over the next few months we will be collecting:

Hats, Sunscreen, Bottled Water & Energy Drinks and other items that could provide some relief from the heat.

**Contact:**

**marty.jones@sumsplace.ca**





# Extreme Heat and Wildfire Smoke

Magdalena Szpala, Sustainability & Resilience Director, BC Housing

- April 28, 2022

# BC Housing Pre-Summer Preparations



## Staff awareness



## Identifying Tenants Most at Risk



## BC Housing Extreme Heat and Wildfire Smoke Procedure



## Communication Material

- Roles + Responsibilities
- Before Summer Preparedness Checklist
- Setting up Cooling + Clean Air Rooms
- Inventory Review



## Additional Resources

# Staff Awareness

- Before summer, all team members should be aware of potential impacts of heat / air quality due to wildfire smoke:
  1. Health risk, symptoms
  2. Preparation, communication, mitigation
  3. How to stay informed on potential public health warnings



**Recommend staff presentation or a workshop on risks, mitigation, roles**

# BC Housing Extreme Heat and Wildfire Response Procedure

Checklist 1: An Example of a Before Summer Preparation Checklist for Site Staff

Before Summer Preparation Checklist for Site Staff		
Who?	Actions	Completed? – check box
All staff	1. I'm familiar with extreme heat, wildfire smoke and COVID-19 health risks, symptoms, and appropriate action.	<input type="checkbox"/>
Building managers	2. I have assessed where there might be potential cooling opportunities within the property for the tenants. (E.g. creation of a cross breeze in the corridors, or setting-up "cool rooms" or "cooling zones" by installing a portable air conditioning or fans in the common rooms, or creation of a shaded area outside of the building if there's adequate space)	<input type="checkbox"/>
Building managers	3. If my building has a common area, I have set it up as a "cooling room" using fans or air-conditioning and implemented COVID-19 protocols.	<input type="checkbox"/>
Building managers	4. If my building already has a portable air-conditioning unit, I have maintained it (e.g. cleaned the filters) as recommended and checked that it works.	<input type="checkbox"/>
Building managers	5. If appropriate, I have provided shaded outdoor areas that allow for maintaining of COVID-19 protocols such as physical distancing. <sup>3</sup>	<input type="checkbox"/>
Building managers	6. I have all other items that will be used for the cooling room: such as water, window coverings, chairs.	

- Create a Before Summer Preparation Summer Checklist <<
- Share and make aware
  - Ensure everyone is aware what actions are needed and when, including sign-off on check lists.

# BC Housing Extreme Heat and Wildfire Response Procedure



- Setting up Cooling and Clean Air Rooms >>
- Find information on how to develop your own cooling/clean air room:  
[www.bchousing.org/projects-partners/extreme-heat/how-to-cool-a-space](http://www.bchousing.org/projects-partners/extreme-heat/how-to-cool-a-space)

# Identifying Tenants Most at Risk

## Tenants who may be at risk:

1. Individual risk factors (as identified by health experts)
2. Building/unit risk factors
3. Other factors

Extreme Heat - Vulnerable Tenants List																					
<i>List Updated: May, 2021</i>																					
Location:		site A																			
Name:																					
<table border="1"> <thead> <tr> <th colspan="2">Legend: Requires Further Action</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Call 911</td> </tr> <tr> <td>B</td> <td>Contact Health Services</td> </tr> <tr> <td>C</td> <td>No One Home</td> </tr> <tr> <td>D</td> <td>No Answer</td> </tr> <tr> <td>E</td> <td>Requires next day follow up</td> </tr> </tbody> </table>										Legend: Requires Further Action		A	Call 911	B	Contact Health Services	C	No One Home	D	No Answer	E	Requires next day follow up
Legend: Requires Further Action																					
A	Call 911																				
B	Contact Health Services																				
C	No One Home																				
D	No Answer																				
E	Requires next day follow up																				
Unit #	Address	Tenant Name	Age	Contact Info	Date 1	Date 2	Date 3	Requires Further Action	Comment	Updates											
204	4854 Rupert	John Doe	71	778-371-3887	D	E			No one home at 11am, visited again at 4pm & still no answer												
103	4852 Rupert	Jane Smith	65	604-430-8880	C																
101	4850 Rupert	Bob Willis	59	604-434-7881	B				Has A/C. Managing ok with heat but showing symptoms of dementia? Created SR for HHS to follow up												

Once the tenants most at risk are identified, staff will create the tenant list and proceed to connect with these tenants.

# Communication Materials

## Tips to Beat The Heat

- Cool Your Body**
  - Wet clothing to help bring down body temperature
  - Use water-soaked cloths or cooling packs on neck/wrists
  - Sit in or put legs in cool (not cold) bath
- Hydrate**
  - Drink water/cool liquids
  - Eat fresh fruit & salads
  - Drink before you feel thirsty. Thirst is not the only indicator of dehydration
- Reduce Indoor Heat**
  - Daytime: cool living and working areas by closing windows, and use window coverings, air conditioners and misters
  - Nighttime: keep windows open, with a fan near window to bring in cool air
- Protect Your Pets**
  - Provide shade & cool drinking water & baths
  - Never leave pets unattended in cars or direct sunlight
  - Plan outdoor activities during cooler parts of day. Asphalt might be too hot for bare paws
- Avoid Sun Exposure**
  - Wear wide-brimmed, breathable hat or use umbrella
  - Avoid / limit strenuous activities during hottest part of the day
  - Find shade if you need to be outside
  - Use sunscreen
- Ask Your Doctor**
  - If taking medications, ask your doctor, nurse, or pharmacist if you need to be extra careful
  - Some medical conditions may increase vulnerability during hot weather
- Check on Others**
  - Visit or call family & neighbours when you can
- Avoid/Limit Alcohol & Caffeine**
  - These can lead to dehydration

Extreme heat can be dangerous.  
[www.healthlinkbc.ca/more/health-features/heat-heat](http://www.healthlinkbc.ca/more/health-features/heat-heat)  
[www.bchousing.org/projects-partners/extreme-heat](http://www.bchousing.org/projects-partners/extreme-heat)

BC HOUSING

Building Poster

## Tips to Beat The Heat

- Cool Your Body**
- Hydrate**
- Reduce Indoor Heat**
- Protect Your Pets**
- Avoid Sun Exposure**
- Are You Higher Risk of Heat Effect? (medication/medical condition)**
- Check on Others**
- Avoid/Limit Alcohol & Caffeine**

Extreme heat can be dangerous.  
[www.healthlinkbc.ca/more/health-features/beat-heat](http://www.healthlinkbc.ca/more/health-features/beat-heat)  
[www.bchousing.org/projects-partners/extreme-heat](http://www.bchousing.org/projects-partners/extreme-heat)

Tenant response card

## Sorry We Missed You!

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Address: \_\_\_\_\_

Unit Number: \_\_\_\_\_

You can reach us at:

See a doctor if you are not feeling well, and in a medical emergency call 911. For non-emergency health information and services call 811.

For Deaf and hearing-impaired assistance call 7-1-1 in BC.  
Translation services available in more than 130 languages upon request.

# Additional Resources

- Extreme Heat Preparedness Planning Guides/templates
- Health symptoms and what to do
- Tenant materials (protect your pets, how to cool a space)
- How to stay informed about the weather forecasts
- Design guidelines and other resources for new construction

A screenshot of the BC Housing website. The top navigation bar includes "Let's Talk Housing BC" and links for "About", "HousingHub", "Careers", "Contact Us", "Indigenous", "News", "Events", and "Tools & Portals". The main header features the "BC HOUSING" logo and a search bar. Below the header are four menu items: "Housing Assistance", "Projects & Partners", "Licensing & Consumer Services", and "Research Centre". The breadcrumb trail reads "Home / Projects & Partners / Extreme Heat and Wildfire Smoke". The page title is "Extreme Heat and Wildfire Smoke" with a "Share" button. A large banner image shows a modern house at sunset. Below the banner are two columns of links: "Quick Links" (BC CDC Guidance for Cooling Centres in the Context of Covid-19, Public Weather Alerts for BC, HealthLinkBC - Beat the Heat, BC CDC Wildfire Smoke, BC CDC Wildfires and Covid-19) and "Useful Documents" (Tips to Beat the Heat During Covid-19 Poster, Using Chill Rooms During Covid-19 Poster). Three content boxes are visible: "Health Impacts" (Everyone is at risk of heat and wildfire smoke illnesses...), "Planning and Communicating with Tenants" (Building managers and housing providers should communicate with tenants...), and "How to Cool a Space" (There are different actions building operators, staff and tenants can take to cool a space.). A "Resources and Webinars" box is partially visible at the bottom, stating "The following resources and webinars will help you stay informed and prepared during extreme heat and wildfire smoke in BC." The URL [www.bchousing.org/projects-partners/extreme-heat](http://www.bchousing.org/projects-partners/extreme-heat) is displayed at the bottom of the page.



Extreme Heat  
and Wildfire  
Smoke  
Planning Work  
shops at  
RENTS:



**May 10: Nanaimo**



**May 26: New Westminster**



**June 16: Prince George**



# Questions?

For more information, please contact:

Magdalena Szpala, [mszpala@bchousing.org](mailto:mszpala@bchousing.org)

# Thank-you to all who helped on this webinar



ann davis transition society



SURREY URBAN MISSION



Vancouver  
CoastalHealth



Aboriginal Housing  
Management Association  
*Celebrating 25 Years*



**BC HOUSING**



**HSABC**  
Homelessness Services  
Association of BC



BC Society of  
Transition Houses